## Family Options Study: How Homeless Families Use Housing Choice Vouchers

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#### Abstract

This article uses nonexperimental analysis from the Family Options Study, a rigorously designed experimental study of interventions for families experiencing homelessness, to describe the ways in which families who had spent at least 7 days in emergency shelters used long-term rent assistance provided through the Housing Choice Voucher (HCV) program. A long-term rent subsidy was one of the study's interventions, with some families randomly assigned to receive priority access to a housing voucher. A few other families in the study also used HCV assistance at some point during the 20-month period following their stay in an emergency shelter despite not receiving priority access to vouchers. This article shows that families given priority access to voucher subsidies leased up at very high rates, 82 percent. The only household characteristics associated with lower rates of lease up were recent, self-reported substance abuse and an adult family member with a felony conviction. Even families with those characteristics usually were able to use vouchers. For families without priority access to a voucher, those with a prior history of doubling up were more likely to gain access to and use a voucher, perhaps because they were already on waiting lists at the time of their shelter stay. Local policies of the homeless services system and public housing agencies appear to have affected patterns of voucher use, but no consistent patterns were related to housing market conditions.

## **Housing Choice Vouchers in the Family Options Study**

The U.S. Department of Housing and Urban Development (HUD) launched the Family Options Study in 2008 to learn about which housing and services interventions work best for families with children experiencing homelessness. The study was implemented using a rigorous, experimental methodology. Nearly 2,300 families in 12 sites across the country were randomly assigned to one

of four interventions after spending at least 7 days in emergency shelter. After providing informed consent, completing a baseline survey, and undergoing eligibility screening, the study team randomly assigned families experiencing homelessness in emergency shelter to one of four groups.

- 1. SUB, in which families have priority access to long-term rent subsidies, usually a housing choice voucher (HCV).
- 2. CBRR, in which families have priority access to short-term rent subsidies, lasting up to 18 months, in the form of community-based rapid re-housing assistance.
- 3. PBTH, in which families have priority access to temporary, service-intensive stays, lasting up to 24 months, in project-based transitional housing facilities.
- 4. UC, in which families have access to usual care homeless and housing assistance but do not have priority access to any particular program.

A report on the short-term impacts of priority access to the Family Options Study interventions examines impacts in five domains related to family well-being, which are (1) housing stability, (2) family preservation, (3) adult well-being, (4) child well-being, and (5) self-sufficiency (Gubits et al., 2015). The report presents the impacts of program interventions during the first 20 months following random assignment based on the responses of 1,857 families from a followup survey and describes the relative costs of the interventions based on program use during that period.<sup>2</sup>

Assignment to the long-term rent subsidy group led to greater housing stability during the 20-month followup period compared with priority access to the other interventions or with usual care. For example, compared with usual care, priority access to long-term rent subsidies reduced homelessness, stays in shelter, and involuntary doubling up. Assignment to the SUB intervention reduced the number of child separations and number of schools children attended compared with UC and reduced the incidence of intimate partner violence. Assignment to the SUB intervention reduced the percentage of families who worked for pay in the week prior to the survey and in the period since random assignment. Priority access to long-term rent subsidies led to increased food security and had no effect on overall cash income (Gubits et al., 2015).

This article takes a closer look at the SUB intervention, with a focus on families who received priority access to a housing voucher and used that subsidy, as well as on families who did not receive priority access to vouchers but, nevertheless, used voucher assistance. Gubits et al. (2015) presented experimental analysis of families assigned to the SUB intervention. This article, in contrast, does not use a randomly assigned comparison group. For example, within the SUB group, we compare families who succeeded in leasing up with vouchers to families who did not, and these families differ in ways that have not been controlled through random assignment. Instead, we use cross tabulations and multivariate analysis to show correlations between family (and site) characteristics and voucher use.

<sup>&</sup>lt;sup>1</sup> The 12 communities participating in the study are Alameda County, California; Atlanta, Georgia; Baltimore, Maryland; Boston, Massachusetts; Bridgeport and New Haven, Connecticut; Denver, Colorado; Honolulu, Hawaii; Kansas City, Missouri; Louisville, Kentucky; Minneapolis, Minnesota; Phoenix, Arizona; and Salt Lake City, Utah.

<sup>&</sup>lt;sup>2</sup> Gubits et al. (2016) presented the impacts on study families during a longer period, 37 months after random assignment.

In the sites that included the SUB intervention, the intervention was a tenant-based subsidy provided by one or more public housing agencies (PHAs) through the HCV program for 92 percent of family referrals.<sup>3</sup> The HCV program is the federal government's largest housing assistance program, providing rental subsidies to more than 2 million households across the country. The voucher program is not an entitlement open to all households who meet income and other eligibility requirements but, instead, is limited in size by congressional appropriations. Thus, assistance from the HCV program usually is only accessible to families who get themselves on waiting lists and come to the top as program slots become available through turnover or expanded appropriations.

A family assigned to receive priority access to a voucher was referred to a PHA that had agreed to put study families at the top of its waiting list and offer them turnover slots immediately. Once accepted by the PHA as eligible for the program and issued a voucher, a family could use the voucher to rent a housing unit of its choice in the private rental market. The housing unit had to meet HUD's Housing Quality Standards and to have a rent that the PHA determined reasonable when compared with the rents of unassisted units in the same housing market. The voucher assistance subsidized the monthly rent for the unit, and the amount that the subsidy provided was the payment standard established by the PHA (or the unit's actual rent, if lower) minus 30 percent of the family's adjusted monthly income.<sup>4</sup>

Once a family leases up with a housing voucher, the family can retain the subsidy assistance indefinitely, assuming the family maintains program eligibility. Family income is recertified annually and must remain low enough to qualify the family for a subsidy value greater than zero. The family must pay its share of rent and not engage in lease violations. A family with a housing voucher may move to another housing unit and continue to use the subsidy, as long as the new unit has a willing landlord and meets program requirements.

PHAs have viewed people experiencing homelessness as having difficulties with some of the processes for using vouchers—in particular, documenting eligibility and income and finding a housing unit in the private market with a willing landlord. PHAs have cited those difficulties as reasons for not giving families and individuals experiencing homelessness preferential positions on HCV waiting lists. PHAs have argued that they are not adequately compensated for the additional effort it takes to serve households experiencing homelessness through HUD's reimbursement system for HCV program administrative costs (Dunton et al., 2014; Finkel et al., 2015). In this study, the SUB intervention could include assistance with the processes involved in using a voucher—for example, from the staff of emergency shelters—but it did not include ongoing social services linked to receiving the housing subsidy. The Family Options Study did not collect systematic information on the extent to which emergency shelter staff helped families navigate the process of using a housing

<sup>&</sup>lt;sup>3</sup> For some families, the SUB intervention was not a housing voucher. Honolulu offered permanent housing subsidies through public housing units for nearly three-fourths of families. The remaining 10 families assigned to the SUB intervention were offered tenant-based assistance operated by the Department of Community Services and very similar to the HCV program. The Connecticut study site referred 15 families assigned to the SUB intervention to developments with project-based vouchers.

<sup>&</sup>lt;sup>4</sup> Payment standards are adjusted for the number of bedrooms in a unit. Actual rents include estimates of utility costs that tenants pay. Details regarding the calculation of housing assistance payments under the HCV program are in 24 CFR Part 982.505. This calculation is part of the standard design of the HCV program.

voucher. However, members of the study team responsible for monitoring study implementation report that staff of at least some of the emergency shelters in which families were staying at the time they were offered priority access to vouchers did provide such assistance.

### **Eligibility Screening for Study Families**

Before random assignment, the Family Options Study screened families by asking questions related to eligibility for the programs to which families might be randomly assigned. Preliminary screening was intended to reduce the chance that a family be given priority access to a program for which they would later be determined ineligible.<sup>5</sup>

The HCV program has statutory eligibility criteria that require prospective families to document U.S. citizenship or legal status, absence of drug-related criminal convictions, lack of previous evictions from a federally funded housing program, and absence of arrearages due to a PHA. Some participating PHAs asked the study team to screen participants for these requirements, and some PHAs asked the study team to add eligibility screening criteria beyond those required by statute or by HUD regulations. For example, some PHAs had locally established eligibility criteria such as a consistent source of income, the family's willingness to reside within the PHA's jurisdiction, or the family's ability to pay security deposits and other startup costs. However, of the families who were screened for PHA-administered programs, 98 percent appeared to meet the PHA's eligibility criteria and were considered for random assignment to the SUB intervention (Gubits et al., 2013).

Pre-random-assignment eligibility screening was not a formal eligibility determination process.<sup>6</sup> Following random assignment to an intervention and referral to an intervention provider, families had to complete the program's regular eligibility determination process. The study team found that, in some cases, families were determined ineligible for the program after completing the program's eligibility determination process. After random assignment, 11 percent of families assigned to PHA-administered programs were screened out despite the previous screening (Gubits et al., 2013).<sup>7</sup>

### Data on Use of HCV and Other Programs by Study Families

The Family Options Study collected several types of information on study families' use of the study's interventions and on their use of housing programs and homeless assistance programs other than the programs to which the families were randomly assigned.

<sup>&</sup>lt;sup>5</sup> The small number of families not considered for random assignment to the HCV program were given the opportunity to be randomly assigned to one of the study's other treatment groups, as long as at least two treatment groups were available at that time in the community and if the family passed preliminary screening for the available programs. See Gubits et al. (2013) and Gubits et al. (2015) for more on the mechanics of preliminary screening and the way it affected the study's analytical approach.

<sup>&</sup>lt;sup>6</sup> Shinn et al. (2017) provide more information on the availability and targeting of homeless system resources, including eligibility criteria for the programs to which families in the study were given priority access.

<sup>&</sup>lt;sup>7</sup> Some other families may have failed to take the next step after being told a PHA had a voucher for them and, therefore, were never issued a voucher by the PHA.

The study team used that information to create a program usage file of family-level information on the program type, the date a family entered that program, and the date a family left the program.<sup>8</sup> The program usage file uses the following data sources.

- 1. Enrollment verification data submitted by PHAs and providers of programs in the CBRR and PBTH treatment groups.
- 2. Survey data that adults of study families provided in 6- and 12-month tracking surveys and in followup surveys.
- 3. Administrative data in HUD's data systems for the HCV program and other housing assistance programs.
- 4. Administrative data in communities' Homeless Management Information System (HMIS). Providers of CBRR, PBTH, and other homeless assistance programs submit data to HMIS.

For each data element needed (program type and program entry and exit dates) to determine which programs a family used during which time periods, the study team applied a set of rules for deciding which data to preserve if two data sources had conflicting information for the same family and the same time period. Generally, the team considered the enrollment verification data the most reliable for program type and program entry dates and the administrative data sources the most reliable for program exit dates. The survey data accounts of project entry and exit dates and descriptions of the type of projects were considered the least reliable because of difficulties families might have identifying program types and retrospectively accounting for specific dates over a number of months (National Research Council, 2001).

# Patterns of Voucher Use by Families With Priority Access to Vouchers

In this section, we consider patterns of voucher use by families who had priority access to a voucher, because they were randomly assigned to the SUB intervention. A later section covers patterns of program use by families who did not have such priority access but who, nonetheless, used a voucher. Patterns of program use include lease-up rates (the number of families with priority access to a voucher and used the voucher), how long it took families to go through the process of using a voucher, and whether families used other homeless assistance programs (besides emergency shelter) before using the voucher. This section also considers which families with priority access to a voucher were able to use the voucher and whether certain family characteristics made voucher use less likely.

<sup>&</sup>lt;sup>8</sup> This article focuses on the 1,857 families reinterviewed at 20 months, whereas Shinn et al. (2017) include all 2,282 families eligible for followup, regardless of whether families were successfully reinterviewed at the 20-month followup.

<sup>9</sup> Appendix A describes the construction of the program usage data in further detail.

#### **Lease-Up Rates Among Families With Priority Access to Vouchers**

Of the 502 families given priority access to vouchers, 82.3 percent, or 413 families, leased up with a voucher within 20 months. <sup>10,11</sup> Eleven percent of the families receiving priority access to PHA-administered programs subsequently were screened out by PHAs; therefore, the success rate of families issued vouchers—a metric other studies use—was even higher than 82.3 percent. <sup>12</sup> The rate among families given priority access to vouchers was also substantially higher than rates for all families (not just homeless families) who attempted to use vouchers. <sup>13</sup>

Families used vouchers at different rates in different communities in the study. The lease-up rate of families with priority access to vouchers ranged from 30 to 95 percent (exhibit 1). Alameda, Boston, Connecticut, and Phoenix all had HCV lease-up rates that exceed 90 percent. Kansas City and Salt Lake City are among the sites with the lowest HCV-use rates, under 75 percent. Honolulu had only 10 families referred to an HCV program, and only 3 of them leased up.

Families who successfully lease up with a voucher must first find an available private market unit with a rent that the HCV subsidy standard can meet. We might expect that a loose housing market with a high vacancy rate would result in a relatively high HCV lease-up rate. This scenario was true for Phoenix and for the two study communities in Connecticut—New Haven and Bridgeport. Those sites had among the highest HCV lease-up rates and the highest rental vacancy rates (11.7 percent for Phoenix and 12.3 percent for Connecticut) (Gubits et al., 2015). However, other sites with very high voucher lease-up rates are also the areas with the tightest housing markets. In 2010, Boston had the lowest rental vacancy rate of all the sites (5.4 percent), and Alameda's vacancy rate was among the lowest of the sites (5.6 percent). Although homeless families may face more challenges to finding suitable housing in environments with few vacancies and high competition for housing, they may also have access to additional resources to identify vacant units meeting

<sup>&</sup>lt;sup>10</sup> Of families randomly assigned to the SUB intervention and interviewed at followup, 84.2 percent, or 446 out of 530 families, used a long-term rent subsidy at some point from random assignment until the 20-month followup interview. A few of those families were given access and moved into public housing units in Honolulu. Of the 38 families assigned to the SUB intervention in Honolulu, only 10 were given priority access to the tenant-based program that is similar to HCV, bringing the original 530 families to 502 families with priority access to the HCV program.

<sup>&</sup>lt;sup>11</sup> This number includes lease up among the 15 families in Connecticut that received priority access to a project-based voucher rather than tenant-based vouchers. It also includes the 10 families in Honolulu who received priority access to the tenant-based assistance that the Department of Community Services operates.

<sup>&</sup>lt;sup>12</sup> A precise voucher success rate, similar to that used in Finkel and Buron (2001), cannot be calculated for the Family Options Study because of data limitations. We know the number of families who went to the PHA and then were screened out, but we do not know the number of families, despite given priority access to vouchers, who did not take the next step and attempt to go through the eligibility screening process. Thus, we do not have the number of families who were issued vouchers to compare with the number of families that succeeded in using vouchers. We know that 82 percent of families given priority access to vouchers leased with vouchers; thus, the success rate must exceed 82 percent. Gubits et al. (2013) estimated a preliminary success rate of 92 percent based on early information collected during enrollment. This success rate may be somewhat overstated, as it does not take account of the small percentage of families who did not respond to the followup survey. Administrative data suggests that the rate at which they leased up with vouchers was lower than the rate for survey respondents.

<sup>&</sup>lt;sup>13</sup> Finkel and Buron (2001) found national voucher success rates to be 69 percent in 2000. They cite earlier studies that found the rate was 68 percent in the mid--1980s and 81 percent in 1993.

Exhibit 1

Voucher Lease-Up Rates Among Families With Priority Access to Vouchers, by Study Site

Cito	Number of Families With	Voucher	Number of	
Site	Priority Access to a Voucher	Lease-Up Rate (%)	Leased Up Families	
Overall	502	82.3	413	
Alameda	72	91.7	66	
Boston	60	95.0	57	
Connecticut	42	90.5	38	
Denver	65	83.1	54	
Honolulu	10	30.0	3	
Kansas City	47	68.1	32	
Louisville	25	76.0	19	
Minneapolis	55	78.2	43	
Phoenix	63	93.7	59	
Salt Lake City	63	66.7	42	

Notes: Atlanta and Baltimore were study sites, but they did not have the SUB intervention, and no families in those sites had priority access to a voucher. Honolulu used its public housing program to set aside units for nearly three-fourths of the SUB intervention. Because 28 SUB families were not granted priority access to vouchers, we remove them from the universe of families with priority access to vouchers, leaving 10 families. Connecticut referred 15 of the 42 families assigned to the SUB intervention to project-based voucher programs instead of tenant-based voucher programs. We count these 15 families as having priority access to vouchers.

Source: Family Options Study program usage data, from random assignment through the 20-month interview

housing quality standards. We know that emergency shelter staff in some study sites provided such assistance. He Furthermore, across all types of housing markets, people staying in shelters with children may be strongly motivated to do whatever it takes to use housing subsidies, compared, for example, with families who come to the top of voucher waiting lists at times when they are not in crisis.

## Time Between Random Assignment and Voucher Lease Up Among Families With Priority Access to Vouchers

Gaining priority access to a voucher through the study's random assignment was the equivalent of coming to the top of a waiting list for the HCV program. Families then had to go through the standard HCV program processes, including presenting documentation to the PHA on the family's eligibility for the program and the family's income, attending a PHA briefing on program rules, receiving the voucher from the PHA, <sup>15</sup> searching for a housing unit with a willing landlord, and having the PHA inspect the housing unit and determine that the unit passes a quality standard and has rent in line with market rents for similar units. Families trying to use vouchers often present more than one housing unit to the PHA before successfully leasing up.

<sup>&</sup>lt;sup>14</sup> Staff of emergency shelters often help families get on waiting lists for vouchers and other forms of assisted housing, the same as they help families apply for other subsidy and benefit programs available to low-income families. The Family Options Study did not collect systematic information on which emergency shelters in which study sites provided such assistance, but members of the study team responsible for monitoring study implementation report that some emergency shelters provided it.

<sup>&</sup>lt;sup>15</sup> The voucher is a document that provides the family with information on the maximum subsidy that the family can receive, based on the family's size and composition and the HCV program's subsidy standard.

This analysis of the amount of time it took families to go through the process of using a voucher focuses on a subset of families who completed a 20-month followup interview, who leased up with vouchers prior to their interviews, and have records in the Public and Indian Housing Information Center (PIC) data system. PIC records offer the most specific program entry dates of all our data sources, allowing us to measure program use to the day. PIC has records for 395 of the 413 families with priority access to a voucher who leased up. <sup>16</sup>

Families with priority access completed the lease-up process and started to receive HCV subsidies nearly 4 months (114 days) on average after their random assignment date (exhibit 2). This length of time is not an unusually long for families trying to use vouchers to lease up (Finkel and Buron, 2001). HCV program rules give families 60 days from the date the PHA issues the voucher to lease up with a voucher before dropping the family from the program and offering the voucher to a different household; however, PHAs are allowed to, and often do, extend the time for families who are actively searching for housing to around 120 days from the point of voucher issuance. 18

Exhibit 2

Average Time Between Random Assignment and Start of Housing Subsidy Among

Families With Priority Access to Vouchers, by Study Site

Site	Number of Families Using a Voucher	Average Number of Days
Overall	395	114
Alameda	65	66
Boston	54	188
Connecticut	37	130
Denver	53	92
Honolulu	0	NA
Kansas City	29	108
Louisville	18	120
Minneapolis	42	124
Phoenix	57	72
Salt Lake City	40	153

NA = not applicable.

Notes: These data are based on a subset of families in the program usage data with records in the Public and Indian Housing Information Center (PIC) showing housing assistance payment start dates in the Housing Choice Voucher program. Although Honolulu had three families who received priority access and used tenant-based assistance that is very similar to a voucher, data on the assistance are not recorded in the PIC data and are not included. Atlanta and Baltimore were study sites, but they did not have the SUB intervention, and no families in those sites had priority access to a voucher.

Source: Family Options Study program usage data, from random assignment through the 20-month interview

<sup>&</sup>lt;sup>16</sup> Rates at which PHAs report household records to PIC are high, but some PHAs may fail to report information for some families or the timing of PIC extracts used for analysis may miss some families.

<sup>&</sup>lt;sup>17</sup> Finkel and Buron (2001) found that the length of time from voucher issuance to lease-up date was 83 days on average nationally. Those who could not lease in place but had to move into a new unit, which is most similar to the situation faced by the Family Options Study families, took 89 days on average. Nearly one-fourth (23 percent) of households who leased up with a voucher nationally took more than 120 days from voucher issuance to lease-up date. In contrast to Finkel and Buron (2001), the start of the clock for the time periods reported in exhibit 2 is at random assignment, which is prior to voucher issuance. The full period of time for our measure starts an earlier point in the process than the Finkel and Buron (2001) measure.

<sup>&</sup>lt;sup>18</sup> Program rules and guidelines are available in the Housing Choice Voucher Program Guidebook (HUD, 2001).
Information about voucher search time and extensions is in Chapter 8. Finkel and Buron (2001) also noted that before program rule changes in 1999, PHAs were restricted to a maximum search time limit extension of 120 days. After the rule change, however, the extension periods were no longer restricted and left at the discretion of the PHA.

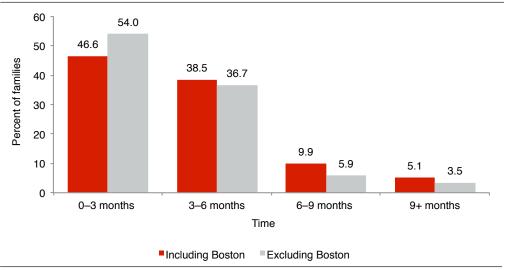
The average length of time, from random assignment to voucher lease up, varied by site. Among those with priority access to vouchers, families leased up after as little as 2 months (66 days) on average in Alameda County. In contrast, lease up took more than 6 months (188 days) on average in Boston. Next to Alameda, the shortest times from random assignment to lease up occurred in Phoenix (72 days on average) and Denver (92 days on average). Next to Boston, families with priority access in Salt Lake City (153 days on average) and Connecticut (130 days on average) took the longest time.

Boston, a right to shelter community, assures all homeless families some form of emergency housing. With a tight housing market and a strong emergency shelter system, families in Boston took the longest time to use the vouchers to which they received priority access.

Exhibit 3 shows a distribution of the length of time for families to lease up across the sites in which families received priority access to vouchers. We present this information with and without Boston because of the apparent effect of Boston's right to shelter policy in extending the time families remained in shelter before using the voucher. Because they could remain in shelter indefinitely and return to shelter at any time, families in Boston may have felt less urgency about finding a housing unit in which to use the voucher. Among all sites (including Boston), nearly one-half (46.6 percent) of the families who used a voucher had begun to do so within 3 months. Within 6 months, 85.1 percent of families who would lease up had done so. Excluding Boston, more than one-half (54.0 percent) of the families who leased up a voucher did so within 3 months of random assignment when given priority access to a voucher.

Exhibit 3

Time Between Random Assignment and Start of Housing Subsidy Among Families With Priority Access to Vouchers



Notes: These data are based on a subset of families in the program usage data with Public and Indian Housing Information Center (PIC) records showing housing assistance payment start dates in the Housing Choice Voucher program. Time is measured in days between the study's random assignment date and the start of the housing assistance payment in the PIC data. Excluding Boston reduces the analysis sample to 341 families. Time categories are 0–3 months is 0–90 days, 3–6 months is to 91–180 days, 6–9 months is 181–270 days, and 9 or more months is 271 or more days. Source: Family Options Study program usage data, from random assignment through the 20-month interview

#### **Using Other Homeless Assistance Programs Before Leasing Up With Vouchers**

Random assignment to a Family Options Study intervention did not prohibit families from finding their way to programs to which they were not assigned. This gives us an opportunity to explore how patterns of voucher use fit into the way in which families use the homeless assistance system. For this analysis, we continue to focus on the subset of families for which we have voucher lease-up information from PIC.

During the time between random assignment to priority access to a voucher and leasing up, families could have used other homeless assistance programs, such as transitional housing or rapid re-housing. Managers of homeless assistance systems in some communities intentionally use transitional housing or rapid re-housing as a pathway to long-term rent subsidies, and emergency shelter staff may advise families to use the system in that way. Either emergency shelter staff or families may view the short-term case management that other programs provide as beneficial.

Most study families given priority access to vouchers did not use other programs first but, instead, went directly to leasing up with vouchers; however, we observe some variation among communities. We identified the three most common homeless assistance program pathways followed by families before leasing up with a voucher—(1) emergency shelter to HCV, (2) emergency shelter to rapid re-housing to HCV, and (3) emergency shelter to transitional housing to HCV. Within any of these pathways, gaps in program use or other periods of emergency shelter use may exist. For example, in the emergency shelter to rapid re-housing to HCV pathway, some families experienced gaps in the use of homeless assistance programs or multiple stays in emergency shelter, but rapid re-housing rather than another homeless assistance program was the way station before using HCV.

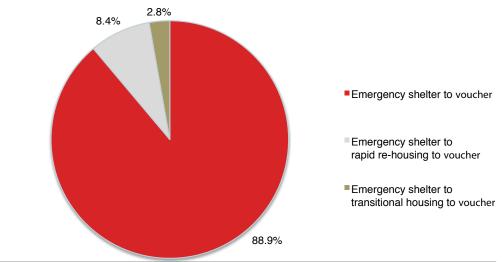
Most families with priority access to vouchers used emergency shelter and then a voucher (88.9 percent), as exhibit 4 shows. Across all study sites, families used vouchers after first receiving rapid re-housing assistance only 8.4 percent of the time. These families did not have priority access to rapid re-housing programs because of the study but received rapid re-housing assistance anyway. Only 11 families (2.8 percent) with priority access to vouchers used transitional housing first.

Exhibit 5 shows the frequency of program use pathways by study site among families who leased up using the vouchers to which they had priority access. Salt Lake City had the lowest share of families who went from emergency shelter to leasing up with vouchers without first using another homeless assistance program. Three in five families (60.0 percent) with priority access to HCVs used rapid re-housing before leasing up with vouchers. Nearly one in five families (16.7 percent) in Minneapolis also used rapid re-housing before leasing up with a voucher. Both Salt Lake City and Minneapolis have large rapid re-housing programs with strong commitments to helping families leave shelter immediately. Although the study did not give these families priority access to rapid re-housing, families in those communities were able to gain access to rapid re-housing assistance before using voucher subsidies.

<sup>&</sup>lt;sup>19</sup> In some cases, rapid re-housing services may have been case management received while families were in shelter, rather than rental assistance. We attempted to review and edit rapid re-housing data records to capture receipt of rental assistance, but some instances of case management only may remain in the data.

Exhibit 4

## Pathways to Leasing Up With Vouchers Among Families With Priority Access to Vouchers



Note: These data are based on a subset of families in the program usage data with records in the Public and Indian Housing Information Center showing housing assistance payment start dates in the Housing Choice Voucher program.

Source: Family Options Study program usage data, from random assignment through the 20-month interview

#### Exhibit 5

Homeless Assistance Program Use Before Leasing Up With Vouchers Among Families With Priority Access to Vouchers, by Study Site

Site	Number of Families	ES-HCV (%)	ES-RR-HCV (%)	ES-TH-HCV (%)
Overall	395	88.9	8.4	2.8
Alameda	65	100.0	0.0	0.0
Boston	54	98.1	1.9	0.0
Connecticut	37	97.3	0.0	2.7
Denver	53	92.5	1.9	5.7
Honolulu	0	0.0	0.0	0.0
Kansas City	29	82.8	0.0	17.2
Louisville	18	88.9	0.0	11.1
Minneapolis	42	83.3	16.7	0.0
Phoenix	57	100.0	0.0	0.0
Salt Lake City	40	40.0	60.0	0.0

ES-HCV = emergency shelter to Housing Choice Voucher (HCV) program. ES-RR-HCV = emergency shelter to rapid rehousing to HCV program. ES-TH-HCV = emergency shelter to transitional housing to HCV program.

Notes: These data are based on a subset of families in the program usage data with records in the Public and Indian Housing Information Center (PIC) showing housing assistance payment start dates in the Housing Choice Voucher program. Although Honolulu had three families who received priority access and used tenant-based assistance that is very similar to a voucher, data on the assistance are not recorded in the PIC data and are not included. Atlanta and Baltimore were study sites, but they did not have the SUB intervention, and no families in those sites had priority access to a voucher.

Source: Family Options Study program usage data, from random assignment through the 20-month interview

Exhibit 6

In Kansas City and Louisville, relatively large shares of families with priority access to vouchers first used transitional housing programs to which the study had not given them priority access (17.2 and 11.1 percent).

## Family Characteristics Associated With Voucher Lease Up Among Families With Priority Access to Vouchers

Despite the very high rates at which families with priority access to vouchers leased up, not all families did. Providers of emergency services to families experiencing homelessness and PHAs attempting to serve homeless families may benefit from knowing which types of families have more or less difficulty navigating the lease-up process. The process of leasing up with a voucher includes getting through a PHA's processes for documenting eligibility and income, searching for housing that meets the HCV program's standards, and finding a willing landlord. We investigate the following family characteristics gathered at the time families were staying in emergency shelters from their baseline surveys—race and ethnicity, income and education, family composition, prior housing instability, and self-reported histories of alcohol or drug abuse and felony convictions.

Some characteristics are more common than others. For example, only 12.2 percent of families given priority access to vouchers said that they had an adult family member with a past instance of a felony conviction, whereas 84.9 percent of families said they had a history of doubling up as an adult because they could not afford rent (exhibit 6).

Voucher Lease-Up Rates Among Families With Priority Access to Vouchers, by Selected Baseline Characteristics

	Percent of Families With	Percent Who Leased Up
Baseline Characteristic	Priority Access to a Voucher	With a Voucher
Total (N = 502)	100.0	82.3
Alcohol or drug abuse in the past year	19.9	73.0
History of eviction	46.0	78.8
Felony conviction of at least one adult family member	12.2	68.9
Race/ethnicity—White, not Hispanic	22.3	75.0
Black/African American, not Hispanic	38.6	85.1
Hispanic	24.7	89.5
Asian/Pacific Islander/other, not Hispanic	14.3	73.6
Annual family income less than \$5,000	34.5	82.7
High school diploma/GED	39.8	86.0
WIC or TANF receipt	60.2	86.1
Adult partner is present	23.3	76.0
Ever doubled up as adult because couldn't pay rent	84.9	81.7
Anyone age 15+ in the family has a disability that limits or prevents work	36.3	80.2

GED = General Equivalency Development. TANF = Temporary Assistance for Needy Families. WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Sources: Family Options Study program usage data, from random assignment through the 20-month interview; baseline survey

The cross tabulations in exhibit 6 show that, indeed, some variation exists in the rates at which families with a particular characteristic leased up. For example, families with an adult who reported alcohol or drug abuse in the past year had relatively low lease-up rates. Similarly, families identifying their race and ethnicity as White and not Hispanic had low lease-up rates. However, some family characteristics may be related to each other or may vary across study sites. For example, the association of family characteristics with leaseup rates may reflect site-to-site variations in housing market characteristics or the type of housing search assistance from program staff. Therefore, we used logistic regression models to perform a multivariate analysis to estimate the relationship between each characteristic and voucher lease up while holding other factors constant. Exhibit 7 displays the results of a logit model that predicts lease up with a voucher for families

Exhibit 7

Logit Model Predicting Voucher Lease Up Among Families With Priority Access to Vouchers

	Priority Access (N = 502)		
	Log-Odds	Odds	<i>p</i> -value
Intercept	1.731		
Family-level characteristics			
Alcohol or drug abuse in the past year	- 0.594	0.552	0.058*
History of eviction	- 0.320	0.726	0.243
Felony conviction of at least one adult family member	- 0.600	0.549	0.086*
Race/ethnicity (Reference = Black/African American, no	t Hispanic)		
White, not Hispanic	- 0.296	0.744	0.400
Asian/Pacific Islander/other, not Hispanic	- 0.192	0.826	0.634
Hispanic	0.357	1.430	0.390
High school diploma/GED	0.355	1.426	0.203
Adult partner is present	- 0.269	0.764	0.367
Ever doubled up as adult because couldn't pay rent	- 0.524	0.592	0.188
WIC or TANF receipt	0.436	1.546	0.113
Anyone age 15+ in the family has a disability that	0.201	1.223	0.469
limits/prevents work			
Annual family income (in thousands)	0.121	1.129	0.039**
Sites (Reference = Minneapolis)			
Alameda	0.846	2.329	0.142
Boston	1.129	3.092	0.114
Connecticut	0.431	1.539	0.508
Denver	0.282	1.326	0.579
Honolulu	- 2.785	0.062	0.004**
Kansas City	- 0.647	0.524	0.189
Louisville	0.084	1.088	0.889
Phoenix	1.710	5.529	0.008**
Salt Lake City	- 0.248	0.780	0.611

GED = General Equivalency Development. TANF = Temporary Assistance for Needy Families. WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Notes: Unlike the impact models in Gubits et al. (2015), these models do not incorporate survey nonresponse weights. Atlanta and Baltimore were study sites, but they did not have the SUB intervention, and no families in those sites had priority access to a voucher. Observations with missing values for the explanatory variables were imputed.

Sources: Family Options Study program usage data, from random assignment through the 20-month interview; baseline survey

<sup>\*</sup> p < 0.1. \*\* p < 0.05.

with priority access to HCV subsidies.<sup>20</sup> The model controls for family characteristics and for study sites—that is, for the community in which the family stayed in emergency shelter. Exhibit 7 reports log-odds coefficients, odds ratios, and *p*-values.<sup>21</sup> Coefficients with a *p*-value less than 0.05 are statistically significant, and those less than 0.10 are marginally statistically significant.

Two family characteristics predict a lower chance of leasing up with a voucher with marginal statistical significance. Among those with priority access to vouchers, the chance that a family with an adult with recent alcohol or drug abuse would lease up with a voucher were 44.8 percent of the chance that a family without an adult with substance abuse would lease up (p-value = 0.058), controlling for other family characteristics and the family's community. Among those with priority access to vouchers, the chance that a family that had at least one adult with a felony conviction prior to the family's shelter stay would lease up with a voucher were 45.1 percent of the chance that a family without an adult with a prior felony conviction would lease up (p-value = 0.086). In other words, it is less likely a family with these negative characteristics will use a voucher compared with a family without those negative characteristics, despite having priority access to a voucher.

No PHA asked the study team to screen families for substance abuse before random assignment. PHAs may have applied such a criterion during the later formal process of determining eligibility. In addition, families with such characteristics may have had more difficulty taking the further steps needed to lease up. Something about a family's substance abuse may have been apparent to landlords from whom they attempted to rent a housing unit.

Family Options Study families have incomes that place most of them in deep poverty,<sup>22</sup> with a median household income when in emergency shelter at the start of the study of only \$7,410 a year. Although the cross tabulation showed that families with income below \$5,000 per year leased up at the same rate as all families with priority access to vouchers (82.7 versus 82.3 percent), the multivariate analysis showed something different, with statistical significance. Among families with priority access to vouchers, the odds of leasing up with a voucher increased for a family with a higher annual income at baseline (p-value = 0.039).

# Patterns of Voucher Use Among Families Without Priority Access to Vouchers

We now turn to families whom the study did not give priority access to the voucher program and who, nonetheless, found their way to the HCV program and leased up with vouchers. Of the families without priority access to vouchers, 7.9 percent, or 105 families, leased up with a voucher during the 20-month followup period.<sup>23</sup> Although this percentage is small, it may be surprising

<sup>&</sup>lt;sup>20</sup> See appendix B for intermediary models that do not include site-level covariates.

<sup>&</sup>lt;sup>21</sup> The odds ratio coefficients are less than 1 for log-odds values that are negative, and coefficients are above 1 for positive log-odds values. Both are presented for convenience.

<sup>&</sup>lt;sup>22</sup> The U.S. Department of Health and Human Services considers a family with an income of less than 50 percent of the federal poverty level to be in deep poverty.

 $<sup>^{23}</sup>$  This analysis includes only families who responded to the study's followup survey at approximately 20 months following random assignment.

that any homeless families without priority access to vouchers obtained and used vouchers.<sup>24</sup> Managers of the homeless services systems in some communities consider vouchers essentially unavailable because of long waiting lists, and they do not consider the HCV program to be part of the approach to serving homeless families. Alternatively, some homeless assistance systems may try to use temporary rental assistance or transitional housing as a bridge to a long-term rent subsidy.

The study did not require that families take up their assigned intervention and did not prevent them from taking up other interventions of their choosing. Therefore, families who leased up with vouchers could have been randomly assigned to the CBRR or PBTH interventions or to the UC group. Unlike the families that the study granted priority access to vouchers, a family without priority access had to receive a voucher by putting themselves on a waiting list and then reaching the top of that list maintained by the local PHA. The study did not ask families whether they were on waiting lists for assisted housing at the time of random assignment, nor did we collect this information from PHAs. Without that information, we used what we know about the families, the PHAs, and the homeless assistance systems in the study communities to explore how families in emergency shelter come to use the HCV program during the course of a year and a half following stays in emergency shelters.

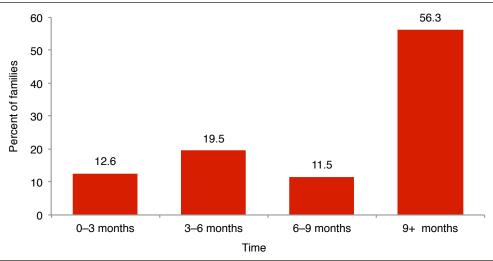
## Time Between Random Assignment and Voucher Lease Up for Families Without Priority Access to Vouchers

A study family could have spent time on a PHA's waiting list for the HCV program before the random assignment date. We know only the time it took after random assignment to an intervention for a family to lease up with a voucher. Following the date of random assignment, it took families without priority access to vouchers—those assigned to the CBRR, PBTH, or UC interventions—an average of 10 and one-half months (320 days) to lease up with vouchers, 2.8 times longer than families with priority access (114 days). Only 12.6 percent of families in other assignment groups leased up within the first 3 months after random assignment (exhibit 8). Only 43.6 percent of families without priority access who used vouchers leased up within 9 months. Although some families without priority access to vouchers were able to obtain and use vouchers, the pattern for these families reflects the fact that they did not go to the top of waiting lists immediately but, rather, were called from them in whatever order the PHA's usual policies determined.

<sup>&</sup>lt;sup>24</sup> Some other study families not assigned to the SUB treatment group used other forms of housing assistance such as public housing or project-based Section 8 during the 20-month followup period.

Exhibit 8

Time Between Random Assignment and Start of Housing Subsidy Among Families Without Priority Access to Vouchers



Notes: These data are based on a subset of families in the program usage data with Public and Indian Housing Information Center (PIC) records showing housing assistance payment start dates in the Housing Choice Voucher program. Time is measured in days between the study's random assignment date and the start of the housing assistance payment in the PIC data. Although the Atlanta and Baltimore study sites were excluded from prior analyses, they are included here, because they had families assigned to other study interventions. Time categories are 0–3 months is 0–90 days, 3–6 months is 91–180 days, 6–9 months is 181–270 days, and 9 or more months is 271 or more days.

Source: Family Options Study program usage data, from random assignment through the 20-month interview

## Effect of Local Policies on Whether Families Without Priority Access to Vouchers Nonetheless Leased Up With Vouchers

Local policies—policies of the PHA or policies of the homeless assistance system—may affect the likelihood that a family with a recent experience of homelessness can gain access to the HCV program and lease up with a voucher subsidy. PHAs are permitted to order waiting lists by using preferences for people with particular characteristics, and many PHAs do so to create priorities for homeless people. PHA preference systems are complex, and the priority can place a family at the top of a waiting list immediately, increase a family's likelihood of coming to the top of a waiting list in a relatively short period of time, or give a family access to a voucher that the PHA set aside for clients of particular programs that provide services to homeless people.

The rates at which families without priority access to vouchers nonetheless leased up with vouchers differed considerably by study site (exhibit 9). The lease-up rates range from under 3 percent in Baltimore and Phoenix to above 10 percent in Boston and Denver. Of the study sites, Boston has the highest rate of voucher use among families in the study's other assignment groups, 28.6 percent. Part of the explanation may be that Boston has a right to shelter policy, so families can remain in shelter until they reach the top of an HCV waiting list. <sup>25</sup> Further analysis shows that

<sup>&</sup>lt;sup>25</sup> The state's Emergency Assistance program implements the right to shelter policy. http://www.mass.gov/hed/economic/eohed/dhcd/legal/regs/760-cmr-67.pdf.

Exhibit 9

Voucher Lease-Up Rates Among Families Without Priority Access to Vouchers, by Study Site

Site	Percent Leasing Up With Vouchers	Number of Families Without Priority Access to Vouchers	Number of Families Without Priority Access Who Leased Up With Vouchers
Overall	6.6	1,327	87
Alameda	5.9	135	8
Atlanta	0.7	151	1
Baltimore	0.0	46	0
Boston	28.6	105	30
Connecticut	6.5	123	8
Denver	11.3	71	8
Honolulu	3.3	153	5
Kansas City	6.5	92	6
Louisville	5.4	56	3
Minneapolis	4.6	109	5
Phoenix	2.6	155	4
Salt Lake City	6.9	131	9

Notes: These data are based on a subset of families (87 of 105) in the program usage data with Public and Indian Housing Information Center (PIC) records showing housing assistance payment start dates in the Housing Choice Voucher program. Although the Atlanta and Baltimore study sites were excluded from prior analyses, they are included here, because they had families assigned to other study interventions.

Source: Family Options Study program usage data, from random assignment through the 20-month interview

homeless families in Boston frequently transitioned directly from emergency shelter to HCV, without gaps between leaving emergency shelter and beginning receipt of voucher subsidies. That was the case for 26 of the 30 families in Boston for whom we have enough information on exit dates for emergency shelter programs, as well as entry dates for the HCV program.

In addition, the Boston Housing Authority offers priority points to families in certain emergency shelter programs that have the effect of pushing homeless families toward the top of the voucher waiting list. Families may be more willing to stay in emergency shelter for long periods, because they have strong chances of securing vouchers. Similar to Boston, the Denver Housing Authority prioritizes serving homeless families, with vouchers set aside to serve this population.

The time for families without priority to gain access to vouchers and lease up (exhibit 10) ranged from slightly under 6 months in Connecticut (164 days) and Denver (174 days) to nearly 14 months in Boston (411 days) and Salt Lake City (423 days). PHAs in both Boston and Denver had preferences for homeless families; however, in Denver, the preference seemed to have shortened the waitlist time. In Boston, it seemed to encourage families to remain in emergency shelter while waiting for vouchers.

<sup>&</sup>lt;sup>26</sup> The very short amount of time for a family in Atlanta, 25 days, is puzzling. No families in Atlanta received priority access to vouchers (the Atlanta Housing Authority did not participate in the study). This family may have been well along in the process of using a voucher at the time the family was randomly assigned to one of the interventions available in Atlanta.

#### Exhibit 10

Average Time Between Random Assignment and Start of Housing Subsidy Among Families Without Priority Access to Vouchers, by Study Site

Site	Number of Families Who Leased Up With a Voucher	Average Number of Days
Overall	87	320
Alameda	8	214
Atlanta	1	25
Baltimore	0	NA
Boston	30	411
Connecticut	8	164
Denver	8	174
Honolulu	5	373
Kansas City	6	295
Louisville	3	270
Minneapolis	5	362
Phoenix	4	253
Salt Lake City	9	423

NA = not applicable.

Note: These data are based on a subset of families (87 of 105) in the program usage data with Public and Indian Housing Information Center (PIC) records showing housing assistance payment start dates in the Housing Choice Voucher program. Source: Family Options Study program usage data, from random assignment through the 20-month interview

## Family Characteristics Associated With Voucher Lease Up Among Families Without Priority Access to Vouchers

We used the same logit model to assess the relationship between family characteristics and leasing up for families with priority access to vouchers to understand the characteristics of families in other Family Options Study assignment groups who obtained and used vouchers. In this case, the model sheds light on which families get themselves on waiting lists for the HCV program, as well as which families PHAs find eligible and which families' landlords accept as renters. Exhibit 11 presents the results.<sup>27,28</sup> Again, the model controls for both family characteristics and the communities in which families were residing.

Echoing the finding for families with priority access to vouchers, families without priority access who, at the time of the family's stay in emergency shelter, had an adult with recent drug or alcohol abuse were less likely to use vouchers. Among families without priority access to vouchers, the chance that a family with an adult with recent substance abuse would obtain a voucher and use it were 44.5 percent of the chance a family without an adult with substance abuse would lease up (p-value = 0.018), controlling for other family characteristics and site indicators.

Among families with no priority access to voucher, some characteristics are associated with a greater chance of obtaining and using a voucher during the 20-month period following random

<sup>&</sup>lt;sup>27</sup> Results from the long-term impact report revealed that having priority access to rapid re-housing reduces the use of permanent housing subsidies, including permanent supportive housing programs and mainstream housing programs, during the first half of the followup period (Gubits et al., 2016). The proportions of the CBRR families using any permanent housing subsidy are lower than the corresponding proportions for the UC families in months 6 to 14 and are statistically significantly different in months 2 to 14. This finding suggests analyses mixing families assigned to CBRR and UC in the same model should be interpreted with caution.

<sup>&</sup>lt;sup>28</sup> See appendix B for intermediary models that do not include site-level covariates.

Exhibit 11

Logit Model Predicting Voucher Lease Up Among Families Without Priority Access to Vouchers

	No Priority Access (N = 1,327)		
	Log-Odds	Odds	p-value
Intercept	- 3.585		
Family-level characteristics			
Alcohol or drug abuse in the past year	- 0.810	0.445	0.018**
History of eviction	0.054	1.056	0.820
Felony conviction of at least one adult family member	0.235	1.265	0.522
Race/ethnicity (Reference = Black/African American, no	t Hispanic)		
White, not Hispanic	- 0.233	0.793	0.496
Asian/Pacific Islander/other, not Hispanic	- 0.308	0.735	0.424
Hispanic	- 0.437	0.646	0.153
High school diploma/GED	- 0.019	0.981	0.934
Adult partner is present	0.355	1.426	0.187
Ever doubled up as adult because couldn't pay rent	1.094	2.987	0.013**
WIC or TANF receipt	- 0.165	0.848	0.485
Anyone age 15+ in the family has a disability that limits/prevents work	0.222	1.249	0.331
Annual family income (in thousands)	- 0.043	0.958	0.078*
Sites (Reference = Minneapolis)			
Alameda	0.179	1.196	0.745
Atlanta	- 0.553	0.575	0.367
Baltimore	- 0.389	0.678	0.640
Boston	2.080	8.006	< .0001**
Connecticut	0.279	1.321	0.617
Denver	0.999	2.716	0.066*
Honolulu	0.261	1.299	0.668
Kansas City	0.271	1.312	0.634
Louisville	0.106	1.111	0.873
Phoenix	- 0.683	0.505	0.296
Salt Lake City	0.335	1.398	0.546

GED = General Equivalency Development. TANF = Temporary Assistance for Needy Families. WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Notes: Unlike the impact models in Gubits et al. (2015), these models do not incorporate survey nonresponse weights. Observations with missing values for the explanatory variables were imputed.

Sources: Family Options Study program usage data, from random assignment through the 20-month interview; baseline survey

assignment. Families in the study's other assignment groups that nonetheless leased up with vouchers were more likely to have doubled up in the past when they were financially vulnerable. The likely explanation is that families forced to double up had strong motivations for getting on HCV waiting lists and, thus, were more likely to come to the top of a voucher waiting list within the study's 20-month followup period. The odds of receiving a voucher subsidy are about three times higher among families who had previously doubled up compared with families who had not (p-value = 0.013).

In contrast to the finding for families with priority access to vouchers, having additional annual income for families in other assignment groups reduces the odds of leasing up with a voucher (p-value = 0.078). Some of the families without priority access to a voucher and with relatively higher incomes may not have qualified for the HCV program's waitlist preferences based on income

<sup>\*</sup> p < 0.1. \*\* p < 0.05.

level.<sup>29</sup> Other families with relatively higher incomes may have found satisfactory living situations before rising to the top of voucher waiting lists. For still others, the crisis leading to their homelessness was not associated with persistent poverty, and therefore, they had not applied to the HCV program and been placed on waiting lists before entering a shelter.

### **Conclusion**

Families in emergency shelters to whom the Family Options Study granted immediate access to housing vouchers were able to use the vouchers at very high rates. These rates compare favorably with the rates of successful voucher use for families who rise to the top of waiting lists through the regular process, families who usually are not homeless. This finding was somewhat surprising, given the barriers to using vouchers that are thought to be associated with families who experience homelessness. For example, common perceptions exist that homeless families have challenges to presenting themselves as acceptable tenants and, therefore, will have difficulties finding acceptable units within required timeframes. Further analysis of data from the Family Options Study shows that some barriers, in particular self-reported recent alcohol or drug abuse and felony convictions, are associated with lower rates of voucher use by homeless families given priority access to vouchers. However, even among families who had these barriers, voucher use was relatively high, at 73 percent for those with recent, self-reported substance abuse and 68.9 percent for those with felony convictions. Families used vouchers at high rates in both tight and loose rental housing markets.

Making use of a voucher to lease a housing unit is not a quick process. For homeless families, as for all families trying to use vouchers, the process includes presenting documentation to the PHA on the family's eligibility for the program and the family's income, attending a PHA briefing on program rules, receiving the voucher from the PHA, searching for a housing unit with a willing landlord, and having the PHA inspect the housing unit and determine that the unit passes a quality standard and has rent in line with market rents for similar units. For families given priority access to vouchers, the process took about 4 months on average. This finding was not surprising.

A number of families started using voucher subsidies at some point during the 20-month period following the families' emergency shelter stays despite not having been granted priority access to vouchers by the study. Once again, recent substance abuse was associated with lower rates of voucher use. In contrast, a history of doubling up was associated with a *high* rate of voucher use among families who would have gone through the regular PHA waitlist process rather than receiving immediate access to vouchers through the study. Families forced to double up may have had strong motivations for getting on voucher waiting lists even before an episode of sheltered homelessness.

Most families in the study had incomes well below the federal poverty level while in emergency shelter at the start of the study, with a median household income of only \$7,410 a year. Among families with priority access to vouchers, an additional \$1,000 per year of income increased the odds of a family leasing up with a voucher, although the reverse was the case for families without

<sup>&</sup>lt;sup>29</sup> Federal law requires that 75 percent of households that the HCV program admits must have incomes below 30 percent of Area Median Income (AMI), or roughly the poverty level. Many PHAs make 30 percent of AMI an absolute income limit (Dunton et al., 2014).

priority access. Possibly, families going through the regular HCV program waitlist process, rather than gaining immediate access to vouchers, were more likely to find alternative arrangements before coming to the top of waiting lists if they had relatively higher incomes.

The further analysis of the patterns of voucher use that was conducted for this article suggests that the local policies of PHAs and local homeless assistance systems influence both the likelihood of a family's use of a voucher and the timing of that use. Boston's right to shelter policy was associated with high rates of voucher use by both families with priority access to vouchers and families in the study's other assignment groups. The Boston Housing Authority also provides some level of preference on the voucher waiting list for families in certain emergency shelters. However, these local policies appear to have the perverse effect of encouraging families to remain in shelter for longer periods of time. Families with immediate access to vouchers in Boston appear to have stayed in shelter rather than using a voucher more quickly. This is a perverse result, as the Family Options Study found that the per-family monthly cost of an emergency shelter stay is substantially higher than the per-family monthly cost of an HCV subsidy (Gubits et al., 2016, 2015).

In contrast to Boston, Denver has no right to shelter, but the Denver Housing Authority does give homeless families a wait list preference. In Denver, families without priority access to a voucher used vouchers relatively quickly compared with families in other study sites.

Families sometimes used rapid re-housing assistance prior to using vouchers to which they were given priority access. This pattern was more prevalent in Minneapolis and Salt Lake City, communities that emphasize the use of the rapid re-housing program to help families leave emergency shelters quickly.

Overall, the patterns of voucher use both for families for whom the study provided priority access and for families without priority access show that families are able to use the voucher form of housing subsidy to find and rent private market housing units following an episode of homelessness. Rates of use are high, and although these families have a number of challenges, most families do not have barriers that prevent them from using housing vouchers.

## Appendix A. Details on the Program Usage Data

To create the program usage file, the study team gathered family-level information on program entry dates, program exit dates, and program types through six data sources throughout the course of the Family Options Study. The data sources are—

- 1. Enrollment verification data.
- 2. Six-month tracking survey.
- 3. Twelve-month tracking survey.
- 4. Twenty-month followup adult survey.
- 5. The Homeless Management Information System (HMIS).
- 6. The Public and Indian Housing Information Center (PIC)/Tenant Rental Assistance Certification System (TRACS).

Each data source has information about program use since the date of random assignment. The time the data source covers since random assignment may vary. For example, the administrative data (HMIS and PIC/TRACS) and the 20-month survey cover the full analysis period, but the tracking surveys and enrollment verification cover part of the period. Data on study families may be in all sources or one, with families without data on program use excluded from this analysis.

The study team considered data from all six sources when compiling family histories of program use. If program use data were available for a family in more than one data source, the data may have contained repetitive information. Information from multiple data sources either corresponded or conflicted.

To resolve conflicting information across data sources, the study team devised a system of decision rules. The study team ranked the data sources in the order believed to contain the most to least reliable program use information. Perceived reliability of the data sources varied by program use data item, such as program entry date, program exit date, and program type. Exhibit A-1 summarizes the reliability ratings.

The study team considered the program entry date from the enrollment verification data most reliable, because the team collected these data directly from the participating provider specifically about the study families. The administrative data—HMIS and PIC or TRACS—were also treated as highly reliable, second to the enrollment verification, because the data are gathered in real time and do not rely on retrospective accounts. Program entry date information from the tracking surveys and 20-month followup survey were considered less reliable because of human recall error, which is a common problem in surveys relying on retrospective accounts (National Research Council, 2001). If entry date information were only available in the surveys, the study team considered program entry dates closest to interview dates as more reliable than other older entry dates, because they would have lower recall error.

The study team considered the program exit date from the administrative data to be most reliable. Exit dates from the enrollment verification data were considered least reliable, because data were not collected for a long enough period to record exit dates. The tracking surveys also contained missing exit date information if the family was in a housing program at the time of those interviews and could suffer from recall error. The 20-month followup information on exit dates covered the full study period but could still suffer from recall error.

#### Exhibit A-1

Data Source	Reliability	by Progra	am Use	Data Iten	n

Program Usage Data Item	Higher Reliability	Lower Reliability
Program entry date	Enrollment verification	20-month followup;
	HMIS; PIC/TRACS	tracking surveys
Program exit date	HMIS; PIC/TRACS	20-month followup; tracking
		surveys; enrollment verification
Program type	Enrollment verification	20-month followup;
	HMIS; PIC/TRACS	tracking surveys

HMIS = Homeless Management Information System. PIC = Public and Indian Housing Information Center. TRACS = Tenant Rental Assistance Certification System.

Sources: Enrollment verification data; 6-month tracking survey; 12-month tracking survey; 20-month followup survey; HMIS; and PIC/TRACS

The study team considered the program type data from the enrollment verification as the most reliable, because these providers were involved in the study to represent a treatment program type. Program type data from administrative sources were considered to also be highly reliable, second to the enrollment verification data. The study team worked closely with the HMIS administrators to accurately code programs. Data from PIC or TRACS were also considered highly reliable, because these administrative data are recorded in real time. Program type information in the 20-month followup and tracking surveys were considered to be least reliable due to recall error and likely lack of knowledge of the program type beyond the name of the program.

Based on these and other site-specific rules, the study team manually determined which of the preserved records and information most accurately reflected the program-use history for a family. These data were converted into the program usage data file, which contained one record per family. The program usage file contained a series of 34 binary variables reflecting the 34-month period from the month of random assignment through the month that the last 20-month survey in the study was completed.<sup>30</sup> These 34 variables were repeated for each of the following program types—emergency shelter, transitional housing, rapid re-housing, subsidized vouchers, and permanent housing. The variable value contained a value of one to flag that the study family was in that program type at that number month since random assignment, and it contained a zero if it was not in that program type. If the family had less than 34 months between random assignment and the 20-month survey interview end date, the remaining months through 34 were marked as missing.

The study team used this program usage data file to measure the share of families who ever used a type of assistance program during the period from the month of random assignment to the month of the follow up survey response (a median of 21 months).

<sup>&</sup>lt;sup>30</sup> At least 18 months passed from the date of random assignment before the interviewer began to contact families to conduct the followup survey. Families who were difficult to locate had a longer period of time elapse between the dates of random assignment and the 20-month followup survey.

## **Appendix B. Logit Models Without Site-Level Controls**

#### Exhibit B-1

Logit Models Controlling for Family-Level Characteristics Predicting Voucher Lease Up Among Families With and Without Priority Access to Vouchers

		•	•			
_	With Priority Access (N = 502)			Without Priority Access (N = 1,327)		
	Log-Odds	Odds	p-value	Log-Odds	Odds	p-value
Intercept	1.800			- 3.180		
Family-level characteristics						
Alcohol or drug abuse in the past year	- 0.551	0.576	0.051*	- 0.969	0.380	0.003**
History of eviction	- 0.264	0.768	0.292	- 0.205	0.814	0.343
Felony conviction of at least one adult family member	- 0.549	0.577	0.094*	- 0.071	0.931	0.841
Race/ethnicity (Reference = Blace	k/African An	nerican,	not Hispani	c)		
White, not Hispanic	- 0.385	0.680	0.226	- 0.107	0.898	0.723
Asian/Pacific Islander/other, not Hispanic	- 0.583	0.558	0.093*	- 0.311	0.733	0.320
Hispanic	0.466	1.594	0.206	0.065	1.067	0.811
High school diploma/GED	0.444	1.559	0.090*	- 0.076	0.927	0.728
Adult partner is present	-0.429	0.651	0.120	0.188	1.207	0.432
Ever doubled up as adult	- 0.295	0.745	0.420	1.108	3.028	0.010**
because couldn't pay rent						
WIC or TANF receipt	0.589	1.802	0.017**	0.028	1.028	0.898
Anyone age 15+ in the family has a disability that limits/	0.006	1.006	0.982	0.179	1.196	0.411
prevents work Annual family income (in thousands)	0.063	1.065	0.132	- 0.038	0.963	0.100

GED = General Equivalency Development. TANF = Temporary Assistance for Needy Families. WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Notes: Unlike the impact models in Gubits et al. (2015), these models do not incorporate survey nonresponse weights. Observations with missing values for the explanatory variables were imputed.

Sources: Family Options Study program usage data, from random assignment through the 20-month interview; baseline surveys

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<sup>\*</sup> p < 0.1. \*\* p < 0.05.

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