NEIGHBORHOOD EFFECTS ON BARRIERS TO EMPLOYMENT:
RESULTS FROM A RANDOMIZED HOUSING MOBILITY EXPERIMENT IN BALTIMORE*

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ABSTRACT

The Moving To Opportunity randomized housing voucher demonstration finds virtually no significant effects on employment or earnings of adults. Using qualitative data from in-depth, semi-structured interviews with 67 participants in Baltimore, we find that although the voucher and control groups have similar rates of employment and earnings, respondents’ relationship to the labor market does differ by program group. Our analysis suggests that the voucher group did not experience employment or earnings gains in part because of human capital barriers that existed prior to moving to a low-poverty neighborhood. In addition, employed respondents in all groups were heavily concentrated in retail and health care jobs. To secure or maintain employment, they relied heavily on a particular job search strategy—informal referrals from similarly skilled and credentialed acquaintances who already held jobs in these sectors. Though experimentals were more likely to have employed neighbors, few of their neighbors held jobs in these sectors and could not provide such referrals. Thus controls had an easier time garnering such referrals. Additionally, the configuration of the metropolitan area’s public transportation routes in relationship to the locations of hospitals, nursing homes, and malls posed additional transportation challenges to experimentals as they searched for employment—challenges controls were less likely to face.

Keywords: neighborhood effects; social experiment; mixed methods

JEL classifications: H43, I18, J18

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INTRODUCTION

Moving the poor out of inner-city neighborhoods of concentrated poverty, where jobs are scarce, and into low-poverty suburban neighborhoods, where jobs may be more plentiful, has been suggested by Wilson’s (1987) theory of social isolation and Kain’s (1968) theory of spatial mismatch to lead to greater employment and earnings. Between 1994 and 1997, the U.S. Department of Housing and Urban Development (HUD) launched the Moving To Opportunity (MTO) randomized housing voucher demonstration in an attempt to examine the effects of housing mobility on various factors including economic self-sufficiency. The MTO demonstration gave families living in distressed public housing in Baltimore, Boston, Chicago, Los Angeles, and New York the opportunity to relocate to private-market housing in low-poverty suburban and city neighborhoods. MTO applicants were randomly assigned to one of three groups: an experimental group, who received a voucher to be used in a Census tract with a poverty rate of less than ten percent; a Section 8 group, who received a voucher to move anywhere; or a control group. Four to seven years later, in 2002, all families were surveyed. Pooling data from all five cities, Kling et al. (2006) find no significant effects on employment or earnings of adults in the experimental group, suggesting that moving to a low-poverty neighborhood does not increase the economic self-sufficiency of poor families.

In this paper we utilize data from an embedded in-depth qualitative study of MTO families in Baltimore to explore the social processes that might underlie these results. We first present survey data from Baltimore that estimates the effect of the MTO vouchers on employment and earnings of adults, to compare with the results from all five MTO cities. The difference in employment rates for the experimental and control groups is positive and of moderately large magnitude in Baltimore (larger than in the other five cities), but statistically insignificant. The experimental group in Baltimore had lower average earnings than the control
The lack of a large positive effect on employment and earnings is puzzling. In 2003-04, we conducted in-depth interviews with a random sample of all Baltimore families who enrolled in MTO. Although the qualitative sample is relatively small, the in-depth nature of the data allow us to derive hypotheses that can be used to guide further qualitative work and the next round of survey work with the MTO population, scheduled for 2007.

We find that though experimentals and controls have similar rates of employment and earnings, both at the time of the survey (2002) and the qualitative interview (2003-04), the nature of respondents’ relationship to the labor force does differ by program group, at least in the qualitative sample. Additionally, we identify three barriers to employment that are common across program groups. Using these data, we generate hypotheses about why the MTO intervention may not have as strong an effect on the employment or earnings of Baltimore participants as originally projected.

First, many of the MTO experimentals had significant human capital barriers – including lack of adequate education, lack of work experience, and mental and physical health problems – prior to moving to a low-poverty neighborhood. The MTO demonstration was not designed to address these deficits. In addition, employed respondents in both groups are heavily concentrated in retail and health care jobs, and to get and keep jobs, many relied heavily on a particular job search strategy – informal referrals from “weak” social ties who already held entry-level jobs in these sectors. Though experimentals were more likely to have employed neighbors, few of their neighbors held jobs in these sectors and therefore could not provide such referrals. Controls have fewer employed neighbors overall, but they were more likely to come across these useful weak ties in the course of their daily routines. Finally, the configuration of the Baltimore metropolitan area’s public transportation routes in relationship to the locations of most
jobs, in particular, hospitals and nursing homes, posed special transportation challenges for experimentals as they searched for employment or tried to retain their jobs.

BACKGROUND

Existing empirical studies that try to explain the employment problems of the urban poor usually focus on the influence of individual-level factors such as human capital or the influence of structural factors such as social isolation and the geographic accessibility of jobs. We look at how hypotheses and empirical support surrounding these three themes – human capital, social isolation, and spatial mismatch – are used to explain barriers to employment.

There is a strong, positive connection between individual human capital and socioeconomic outcomes such as employment status and earnings (Becker 1975). Many argue that the unemployment problems of the poor are due to a mismatch between their education and skills and the demands of a changing economy (see Handel 2003 for a review of the literature; see also Kasarda 1985; Holzer and Danziger 1998). For example, about 75 percent of entry-level jobs now require a high school diploma, references, and general work experience (Holzer 1996).

Human capital barriers are most detrimental to employment when they appear in conjunction with other barriers to employment. For example, welfare recipients with a combination of educational deficits, and mental and physical health problems, have worse employment outcomes than individuals who only lack in education or who only have health problems (Danziger 2000).

The social isolation of those poor who live in high-poverty, inner-city neighborhoods may contribute to their employment difficulties. Wilson defines social isolation as “the lack of contact or of sustained interactions with individuals and institutions that represent mainstream society” (1987, 60). This theory implies that individuals’ actions are shaped by the actions of
those who live around them. The neighborhood creates a normative climate that defines acceptable and unacceptable behaviors. Neighborhoods with high employment rates have a certain rhythm to daily life that may be beneficial to all residents. On a more practical level, employed neighbors can pass along job information to the unemployed. Additionally, communities with high employment rates will have more resources to invest in institutions that benefit all residents (Wilson 1996). Conversely, those living in neighborhoods with low employment may be isolated from a normative climate that promotes work, from job information and referrals, and from community resources (see also Massey and Denton 1993).

Another relevant line of research is in how most workers acquire their jobs; the majority of Americans find employment through social ties rather than help wanted advertisements or other formal methods (Granovetter 1974; Lin et al. 1981, Lin and Dumin 1986; Fernandez and Weinberg 1997; Reingold 1998; Stoloff et al. 1999; Kleit 2001; Chapple 2002; Mouw 2002). Neighborhood poverty may interact with how effective local social ties are in obtaining a well-paying job. In a study using the Atlanta Multi-City Study of Urban Inequality (MCSUI) data, researchers find that, controlling for individual-level characteristics, increases in neighborhood poverty lowers the odds of having a social tie who has steady employment (Tigges, Brown, and Greene 1998). Even the few job contacts within these poor neighborhoods may not prove to be helpful in terms of social mobility. In another analysis with the same data, Green, Tigges, and Browne (1995) find that for African-Americans, using a neighborhood job contact depresses annual income by $3,214, whereas there is no effect for whites. Similarly, Elliott (1999) finds that black residents of poor and racially segregated neighborhoods who use social ties to find their jobs usually work with predominantly African American coworkers. This racial composition within the job, in turn, has a negative effect on their annual earnings.
Granovetter (1973) argues that the most successful job searches are those that utilize weak ties (work contacts, acquaintances, or other casual associates), not strong ties (close friends or immediate family members). Residents of high-poverty inner city neighborhoods are less likely to have access to the kind of social ties most effective for job search; extensive, varied, spatially dispersed, nonkin ties (Granovetter 1995; Reingold 1998; Green, Tigges, and Diaz 1999; Elliott 2000). Perhaps because of this, some analyses find that low-income workers tend to rely on strong rather than weak ties when seeking employment (Elliott 1999; Kleit 2001). In one study of scattered site public housing tenants in Maryland, Kleit (2001; 2002) found that respondents used strong network ties when looking for jobs rather than neighbors, even though many of their neighbors were employed and had considerably more economic means than their close friends and family. Mendenhall (2005) examined the neighborhood networks of a small sample of Gautreaux housing assistance participants, and found that among adult suburban movers, female neighbors in the higher resource communities served as a valuable source of job networks for the least-educated women. But for women with somewhat higher levels of education, such as those certified for clerical work, their suburban neighbors were less helpful in the job search process.¹

Another structural explanation for labor market disparities between inner-city and suburban job seekers is Kain’s (1968) spatial mismatch hypothesis, which argues that the spatial location of jobs vis a vis inner-city workers may account for their low employment rates. According to this line of reasoning, the surburbanization of jobs, when combined with increasing residential segregation by class, have exacerbated the employment problems of the urban poor.

¹ Although early studies of Gautreaux found that the adult suburban movers experienced a modest gain in employment compared to those who stayed in the city (Popkin, Rosenbaum, and Meaden 1993), a recent analysis of a more representative sample, using administrative data, does not find a city versus suburb difference in time spent with earnings (Mendenhall, DeLuca, and Duncan, forthcoming).
Similarly, Wilson (1987, 1996) argues that the decline of manufacturing jobs has left inner-city neighborhoods bereft of employers, while the rise of service sector employment has occurred mainly in the suburbs. Thus, many urban residents have the education or experience to fill these jobs but not the means to get to them. Research has shown that urban residents also suffer from a lack of information about suburban job openings and experience greater levels of hiring discrimination in the suburbs than in the city (Kain 1968, 1992; Wilson 1987, 1996; Holzer 1996; Ihlanfeldt and Sjoquist 1998).

METHODS

This paper uses quantitative and qualitative data collected from individuals who signed up to participate in the MTO demonstration in Baltimore. We are in the unique position of having experimental data from a large quantitative sample of all Baltimore individuals who signed up for the mobility program by 1997 (N = 636), and a smaller, stratified random qualitative sample (N = 124). The methodological problem of self-selection plagues most studies of neighborhood effects, as individuals have a certain amount of choice in deciding what neighborhood they live in and how long they remain in that neighborhood (Tienda 1991; Brooks-Gunn et al. 1997). Individual-level factors, within structural constraints of housing availability and financial resources, influence these decisions. The randomized design of MTO allows us to isolate the effect of neighborhood context on individual outcomes, since it encouraged otherwise similar groups of individuals to live in different types of neighborhoods.

We first use the quantitative data to estimate the effect of the MTO treatment on employment and earnings outcomes in Baltimore. We then use the qualitative data and methods of analytic induction to examine the processes by which these outcomes occur and generate hypotheses about the relationship between residential mobility and employment.
Quantitative Methods

The quantitative data for this paper come from a 2002 survey designed to test the effects of moving from public housing and some of the nation’s poorest neighborhoods to low-poverty neighborhoods. These data contain information on individuals at two points in time: at baseline and in 2002.

When public housing residents enrolled in the MTO program between 1994 and 1997, the head of the household completed a baseline survey. Although data exists for MTO participants in all five cities, this analysis primarily focuses on Baltimore respondents (see Appendix Table A to see how Baltimore participants compare to all MTO participants at baseline). In Baltimore, 97 percent of household heads are African American and 99 percent of household heads are women. These families had high rates of unemployment, low educational attainment, and were likely to be receiving governmental cash assistance; 74 percent of respondents were unemployed at baseline, 43 percent did not have a high school diploma or GED, and 80 percent received cash welfare payments.

In addition to the baseline survey, respondents participated in a survey four to seven years after families were randomly assigned to one of the three groups. Data were collected from January to September 2002 and the sample includes all families randomly assigned through December 31, 1997. The overall response rate was 89.6 percent across the five cities. ² In Baltimore, the sample includes 636 households, which encompasses the entire MTO population

² During fieldwork, a 3-in-10 subsample of hard-to-locate families was taken in order to focus resources on difficult-to-find cases. Observations from the subsample receive greater weight in the analyses. Accounting for the fact that subsample observations are used to represent observations that were not in the subsample, we calculate an effective response rate (ERR) based on the phase one response rate (R1) and the subsample response rate (R2). ERR = R1 + (1-R1)*R2.
in those sites (see Orr et al. 2003 for a detailed description of the data collection and analysis of the survey data). Fieldworkers conducted in-person surveys with adults, and the sample includes 2.6 members per family, including 1.6 children. The interviews took place primarily in the respondents’ homes, using Computer-Assisted Personal Interviewing (CAPI) on laptop computers.

The experimental design of MTO allows us to draw conclusions about the effect of a low-poverty housing mobility policy on individuals, beyond individual and family-level characteristics. In this paper, we look at the effects of living in a low-poverty neighborhood on employment and earnings outcomes by comparing average outcomes of adults assigned to the experimental and control groups. Because we have data from two points in time and because of the experimental nature of the study, we are able to make inferences about causal mechanisms. This intent-to-treat (ITT) coefficient in our regression analyses estimates the causal effect of offering families the services – including the voucher to move to a low-poverty neighborhood, housing counseling, and budget counseling – made available through the experimental treatment. Although only 58 percent of Baltimore experimental group members used the voucher to make a low-poverty move (compared to 47 percent of experimental group members in the five cities combined), all still received some form of treatment if they attended the counseling sessions.

We calculate this ITT effect using ordinary least squares (OLS) regression with a set of covariates (X) representing pre-random assignment baseline characteristics. All of the models are computed using sample weights. Although all three groups – experimental, Section 8, and

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3 Means of these covariates can be found in Appendix Table A.
4 These weights have three components, and they are described in detail in Orr et al. (2003), Appendix B. 3-in-10 sub-sample members receive greater weight since they represent individuals who were not contacted during this sub-sampling phase. Youth from larger families receive greater weight, since two children were randomly sampled from each household, they
control – are in the data, we omit adults in the Section 8 group from our analyses.\(^5\) This leaves us with 3,039 respondents across all five cities and 449 respondents in Baltimore.

We use regression analyses to estimate the control mean of seven employment and earnings outcome variables. We first look at these seven outcomes across all five MTO sites, and then use the same models to analyze Baltimore outcomes. Let \(Y\) be the outcome of interest and \(Z\) be membership in the experimental group. Equation 1 shows a simple regression model used to estimate the control means \((\beta_1)\) and the ITT differences between the experimental and control groups \((\beta_{11})\):

\[
(1) \quad Y_i = \beta_{10} + Z_i \beta_{11} + \varepsilon_{1i}
\]

In order to increase precision of the estimates and control for any small sample differences in baseline covariates \((X)\), the primary quantitative analyses in this paper use regression-adjusted ITT effects, as estimated using equation (2):

\[
(2) \quad Y_i = \beta_{20} + Z_i \beta_{21} + X_i \beta_{22} + \varepsilon_{2i}
\]

Qualitative Methods

The qualitative data consist of transcripts and field notes from in-depth, semi-structured interviews with a stratified random subsample of families who volunteered to participate in the MTO experiment. We sampled among all three program groups and evenly among three household types: (1) households with children 8 to 13 years old only, (2) households with children 8 to 13 years old and 14 to 19 years old, and (3) households with children 14 to 19 years old only. Of the 149 families sampled in Baltimore, we interviewed 124 adult respondents in the

\(^5\) For this reason, our coefficients are different than the results reported in Orr et al.’s (2003) analysis; we compare experimentals to controls, and Orr et al. estimate experimental and Section 8 effects simultaneously.
experimental, Section 8, and control groups (for an 83 percent response rate). Reasons for non-response include inability to locate the respondent, death of the respondent, and respondent refusal.

The in-depth interviews with adult respondents took place between July 2003 and June 2004. After intensive locating and tracking efforts, interviews usually lasted from two to five hours. The respondents were asked questions about their neighborhood, social status, employment, focal child (8 to 13 years old), focal youth (14 to 19 years old), and physical and mental health. Interviewers were instructed to ask specific questions, although the wording and timing of the questions often varied so that the interview felt like a conversation. Adult respondents were paid $50 to $85 for their time, depending on whether we asked them about one or two children. These interviews were tape recorded, transcribed, coded thematically, and entered into a database by theme. Subsequent coding and analysis allowed us to take an inductive approach that is traditional in qualitative work, exploring the relationship between neighborhood characteristics and employment and earnings across the program groups. The extensive effort and cost required to obtain and process each interview limited the total number of families we could interview for this study.

Not all households assigned to the experimental group used the MTO voucher to make a move. Among the 51 Baltimore respondents in the qualitative sample assigned to the experimental group, 62 percent used their voucher to move to a low-poverty neighborhood. Of these 33 compliers – the terminology used to describe respondents who moved with their MTO

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6 We also interviewed a stratified random subsample of 64 families in Chicago, but this paper focuses solely on Baltimore families.
7 MTO participants had a limited period (typically 120 days) to use the voucher, and sometimes reported difficulty finding a unit in a low-poverty neighborhood or finding a landlord who would accept Section 8 housing.
voucher – only four were living at their placement address at the time of the qualitative interview and the rest had moved to different units and often different neighborhoods.

We focus our qualitative analysis on the experimental compliers and a set of control group respondents who likely would have moved through the MTO demonstration had they been assigned to the experimental group. We use a matching procedure to determine those controls that likely would have moved through the program. We select 19 likely control noncompliers to be the counterparts of the 18 experimental noncompliers, with the reasoning that there should be the same fraction of adults in the control group who would not have complied as there are in the experimental group.\(^8\) We select 100,000 random samples of 19 from all Baltimore controls and then compare the average values of the 18 experimental noncompliers to these 19 controls on 14 demographic, neighborhood, and employment variables (see Appendix B for a description of the variables). Each of the 100,000 samples is given a similarity score and the most similar of the 100,000 comprises the 19 likely control noncompliers. Similarity is defined as the sum of the difference in means for each variable divided by the control group standard deviation for that variable – essentially, the sum of the difference between groups in the average z-scores for the 14 variables. Each variable receives equal weight in the calculation. Based on this matching procedure, we select a group of control noncompliers that are similar, on average, to the experimental noncompliers (as shown in Appendix Table B). For our qualitative analysis, we exclude the experimental noncompliers and control noncompliers. We use data from the experimental compliers – those who moved to a low-poverty neighborhood through the MTO program – and their likely control complier counterparts to explore the relationship between

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\(^8\) We attempted to interview 62 Baltimore adults in both the experimental and control groups. We completed 51 interviews with experimental group participants (including 18 of the 22 noncompliers) and 53 interviews with control group participants.
neighborhood mobility and employment in Baltimore. For simplicity, we refer to experimental compliers as “experimentals” and likely control compliers as “controls” when discussing our qualitative sample. Although the sample sizes are small, these qualitative data are very useful for exploring the processes by which neighborhoods may affect employment and earnings outcomes in a manner that cannot be captured by survey data. Interviewers systematically asked respondents about human capital and social capital, so it is possible to look at how these factors interact with employment and earnings outcomes in the context of a housing mobility program. Examples of interview questions include “Tell me the whole story about how you got [this /your last] job” and “Tell me about the events that led you to leave your last job.” The matching of the experimental noncompliers with the likely control noncompliers allows us to take full advantage of the study design; those who used the MTO voucher are different than those who did not move, and lumping all of the experimental and control respondents together would not allow us to separate out these differences.

**QUANTITATIVE RESULTS**

*Neighborhood Characteristics*

Table 1 shows descriptive neighborhood information for the five-city survey sample and the Baltimore survey sample. We define neighborhood by the Census tract the individual lived in at each point in time and use data from the 2000 Census. We look at neighborhood socioeconomic disadvantage in the following four ways: poverty rate, percent of residents with

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9 This paper does not look at adults assigned to the Section 8 group, although these families are included in the qualitative sample.

10 Although our qualitative sample comes from a random sample of MTO participants in Baltimore, our small sample size prohibits these results from being representative of all Baltimore respondents or generalizeable to the entire MTO population.
college diplomas, percent employed among the civilian population, and percent African American. The percentage of African-American residents does not directly estimate neighborhood quality, but serves as an indicator of racial residential segregation, which perpetuates the notion of the African-American underclass and has implications for economic well-being (Massey and Denton 1993).

[Table 1 about here.]

Across nearly all measures of neighborhood quality, experimentals were living in higher quality neighborhoods than their control-group counterparts at the time of the 2002 survey (four to seven years after random assignment). These neighborhoods are a substantial improvement to the poor quality neighborhoods that respondents were living in at baseline, where about half of the residents were living below the poverty line.

Employment Results

We use quantitative data from the 2002 survey to predict employment and earnings outcomes for Baltimore respondents. For these models, we use the full experimental and control sample so the coefficients are valid estimates of the MTO treatment. Consistent with previous employment and earnings findings on the MTO intervention (Kling et al. 2006), we look at seven employment and earnings outcomes: currently employed, employed with health insurance, employed full-time (35 or more hours per week), weekly earnings above poverty, annual earnings in 2001, weekly earnings at main job, and employed at job greater than one year.

The dependent variable in each of our models is one of these seven employment or earnings outcomes. The independent variable is a dummy variable for experimental-group status (with control-group status as the reference category), and we include 38 covariates for baseline adult characteristics. These covariates allow us to account for any slight differences between the
experimental and control groups at baseline and add precision to our models. We first look at the effect of the MTO treatment among all participants, and then restrict our models to Baltimore respondents. Table 2 displays our results.

These results are consistent with previous quantitative analyses (Kling et al. 2006) that find the MTO intervention did not have any significant effect on the employment or earnings of participants. In Baltimore, on which we base our qualitative sample, those assigned to the experimental group do not have employment and earnings outcomes that are statistically different from their control group counterparts. However, the treatment may have had a bigger impact in Baltimore than across five cities. Compared to the control group, for example, the employment rate rose 5.7 percentage points in the experimental group. Additionally, the number of respondents holding jobs with health insurance rose 7.9 percentage points, and the number holding their job for greater than one year rose 8.5 percentage points. Although the results in Baltimore are statistically insignificant, the magnitudes suggest an economically meaningful difference between the experimental and control groups.

QUALITATIVE RESULTS

The lack of stronger effects on any of the adult employment outcomes measured gives rise to various questions. Do these results provide evidence that neighborhood context does not affect employment much, or is there a more complex story underlying these results; a story about how a very disadvantaged group of Americans who have spent years – sometimes an entire lifetime – in some of the nation’s most distressed public housing projects, go about seeking, obtaining, and maintaining employment? We turn to in-depth interviews with a random subsample of experimental and control group members in Baltimore to develop a set of
hypotheses about some of the social processes that might be at work. Keep in mind that when we refer to experimentals in this section, we are referring to compliers, those who actually used their MTO voucher; when we refer to controls, we are referring to the matched set of control likely-compliers.

A Profile of Baltimore Qualitative Respondents

Table 3 compares the demographic characteristics of experimentals and controls in the qualitative study, and the groups are fairly similar across these measures. Though there are differences in educational attainment, these are not statistically significant.\textsuperscript{11} All respondents are women, most live with dependent children, and all but one are African American.\textsuperscript{12} At the time of the qualitative interview, the respondents were, on average, 38 years old (ages ranged from 26 to 57). Over a third (38 percent) had neither finished high school nor obtained a GED. On the other end of the spectrum, only 5 percent had graduated from a two- or four-year college program, obtaining an Associate’s or Bachelor’s degree, or are Licensed Practical Nurses or Registered Nurses.

Half of experimentals and half of controls said they lived in public housing as a child. Of course, all were living in Baltimore public housing when they enrolled in the MTO program. Although the MTO demonstration did not provide the controls with a voucher to move, the residential mobility of both groups after random assignment is high. By the time we conducted the in-depth interviews in 2003, six to nine years after random assignment, the majority of experimentals had moved from their low-poverty, MTO placement neighborhoods. This was

\textsuperscript{11} Although our overall number of cases is relatively small, we present percentages throughout the paper to preserve a sense of proportion.

\textsuperscript{12} One respondent identifies as multiracial.
possible because the MTO voucher reverted to a standard Housing Choice Voucher (colloquially referred to as a Section 8 voucher) – that is, it lost its geographic restrictions – after one year of use in the placement neighborhood. Similarly, as a result of the widespread demolition of Baltimore public housing, most controls were not living at their baseline address by 2003 either. Indeed, those whose units had been demolished were offered the option of a standard Housing Choice Voucher.

At baseline, both experimentals and controls were living on the east and west sides of the center of Baltimore – neighborhoods characterized by very high rates of poverty, unemployment and labor force detachment, and a host of other neighborhood distress indicators. Subsequently, the experimentals who took up the MTO offer and moved were dispersed to the outskirts of Baltimore City, the inner suburbs in Baltimore County, and several more distant suburbs. Most experimentals moved to neighborhoods that, while low in poverty, were still predominantly African-American or mixed in their racial composition.

Over time, the experimentals moved somewhat closer in toward the center of Baltimore City, though few moved back to their baseline neighborhoods. Meanwhile, controls usually moved to and remained within the city, often in quite close proximity to their origin neighborhoods. Despite high rates of residential mobility rates of both groups, the experimentals are still more likely than controls to be living in neighborhoods with poverty rates 20 percent and under (58 percent versus 35 percent), somewhat more likely than controls to live in subsidized private housing (58 percent versus 42 percent), and less likely to be living in public housing (9 percent versus 21 percent) than controls.
Labor Market Context

Experimentals and controls exhibit many similarities in their employment status and job quality, and nearly all respondents say they value work and that having a job is an important goal, in part because they believe it boosts self-worth. But the unemployed controls have less consistent work histories and have been unemployed longer than their unemployed experimental counterparts, who typically have been cycling between employment and unemployment.

Among experimentals, 46 percent are employed full-time, another 21 percent are employed part-time, and 33 percent are unemployed by 2003. In the six to nine years since these respondents signed up for MTO, their overall employment rate has increased dramatically. Two-thirds are currently working, as opposed to only 15 percent at baseline. This is presumably due, in part, to the more stringent work requirements mandated by welfare reform, implemented in Maryland in 1996 (Welfare Reform in Maryland 2002). The increase in employment is also presumably due to a booming economy -- unemployment in Baltimore County dropped from 5.3 percent in 1995 to 3.7 in 2000, according the U.S. Bureau of Labor Statistics (1995, 2000) -- and other factors that dramatically boosted the work rates of low-income single mothers across the country (Meyer and Rosenbaum 2000). Respondents’ children also got older, reducing the potential costs of working (e.g. child care) and enabling them to balance work and parenting more easily. The changes that resulted in increased employment for low-income women in general set an extraordinarily high bar for individuals assigned to the experimental group; these participants had to negotiate neighborhood environments that were very different than those they had been used, and they had to compete with other similarly skilled individuals to find a job.

However, many former welfare recipients who have left welfare for employment have been funneled into particular types of jobs, namely jobs in health care or retail establishments. These patterns are readily evident in our data, as half of the employed experimentals are working
in health care either as nursing assistants, in medical billing, or as housekeepers, prep cooks, and other non-health care jobs within hospitals. Cheryl, for example, a 29-year-old mother of four, works full-time as a prep cook for a Baltimore hospital and Quresha, a 40-year-old mother of three, works full-time as a housekeeper at a hospital in a Baltimore suburb. Overall, just more than half of those working in health care work these pink-collar jobs in hospitals. Nearly four in 10 experimentals (37 percent) work in other service sector jobs, either in retail establishments, as janitors, in food service, or as child care workers. A few (18 percent) work as administrative assistants or in other office jobs, in blue-collar jobs (9 percent), or in the informal economy (9 percent).

Six of the 11 unemployed experimentals are only temporarily unemployed; all have steady work histories and are actively searching for jobs, and some even have jobs lined up. The MTO survey, conducted four to seven years after random assignment and two years prior to our qualitative interviews, did not attempt to measure the nature of unemployment. Sadie, for example, lost her job as a housekeeper at a hotel one month before the interview; she was terminated from her job because she needed to take a week off to devote all of her energy to getting her son out of jail. Her 17-year-old son, Kevin, spent a month in jail on a robbery charge only to be released after the police conceded it was a case of mistaken identity. Sadie has a steady work history; she spent six months as a custodian at her son’s school before working at the hotel (she was fired because she needed to deal with another child’s asthma), tended bar for four years, and worked as a cashier at a convenience store. Now that Sadie’s son is out of jail, the 41-year-old mother of three is again actively seeking work, looking daily in the want ads, and has an interview lined up for a job at a warehouse. LaShonda, a 40-year-old mother of two, has worked as a unionized welder for the past two years, and was laid off from her welding job two

13 We use pseudonyms throughout the paper to protect the confidentiality of the respondents.
months ago. This job paid LaShonda $17 an hour and included health and retirement benefits. When she worked overtime, she made $25.50 an hour. She collects unemployment now, but anticipates working again soon.

In contrast to the experimentals, only one of the unemployed controls can be considered temporarily unemployed. Overall, unemployed controls have less consistent work histories – it has been several years since most of them have last worked – and most do not have concrete plans for future employment. This stands in stark contrast to the employment aspirations of the experimentals.

In our qualitative sub-sample, a somewhat smaller proportion of controls are currently working, compared to experimentals (56 percent versus 67 percent). Although half of employed experimentals are working in hospitals or health care jobs, only a few (16 percent) of controls hold similar jobs. Thirty-three-year-old Mercedes is the only control employed as a nursing assistant, a job she has held for four years. Two other respondents, 37-year-old Sharon and 40-year-old Jane, work as customer service representatives at hospitals in Baltimore. More than four in 10 (42 percent) employed controls work in service sector jobs outside of the health care sector as custodians or housekeepers or in retail. Nearly a third (32 percent) do secretarial work, a few (16 percent) work blue-collar jobs – as meter maids or low-level municipal employees – and one respondent is self-employed, making gift baskets for a number of local retailers out of her home.

The fact that experimentals are more likely to be employed in health care jobs may give them an important advantage over the controls over time, as health care jobs are more likely to have medical benefits and career ladders than jobs in other sectors. And the demand for such workers should increase significantly in the future; one analysis projected an increase of 36 percent between 2000 to 2010 (Harmuth 2002). Tisha, a 32-year-old woman employed full-time as a medical billing team leader at a local hospital, says, “...when you get into the medical field,
it’s non-stop growth there. You know, it’s just non-stop [opportunity]. So I just feel like I’m just gonna take this and go all the way as far as I can until I just get burned out.” On the other hand, though, many entry-level health care jobs are physically demanding and have high rates of turnover, posing additional barriers for those individuals in the profession.

Human Capital Barriers to Employment

Experimentals and controls have similar barriers to employment – such as low educational attainment and poor mental and physical health – that may in part result from years of exposure to concentrated poverty neighborhoods. These barriers were not explicitly addressed through the MTO demonstration. While many experimentals and controls were able to overcome such limitations, these barriers still pose difficulties.

At the time of the qualitative interview, a substantial minority (28 percent) of experimentals have neither graduated nor earned a GED, though some (9 percent) have a two- or four-year college degree. A handful of experimentals told us that MTO not only encouraged them to move out of their neighborhood, but also to further their education because their experiences were broadened. Lisa, a 38-year-old mother of three employed in a federal government office, attributes completing her Bachelor’s degree at Coppin State University, located in the Baltimore suburbs, to MTO. “That is how I took advantage of the [Moving to Opportunity] program. Where most people took advantage of it as far as maybe, well, it was still a better environment, but I wanted a full package. I wanted a better environment, a better education,” says Lisa, who has plans to go back to school to earn her Master’s degree. Peaches, a 34-year-old experimental, began taking classes at Baltimore City Community College just before moving through the program, but completed her Associate’s degree after moving and was motivated to do so by her MTO move. “You know, it just opened up a whole another world for
me. And it was like a big change and I was like ‘Wow.’ I was missing out on this whole experience, you know.”

In addition to having more traditionally reported educational certifications such as GEDs or high school degrees, about 30 percent of experimentals have graduated from other short-term programs offering credentials for occupations such as home health aides or pharmacy technicians. Many of these respondents have three or four different certificates of this kind. Certificates that credential respondents for health care jobs are the most common, which probably explains in part why such a large proportion of experimentals work in such jobs.

One way housing mobility programs may benefit participants is from contact with new, employed, neighbors who will offer job information and referrals. But the educational credentials of many respondents limit the usefulness of drawing upon these resources from those in their new environments. Experimentals rarely activate neighborhood social networks to search for jobs, as we discuss in more detail below. But this is partly due to the large differences between their own human capital and the education and skills of their new neighbors. Many respondents, especially those still living in very low-poverty neighborhoods at the time of the qualitative interview, say their neighbors all work white-collar or professional jobs. Keona, a 30-year-old woman living in a low-poverty neighborhood, says that all of her neighbors have office jobs rather than the kind of work she seeks. “Office. I can see the way they dress. I can tell it’s for an office. Not for a factory, you don’t see, not even in nursing…. You know how you see more briefcases, suits…” Terry, who also lives in a low-poverty neighborhood, says that many of her neighbors are lawyers or other highly-educated professionals. Tina, a 32-year-old woman still residing in a low-poverty neighborhood, says her neighbors mostly work as doctors, police
officers, and at the naval academy.\textsuperscript{14} Although it is unlikely that all of the experimentals’ neighbors are doctors or lawyers, some of them probably are working in these occupations. More importantly, the fact that experimentals perceive their neighbors to be working these jobs means that since they lack these credentials themselves, they usually do not even attempt to approach neighbors for job information or referrals. Even if they tried, it is unclear whether these ties would generate more or higher-quality jobs than they are already getting through other means.

In addition to low education, experimentals also report a number of physical and mental health conditions that mitigate against finding work and staying employed. Living in high-poverty, economically depressed neighborhoods has a negative effect on one’s health (Ross and Mirowsky 2001; Boardman et al. 2001), and as indicated earlier, past MTO research has shown significant physical and mental health gains for those who moved through MTO relative to controls (Kling et al. 2006). In fact, all five of the unemployed experimentals who are not cycling in and out of the labor market report debilitating physical or mental health barriers.

Roneesha, a 44-year-old mother of two and grandmother of two, is one example. Although Roneesha is HIV-positive, she managed to remain stably employed for many years until she began to suffer from panic attacks on the job. She had worked at her most recent job – a data entry job paying $11.49 with full benefits – for 17 years, but left the job after being hospitalized after her first panic attack: “I couldn’t get myself together for nothing, then I was really panicking out and I started shaking and rocking and shaking and rocking and so then

\textsuperscript{14} Experimentals not living in low-poverty neighborhoods talk about their neighbors being employed, for example, as custodians, corrections officers, teacher’s aides, and informal and formal child care providers.
finally recognized it was a panic attack and not no heart attack or nothing.” In addition to suffering from HIV and panic attacks, Roneesha suffers from diabetes and depression. 

Thirty-nine-year-old Rochelle and 32-year-old Sonya both suffer from serious mental health problems as well. Rochelle, who had a nervous breakdown several years ago and receives disability payments for her depression, says she has never had a job and has no plans to search for one. Because of her mental health problems, interviewers had a difficult time constructing an employment profile for Sonya. Our fieldworker wrote after the interview: “The respondent has clearly some pretty serious mental illness issues…there were lots of stream of consciousness associations to strange objects to coat hangers and rattles.” Obviously, these conditions would not only influence respondents’ ability to sustain employment but their capacity to forge and maintain social connections as well – connections they might have relied on to secure a job.

Experimentals and controls had a similar mix of educational credentials at baseline, and there is no statistically significant educational attainment difference between the two groups at the time of the qualitative interview. In addition, about one-third of respondents in both groups have completed at least one short term training program that certifies them for a job, usually in low-level health care jobs.

Like their experimental counterparts, unemployed controls demonstrate an acute awareness of the importance of education and experience for employment and pay. Rachel, a 37-year-old unemployed control who has worked in the past as a nursing assistant and an addictions counselor, says that these jobs now require a certificate or a degree, and her lack of either is the reason for her lengthy recent spell of unemployment. “Everybody wants you to have a degree now, you know, and before it wasn’t a big issue. I could get a job in addictions just like that. And now they want you to have a degree.” Rachel, who dropped out of high school and never received a GED, is currently enrolled in a program in which she can earn her high school
diploma, and she believes this credential will help her find a job. Missy, a 36-year-old unemployed mother of three, says that her lack of work experience is holding her back. “Some of em, I have the experience, but I don’t have the working experience [in recent] years, I don’t have that kind,” says Missy, whose last job as a housekeeper was five years ago. She says she tried to enroll in a training program recently but was not allowed to participate because of a conviction for marijuana possession.

Yet controls are better able to use social connections to find work. Their neighbors are less likely to be employed overall, but they are more likely to have neighbors employed in occupations similar to their own. More importantly, because of their residential locations, they are more likely to make contact with acquaintances who work such jobs in the course of their daily routines. Unlike the experimentals, none of the controls say their neighbors work white-collar or professional jobs. Instead, they say their neighbors work in health care jobs, such as nursing assistants, in service sector jobs at retail establishments, and in blue-collar jobs, such as security jobs or guards at correctional facilities.

Experimentals and controls also have similar physical and mental health barriers that sometimes prohibit them from getting a job or staying employed. Depression is the most common problem. Kenya, a 30-year-old mother of two who has been unemployed most of her adult life, has trouble sleeping through the night because of stress related to her cousin’s fatal drug overdose. As a result, she falls asleep unexpectedly throughout the day. When we interviewed her, in fact, she fell asleep several times and we had to wake her. Kenya points to other sources of stress as well. “What stresses me out? My children’s fathers, they ain’t no good. Life itself stresses me out. The trials and tribulations that I’ve been through. Stresses me out thinking about it.” Wendy, a 35-year-old mother of five who has been unemployed for two years, has severe arthritis, which prohibits her from jobs requiring her to stand all day on her feet or do
physical labor. “Each job I just couldn’t work; it was my legs swelling up,” says Wendy, who suffers from severe arthritis. “Cramping, aching… It just get me, oh God, my hands too.”

As indicated above, analyses of the MTO 2002 survey, occurring four to seven years after random assignment, found mental health gains for experimentals relative to controls (Kling et al. 2006). These results are encouraging, and suggest that moving to a low-poverty neighborhood can reduce psychological distress and depression. Among those in the qualitative sample, however, there are no noticeable differences in respondents’ reports of depression, stress, or other mental health problems as they relate to employment, though we did not use formal measures of depression and stress.15

Social Connections and Residential Mobility

We now turn to the processes by which respondents search for jobs. In particular, we examine the extent that neighbors versus other members of respondents’ social networks – close family, friends, and acquaintances – influence the job search process. Experimentals and controls find employment through similar channels and, when activating social networks to find a job, mostly rely on a particular type of weak tie, acquaintances who have similar jobs to those they seek and similar job credentials. Usually, these are not one’s immediate neighbors. For experimentals, too few neighbors have such qualifications, and for controls, too few neighbors have jobs at all. Rather, both rely on casual encounters with acquaintances they’ve met on the job, in training, or in other venues over the years.

15 In quantitative analyses not shown here, we look at employment outcomes stratified by presence of depressive symptoms in the past 12 months. For individuals not exhibiting depressive symptoms at the time of the 2002 survey, we find no employment or earnings effect – consistent with results of the entire sample. But for individuals who are depressed, we find a strong, negative impact of experimental group status on all seven employment measures.
The employed experimentals utilized three job search strategies: formal methods, agency-based methods, and social networks.\textsuperscript{16} When we asked these respondents how they got their current job, only a small number (14 percent) used formal methods – help wanted ads and direct application – to find their current job. Nearly a third (32 percent) used a temporary agency or local social service agency to find their job. Yet more than two thirds (68 percent) relied on social networks (some respondents used more than one method, so these numbers total more than 100 percent). Of those who used social connections, about four in 10 used a friend, though rarely a close friend. Other referral sources include current or past co-workers or other casual associates from school, church, or elsewhere. Only rarely did family members play this role.

Thus, consistent with Granovetter, but not all prior research, the majority of experimentals who found their current job through social connections used a weak tie, not a strong tie. For example, 46-year-old Jacqueline found her part-time job as a crossing guard through a friend’s father. “I used to check back and forth down at civil service…and I also know someone that used to work with the city, and she helped me. Matter of fact, her father, he used to work [down there], and he knew someone. Sometimes you have to know somebody to get a job.”

Yet none of the experimentals say they found their current job through a neighbor. “A lot of neighbors, they don’t, they don’t tell you too much about a job,” says 37-year-old Renee. Yet though neighbors did not play a direct role in job search, several respondents describe how a neighbor’s example or encouraging words have motivated them when searching for a job. Amy, who spends weekends and some evenings as an evangelist traveling from church to church in the Baltimore area, says her neighbors have encouraged her to be persistent in her job search. Sheila,

\textsuperscript{16} Formal methods of job search include the following specific strategies: direct application, newspaper search, Internet search, Yellow Pages search, and responding to a flier. Agency-based methods of job search include utilizing a social service agency, going through a temporary employment agency, participating in a job training program, and attending a career fair.
a 38-year-old nursing assistant still living in her MTO placement neighborhood, says she often
talks to her neighbors about her job search, but these conversations and the tips they have shared
have never led to employment.

Though no current jobs flowed through neighbor referrals, one experimental did find a
past job through a neighbor and another says a neighbor helped her secure a job at a grocery
store that she will start next week. This respondent, Cookie, is 39 years old and lives in a low-
poverty neighborhood. “As a matter of fact, one day I went to the store and after [my neighbor]
had told me about [a job opening in the store she owned], I said, no, I don’t want to do it.”

“Then I got to the store – as a matter of fact I went there to get something. We was planting the
flowers out in the back and I was all dirty. Went up there and I just happened to see Gail and I
said, you know, let me fill out an application. And talked to her right there and she was like,
‘Well, don’t you wanna start next week?’ I was like, ‘All right, OK, I can do that.’ So I start next
week.” These are the exceptions, however. “I don’t really do a lot of interacting with my
neighbors other than just speaking, you know, just small conversation,” says Joyce, a 41-year-old
mother of two. Roneesha says, “No, ‘cause like I say I don’t associate with [my neighbors]. Not
a lot.”

Although many experimentals have not forged close ties with neighbors, most have noted
their neighbors’ employment status and have some notion of what kind of work they do. Further,
most eagerly point to the benefits of living in a community where most residents work as
opposed to those where workers are few. Experimentals are proud that their neighbors are
working. Tina brags that mostly everyone in her low-poverty neighborhood has a job where they
wear uniforms, such as police officers. “You rarely catch anybody in their regular civilian
clothes,” says this 32-year-old woman employed full-time as a laundry aide at a hospital.
Neighbors who are working, many experimentals say, “take care of themselves” and do not “get into others’ business.” Peaches, who lives in a low-poverty neighborhood and is employed as a help desk technician at a hospital, tells us, “It makes a big difference when you have people focused on a goal or focused on something positive. It changes the whole environment where you live at. Because you know they are going somewhere. They are doing something positive with their life.” Unemployed residents, on the other hand, are not viewed as beneficial to the community. Lisa, the respondent employed at a social security office who has been living in her current neighborhood for five years, says, “[When people don’t have jobs], it brings the community down. What if you are a working person, and you have all this noise and you have to get some sleep and everybody in the neighborhood is just having a party, having a good time?”

There are no striking differences in the job search strategies of experimentals and controls. The two groups report using formal and agency-based methods to find their current job in relatively similar proportions. Among both groups, respondents who used social networks to secure a job are much more likely to report using a weak tie as opposed to a strong tie; 60 percent of experimentals and 79 percent of controls report using a casual acquaintance with similar skills and credentials for job referrals. Controls, however, find it easier to utilize these connections, because sheer proximity brings them into contact with such individuals more often. The low-poverty move limits access to individuals working in occupations similar to the ones the respondents usually seek. Getting a job not only requires that respondents have the required educational credential or relevant work experience, but that they learn of a given job opening promptly. Here, respondents believe, informal channels work best because such jobs fill rapidly and by the time the job is listed in the newspaper through other formal means, it is generally too late to apply.
The controls mirror the experimentals in that none of them report getting information about their current job through an actual neighbor, but for a different reason than experimentals; for the controls, too few of their immediate neighbors are working. Baltimore survey results also show no effect of the MTO program on the probability of using a neighbor to find a current job.\(^{17}\) However, due to their residential location, controls’ daily routines do bring them into contact with others who can provide the relevant information. Experimentals have to work harder in order to make these sorts of contacts. They try to make up for this deficit by attempting to draw on their close ties – family members and close friends who may still live in or near their origin neighborhoods. However, since such ties are redundant – the parties know many of the same people – they are rarely effective in linking individuals to social networks outside of their own (Granovetter 1973).

When we examine what controls say about their neighbors’ employment – or lack of employment – we find they echo themes of the experimentals. The controls speak positively about the benefits of having neighbors who work, as employed neighbors do not have time to meddle in others’ business and foster a desire to work. “If it’s more working people, then you know it’s less trouble. Everybody is focused on what their agenda is for the next day or whatever,” says 37-year-old Cathy, who is employed in the informal labor market. Tammy, a 37-year-old woman employed part-time as a custodian, says that having employed neighbors motivates her. “If I don’t work, and most people do, that’s going to encourage me to work. And if it’s the other way around, I may not be able to keep up with working,” she says. Controls often lament the fact that many of their neighbors do not work; only half live in neighborhoods where they perceive that most people work, and a quarter (26 percent) say almost none of their

\(^{17}\) Across all five cities, though, there is a slight positive effect of the treatment on finding current job through a neighbor, which suggests the importance of place.
neighbors are workers. Yet the perceived gains to experimentalists of having working neighbors seems to have been diminished by more limited access to ties best able to provide useful job referrals.

Space and Residential Mobility

Next, we look at how moving to a low-poverty neighborhood changes the spatial dynamics of these families’ lives. Experimentalists are still living geographically farther from their baseline neighborhoods than controls are by the time we interview them, six to nine years after random assignment. Not only does this place them farther from the social ties that are so crucial to getting a job in their field, in this city at least, it places them further, not closer, from many of the jobs for which their education and skills qualify them. Both experimentalists and controls say transportation is problem when it comes to getting and keeping a job, but transportation problems are often exacerbated by a low-poverty move. While many experimentalists are able to overcome these barriers eventually, and do secure employment at a reasonable distance from their homes, the barriers impede attempts to get jobs or search for better jobs.

As noted earlier, experimentalists perceive many benefits of living in low-poverty neighborhoods, such as stronger community norms supportive of work. But housing mobility also comes with a cost for some families. When the experimentalists used their voucher to move to a low-poverty neighborhood, most moved to neighborhoods a substantial distance from their public housing developments; on average, 8.46 miles from their baseline address, although there was significant variation in the distances that families moved (ranging from 2.49 to 20.30 miles). After living in their low-poverty neighborhood for the required year or longer, many experimentalists chose to move on to neighborhoods in the inner suburbs or the city’s outskirts. At the time of the qualitative interview, experimentalists are living, on average, 5.82 miles from their
baseline public housing units. Unless they are lucky enough to live close to a job, public transportation routes often demand that workers take multiple bus routes to get to their jobs. Furthermore, most of the jobs they actually hold are in the city, not the suburbs.

As noted earlier, half of all employed experimentals are working in health care jobs and in hospitals, and the majority of these jobs are in the city. Since such a large proportion of respondents are employed in health care occupations, we mapped the location of all hospitals and nursing homes in the metropolitan area (Baltimore City and Baltimore County) (see Figure 1). Although we do not capture all possible health care jobs in the Baltimore area, we were able to gain address information for these larger health care employers. While there are 22 hospitals and 57 nursing homes in Baltimore City, there are only 11 hospitals and 51 nursing homes in much the geographically larger areas of Baltimore County.

[Figure 1 about here.]

Ironically, then, many of the health care jobs for which many MTO participants are qualified are actually closer in proximity to where respondents were living at baseline than the neighborhoods they moved to through the program. This is not consistent with notions of spatial mismatch, which partly attributes the unemployment of urban residents and the persistence of urban poverty to the out-migration of jobs to the suburbs (Kain 1968, 1992; Wilson 1987, 1996; Holzer 1996; Ihlanfeldt and Sjoquist 1998). A substantial number of experimentals have nonetheless managed to secure health care jobs, and are more likely to have done so than controls despite an equal level of credentialing, but this is in part because once the voucher became portable, many moved to closer proximity to the city, where so many of these jobs are located.

Not only did experimentals’ initial move place them farther from job referral networks, network ties provide two other crucial benefits for some – the child care and transportation that
often enables single mothers to work. In the course of our interviews, we asked respondents to name their three closest friends and to provide other descriptive information about them. Only 30 percent of experimentals say they have a friend in their neighborhood. In fact, many explicitly say they are not friends with their neighbors. Of the eight experimentals still living in a very low-poverty neighborhood, all but one fail to name a single close friend or family member in their neighborhood. This finding is consistent with Clampet-Lundquist’s (2004) examination of social ties among Philadelphia public housing tenants who moved through the HOPE VI initiative.18

While 37 percent of experimentals own a car, only one experimental still living in a very low-poverty neighborhood does so. Car ownership is clearly important for employment among this group, as half of employed experimentals but only one unemployed experimental, the unionized welder who is only temporarily laid off, has a car. Of course, respondents who work may be more likely to own cars because they can afford them. However, having to rely on public transportation, which many deem unreliable, is commonly named as a barrier to finding work or sustaining employment, especially in the suburbs, where busses run less frequently. Cheryl, the respondent employed full-time at a hospital in Baltimore, says she had to quit a previous job because she did not have reliable transportation to work. Cheryl, who does not own a car, says that “something was going on with the [Maryland Transit Administration] buses” and that she could not get to her job working in a medical records office. Terry, a 33-year-old experimental, discusses how transportation issues often result in her being late to her job as a school nurse at an elementary school in Baltimore. “The bus driver, she, was late one day and then the next day she

18 HOPE VI, administered through HUD, is a public housing redevelopment program that frequently relocates tenants in the process of redevelopment. Clampet-Lundquist (2004) found that families who moved through the program stay to themselves – both because they did not care to make new friends and because they wanted to avoid potential conflict with neighbors.
didn’t come at all. I be out there looking for another bus to catch. I am at the point where I am ready to buy a car,” she says, but gets depressed because she cannot afford car insurance.

Although not having a car presents a barrier to employment for some respondents, others demonstrate incredible perseverance in navigating the metropolitan area’s public transportation system. Roneesha, the respondent whose current health conditions prohibit her from working, has a steady employment history despite never owning a car. She discusses her long commute to her administrative assistant job when still living in her MTO placement neighborhood. Roneesha says that did not have to be at work until 8 a.m., but had to leave her house at 5:30 a.m. for her two-bus, hour-long commute because of the irregular and often unreliable bus schedule.

Tina’s case is an exception to the transportation problems faced by respondents living in low-poverty neighborhoods; this 32-year-old respondent has a four-minute walk to her job as a laundry aide at a convalescent center in Anne Arundel County. Tina has lived at her placement address for eight years and has gotten by without a car, but says that transportation poses a problem in other aspects of her life. She talks about how she used her social connections to help navigate the new neighborhood. “When I first came out here, I was lost about everything. I used to catch a cab back to Baltimore before I knew the bus line was only down the road from me. As far as finding stores, [my neighbor who] I didn’t know…someone that lived above me…took me to the stores out here. [My] transportation is basically the bus or [rides from] friends that I have met out here.”

Transportation problems were also a motivation for some experimentals to move on from their MTO placement neighborhoods to somewhat more disadvantaged neighborhoods on the outskirts of the city, where buses and trains ran more frequently. Tisha, for example, did not have a car when she moved through the MTO program to a Baltimore County suburb. “I had to get back into the city where more buses run on a frequent basis than in the County….” If you miss
the [bus], if you missed it, go back home, sit down at the table, whatever. ‘Cause the next bus comes an hour and a half to two hours later. So that was ridiculous and there was a lot of stress and when I moved back to the city, I told my sister, I said, ‘I feel so good. And much as I hate the bus I was never so happy to be back in the city where I could catch the bus to get anywhere I needed to go.’”

It is important to note, though, that transportation concerns also weigh heavily on lives of the controls. Nearly half of controls own cars (53 percent of employed controls and 40 percent of unemployed controls), but many of these vehicles are unreliable. Kenya, who is currently unemployed, describes how she used to miss work or be late because of her unreliable car: “I wouldn’t go in. I’d call [my boss] and tell him, ‘I can’t make it. I don’t have a car.’ Or I’d borrow my friend’s car every now and then.” Nevertheless, among the qualitative respondents, the employed controls have shorter commute times than the experimentals, regardless of whether they drive or take public transportation to work. Additionally, since the controls are living closer to the center of the city, where buses and trains are more frequent, they have fewer complaints about access to public transportation.

Due to the widespread demolition of public housing in Baltimore, most of the controls have moved from their baseline addresses too. Yet most are still living significantly closer to their baseline neighborhoods than the experimentals (3.11 versus 5.82 miles). This seemingly small difference in distance is still important, especially because prior to MTO, many respondents in both groups had been living in their baseline neighborhoods for a significant portion of their lives – sometimes their entire lives – and had virtually no exposure to a low-poverty neighborhood. Moving away from what is familiar can bring a host of challenges such as navigating new public transportation routes, finding child care and after-school programs, and

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19 One control, who moved to North Carolina, is excluded from this analysis.
locating an accessible Laundromat, grocery store, or health clinic. Additionally, though all who moved from their baseline unit described suffering some severing of social ties, the disruption was much more severe among experimentals. Even six to nine years after random assignment, both experimentals and controls still talk fondly of the neighbors they had in their public housing projects, and lament about the amount of time it takes to build new neighborhood connections. The greater proximity of controls to their baseline neighborhoods is perhaps part of the reason why only 30 percent of experimentals mention having a close friend or family member in their neighborhood while nearly half (47 percent) of controls report a close neighborhood social connection.

In sum, the experimentals talk repeatedly about how they benefited from living in their low-poverty neighborhoods. But these neighborhoods posed unique challenges to them – they had to navigate transportation concerns and develop new social networks – that could create difficulty when searching for and maintaining employment.

**DISCUSSION AND CONCLUSION**

Previous analyses of the 2002 survey, conducted four to seven years after random assignment, find virtually no significant effects on employment or earnings of adults who moved to low-poverty neighborhoods through the MTO program (Kling et al. 2006). Given past theory and research, the lack of a larger effect of the MTO program on employment warrants further examination.

We analyze in-depth interview data from a random subsample of MTO experimentals and controls in one of the five MTO cities – Baltimore – to explore the job search strategies and other social processes that may underlie the survey results. First, we find important differences in the labor market attachment of those experimentals and controls who are currently unemployed. The
unemployed experimentals are cycling in and out of jobs with low wages and high turnover, and report considerable job stress. However, while their work experiences have been far from ideal, they express a strong commitment to ongoing labor force participation. In contrast, more of the unemployed controls are permanently detached from the labor force, and fewer have been recently employed or are currently seeking employment.

Experimentals and controls have similar barriers to employment – such as low educational attainment and poor mental and physical health. These barriers, most of which predate their participation in MTO, may be a result of years of exposure to neighborhoods that are among the most distressed in the nation. Furthermore, these barriers were not explicitly addressed by MTO. Even many low-wage service sector jobs now require employees to possess a high school diploma or GED. And those employers who do not require this credential will presumably choose a high school graduate over someone without such credentials. Similarly, respondents who are battling depression or other mental and physical health problems have a more difficult time sustaining employment – and forming and maintaining social connections that can lead to employment – than healthy respondents.

Additionally, the move to their low-poverty neighborhood may have decreased experimentals’ access to a particular type of social tie that has proved particularly effective in the job search process for the employed respondents in both program groups – acquaintances with similar skills and credentials who work in jobs similar to those the respondent is seeking. In respondents’ view, such jobs typically fill quickly, often before they are posted in the newspaper by other formal means. Thus, insider tips about upcoming or recent openings are crucial to successfully securing a job. Ironically, though experimentals are more likely to have working neighbors, take pride in that fact, and sometimes credit the presence of these neighbors for providing them the motivation to get an keep jobs, no experimental was referred to her current
job through a neighbor. Meanwhile, experimentals’ residential locations may have decreased the probability of a chance encounter with these crucial social ties. Controls had fewer employed neighbors and rarely got job information and referrals from neighbors either, but their residential locations led to more of these chance encounters in the course of their daily routines. Since the majority of respondents in both groups tend to rely on social ties to find jobs, MTO may have simultaneously increased the motivation to work while inadvertently making the process of job search more difficult.

Transportation poses an additional challenge to MTO participants. Many experimentals are employed in the expanding health care sector, which bodes well for their future employment, as there is an increasing demand for health care workers. But in the Baltimore metropolitan area, these jobs are more likely to be located in the city or on the city/suburban fringe than in the suburbs. Suburban residents who rely on public transportation must often commute in to the city center first, and then on to their job. Suburban buses also run less frequently, increasing commute time. Though most experimentals eventually find work that does not involve an onerous commute, in the qualitative sample at least, this is often because they have rejected jobs that are too difficult to get to or because they have made a subsequent move in order to be closer to their job or to more reliable public transportation.

The respondents in our qualitative sample were randomly chosen from the entire MTO population in Baltimore, but our sample size is small. Thus, we cannot generalize these results to all MTO participants. Nor do we intend to make causal claims of any kind. Rather, we deploy these data to develop hypotheses about the array of complex social processes that may underlie the MTO survey results. Basing our hypothesis development directly upon the experiences of MTO families has helped identify which of many potential theories are most grounded in the particular context in which the families live. We hope that these results will help guide
questionnaire design in future waves of the MTO survey and future quantitative analyses of housing mobility programs.

REFERENCES


Chapple, Karen. 2002. “‘I Name It and I Claim It – In the Name of Jesus, This Job is Mine’: Job Search, Networks, and Careers for Low-Income Women.” Economic Development Quarterly 16(4): 294-313.


From Public Housing to White Suburbia. Chicago: University of Chicago Press.


<table>
<thead>
<tr>
<th></th>
<th>Five cities</th>
<th></th>
<th></th>
<th>Baltimore</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C Mean</td>
<td>E-C</td>
<td>C Mean</td>
<td>E-C</td>
<td></td>
</tr>
<tr>
<td>Household income</td>
<td>.377</td>
<td>-.055*</td>
<td>.354</td>
<td>-.072*</td>
<td></td>
</tr>
<tr>
<td>below poverty line in</td>
<td></td>
<td>(.022)</td>
<td></td>
<td>(.017)</td>
<td></td>
</tr>
<tr>
<td>tract</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College degree in tract</td>
<td>.150</td>
<td>.020</td>
<td>.125</td>
<td>.052*</td>
<td></td>
</tr>
<tr>
<td>among those over age 25</td>
<td></td>
<td>(.012)</td>
<td></td>
<td>(.012)</td>
<td></td>
</tr>
<tr>
<td>Employment in tract</td>
<td>.432</td>
<td>.010*</td>
<td>.412</td>
<td>.069*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.018)</td>
<td></td>
<td>(.013)</td>
<td></td>
</tr>
<tr>
<td>African-American in tract</td>
<td>.562</td>
<td>-.013</td>
<td>.838</td>
<td>-.072*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.037)</td>
<td></td>
<td>(.026)</td>
<td></td>
</tr>
</tbody>
</table>

Notes. Mean: Control group mean. E-C: Experimental - Control (Intent-To-Treat) difference. Estimates are based on equation (2). * indicates p-value <.05. Sample size is 3123 for five cities and 389 for Baltimore.
Table 2. OLS Regression Models for Employment and Earnings Outcomes.

<table>
<thead>
<tr>
<th></th>
<th>Five cities</th>
<th></th>
<th></th>
<th>Baltimore</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>C Mean</td>
<td>E-C</td>
<td>N</td>
<td>C Mean</td>
</tr>
<tr>
<td>Currently employed</td>
<td>2525</td>
<td>.522</td>
<td>.015</td>
<td>379</td>
<td>.581</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.021)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed with health insurance</td>
<td>2499</td>
<td>.296</td>
<td>.024</td>
<td>373</td>
<td>.398</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.040)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed full-time (35 or more hours)</td>
<td>2508</td>
<td>.394</td>
<td>.007</td>
<td>375</td>
<td>.433</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.021)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekly earnings above poverty</td>
<td>2386</td>
<td>.329</td>
<td>-.007</td>
<td>351</td>
<td>.389</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.021)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual earnings in 2001</td>
<td>2386</td>
<td>8899</td>
<td>123</td>
<td>353</td>
<td>9892</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(448)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekly earnings at main job</td>
<td>2386</td>
<td>182</td>
<td>-.5</td>
<td>351</td>
<td>193</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed at job greater than 1 year</td>
<td>2496</td>
<td>.362</td>
<td>.030</td>
<td>374</td>
<td>.404</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.021)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. N: Sample size. C Mean: Control group mean. E-C: Experimental - Control (Intent-To-Treat) difference. Estimates are based on equation (2), using covariates described in Appendix Table A. Robust standard errors shown in parentheses. All data weighted to adjust for sampling design.
### Table 3. Descriptive Characteristics of Baltimore Qualitative Respondents.

<table>
<thead>
<tr>
<th></th>
<th>Experimental compliers</th>
<th>Control compliers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Demographic characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>African American</td>
<td>.970</td>
<td>1.00</td>
</tr>
<tr>
<td>Age</td>
<td>38.39</td>
<td>37.53</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school dropout</td>
<td>.281</td>
<td>.471</td>
</tr>
<tr>
<td>HS diploma/GED</td>
<td>.594</td>
<td>.529</td>
</tr>
<tr>
<td>College degree</td>
<td>.094</td>
<td>.000</td>
</tr>
<tr>
<td>Number of children</td>
<td>2.82</td>
<td>3.09</td>
</tr>
<tr>
<td>Number of people in household</td>
<td>3.42</td>
<td>4.47</td>
</tr>
<tr>
<td><strong>B. Housing characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lived in public housing as child</td>
<td>.476</td>
<td>.480</td>
</tr>
<tr>
<td>Current housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public housing</td>
<td>.091</td>
<td>.212</td>
</tr>
<tr>
<td>Subsidized housing</td>
<td>.576</td>
<td>.424</td>
</tr>
<tr>
<td>Unsubsidized private housing</td>
<td>.152</td>
<td>.182</td>
</tr>
<tr>
<td>Homeowner</td>
<td>.121</td>
<td>.182</td>
</tr>
<tr>
<td>Other</td>
<td>.000</td>
<td>.030</td>
</tr>
<tr>
<td>Poverty rate &lt;10 percent</td>
<td>.242</td>
<td>.059</td>
</tr>
<tr>
<td>Poverty rate 10 percent to 20 percent</td>
<td>.333</td>
<td>.294</td>
</tr>
<tr>
<td>Poverty rate &gt;40 percent</td>
<td>.242</td>
<td>.294</td>
</tr>
<tr>
<td><strong>C. Employment and public assistance receipt</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>.455</td>
<td>.324</td>
</tr>
<tr>
<td>Part-time</td>
<td>.212</td>
<td>.235</td>
</tr>
<tr>
<td>Unemployed</td>
<td>.333</td>
<td>.441</td>
</tr>
<tr>
<td>Receives TANF</td>
<td>.094</td>
<td>.242</td>
</tr>
<tr>
<td>Receives food stamps</td>
<td>.406</td>
<td>.393</td>
</tr>
<tr>
<td>Receives medical assistance</td>
<td>.563</td>
<td>.576</td>
</tr>
</tbody>
</table>

Notes. Experimental compliers used an experimental voucher to move to a low-poverty area. Control compliers are control group members not selected as likely noncompliers based on matching average characteristics of experimental noncompliers, as described in the text.
Figure 1.

Hospitals and nursing homes in Baltimore City and Baltimore County, 2005

Note: The location of Baltimore City and County hospitals is from the University of Maryland Consumer Resources web page and Baltimore City Planning Office. The location of Baltimore City and County nursing homes is from www.zapconnect.com.
### Appendix Table A. Means of Covariates Used in Regression Analyses

<table>
<thead>
<tr>
<th>Covariates (at baseline)</th>
<th>Five cities</th>
<th></th>
<th>Experimental</th>
<th>Control</th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>.015</td>
<td>.019</td>
<td>.022</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>.645</td>
<td>.656</td>
<td>.990</td>
<td>.954</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other non-white race</td>
<td>.273</td>
<td>.267</td>
<td>.005</td>
<td>.046</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>.296</td>
<td>.299</td>
<td>.021</td>
<td>.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 19 to 29</td>
<td>.154</td>
<td>.152</td>
<td>.077</td>
<td>.138</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 30 to 39</td>
<td>.447</td>
<td>.446</td>
<td>.459</td>
<td>.534</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 40 to 49</td>
<td>.291</td>
<td>.287</td>
<td>.313</td>
<td>.255</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GED</td>
<td>.182</td>
<td>.209</td>
<td>.151</td>
<td>.141</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school diploma</td>
<td>.400</td>
<td>.345</td>
<td>.359</td>
<td>.421</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolled in school</td>
<td>.159</td>
<td>.160</td>
<td>.151</td>
<td>.143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>.614</td>
<td>.625</td>
<td>.741</td>
<td>.803</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 18 at birth of first child</td>
<td>.245</td>
<td>.245</td>
<td>.266</td>
<td>.355</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No teen children in household</td>
<td>.602</td>
<td>.624</td>
<td>.644</td>
<td>.707</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>.277</td>
<td>.245</td>
<td>.311</td>
<td>.222</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Received AFDC/TANF</td>
<td>.734</td>
<td>.755</td>
<td>.774</td>
<td>.857</td>
<td></td>
<td></td>
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<tr>
<td>Had car that runs</td>
<td>.169</td>
<td>.147</td>
<td>.031</td>
<td>.050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any household member disabled</td>
<td>.165</td>
<td>.165</td>
<td>.072</td>
<td>.167</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core family size = 2</td>
<td>.236</td>
<td>.204</td>
<td>.254</td>
<td>.281</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core family size = 3</td>
<td>.304</td>
<td>.318</td>
<td>.357</td>
<td>.355</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core family size = 4</td>
<td>.227</td>
<td>.222</td>
<td>.208</td>
<td>.225</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previously applied for Section 8</td>
<td>.424</td>
<td>.437</td>
<td>.569</td>
<td>.491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moved 3+ times in past five years</td>
<td>.080</td>
<td>.096</td>
<td>.120</td>
<td>.116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lived in neighborhood 5+ years</td>
<td>.587</td>
<td>.613</td>
<td>.543</td>
<td>.449</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No family in neighborhood</td>
<td>.668</td>
<td>.654</td>
<td>.711</td>
<td>.758</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No friends in neighborhood</td>
<td>.421</td>
<td>.411</td>
<td>.447</td>
<td>.447</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chatted with neighbor in street or hallway at least once a week</td>
<td>.508</td>
<td>.527</td>
<td>.564</td>
<td>.587</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very likely to tell neighbor if saw neighbor's child getting into trouble</td>
<td>.536</td>
<td>.559</td>
<td>.658</td>
<td>.554</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streets near home very unsafe at night</td>
<td>.484</td>
<td>.490</td>
<td>.526</td>
<td>.628</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very dissatisfied with neighborhood</td>
<td>.470</td>
<td>.474</td>
<td>.479</td>
<td>.604</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary or secondary reason for moving was drugs and gangs</td>
<td>.763</td>
<td>.781</td>
<td>.811</td>
<td>.877</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary or secondary reason for moving was better schools</td>
<td>.469</td>
<td>.457</td>
<td>.359</td>
<td>.329</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very sure would be able to find an apartment in a different area of city</td>
<td>.444</td>
<td>.445</td>
<td>.570</td>
<td>.514</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household member had been victimized within six months</td>
<td>.418</td>
<td>.418</td>
<td>.402</td>
<td>.467</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boston</td>
<td>.233</td>
<td>.224</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
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<tr>
<td>Baltimore</td>
<td>.189</td>
<td>.147</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
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<tr>
<td>Chicago</td>
<td>.208</td>
<td>.209</td>
<td>--</td>
<td>--</td>
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<tr>
<td>Los Angeles</td>
<td>.155</td>
<td>.159</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1534</td>
<td>1310</td>
<td>252</td>
<td>146</td>
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</table>
## Appendix Table B. Means of Variables Used to Match Noncompliers.

<table>
<thead>
<tr>
<th>Variable</th>
<th>ENC</th>
<th>CNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>42.0</td>
<td>40.6</td>
</tr>
<tr>
<td>Number of children</td>
<td>3.08</td>
<td>3.16</td>
</tr>
<tr>
<td>Full-time employment</td>
<td>.61</td>
<td>.63</td>
</tr>
<tr>
<td>Part-time employment</td>
<td>.11</td>
<td>.11</td>
</tr>
<tr>
<td>Job through formal search</td>
<td>.17</td>
<td>.26</td>
</tr>
<tr>
<td>Job through agency</td>
<td>.17</td>
<td>.16</td>
</tr>
<tr>
<td>Job through network</td>
<td>.33</td>
<td>.32</td>
</tr>
<tr>
<td>Dropout</td>
<td>.29</td>
<td>.32</td>
</tr>
<tr>
<td>Poverty rate in tract</td>
<td>.65</td>
<td>.63</td>
</tr>
<tr>
<td>High school graduation rate in tract</td>
<td>.40</td>
<td>.38</td>
</tr>
<tr>
<td>College degree rate in tract</td>
<td>.11</td>
<td>.12</td>
</tr>
<tr>
<td>Employment rate in tract</td>
<td>.37</td>
<td>.39</td>
</tr>
<tr>
<td>Living in initial unit</td>
<td>.17</td>
<td>.16</td>
</tr>
<tr>
<td>Government assistance</td>
<td>.37</td>
<td>.37</td>
</tr>
</tbody>
</table>

Notes. ENC: experimental noncomplier. CNC: control likely noncomplier, selected based on matching of these characteristics, as described in the text. See Appendix C for variable descriptions.
Appendix Table C. Variables Used to Select Control Noncompliers.

Age: Age of respondent.

Number of Children: Number of children in household.

**Full-time employment:** 1 = respondent employed full-time; 0 = respondent not employed full-time.

**Part-time employment:** 1 = respondent employed part-time; 0 = respondent not employed part-time.

**Job through formal search:** 1 = respondent found current job through formal search (newspaper, Internet, Yellow Pages, direct application), 0 = respondent did not find current job through formal search or unemployed.

**Job through agency:** 1 = respondent found current job through agency (temporary employment agency or social services agency), 0 = respondent did not find current job through agency search or unemployed.

**Job through network:** 1 = respondent found current job through social network connection, 0 = respondent did not find current job through social network connection or unemployed.

**Dropout:** 1 = respondent did not graduate high school; 0 = respondent graduated high school.

**Poverty rate in tract:** Percentage of neighbors living below the poverty at time of qualitative interview (2000 Census data).

**High school graduation rate in tract:** Percentage of neighbors with high school diploma or GED in neighborhood at time of qualitative interview (2000 Census data).

**College degree rate in tract:** Percentage in neighborhood with college degree at time of qualitative interview (2000 Census data).

**Employment rate in tract:** Employment rate among civilian population at time of qualitative interview (2000 Census data).

**Living in initial unit:** 1 = respondent living in reference unit at time of qualitative interview; 0 = respondent not living in reference unit at time of qualitative interview. Reference unit is placement unit if respondent moved through MTO. If respondent did not move through MTO, reference unit is baseline unit.

**Government assistance:** Average of **Medicaid** (1 = respondent receives Medicaid, 0 = respondent does not receive Medicaid), **HCV** (1 = respondent receives housing assistance, 0 = respondent does not receive housing assistance), **AFDC** (1 = respondent receives AFDC, 0 = respondent does not receive housing assistance), **Food stamps** (1 = respondent receives food stamps, 0 = respondent does not receive food stamps).