

Housing Affordability and Family Well-Being: Results from the Housing Voucher Evaluation

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Abstract

The Effects of Housing Vouchers on Welfare Families was an experimental evaluation that examined the effects of housing assistance on low-income families eligible for or receiving Temporary Assistance for Needy Families. Household-based rental vouchers were provided to participants under the Welfare to Work Voucher program sponsored by the U.S. Department of Housing and Urban Development from 2000 through 2004. Vouchers were randomly assigned to eligible program participants in six sites across the country, sample members were tracked over about five years, and the effects of vouchers on homelessness and crowding, household composition, housing mobility, neighborhood quality, employment and earnings, and other aspects of family well-being were measured.

Vouchers significantly reduced homelessness, crowding, household size, and the incidence of living with relatives or friends, but had no effect on marriage or cohabitation. Vouchers increased housing mobility, while reducing the number of subsequent moves, and resulted in small improvements in neighborhood quality.

Keywords: Low-income housing; Mobility; Welfare

Introduction

This article presents the results of the Effects of Housing Vouchers on Welfare Families study. This experimental evaluation was conducted from 1999 to 2006 to measure the effects of vouchers on the lives of low-income families eligible for or receiving Temporary Assistance for Needy Families (TANF). The Housing Choice Voucher (HCV) Program is the federal government's largest housing assistance program, providing rental subsidies to nearly 2 million households across the country (Sard and Coven 2006). Par-

ticipants rent private market housing that meets the program's quality and affordability standards. The program provides a monthly subsidy to cover the difference between the cost of the housing and what the participant can afford to pay. Participants typically pay approximately 30 percent of their income for rent and utilities, with the program paying for the balance.

The Effects of Housing Vouchers on Welfare Families study was conducted by Abt Associates Inc. under contract to the U.S. Department of Housing and Urban Development (HUD).¹ The goal of the study was to measure the effects of voucher assistance on the housing mobility of low-income families; the characteristics of their neighborhoods; the composition of their households; their housing stability; their employment, earnings, and participation in employment and training; their receipt of public assistance; their poverty and material hardship; and the well-being of their children. The study was designed as a classical experiment with random assignment of eligible program applicants to a *treatment group* that received a voucher or to a *control group* that initially did not.² The analysis is based on a sample of 8,731 families from six study sites (Atlanta; Augusta, GA; Fresno, CA; Houston; Los Angeles; and Spokane, WA). The sites were selected because they were reasonably representative of the Welfare to Work (WtW) Voucher program, offered a suitable environment in which to conduct the evaluation, and were willing to participate.³ Selection was not intended to produce a nationally representative sample of sites.

This article presents the key findings and draws on the in-depth interviews conducted as part of the study to relate the findings to the way welfare families themselves describe the role that rental assistance plays in their decisions about where to live, where and how much to work, and how to manage household finances. The article also places the findings in a broader policy context. The complete set of findings and all details about the study methodology can be found in Mills et al. (2006), the technical report submitted

¹Additional funding to support the in-depth interview component of the study was provided by the Rockefeller Foundation, the Annie E. Casey Foundation, and the Fannie Mae Foundation.

²Those assigned to the control group did not receive a voucher at the time of random assignment but did remain on the public housing authority's waiting list for regular assistance and over time could receive a voucher if they reached the top of the list. During the study period, approximately 40 percent of control group members eventually received and used a voucher.

³The researchers selected the study sites with HUD's approval.

to HUD. The findings in this article differ slightly from those in that report because the method of calculating control group means was refined based on comments received.⁴

Relevant literature

To our knowledge, this is the first study to use a truly experimental research design to measure the impact of tenant-based rental assistance (or, indeed, any type of housing assistance) on family outcomes. Several recent studies (which are described and referenced later in the article) have used longitudinal data to analyze the effects of vouchers on housing mobility, household composition, and employment and earnings, but they have not had the advantage of random assignment to ensure well-matched treatment and control groups.

With respect to mobility, Feins and Patterson (2005) used HUD administrative records to examine the mobility and neighborhood choices of families that entered the voucher program between 1995 and 2002 and that had children. These researchers found that about 75 percent of the families used their voucher to move, rather than leasing their current unit. The study families generally did not choose very different neighborhoods on the first move, but those that moved again realized small gains in neighborhood quality, ending up in neighborhoods with lower poverty rates and higher rates of homeownership.

Three recent studies have addressed the effects of housing assistance on family composition. In their analysis of the determinants of the size of low-income households, Ellen and O'Flaherty (2002) used the Social Indicators Survey and found that households receiving housing assistance had fewer adults. Turner (2003) found that unmarried couples with a baby are less likely to cohabit if the mother lives in government-assisted housing. And Freeman (2005) found that single parents receiving housing vouchers were less likely to have other adults in the household than unassisted single parents were. These studies suggest that there is a link between household composition and housing assistance, but without an experimental design, it cannot be determined whether the relationship is causal.

⁴ The control group means presented in this article are for the members who did *not* lease up with a voucher. The control group means presented in Mills et al. (2006) are for the entire group, some of whom did use voucher assistance.

There is little reliable empirical evidence on the effects of housing vouchers on employment. In an earlier analysis of the impact of vouchers on welfare families, Patterson et al. (2004) found that getting a voucher reduced employment rates and earnings in the short run. These negative impacts were, however, quite small. Shroder (2002) reviewed 18 nonexperimental studies of the impact of housing vouchers on employment and earnings. He found that most of these studies were subject to relatively serious simultaneity or selection bias, but that as a group, “the distribution of results...is consistent with a true housing assistance/short-term employment effect of zero” (Shroder 2002, 394). Further, the more methodologically sophisticated studies did not show greater negative effects than the less sophisticated ones did.

Two more recent nonexperimental studies provide somewhat conflicting evidence. Olsen et al. (2005) found that vouchers reduced household earnings by at least 30 percent, whereas Susin (2005) found a marginally significant reduction in family earnings of about 10 percent. Although both studies took a number of steps to eliminate selection bias, they drew the comparison and voucher groups from different data sources: the Panel Study of Income Dynamics (Olsen 2005) and the Survey of Income and Program Participation (Susin 2005). This opens the possibility of differences in unmeasured characteristics between assisted and unassisted families.⁵

Two recent studies using nonexperimental research methods explore factors that contribute to increased employment among welfare recipients. These studies help illuminate key questions of interest about the relationship among housing assistance, housing location, and employment, but cannot assess the impact of assistance and location on employment as is possible through the Effects of Housing Vouchers on Welfare Families experiment. Allard and Danziger (2003) explored the relationship between proximity to jobs and employment among welfare recipients in the three-county Detroit metropolitan area and found that greater proximity to employment opportunities is associated with a higher probability of working and of leaving welfare. Bania, Coulton, and Leete (2003) explored labor market outcomes for recipients of rental assistance vouchers, public housing residents, and residents of project-based Section 8 properties. They found no difference in

⁵Olsen et al. (2005) controlled for time-invariant unmeasured characteristics through a fixed-effects estimation procedure. Susin (2005) controlled only for measured characteristics, including prior earnings, through a propensity score matching procedure.

employment experiences among recipients of various types of housing assistance, but did find differences depending on neighborhood characteristics.

Research on Chicago's Gautreaux⁶ racial desegregation program, which was ordered by the federal court, suggested that moving to less segregated suburban neighborhoods was associated with measurable improvements in the lives of participating adults and children. For example, Popkin, Rosenbaum, and Meaden (1993) found that participants who moved to predominantly white suburban neighborhoods were more likely to report having been employed than families that moved to neighborhoods in the city. However, in assessing the effects of the Gautreaux program, it is important to bear in mind that the research was limited to nonexperimental comparisons of families that moved to different types of neighborhoods. Therefore, the observed differences may reflect differences between participants rather than the effects of different residential locations. The risk of self-selection bias in the Gautreaux research led HUD to sponsor an experimental demonstration of mobility and neighborhood effects called Moving to Opportunity (MTO).

The MTO demonstration provides the only available experimental evidence on the locational effect of housing assistance on employment and earnings. Like the Gautreaux program, the MTO demonstration was a housing mobility program designed to engineer large treatment/control differences in neighborhood characteristics. In the MTO demonstration, treatment group members received rental housing assistance *plus* housing counseling services, and there were mobility requirements attached to the use of the voucher.⁷ Moreover, families in the MTO demonstration were originally living in public housing and receiving housing assistance, and the control group for that study continued to receive public housing assistance after random assignment. The MTO study found no statistically significant effects of housing

⁶Under the name of tenant activist Dorothy Gautreaux, applicants and residents of Chicago public housing brought a class-action lawsuit against HUD and the Chicago Housing Authority (CHA) in 1966 (Davis 1993; Rubinowitz and Rosenbaum 2000). The court ruled that HUD and CHA had to remedy the extreme racial segregation that they had imposed, and the result was the Gautreaux program. This housing mobility program applied to the entire Chicago region and affected approximately 7,100 black families. Participating families were helped to move out of racially isolated areas through the then new tenant-based Section 8 program (Orr et al. 2003).

⁷See Orr et al. (2003). The MTO demonstration provided vouchers to residents of high-poverty neighborhoods. These vouchers carried restrictions on where families could rent units—that is, only in low-poverty neighborhoods defined as census tracts where less than 10 percent of the households had incomes below the federal poverty threshold. MTO treatment group members also received special mobility counseling to help them make the required moves.

assistance on employment and earnings in the first four years of random assignment, despite a difference of 21 percentage points in the neighborhood poverty rate between treatment group members who leased up and controls (Orr et al. 2003).

In contrast to Gautreaux and the MTO demonstration, which placed restrictions on where participants could move, the Effects of Housing Vouchers on Welfare Families study is a test of receiving tenant-based rental assistance not conditioned on neighborhood location versus not receiving housing assistance at all.⁸ As a result, in addition to adding to the very limited pool of experimental research on the effects of housing assistance, it makes a fundamental contribution to our understanding of whether and how housing assistance *alone* can help families achieve greater financial independence, move to better neighborhoods, or otherwise improve their lives.

Background for our study

The research was undertaken to evaluate the WtW Voucher program, initiated in fiscal year (FY) 1999, when Congress appropriated \$283 million for tenant-based rental assistance to help families make the transition from welfare to work. This appropriation funded 50,000 new rental assistance vouchers (P.L. 105–276). HUD awarded these vouchers to local and state housing agencies that presented reasonable plans for matching eligible families with the available assistance and for coordinating these efforts with existing welfare reform and welfare transition efforts. Few specialized services were provided in conjunction with the voucher in the study sites, at least during the first 18 to 24 months after random assignment. As a result, the intervention tested in this study consisted essentially of the voucher itself.

The rental assistance provided through the WtW Voucher program was the same as that available through the regular HCV Program. Participants who received a voucher were free to use it to rent a unit of their choice in the private rental market, as long as it met HUD's quality standards and had a reasonable rent compared with unassisted units in the same market.⁹ The WtW rental assistance was not subject to time limits—once a household suc-

⁸A comparison group in the MTO demonstration received vouchers according to the regular rules of the Section 8 program at that time, with no geographic restrictions and no special mobility services. This group is similar in some respects to the treatment group in the Effects of Housing Vouchers on Welfare Families study; however, all members of the MTO Section 8 comparison group were public housing residents when they enrolled, whereas most participants in the Effects of Housing Vouchers on Welfare Families study were not receiving any form of housing assistance at the time of random assignment.

⁹HCV Program regulations can be found at 24 CFR Part 982.

cessfully used the voucher to lease a unit, the assistance continued as long as the household met the program's income eligibility requirements (discussed later).

HUD renewed the vouchers annually to continue the demonstration program until FY 2004, when it was phased out. After that, WtW vouchers that became available through turnover were incorporated into each housing authority's regular HCV Program. When the WtW program was phased out beginning in March 2004, the evaluation was renamed Effects of Housing Vouchers on Welfare Families to reflect the status of the program and the nature of the intervention tested.

Data and methods

Families in the sample were tracked for four to five years after random assignment, and the effects of rental housing assistance were measured using several sources of administrative data and a follow-up survey (see table 1 for a timeline of key study activities). The impact estimates presented in this article encompass a follow-up period that lasts 18 quarters.¹⁰

Sample characteristics

To be eligible to receive a WtW voucher, families had to meet the standard HCV eligibility requirements¹¹ and be current or former TANF recipients or be eligible for TANF benefits. The TANF program is the nation's primary cash assistance program for low-income families with children. It replaced the Aid to Families with Dependent Children (AFDC) program after the Personal Responsibility and Work Opportunity Reconciliation Act was passed in 1996. TANF was reauthorized by the Deficit Reduction Act of 2006¹² and provides a block grant to states and substantial discretion for state and local governments to set policies and procedures for the program, including eligibility requirements. Both as originally implemented and under

¹⁰These findings exclude the Los Angeles site, which conducted random assignment later than the other sites and did not participate in the follow-up survey. Impact estimates that include Los Angeles can be found in the final evaluation report (Mills et al. 2006).

¹¹Eligibility for a housing voucher is based on total annual gross income and family size. In general, a family's income must not exceed 50 percent of the median income for the particular county or metropolitan area. Median income levels are published annually by HUD and vary by location. Program participants must also be U.S. citizens or noncitizens with eligible immigration status. Persons evicted from public housing or any Section 8 program because of drug-related criminal activity are not eligible for the HCV Program for at least three years after the conviction. Regulations governing eligibility are located at 24 CFR Part 982.

¹²The reauthorization and TANF Final Rule can be found at 45 CFR, Parts 261, 262, 263, and 265. The TANF program is administered by the U.S. Department of Health and Human Services, Administration for Children and Families.

Table 1. Study Timeline

Date	Activity	Follow-Up Period Relative to Random Assignment
October 1, 1999	Congress appropriates funding for the WtW Voucher program (50,000 new vouchers)	
January 2000	Study sites selected	
April 2000 to December 2000	Random assignment and baseline survey data collection in five study sites*	
April 1999 to December 2004	Time period covered by administrative data on earnings (unemployment insurance quarterly wage records), TANF, and food stamp benefits	12 months before random assignment and 4 to 4.5 years afterward
April 2000 to December 2004	Time period covered by HUD administrative data on HCV Program participation	4 to 4.5 years after random assignment
October 2004 to May 2005	Follow-up survey data collection	4.5 to 5 years after random assignment
July to September 2005	In-depth interviews conducted	5 years after random assignment

*In Los Angeles, random assignment and baseline data collection took place in April and May 2001. No follow-up survey was conducted for this site.

the recent reauthorization, TANF places strong emphasis on promoting self-sufficiency through work. TANF ended federally funded cash assistance as an open-ended entitlement by establishing a lifetime limit of 60 months for the receipt of cash assistance. The WtW Voucher program was targeted to current and former TANF recipients and those eligible for TANF; at baseline, 80 percent of the families in the study were receiving TANF cash assistance.

The study families could not be receiving tenant-based assistance at the time of random assignment, although they could have been receiving other forms of housing assistance such as public housing or project-based Section 8 assistance (approximately 13 percent were receiving other forms of housing assistance—see table 2). The sample that completed a baseline survey is predominantly female, never married, and between the ages of 18 and 44, with a mean age of 31 (see table 2). Nearly half of the sample consists of non-Hispanic blacks, while 21 percent are Hispanic and 20 percent are non-Hispanic whites. At the time of random assignment, just over half of the sample (57 percent) had either graduated from high school or had a General Equivalency Diploma (GED), and 16 percent were enrolled in some type of school or training program. The average household consisted of four persons, with an average of 1.4 adults (including the spouse, if present). A total of 54 percent of the primary adults were single and never married, and

17 percent were married. The remainder were either separated, divorced, or widowed. Some 45 percent of the sample was working at the time of random assignment, earning an average of \$6.96 per hour, and 80 percent had worked sometime in the past.

Data sources

The study used several sources, explained in the following paragraphs, to measure the impact of vouchers on welfare families. Researchers at Abt Associates Inc. collected the data. Findings related to homelessness, crowding, household composition, poverty, food and health security, and child well-being come primarily from a follow-up survey conducted between 4.5 and 5 years after random assignment. The findings on employment, earnings, and means-tested benefits are based mainly on unemployment insurance wage records and TANF records. Findings on residential mobility and neighborhood quality are based on address history and tract-level census data. The researchers also collected information on neighborhood and housing satisfaction directly from the study sample in the baseline and follow-up interviews.

1. *Baseline survey.* Immediately before random assignment, a baseline survey was administered to sample members who headed the household applying for voucher assistance. Altogether, 8,573 of those who were randomly assigned completed a baseline survey that covered employment status, household composition, desire to move, satisfaction with the housing unit and neighborhood, and receipt of public assistance.
2. *Follow-up survey.* Approximately 4.5 to 5 years after random assignment, a follow-up survey was conducted by telephone or in person with a subset of the sample. This survey collected information about housing assistance and services, housing mobility and neighborhood environment, adult employment, education and training, household income, public assistance, food security, and family and child well-being. (A detailed list of topics covered in the survey is provided in appendix A.) Follow-up survey data were collected for 2,481 sample members. The follow-up survey yielded a weighted response rate of 77 percent.¹³

¹³The researchers adopted a strategy for allocating survey resources to minimize the risk of bias associated with nonresponse. This strategy involved concentrating latter-stage survey efforts on a subsample of those not successfully interviewed during early-stage survey efforts. After completing initial interviews by telephone, a random subsample of the remaining cases were selected for second-stage interviewing, and a weighted response rate was calculated. The survey subsampling approach is discussed further in appendix A of Mills et al. (2006).

Table 2. Baseline Characteristics of the Sample

Characteristic	All Sample Members with a Baseline Survey (N = 8,573)
Gender (%)	
Male	7.7
Female	91.8
Missing*	0.5
Marital status (%)	
Never married	54.0
Married	16.5
Separated/Divorced	23.3
Widowed	1.3
Missing	5.0
Age at random assignment	
Under 18 (%)	0.3
18 to 24 (%)	30.2
25 to 34 (%)	38.1
35 to 44 (%)	23.4
45 to 54 (%)	6.9
55+ (%)	1.1
Mean age (years)	30.7
Race/ethnicity (%)	
Non-Hispanic white	19.6
Non-Hispanic black	49.8
Hispanic	21.4
Other	8.2
Missing	1.0
Educational attainment (%)	
High school graduate	39.7
GED	17.2
Neither a high school diploma nor a GED	35.4
Missing	7.6
Average size of the household	4.0
Employment status at baseline (%)	
Yes, working for pay	44.5
No, not working for pay	51.9
Missing	3.6
Average hourly wage	\$6.96
Ever worked for pay? (%)	
Yes	80.3
No	19.3
Missing	0.5
Type of housing at baseline, self-reported (%)	
Rent apartment or house	56.3
Own apartment or house	0.7
Living with friends or relatives	25.8
Public housing	7.0
Assisted housing	5.7
Homeless shelter or transitional housing	1.9
Other	1.5
Missing	1.0

Source: Baseline survey. Of the 8,731 people in the sample, 8,573 completed the baseline survey.

Note: Totals may not equal 100 percent because of rounding.

*Study participants completed the baseline survey at random assignment. Gender was missing on the baseline survey forms for 0.5 percent of the sample.

3. *Unemployment insurance wage records.* Quarterly employer-reported earnings records for the head of household were obtained for the period beginning one year before random assignment and continuing through December 2004.
4. *TANF data files.* Monthly records on the receipt of TANF and food stamp benefits for the head of household were collected for the period beginning one year before random assignment and continuing through December 2004.
5. *Public Housing Information Center (PIC) data files.* Data from HUD's PIC System on sample members' receipt of housing assistance were collected from random assignment through December 2004.
6. *Participant tracking.* To maintain address information and information about moves over the follow-up period, Abt Associates Inc. implemented a series of active tracking measures (periodic mailings requesting updated address and telephone information on sample members and contact persons) and passive tracking measures (periodic extracts from administrative and commercial databases to obtain updated address and telephone information).
7. *2000 census data.* Data from the U.S. Bureau of the Census Summary File 3 (2002) were used to construct measures of neighborhood quality for the census tracts in which participants resided during the follow-up period.

Augmenting the experimental findings that were measured using administrative data and the follow-up survey are insights from in-depth interviews that were conducted with 141 voucher users approximately five years after random assignment. The purpose of these interviews was to learn how voucher users make important family decisions and how those decisions could be influenced by the receipt of housing assistance. The in-depth interviews were also used to provide qualitative information for interpreting impact estimates measured from administrative data and the follow-up survey.

The study design and available resources allowed us to conduct up to 150 in-depth interviews from a nonrandom sample of voucher users in five of the six study sites—Atlanta, Augusta (GA), Fresno (CA), Houston, and Spokane (WA). We sent recruitment letters to all study participants who had received a housing voucher in 2000, had been successful in using the voucher to lease a unit, and had completed both the baseline and the follow-up sur-

veys. We scheduled interviews with 30 people at each of the five sites, based first on those who responded to the recruitment letter and then on those whom we were able to recruit through telephone follow-up to people who did not respond. Of the 150 interviews scheduled, we were able to complete 141. All of the respondents were women.

The interviews were all done in person, mostly in the individuals' homes, and lasted 45 minutes to two hours. The interviewers used a topic guide to structure the conversation, but also sought to create a relaxed environment and allow the participant to tell her own story. The interviews focused on how housing, employment, education, finances and material needs, household composition, health, and well-being had changed since the time of random assignment and what effect (if any) the voucher had on family decisions in these areas. A detailed list of the topics covered in the interviews is provided in appendix B.

Estimating the impact of vouchers

The study team analyzed the baseline characteristics of the treatment group (families that got a voucher) and the control group (families that did not) and found that random assignment succeeded in providing two well-matched groups. The team used t-tests to establish that there were no statistically significant differences in characteristics between the two groups at baseline.

The effects of receiving a voucher were measured by comparing the outcomes of the treatment group with those of the control group. Random assignment enabled the study team to derive unbiased estimates of program impacts by comparing raw mean outcomes. Regression analysis was used to control for any chance differences between groups on a number of characteristics measured at baseline. In cases where the outcome of interest is a binary variable with values of 0 or 1—such as household income above or below the federal poverty threshold—the impact is estimated using a nonlinear regression model (probit).

We included covariates or independent variables in our regression models to improve the precision of our estimates. Since people were randomly assigned to control and treatment groups, the addition of these covariates does not affect the expected value of the estimate itself. All covariates had to be characteristics that were known (or determined) before randomization. In selecting them, we considered the importance of the variable in predicting the outcomes of interest, the extent of variation for the sample, and the completeness of the data. Covariates, as measured in the baseline survey,

were included in every regression for the following individual or household characteristics:

1. Income earned in the past year; whether the head of household was working at baseline or had ever worked; the reservation wage per hour (if not working at baseline); and the ratio of monthly rent payment to monthly household income
2. Race/ethnicity, gender, marital status, age, level of education, and training for the head of household
3. Whether the head of household had a car that ran or had a current driver's license
4. Whether the household was receiving TANF at baseline (and, if so, how long until benefits would expire); whether the household had ever received TANF/AFDC
5. Whether anyone in the household received food stamps, supplemental security income (SSI), or Medicaid at baseline
6. Whether the household included any dependent children; age of the youngest person in the household; and household size
7. Whether the respondent was a frequent mover; whether he or she desired to move for employment reasons
8. The respondent's baseline housing situation
9. The site where the respondent lived and the unemployment rate for the metropolitan statistical area

In addition to this set of common covariates, the regressions also controlled for baseline values of the outcome variable (when baseline values were known). Included in impact regressions were dummy variables that indicated whether particular baseline covariate values were missing. In instances where a value was missing, we imputed a value for the covariate and set the appropriate dummy variable to 1. We weighted the observations for all analyses. Both the administrative and the survey data were weighted to adjust for changes in random assignment ratios during the study; survey data were weighted to account for sampling and survey response for the adult respondent.

The sample size of the study also affects our ability to detect program impacts if they exist. As a result, the absence of a statistically significant impact on an outcome is not necessarily evidence of a lack of impact, but instead may indicate that the true impact is not large enough to be detected,

given the size of the sample. In this article, we discuss only impact estimates that are statistically significant at the $p = 0.10$ level (or higher) as evidence of voucher effects.

At study onset, we expected some level of treatment group nonparticipation. Not all families that receive a voucher are successful in using it to rent a unit. To benefit from the rental assistance, families must locate private market housing that meets HUD's quality and rent reasonableness standards. It is expected that some families will not be able to use the voucher. In a national study of voucher success rates, Finkel and Buron (2001) found that given the evaluation design (control group crossover), 69 percent of recipients were successful in using the voucher. We also anticipated that some control group members would receive and use a voucher at some point during the follow-up period.¹⁴

We therefore estimated two sets of voucher impacts—intent-to-treat (ITT) estimates and treatment-on-treated (TOT) estimates. The ITT estimates measure the impact of the treatment on the entire treatment group, relative to the entire control group, adjusting only for a standard set of baseline participant characteristics. These are called ITT estimates because they describe the impact of the treatment on the entire group that the program *intended* to assist, regardless of whether individual members of the treatment group *actually* received the treatment (and whether control group members may have received the treatment).

The TOT estimates present the impact of the treatment on *those treatment group members who were actually treated* (those who received a voucher and successfully leased up) relative to those who did not receive voucher assistance. The TOT impacts thus adjust for member nonparticipation. The TOT impacts also adjust for the fact that some control group members did, in fact, move to the top of the HCV waiting list, receive a voucher, and lease up. Thus, the TOT estimates correct for both treatment group nonparticipation and control group crossover.¹⁵

¹⁴At the time of random assignment, those assigned to the control group were placed on (or retained their position on) an HCV Program waiting list and therefore could receive a voucher later. A detailed review of this central methodological challenge of the study and formulas for calculating the treatment-on-treated impact estimates are discussed in chapter 1 and appendix B of the final evaluation report (Mills et al. 2006).

¹⁵Two different methods for calculating TOT impacts are used. For outcomes measured with follow-up survey data, we cannot correct directly for the timing of lease-up because we know the status of survey outcomes at only a single point in time (the survey date). For outcomes taken from administrative and address history data, the team had continuous measures over time and thus could directly correct for the differential timing of lease-up by treatment group participants and control group crossovers.

The TOT estimates are the most relevant estimates for the purposes of housing policy because they measure the impact of vouchers on the families that actually used them, relative to comparable controls who did not receive assistance. As a result, this article focuses on TOT estimates.¹⁶ When using these estimates to describe voucher impacts, treatment group members should be interpreted as families that *used* vouchers rather than families that *received* them. Control group members are families that did not use vouchers.

Voucher lease-up in the study sample

Through the 42nd month after random assignment, 67 percent of treatment group members across all sites had leased with a voucher. Among all control group members, 41 percent had leased with a voucher. The 42-month interval is the longest over which all members of the research sample—including those in Los Angeles, the last-enrolled site—could be tracked in HUD's PIC lease-up data, available through December 2004. The patterns of lease-up over time are displayed in figure 1.

Study findings

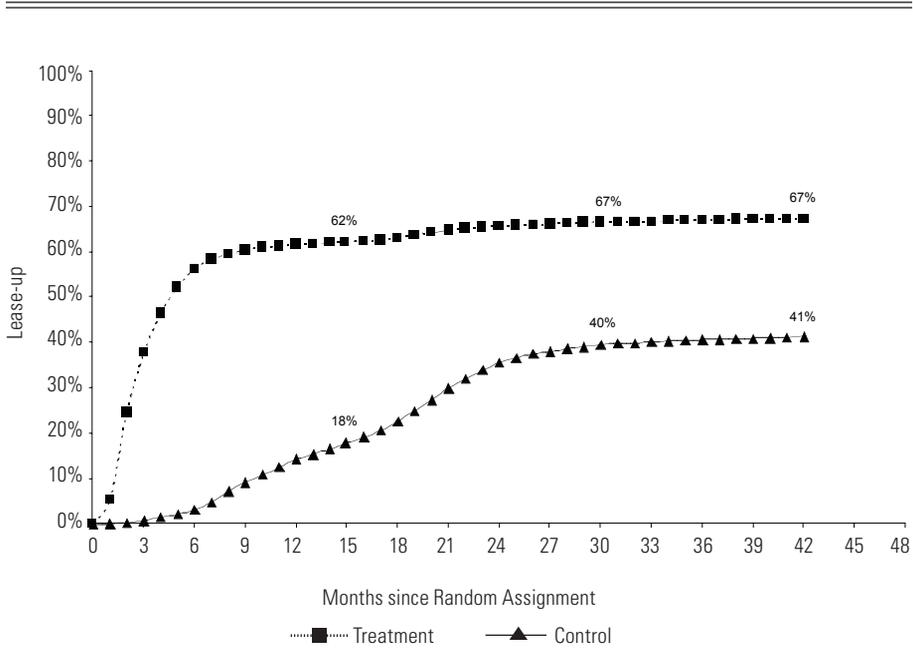
Homelessness nearly eliminated

Given their very low incomes and reliance on public assistance, many of the families in this study could not afford a place of their own without a housing voucher. The follow-up survey, conducted in the fifth year of the study, asked participants: "Was there ever a time during the past year when you did not have a place of your own to stay?" Those who answered affirmatively were then asked: "During the past year, when you did not have your own place to stay, we would like to know about any places you stayed. Did you stay with a relative (yes/no), stay with a friend (yes/no), stay in a shelter (yes/no), stay on the streets (yes/no)?"

As shown in table 3, 45 percent of control group members (families that did not use vouchers) reported that they had spent time without a place of their own at some point during the fourth year of the study. The effect of the voucher was to reduce this fraction by almost 36 percentage points, so that only 9 percent of the families that used vouchers spent time without a place

¹⁶The full set of ITT estimates can be found in the final evaluation report (Mills et al. 2006).

Figure 1. Lease-up Rates



of their own during the same period.¹⁷ The in-depth interviews suggest that most voucher users who experienced this type of housing insecurity were people who had left the program, either willingly or unwillingly.¹⁸ However, it is also possible that people with vouchers could have been temporarily homeless if they moved out of one unit and did not find another right away.

¹⁷Random assignment enables unbiased estimates of program impacts to be projected through simple comparisons of raw mean outcomes between the treatment and control groups. We used regression analysis to control for any chance differences between groups on a number of characteristics measured at baseline and to adjust for the fact that some treatment group members did not lease up with a voucher and some control group members did. All impacts presented in this article are regression adjusted. Thus, the -0.355 impact presented in table 2 and translated into a difference of 36 percentage points between treatment and control groups is the TOT impact.

¹⁸It was determined in the in-depth interviews that those who had left the program involuntarily during the follow-up period did so for a variety of reasons. Some had undergone severe personal crises that made it difficult for them to function (e.g., one woman had been raped and could not find a new unit in which she felt safe). Others left the program for stints in residential drug treatment and (in one case) jail, and others lost their vouchers because of misunderstandings or misinformation about HCV Program rules. Of the 21 interview respondents who left the program before their incomes reached the point at which they would no longer qualify for assistance, only 3 had their assistance terminated because they did not comply with program requirements or public housing authority criteria for continued assistance.

Table 3. Impact of Vouchers on Housing Insecurity and Homelessness (Survey Data)

Outcome Variable ^a	Fifth Year, All Sites except Los Angeles			
	Sample Size	Control Mean ^b	Impact of the Voucher ^c	Percent Impact ^d
Housing insecure: Did not have a place of one's own to stay at some point during the past year or was living with others	2,478	0.448	-0.355*** (0.068)	-79
Homeless: On the streets or living in shelters at some point during the past year	2,478	0.125	-0.092*** (0.032)	-74
Doubled up: Living with friends or relatives at some point during the past year	2,448	0.314	-0.218*** (0.059)	-69

^a Dichotomous variables; Probit transformation was used to estimate the treatment effect and standard error.

^b Adjusted for control group crossover.

^c TOT impact. Standard errors are in parentheses.

^d This column expresses the impact as a percent change from the control mean (shown only for statistically significant impacts).

* $p = 0.10$. ** $p = 0.05$. *** $p = 0.01$.

Most of the families that found themselves without a place of their own during a portion of the fourth year ended up staying with friends or family. A total of 31 percent of control group members reported that they had been without a place to stay and had stayed with a relative or friend during that time. For low-income families that lose their housing, staying with family or friends may be a precursor to homelessness, since people who are precariously housed tend to exhaust all available options before living on the streets or entering a homeless shelter.¹⁹ In fact, 13 percent of all control group members spent some time in a homeless shelter or on the streets during the fourth year of the study.

Families that used vouchers were far less likely to be in these situations. Having a voucher reduced the incidence of staying with friends or family by 69 percent. The impact of vouchers on official homelessness was even more dramatic—a 74 percent decrease in the incidence of staying in a shelter or on the streets. Put differently, control group members were three times more likely than voucher users to have stayed with family or friends and four times more likely to have stayed in a shelter or on the streets during some portion

¹⁹A recent study of homelessness based on data obtained from a nationally representative sample of communities found that about 36 percent of homeless persons in households with children stayed with family or friends before entering a shelter (HUD, Office of Community Planning and Development 2008).

of the year preceding the follow-up survey. The impact of the voucher on homelessness was substantially greater for two highly vulnerable subgroups within the overall sample: people who said at the time of random assignment that their eligibility for TANF would expire within six months and households whose head was unemployed.

The in-depth interviews suggest that the fear of homelessness is pervasive among families on TANF or families with incomes low enough to be eligible. Many of the women interviewed said that receiving a voucher substantially reduced their anxiety about keeping a roof over their children's heads. They expressed a strong sense of relief at not having to worry about how to pay the rent or whether their family would end up homeless or living with friends or relatives. A 43-year-old mother of two described the strain of relying on others for a place to stay:

[Without the voucher I would feel] stressed. Because anytime you're mooching off somebody and having to stay with—you know—and not having your own home, you gonna be depressed. Especially when you got you a family made already; you know what I mean? I got two kids.

Reduction of crowding and fewer extended family households

In addition to reducing housing insecurity and homelessness, the study found that vouchers decreased the incidence of crowding. At the time of the follow-up survey, 46 percent of control group members were living in crowded housing, defined as housing that has less than one room per household member (see table 4). The voucher reduced this fraction by 22 percentage points, or almost half. Families with vouchers also enjoyed more living space overall than families without them, as measured by the number of rooms in their unit. The voucher was especially effective in reducing crowding for families with children under the age of six and for families headed by Hispanics.²⁰

The in-depth interviews suggest that crowding was most common for families that did not have a place of their own and were therefore living with family or friends. Receiving a voucher allowed many women in these situa-

²⁰Mills et al. (2006) provide a full analysis of impact estimates for a set of subgroups that were expected to have varying sensitivity to the voucher treatment. Subgroups were defined by baseline characteristics such as ethnicity, age of children in the household, expression of desire to move at baseline, baseline earnings, education, and reservation wages.

Table 4. Impact of Vouchers on Crowding and Living Independently (Survey Data)

Outcome Variable ^a	Fifth Year, All Sites except Los Angeles			
	Sample Size	Control Mean ^b	Impact of the Voucher ^c	Percent Impact ^d
Crowding (less than 1 room per person in the household)	2,452	0.457	-0.219** (0.090)	-48
Living independently (living in housing rented or owned by the respondent)	2,480	0.686	0.234*** (0.055)	34

^a Dichotomous variables: Probit transformation was used to estimate the treatment effect and the standard error.

^b Adjusted for control group crossover.

^c TOT impact. Standard errors are in parentheses.

^d This column expresses the impact as a percent change from the control mean (shown only for statistically significant impacts).

* $p = 0.10$. ** $p = 0.05$. *** $p = 0.01$.

tions to move out on their own, in some cases for the first time. Indeed, the impact analysis found that vouchers enabled more families than would otherwise have done so to live in independent housing, defined as housing that they themselves rented or owned. As shown in table 4, families with vouchers were 34 percent more likely than control group members to be living in independent housing.

Vouchers also had an important impact on the prevalence of multigenerational or extended family households. As shown in table 5, vouchers significantly reduced the number of other adults (elders, siblings, and other relatives) living in the household with the primary adult. Families that used vouchers were much more likely to consist of a single parent with children than multiple related adults with children. At the time of the follow-up survey, 22 percent of control group members reported living with adult relatives in multigenerational or extended family households. The voucher virtually eliminated this type of living arrangement.

By reducing the number of adults living in the household, the voucher also reduced household size. Across all study households, the voucher reduced average household size by 0.72 members. Only 17 percent of control group members were in nuclear families (two parents with children), and the voucher had a very small, positive, and statistically insignificant effect on this household type.

Voucher use significantly increased the proportion of households consisting of a single parent with children and significantly decreased household size for the following subgroups: those who had at least a high school diploma, those who were not enrolled in school or training, those who had dependent children, those who had children under the age of six in the house-

Table 5. Impact of Vouchers on Household Size and Type (Survey Data)

Outcome Variable ^a	Fifth Year, All Sites except Los Angeles			
	Sample Size	Control Mean ^b	Impact of the Voucher ^c	Percent Impact ^d
Household size (number of members, by relationship to the adult respondent)				
Children	2,481	2.779	0.040 (0.196)	
Elders	2,481	0.077	-0.078** (0.031)	-101
Siblings	2,481	0.182	-0.175*** (0.051)	-96
Other relatives	2,481	0.680	-0.534*** (0.151)	-79
Other nonrelatives	2,481	0.687	-0.090 (0.056)	
Total (including adult respondents)	2,481	4.719	-0.726*** (0.241)	-15
Household type				
Single parent with children only	2,481	0.572	0.243*** (0.089)	42
Nuclear family (two parents with children)	2,481	0.168	0.012 (0.065)	
Multigenerational or extended family	2,481	0.218	-0.203*** (0.055)	-93
All others	2,481	0.421	-0.011* (0.020)	-3

^a For dichotomous variables indicating household type, probit transformation was used to estimate the treatment effect and the standard error.

^b Adjusted for control group crossover.

^c TOT impact. Standard errors are in parentheses.

^d This column expresses the impact as a percent change from the control mean (shown only for statistically significant impacts). Because the point estimates of the TOT impact and the control mean are both approximated, it is possible for the TOT impact to exceed the control mean in absolute magnitude, resulting in a percent change of more than 100 percent.

* $p = 0.10$. ** $p = 0.05$. *** $p = 0.01$.

hold, those who had ever been employed, those who did not desire to move for employment, those who were living in public or assisted housing, and those who were receiving TANF.

Many of the interviewees who had used the voucher to move from crowded or extended family households were pleased and relieved to be living on their own for the first time. For some, moving out of their parents' home was a rite of passage that was long overdue. Others said that the voucher enabled them to escape from unhealthy interactions with other household members and to raise their children without interference from other adults living in the unit. A few women said that they were able to escape domestic violence and abusive family situations.

Several of the women we interviewed in-depth noted the importance of having their name on the lease. With this official acknowledgment, they felt that they had more control over their living environment and were safer from the arbitrary actions of others. Women who had been living in crowded conditions before moving into their own units also described a reduction in stress for themselves and their children.

No impact on marriage or cohabitation

Given the voucher's impact on family composition—reducing a person's likelihood of sharing a unit with other adults, including spouses and partners—effects on marriage and cohabitation might be expected. On the one hand, voucher users might have less economic incentive to find a spouse or partner because of the financial resources provided by the voucher and because the amount might decrease as a result of the spouse or partner's income. On the other hand, the additional financial resources could make a voucher user more attractive to a potential partner, making it more likely that a recipient who wants to find a partner will actually do so. Also, the prospect of moving to a larger unit may increase a voucher user's willingness to continue a cohabiting arrangement.

The study found no statistically significant effect on cohabitation—that is, voucher users were about as likely as treatment group members to be living with a spouse or partner at the time of the follow-up survey (table 6). Voucher users were somewhat less likely than control group members to have lived with more than one spouse or partner since random assignment, but the magnitude of this effect was very small. We also tested the impact of the voucher on two other measures of cohabitation: having lived with the *same* spouse or partner since random assignment and having *ever* lived with

Table 6. Impact of Vouchers on the Presence in the Household of a Spouse/Partner and Children (Survey Data)

Outcome Variable ^a	Fifth Year, All Sites except Los Angeles			
	Sample Size	Control Mean ^b	Impact of the Voucher ^c	Percent Impact ^d
Living with a spouse or partner	2,477	0.246	-0.068 (0.071)	
Has lived with the same spouse or partner since random assignment (subset of the above)	2,480	0.193	-0.060 (0.042)	
Ever lived with a spouse or partner since random assignment	2,480	0.464	-0.091 (0.093)	
Has lived with more than one spouse or partner since random assignment (subset of the above)	2,083	0.035	-0.001** (0.001)	-3

^a Dichotomous variables: Probit transformation was used to estimate the treatment effect and the standard error.
^b Adjusted for control group crossover.
^c TOT impact. Standard errors are in parentheses.
^d This column expresses the impact as a percent change from the control mean (shown only for statistically significant impacts).
 * $p = 0.10$. ** $p = 0.05$. *** $p = 0.01$.

a spouse or partner since random assignment. The effect of the voucher was not statistically significant in either case.

Our experience with the in-depth interviews raises the possibility that voucher users were more likely to underreport living with partners than control group members were.²¹ We found in the in-depth interviews that people were extremely reluctant to talk about the presence of boyfriends and children's fathers in the unit. Related to this, many of the women we interviewed seemed to believe that the rules of the program prohibited males who were unrelated to the leaseholder from living in a voucher-assisted unit. As they put it, you could not have "a man in the house" and keep your assistance. The voucher program does not prohibit unrelated males from living in the unit, but it does require that all household members (and additions to the household) be declared to the housing authority so that their income can be

²¹If voucher users were more likely than control group members to underreport partners in the follow-up survey, it is possible that the voucher had a positive impact on cohabitation that was masked by the underreporting.

taken into account when the amount of the subsidy is calculated. It could be that a statement made by a public housing authority (PHA) staff person or another program participant such as “you can’t have a man in the house without risking that the amount of the voucher will go down” got translated into “you can’t have a man in the house.” Some people may also have been confused about the voucher program rule that prohibits assistance to persons involved in drug-related crimes.

The perception that it was against the rules to have unrelated males living in the unit sometimes led to the break-up of two-parent families, causing the fathers of children or boyfriends to move back in with their own parents or to establish separate households. As a 28-year-old mother of three explained it:

I’m actually engaged to be married, and you know, on the Section 8 program you can’t have anybody staying with you. So if, you know, it’s hard when you have a child, you know, his child, and you know, he’s like, “I want my daddy,” you know, in the middle of the night, and trying to explain to him why daddy has to go home.

In other cases, however, voucher users continued to live with a boyfriend without reporting his presence to the housing authority.

No impact on fertility

In addition to exploring effects on cohabitation, we also analyzed the impact of the voucher on fertility. Even without effects on marriage or cohabitation, we hypothesized that the subsidy might be expected to influence the number of children born to voucher users. For example, by making a unit with more living space affordable, a voucher might tend to increase the likelihood of more children. In addition, the voucher might free up discretionary income that could be devoted to the expenses of an additional child, including child care. However, for those with children already (as is the case with this welfare-eligible program population), additional financial resources might be directed at improving their quality of life, with no increase in the number of children.

In fact, we found no statistically significant difference between families that used vouchers and control group members in terms of the number of children in the household or the number of children born to the primary adult since random assignment. We also did not hear anything in the in-depth interviews about having the receipt of housing assistance affect decisions on whether to have additional children.

Fewer overall moves, but more out-of-census-tract moves, and slightly better neighborhoods

Families with vouchers can use them to rent any unit that meets the program's affordability criteria and has an owner willing to participate. One of the goals of the study was to test whether families that are given a subsidy can rent housing in better-quality neighborhoods than families that do not have one. Better-quality neighborhoods can mean many things, but it usually refers to lower poverty rates and higher employment rates, better schools, less crime, and greater access to employment opportunities and amenities.

Residential mobility. The study analyzed the effects of vouchers on three measures of residential mobility: the likelihood of having moved out of the baseline census tract by the end of the study period, the total number of moves during the period (including moves within census tracts), and the number of months living in the current neighborhood at the end of the study.²²

We found that families that used vouchers were more likely than control group members to have moved to a different census tract by the end of the study (table 7). However, they also moved fewer times. Control group members on average moved 2.3 times during the five-year survey follow-up period, compared with 1.5 times for families with vouchers. The voucher had no statistically significant effect on the length of residence in the end-of-study neighborhood.

The in-depth interviews help explain these findings. The voucher users we interviewed said that the prospect of moving to another neighborhood was appealing but also fraught with challenges. Most wanted to use their vouchers to move to safer neighborhoods with better schools. They frequently talked about getting their children away from drugs, violence, and bad peer-group influences. They also often said that they wanted to rent larger apartments or single-family homes. Nearly all of the women who had been able to move to a better location said they would not have been able to do so without the voucher.

Vouchers helped facilitate moves by making better housing and better neighborhoods more affordable, but moving from the first voucher unit to another could nonetheless be challenging. The women we interviewed described voucher program requirements and paperwork that made moving complicated, in addition to the financial expenses of moving that voucher

²²The first measure is based on address history data (available for the full study sample), and the second and third are based on responses to two questions on the follow-up survey: "How many times have you moved since [random assignment date]?" and "How many months have you lived in your current neighborhood?"

Table 7. Impact of Vouchers on Mobility (Address History and Survey Data)

Outcome Variable ^a	Fifth Year, All Sites except Los Angeles			
	Sample Size	Control Mean ^b	Impact of the Voucher ^c	Percent Impact ^d
Moved out of the baseline census tract ^d	7,614	0.562	0.109*** (0.033)	19
Number of moves	2,452	2.34	-0.88*** (0.30)	-38
Number of months in the end-period neighborhood	2,432	38.29	2.17 (11.81)	

^a Adjusted for control group crossover.
^b TOT impact. Standard errors are in parentheses.
^c This column expresses the impact as a percent change from the control mean (shown only for statistically significant impacts).
^d Impacts on this dichotomous outcome were estimated with a linear probability model to enable the calculation of TOT standard errors.
^{*} $p = 0.10$. ^{**} $p = 0.05$. ^{***} $p = 0.01$.

users and control group members alike had to meet. Voucher users seeking to move face the challenge of synchronizing three things: saving enough money for moving expenses, complying with lease requirements, and obtaining the necessary paperwork from the housing authority to request approval for a new lease.²³

There are other possible explanations for the lower number of overall moves by families with vouchers, together with their higher probability of living outside the baseline census tract. One is that voucher users may have had a lower incidence of eviction for nonpayment of rent. Another is that control group members who moved out of their original census tracts were more likely to have moved back into those neighborhoods by the end of the study. Control group members may also have been more likely to move within the baseline census tract. Finally, it is possible that voucher users improved their housing situation by moving outside the baseline census tract and then felt less need to move thereafter. Control group members, by contrast, may have made repeated moves in an attempt to improve their situation or avoid eviction.

²³The interviews provided little indication of how the presence or absence of social networks affected the propensity of voucher holders to move multiple times or to move to different neighborhoods. Most people reported little difference in their social support systems before and after receiving the voucher. However, a small number of women said that the financial assistance provided by the voucher allowed them to rely less heavily on family and friends, which may have made them more willing to move to a different neighborhood.

Although voucher users moved less often than control group members, many families with vouchers did, nonetheless, make multiple moves. Those we interviewed reported that they had experienced a notable learning curve in using the voucher. When they first received it, they often felt pressured to find and lease a unit as quickly as possible. Program participants are usually allowed up to 120 days to lease a unit, but some housing agencies impose tighter timeframes and some allow the search time to be extended. As a result, many made expedient housing and neighborhood decisions that later proved unsatisfactory. But they also said that they learned from these experiences and made better decisions on subsequent moves. They cited specific techniques for sizing up a new neighborhood, including observing the area at various times of the day and night. They also noted that with each move, they gained confidence in their ability to negotiate with landlords. In the words of a 34 year-old mother of four:

They [the owners] had the stigma about everybody that's on Section 8 are nasty, the children tear up the house, that type of thing. So I ran into a lot of issues with that. And I told her I did not know anything about that's how Section 8 people lived, because I wasn't brought up that way. So, I had to talk to people and they'd give me a try, basically—until I started building a reputation. After that, then you get your letter of recommendation that you paid your rent on time and you kept the house up and this and that. So it was easier later on. But at first it was not easy.

Using a voucher increased the probability of moving out of the baseline tract for a number of subgroups, including those in potentially stressful housing conditions (those in public or assisted housing projects or in shared or temporary housing arrangements) and those with greater economic barriers or hardship (younger, less educated, with preschool children, not employed, never employed, or receiving TANF). Others with significant treatment effects on out-of-tract mobility were subgroups that may have been less tied or connected to their baseline location (those not enrolled in school or training, those with no dependent children) or subgroups that did not face discrimination in prospective housing moves (those identifying themselves as non-Hispanic whites).

Using a voucher resulted in fewer moves among some subgroups for which relocation would have been particularly disruptive (e.g., households in which the youngest member was less than six at random assignment). The effect on the number of moves was also pronounced among those who

were not employed, perhaps because of health- or child-related barriers that would make moves more difficult.

Neighborhood characteristics. Although families in the HCV Program can use their vouchers to lease in place, we hypothesized that families afforded the opportunity to move to (or remain in) housing in more advantaged neighborhoods would do so and that this would ultimately result in having treatment group members reside in systematically higher-quality neighborhoods than control group members.

By linking address history data to tract-level census data, we could compare the characteristics of the neighborhoods where voucher users and control group members were living at the end of the study and estimate the impact of the voucher on these characteristics.²⁴ We found that families that used vouchers lived in neighborhoods with slightly lower rates of poverty and welfare receipt and higher rates of employment than control group members (table 8). The neighborhoods where voucher users lived also had slightly lower rates of minority concentration,²⁵ black concentration, and households headed by women. (These results were statistically significant.) The study found no significant difference between the neighborhoods of voucher users and control group members in terms of Hispanic concentration, educational attainment, or youth idleness. For those outcomes for which the voucher had a statistically significant effect, the estimated impacts were small in magnitude, in the range of 1 to 10 percent of the control mean. The differences in the neighborhoods of voucher users and those without vouchers, while statistically significant, were not very large.

The impact of the voucher on neighborhood poverty rates was greatest for blacks. By the end of the study, black families with vouchers were living in neighborhoods with average poverty rates about 4 percentage points lower than black control group families. By contrast, vouchers had no significant effect on neighborhood poverty rates for white or Hispanic families.

Neighborhood satisfaction, observed problems, and personal safety. Respondents to the follow-up survey were asked a series of questions about their experiences in and perceptions of their current neighborhood. Their responses indicated that the voucher had no significant sample-wide effect

²⁴The study design ensured that treatment and control group members lived in neighborhoods with similar characteristics before random assignment.

²⁵The neighborhood characteristics discussed here are measured from the 2000 census Summary File 3 (U.S. Bureau of the Census 2002). Minority concentration refers to the percentage of people characterized as minorities in the census tract, including everyone who is nonwhite and everyone who is of Hispanic origin. Youth idleness is a measure of the percentage of youths who are not in school and not in the labor force.

Table 8. Impact of Vouchers on the Characteristics of the End-Period Census Tract (Address History and Survey Data)

Outcome Variable	Fifth Year, All Sites except Los Angeles			
	Sample Size	Control Mean (%) ^a	Impact of the Voucher ^b	Percent Impact ^c
Poverty rate	7,614	28.52	-2.36*** (0.76)	-8
Employment rate	7,614	87.00	0.93*** (0.36)	1
Educational attainment	7,614	82.89	0.66 (0.58)	
Youth idleness	7,614	8.85	-0.02 (0.42)	
Welfare concentration	7,614	10.55	-0.97*** (0.37)	-9
Minority concentration	7,614	70.04	-2.78*** (1.00)	-4
Black concentration	7,614	30.78	-3.08*** (1.15)	-10
Hispanic concentration	7,614	30.02	0.52 (0.89)	
Female-headedness	7,614	22.46	-1.26** (0.50)	-6

^a Adjusted for control group crossover.

^b TOT impact. Standard errors are in parentheses.

^c This column expresses the impact as a percent change from the control mean (shown only for statistically significant impacts).

* $p = 0.10$. ** $p = 0.05$. *** $p = 0.01$.

on general neighborhood satisfaction: 61 percent of control group members and 62 percent of families with vouchers reported being “somewhat” or “very” satisfied with their neighborhood.

As for neighborhood conditions identified by families that responded to the follow-up survey as either a “big” or a “small” problem (versus “no problem”), vouchers were found to have a favorable (negative) effect on the reported extent of graffiti and people drinking in public. There were no effects on the extent of litter or trash on the streets or sidewalk, abandoned buildings, or groups of people hanging out on the street. There was also no effect on the incidence of seeing people using or selling drugs in the neighborhood and no effect on the extent of crime victimization.²⁶

The in-depth interviews revealed that neighborhood satisfaction is a complex issue for voucher users. The women often had to make trade-offs

²⁶Crime victimization was defined as having the respondent, or someone in her household, recently experience one of the following: being robbed on the street, being threatened with a knife or gun, being beaten or assaulted, being stabbed or shot, or having a home break-in. Among the control group members surveyed, 15 percent had experienced one or more of these forms of crime within the previous six months.

between housing and neighborhood quality and rarely found all of their needs met by a single move. Some were single-minded in their decision making. For example, women who were living in very poor-quality housing often focused on improving their situation, even if this meant moving to a less desirable neighborhood or farther from family or work. Access to public transportation was a priority for people who needed it to get to work or take their children to school.

The interviews also suggested that neighborhood satisfaction is something of a relative term, meaning “it’s OK for now,” without regard to an objective standard. One of the women we interviewed was a 33-year-old mother of four who had moved three times since receiving the voucher and at the time of the interview was planning to move again. She had not been at all happy with the first neighborhood she moved to, describing it as “awful” at night and on weekends. The second neighborhood was a definite improvement, but far from perfect:

I mean, it wasn’t my ideal neighborhood, but I could deal with it. There weren’t people, literally across the street, selling crack. I could deal with it. I mean, it was down the street, around the corner, but it wasn’t directly in my eyesight. I didn’t have to see you every day, if I went another way....And like I said, I probably wouldn’t have left there if [the house] wasn’t too small.

While most of the women we interviewed said that the voucher allowed them to move to a better neighborhood, many were still living in areas where they had to take special precautions to ensure the safety of their children. These included walking or driving the children to and from school, not letting them go outside unless they were with an adult family member, and personally not going outside after dark. This often severely curtailed the time they had available for other activities. For example, in order to work, such a woman needed an employment schedule that enabled her to take her children to school and pick them up at the end of the day.

No impact on employment and earnings

One hypothesis about the effect of vouchers on employment and earnings is that they might improve long-term labor market outcomes for participants and families by providing recipients with additional resources with which to stabilize their families, help care for their children, and invest in education and training. It might be hypothesized that vouchers could provide families with an opportunity to relocate to neighborhoods that are closer

to jobs or have community norms more supportive of work. Then again, a voucher could also create an incentive to work less, at least in the short run. Economic theory predicts that income-conditioned subsidies such as housing vouchers, which simultaneously increase family resources and reduce the marginal returns to work through the benefit reduction rate, will reduce work effort.

Employment and earnings. At the time they applied for a voucher, 45 percent of the women who completed a baseline survey said that they were working for pay and were earning an average of \$6.96 per hour (see table 2). Even though fewer than half were working at the time they completed the survey, the study sample as a whole had a high degree of work experience—80 percent said that they had worked for pay at some time in the past. Earnings for both voucher users and control group members rose over the follow-up period, and employment rates remained fairly steady in the first year, with a decline in the final two years of the study.

An earlier analysis of this study sample over the first five to seven quarters after random assignment found small negative impacts on work effort and, consequently, increased reliance on public assistance (Patterson et al. 2004). The present study also found that voucher users had lower employment rates and earnings than control group members in the first year or two after random assignment.²⁷ However, the small (but statistically significant) negative impact of vouchers on employment and earnings disappeared over time. Thus, over the entire 3.5-year follow-up period, voucher users averaged slightly less time employed and earned less from work than control group members who did not use vouchers. However, the results are not statistically significant: We cannot determine whether this difference results from the voucher or from chance alone.²⁸

²⁷Impacts for all sites revealed small (5 to 8 percent), marginally significant negative effects on employment rates in the first year, insignificant effects in the next two years, and an insignificant overall effect on employment during the three years. Over all three years, control group members averaged about 6.1 quarters of employment, and treatment group members averaged 0.185 fewer quarters, or 3 percent less. During three years, the all-sites estimates show a significant negative earnings impact only in the first of the six half-years. The TOT impact in this period is -\$306, or about 12 percent of the mean earnings for the control group. After the first half-year, impacts are insignificant. The point estimates of the impacts decline steadily and then become positive (but not statistically significant) later in the follow-up period. A full discussion of voucher impacts on employment and earnings can be found in the final evaluation report (Mills et al. 2006).

²⁸We also examined several other outcomes related to employment and found no significant effects of voucher assistance. These included working full time versus part time, number of months in the current job, whether employed more than one year at the current job, receipt of employer-provided health benefits, and number of employers since random assignment.

Subgroup analysis revealed that the entire impact on earnings for the sample as a whole was attributable to reduced work effort among the 15 percent who said at baseline that they desired to move for employment-related reasons. This result, a 32 percent reduction in earnings during the 3.5-year follow-up period, may seem counterintuitive—it might be thought that those families that wanted to move for employment-related reasons would be best able to take advantage of the voucher to improve their employment and earnings. We believe, however, that this group’s statement about wanting to move to get a job or to be near their job (as opposed to, say, be near better schools or get away from drugs and gangs) identified them as placing a high priority on employment. Indeed, controls in this subgroup showed strong earnings growth in the period immediately following random assignment. The members of this subgroup, then, were presumably actively engaged in a job search at the time they applied for a voucher and believed that it would aid them in that search. These results suggest that not only did the voucher not assist their job search, it actually hindered it—probably by diverting time and energy to a search for new housing and, if successful, to moving and settling into a new dwelling and, in many cases, a new neighborhood.

Education and training. One of the ways vouchers might affect employment and earnings is through increased education and training, made possible by the additional household resources freed up by the voucher or by the time freed up by any reduction in employment made possible by the voucher. Although the in-depth interviews suggest that some voucher users took advantage of this opportunity to upgrade their skills, the impact analysis showed no significant difference between groups in the amount or type of education and training received during the follow-up period.

In-depth interviews. The in-depth interviews provided many examples of the difficulties facing voucher users seeking to obtain or retain employment. Nearly all of the women we interviewed had changed jobs since random assignment. A few had held stable positions that lasted through much of the follow-up period. It was more common, however, to find women who moved from job to job, with periods of unemployment between positions.

Nearly all of the women we interviewed cited the lack of adequate child care as a major barrier to finding a job or increasing their earnings. All but one had children living at home, and more than half had children under six. Challenges to obtaining adequate child care included finding good-quality care, finding care that coincided with the parent’s work schedule, and paying for the care. The women also struggled with inadequate transpor-

tation to and from work. Most said that they could not afford a car, and public transportation was typically inadequate for women who worked far from home, worked nontraditional hours (e.g., night shifts), or had to be available to fetch children from school or day care on short notice in case of illness or other disruptions. Other issues that limited or prevented the women from finding and maintaining employment were lack of job skills, pregnancy, health problems, unresolved emotional issues, and general lack of confidence. More than half of the women said that they had serious health problems, and several reported that they had suffered abuse or had been the victims of violent crime.

Few of the women said that receiving the voucher had affected the employment decisions they made or what they had been able to achieve with respect to employment and earnings. Most either wanted to work or to earn more, but the interviews suggested that the additional housing choices and financial resources that the voucher provided were not sufficient to address the employment barriers they faced. Instead, the women generally described the voucher primarily as a “safety net” that would ensure housing for their family during periods of unemployment.

Increased receipt of TANF and food stamps

Given the neutral impact of the voucher on employment and earnings, a similar result might be expected for receipt of public assistance, which is income conditioned. In fact, the study found that using a voucher increased the likelihood of receiving TANF cash benefits and food stamp benefits throughout the entire follow-up period. This appears to reflect the effect of voucher use on household composition: Voucher users were more likely than control group members to live in single-parent households, which would have made them eligible for increased benefits, particularly if they had separated from a partner who was earning income. It is also possible that voucher users were better informed about the availability of TANF benefits than their control group counterparts because of their connection to the voucher program—staff may have provided information about the TANF program that was not available to families without vouchers.

An average of 60 percent of control group members received TANF each quarter during the first year after enrolling in the study. TANF receipt declined over the follow-up period, most likely because time limits were reached or people became ineligible for assistance for other reasons. TANF receipt declined over time for both voucher users and controls. By the third year after enrollment, only about 29 percent of the control group was receiv-

ing TANF each quarter. But over these 3.5 years, voucher users persistently received TANF at a significantly higher rate than families that did not have a voucher. Even though voucher users were also leaving TANF during this period, their receipt declined at a slower rate than it did for families without vouchers. This result appears to reflect the effect of the voucher on family composition: At the time of the follow-up survey, the proportion of households composed of a single parent with children (with no other adults) increased versus all other household types because the voucher made it possible for single parents to live on their own with their children. This in turn could increase the receipt of TANF assistance.

The proportion of families receiving food stamps declined less steeply than it did for TANF receipt, from an average quarterly rate of 71 percent in the first six months after enrollment to 64 percent in the third year.²⁹ Having a voucher increased food stamp receipt rates by about 10 percent over most of the follow-up period, which again could be related to the effects of the voucher on household composition and the increased proportion of single-parent households with children. The impact of the voucher on food stamp benefits persisted over the entire follow-up period.

Although the voucher had a significant impact on TANF receipt for several of the subgroups tested, the impact varied significantly from the overall population only for those subgroups defined by the presence of children at baseline: The voucher significantly *increased* TANF benefits for those with dependent children at baseline and significantly *decreased* benefits for those who did not have them.

Reduction in poverty, if cash and near-cash income is counted

Poverty is the most widely accepted measure of financial insecurity and material hardship. The official measure of poverty is income below a federally defined threshold, in which income is defined as cash income (earnings and cash public assistance).³⁰ In-kind forms of public assistance, such as subsidized housing and food stamps, do not contribute to the cash income of households and thus do not figure in assessments of poverty based on the official definition. However, these forms of assistance clearly affect the financial and material well-being of households. As we would expect, given

²⁹The food stamp program is administered by the U.S. Department of Agriculture. It is the nation's largest nutrition assistance program serving low-income families. Regulations governing the program are found at 7 CFR Parts 271 to 283.

³⁰This study used the 2004 poverty thresholds (U.S. Bureau of the Census 2006).

the nature of the rental subsidy, the study found that using a voucher reduced the incidence of poverty once the value of near-cash income was taken into account.³¹

The families in this study faced substantial economic hardship. This is not surprising given the fact that they had to be eligible for or receiving TANF to qualify for a WtW voucher. Moreover, voucher program rules require that not less than 75 percent of new admissions to the program have incomes at or below 30 percent of the area median income.³² Table 9 shows how the vouchers affected total after-tax income,³³ taking into account in-kind as well as cash income. The dollar values of housing assistance, food stamps, and several other items are counted in this measure: 69 percent of control group members had cash and in-kind income below the poverty level in the year before the follow-up survey. Vouchers resulted in a 26 percent reduction in the proportion of families in this situation. The effect of the voucher in reducing poverty was especially pronounced for one key subgroup: people who said at the time of random assignment that their eligibility for TANF would expire within six months.

A smaller proportion of control group members (56 percent) were even more disadvantaged in that their cash and in-kind incomes were less than 75 percent of the poverty threshold. Vouchers had an even greater effect on this measure of poverty, reducing by 40 percent the proportion of families living in more severe poverty.

The other types of cash and near-cash income received by voucher users and control group members were generally similar in the month before the survey. The earnings of voucher users, which had generally trailed those of control group members in earlier months, were higher in the month before the survey: \$584, compared with \$557 for control group members. The average TANF payment was \$110 for voucher users and \$107 for control group members. The value of the food stamps received was \$222 for voucher users

³¹Poverty rates using the official cash-income measure were similar for families that used vouchers and those that did not, indicating that voucher assistance did not affect “cash-income” poverty.

³²See 24 CFR Parts 888 and 982. This requirement could be reduced for the WtW Voucher program if the PHA demonstrated that complying with the target would interfere with program objectives. Such an exception was requested in only one of the study sites (Fresno, CA) where the PHA believed that the income-targeting rules would severely impinge on its ability to serve underemployed TANF recipients with slightly higher incomes.

³³The dollar value of the voucher was high for some families and more modest for others, but on average was more than \$500 a month.

Table 9. Impact of Vouchers on Poverty

Outcome Variable: Poverty Measure ^a	Fifth Year, All Sites except Los Angeles			
	Sample Size	Control Mean ^b	Impact of the Voucher ^c	Percent Impact ^d
Cash and near-cash income below the poverty threshold	2,438	0.692	-0.165* (0.088)	-26
Cash and near-cash income below 75 percent of the poverty threshold	2,451	0.557	-0.181** (0.092)	-40

^a Dichotomous variables: Probit transformation was used to estimate the treatment effect and the standard error.

^b Adjusted for control group crossover.

^c TOT impact. Standard errors are in parentheses.

^d This column expresses the impact as a percent change from the control mean (shown only for statistically significant impacts).

* $p = 0.10$. ** $p = 0.05$. *** $p = 0.01$.

and \$216 for control group members. All told, families with vouchers received more total cash and near-cash income than control group members.

Although a housing voucher does not put cash directly into people's pockets, it has the potential to affect a family's financial situation dramatically. For many of the women we interviewed, rental assistance resulted in a substantial decrease in monthly housing costs, leaving more funds available for discretionary spending. In such cases, the extra money most often went to providing for children's needs and wants and for basic household expenditures, including food. In addition to making more money available for basic needs, having a voucher helped some families reduce debt and clean up credit problems. However, few families were able to amass substantial savings.

Not all of the women we interviewed found themselves with more discretionary income after receiving the voucher. Women who were paying less than market rent before receiving the voucher, such as those who were doubled up or living in subsidized housing, often faced higher housing costs in their new units, even with rental assistance. However, even these women recognized that the voucher served as a safety net. It offered security in the face of job loss or other financial disaster: Recipients knew that the family would always have a roof over its head, and this relieved a great deal of stress. For some, the added security allowed the adults in the household to take risks, such as returning to school or changing jobs, to improve the family's financial stability over the long term.

Even with housing assistance, however, the in-depth interviews made it clear that voucher users face many barriers to financial stability. Chief among

them are inadequate and unpredictable employment and child support income and unexpected expenses that cannot be covered by limited savings. Most of the women we interviewed said that they were breaking even financially or getting a little ahead. However, some were falling behind, usually because of medical expenses in the absence of health insurance and debts incurred from pursuing additional education. Further, almost all of the women we interviewed continued to rely on some form of public assistance, such as food stamps, Medicaid, TANF, or SSI. For those who were able to forgo public assistance, steady employment—often supported by family members helping with child care and transportation—was essential to their success.

Increased expenditures on food

The study found that on average, voucher users spent \$211 less per month on rent and utilities than control group members. It was anticipated that they might use some of the additional disposable income on food or other basic needs such as medical care.

Table 10 shows the effects of vouchers on household food expenditures in the month before the follow-up survey. Families that did not use vouchers reported spending an average of \$96 (per household) on food in the month before the survey. The voucher resulted in a 40 percent (\$40) increase in monthly food expenditures. Food expenditures per person also increased for voucher families. Control group members spent an average of \$22 per household member per month on food. Having a voucher increased the average per person expenditures for food by \$13, a statistically significant increase of 59 percent.

The study also used U.S. Department of Agriculture criteria (Nord, Andrews, and Carlson 2005) to examine the impact of housing vouchers on four measures of food security. Our assessment of food security is based on two of the department's "short form" metrics, which are scores assigned to households based on answers to six survey questions.

Neither food security nor health security was found to be significantly different for voucher users and control group members. We measured health security by using several questions on the follow-up survey about health insurance coverage, incidence of inability to pay for needed medical or dental care, and several self-reported assessments of health (general health status, anxiety, typical hours of sleep, and current smoking status).

Table 10. Impact of Vouchers on Food Expenditures

Outcome Variable	Fifth Year, All Sites except Los Angeles			
	Sample Size	Control Mean ^a	Impact of the Voucher ^b	Percent Impact ^c
Food expenditures in the month before the survey	2,324	\$96	\$39*** (14)	40
Food expenditures per person in the month before the survey	2,320	\$22	\$13*** (5)	59

^a Adjusted for control group crossover.

^b TOT impact. Standard errors are in parentheses.

^c This column expresses the impact as a percent change from the control mean (shown only for statistically significant impacts)

* $p = 0.10$. ** $p = 0.05$. *** $p = 0.01$

Inconclusive evidence for effects on child well-being

This study offers no clear evidence to support any particular pattern of effects of voucher assistance on child well-being, with a small number of significant estimates divided nearly equally between favorable and unfavorable effects. Therefore, despite reductions in housing insecurity, homelessness, and crowding; additional financial resources from the rental subsidy; and modest improvements in neighborhood quality, the study does not offer conclusive evidence that vouchers improve the well-being of children in families that use them.³⁴

Some evidence from the interviews suggests that longer-term tracking of outcomes for children may be warranted. For example, many of the women we interviewed said that voucher assistance enabled them to move to an area with what they considered to be better schools. Some interviewees were able to identify improvements in specific school-related outcomes such as higher grades and linked the improvements to the voucher, while others reported more general positive feelings about the effects of voucher assistance on children's education and about expected future improvement in school per-

³⁴The analysis of child well-being effects encompassed 36 separate outcome measures based on parent-reported information in the follow-up survey about one or two children residing in the household at baseline. These outcome measures included highest grade completed; ever suspended or expelled from school; attendance in gifted classes or advanced work; attendance at special classes; behavior problems index; activities and supervision in after-school hours; number of close friends; and involvement in sports, clubs, and extracurricular activities. With effects also estimated at the subgroup level for two gender subcategories and three age subcategories, the total number of impact estimates approached 200. Given this volume of statistical tests, the number of treatment effects estimated as significantly nonzero (at the $p = 0.10$ significance level or better) was arguably no larger than one would expect by chance alone.

formance. Finally, some of those we interviewed said that having housing assistance allowed them to spend money on school supplies and clothes that their children needed to feel confident and be accepted at school.

The women we interviewed also reported that the voucher had an effect on their children's emotional well-being and behavior. They cited the voucher's role in reducing stress for themselves and their children. Even those who tried to shield their children from financial concerns generally acknowledged that their own stress over financial challenges affected their children. In some cases, the voucher enabled a parent to work less and spend more time with children; in others, worrying less about finding and keeping adequate housing enabled parents to focus better on their children's needs.

Conclusion and implications for public policy

This study offers insights into the effects of housing assistance on the well-being and self-sufficiency of welfare families. The experimental design provides empirical evidence that was not previously available.

In addition to the design, which allows for unbiased estimates of the effects of voucher assistance, the study is useful for policy development. The importance of this feature of the demonstration—expanded affordability with relatively few program constraints—is that the patterns of voucher use and the resulting impact estimates can be regarded as indicating the basic underlying preferences and priorities of voucher users. The study shows the actions of voucher users when housing becomes more affordable, given other nonfinancial constraints that may affect housing choice, such as search skills, information available, discrimination, and other factors. The issue posed for policy makers by this research is whether the housing choices made by voucher users are consistent with the program's goals.

The results of our study suggest that the voucher program is fulfilling its primary purpose: to enable eligible individuals and families to afford decent, safe, and sanitary housing. The rental subsidy provided through the program improves worst-case housing needs and is effective in keeping welfare families adequately housed. The impact analysis indicates that families with vouchers were substantially less likely to be homeless, doubled-up with friends or family, or in overcrowded housing than their counterparts without vouchers. The in-depth interviews also indicated that voucher assistance substantially reduced the anxiety among welfare recipients about being able to pay the rent and keep a roof over their children's heads.

At the same time, voucher assistance alone, without constraints on location or supplemental counseling or search assistance, does not result in substantial improvements in neighborhood characteristics. Families that used vouchers made only modest improvements in their neighborhood quality relative to families that did not. This suggests that more deliberate use of mobility counseling, housing search assistance, and measures such as help with security deposits would be necessary for the voucher program to help low-income families move to substantially better neighborhoods.

Despite providing a rental subsidy that is determined by household income, vouchers do not appear to discourage employment over the long term. The hypothesized reductions in work effort based on economic theory were not borne out by this study. After two years of receiving housing assistance, voucher users worked no more or less than control group members. This suggests that the program meets the basic goal of improving housing affordability without encouraging voucher users to work less. However, because people who had vouchers were not found to work or earn more than people who did not, voucher assistance alone, without specialized services to promote or support employment, is not a means of encouraging work and self-sufficiency. Perhaps not surprisingly, voucher assistance reduces financial hardship and the incidence of poverty below 75 percent of the federal poverty level. By reducing expenditures on housing and utilities, vouchers freed up an average of \$211 per month in disposable income. Some of this additional income was used for food, with families that had vouchers spending more per month on food than families that did not. The voucher users we interviewed tended to spend the extra money on their children and on basic household needs. However, there is no empirical evidence that the increase in disposable income resulting from the voucher improved children's well-being over the study period.

Because this study covered only a four- to five-year follow-up period for sample members, important questions remain about the longer-term effects of vouchers on family well-being, including employment and earnings, housing and neighborhood conditions, and children's health and educational outcomes. Another important set of questions relates to how the effects of vouchers might differ for other subpopulations of voucher users, such as individuals and families that are not eligible for TANF but are nonetheless eligible for housing assistance. These questions could be addressed through further tracking of the existing study sample and through similar studies that focus on different populations. For welfare families, the current study shows

that vouchers dramatically reduce the incidence of homelessness and crowding and provide additional disposable income without long-term adverse effects on employment.

Appendix A

Follow-up survey topics

Approximately 4.5 to 5 years after random assignment, treatment and control group members were surveyed about their experiences. The survey lasted approximately 40 minutes, and respondents received \$25 for their time. The key topics covered in the survey are summarized here. Copies of the survey are available from the study authors on request.

Housing and mobility

- Characteristics of the current housing unit: type, tenure, size, condition, problems
- Satisfaction with the unit
- Experiences with housing instability and homelessness
- Cost of housing and utilities
- Receipt of housing assistance (current and since random assignment)
- Number of years living in the current neighborhood
- Number of moves since random assignment

Neighborhood

- Level of satisfaction with the current neighborhood
- Problems with the neighborhood (litter, graffiti, abandoned buildings, etc.)
- Use or sale of illegal drugs in the neighborhood
- Incidence of violent crime perpetrated on the victim or the victim's family in the past six months

Household composition

- Age, gender, schooling, and employment status of household members
- Relationship of household members to the respondent
- School and employment status of household members
- Changes in household composition since random assignment
- For children, presence of the mother or father in the household

Employment training and experience

- Educational attainment
- Participation in schooling or job training (current and since random assignment)
- Current employment status and detailed employment history
- Earnings and benefits
- Means of transportation to work and commuting time
- Medical conditions that prevent the respondent from working
- Job search efforts
- “Side jobs” and occasional employment
- Total household income

Income, benefits, and food security

- Income from SSI, tax refund, welfare
- Receipt of food stamps
- Health insurance
- Spending on food
- Experiences with food insufficiency and hunger

Health

- Respondent’s health
- Use of medical services
- Anxiety, sleeplessness, smoking

Marital status

- Current and past living arrangements with spouse(s) or partner(s)

Family routines/involvement in education

- Number of days per week that the family eats dinner together
- Respondent’s attendance at school meetings and events
- Respondent’s volunteering at the school and in the community

Parent-on-child module³⁵

- Reasons for not attending school
- Highest grade the child completed
- Name and location of the school the child is currently attending or most recently attended and the grades received at that school
- Schools attended in the past four years or the last four years that the child attended school
- Disciplinary sanctions, suspensions, and expulsions
- Special education and special service needs
- Employment (of the child)
- Health (of the child)
- Medical insurance coverage for the child
- Use of health services by the child
- Friendships
- Behavioral problems
- Police contacts and arrests
- After-school and weekend activities and level of adult supervision

Appendix B

In-depth interview topics

The researchers conducted in-depth interviews with 141 treatment group members approximately five years after random assignment. The interviews were conducted as gently structured conversations, using an open-ended discussion guide. They focused on changes in the respondents' housing, family, and work situations from the time of random assignment to the present and how receipt of the voucher affected decisions in these areas. Following is a list of the specific topics covered. Copies of the discussion guide for the in-depth interviews are available from the study authors on request.

Household composition and living arrangements

- Persons who have joined the family since random assignment, and persons who have left it
- The extent to which these changes were related to receiving the voucher

³⁵These questions were answered by the respondent for up to two randomly selected children, ages 4 to 19, who were in residence at the time of random assignment.

Housing choices

- Reasons for wanting to move or not move
- Housing search process
- Current and prior housing and neighborhood satisfaction
- Effect of the voucher on decisions about where and when to move
- Experiences with landlords
- Experiences with changing neighborhoods
- Effect of the move(s) on family members
- Plans for future moves

Employment

- Discussion of each job held since random assignment—what the job was, how much it paid, how long the respondent held it, what she liked and disliked about it, reasons for leaving, and how having housing assistance affected decisions about the job
- Discussion of the respondent's career path—how the jobs have changed over time
- Effect of receiving housing assistance on employment decisions/career path
- Child care arrangements and problems
- Transportation to work and commuting times
- How employment decisions affected housing/neighborhood choices and vice versa
- Reasons for not working (if currently unemployed)
- Job search strategies and challenges
- Employment status of other household members

Education

- Participation in education or job training programs, currently and since random assignment—type of programs, expense, child care issues, impact on employment
- Effect of the voucher on decisions to engage in further education or job training
- Education/job training activities of other household members

Other obligations and priorities

- Time spent caring for young children, elderly parents, others
- Volunteer and leisure activities
- Effect of the voucher on the ability to fulfill other obligations

Financial resources

- How receiving the voucher changed the family's financial situation
- How the family's finances have changed since random assignment and the reasons for those changes
- The family's current financial situation and future outlook
- Participation in the Family Self-Sufficiency program

Child and family well-being

- Effect of the voucher on children's school situation, social life, emotional well-being, housing situation, and health
- How children's needs affected family decisions about housing, employment, education, and finances
- Current emotional well-being of the respondent, how it has changed since random assignment, and the effect of the voucher

Social and support systems

- What the respondent views as her support systems (friends, family, institutions)
- Changes in the support systems since random assignment
- Influence of support systems on housing or employment decisions (e.g., moving to be near friends or family)
- Effect of the voucher on support systems
- Effect of residential moves on support systems

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