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BRIEF #3. RAPID RE-HOUSING FOR HOMELESS FAMILIES DEMONSTRATION PROGRAM: SUBSEQUENT RETURNS TO SHELTER FOR ALL FAMILIES SERVED

November 2014

Rapid re-housing has been used to re-house homeless families for more than two decades, but only recently has it come into greater prominence as a best practice. In 2009, the U.S. Department of Housing and Urban Development (HUD) awarded funds to 23 communities to implement the Rapid Re-housing for Homeless Families Demonstration (RRHD) program. A portion of the funding appropriated to the RRHD program was directed to a concurrent evaluation of the demonstration.

The study's basic research question was whether rapid re-housing is an effective intervention for homeless families with moderate barriers to housing, with effectiveness defined primarily as whether families avoid homelessness and maintain stable housing during the 12-month period after their RRHD program exit.

The final outcomes report of the evaluation¹ documents the characteristics, service use, and outcomes of a cohort of 490 families housed through the demonstration program this portion of the study is referred to as the "primary" evaluation. The analysis in the primary evaluation was based on several sources of information:

- Homeless Management Information System (HMIS) data on characteristics of families served and their subsequent returns to shelter.
- Data gathered through the effort to track the research sample that provided evidence of housing mobility or stability.

¹ Finkel, Meryl, et al. 2014. Evaluation of the Rapid Re-housing for Homeless Families Demonstration. Washington, DC: U.S. Department of Housing and Urban Development.





About the Rapid Re-housing for Homeless Families Demonstration and Its Evaluation

In 2007, Congress appropriated \$23.75 million for the Rapid Re-housing for Homeless Families Demonstration (RRHD) program. The U.S. Department of Housing and Urban Development (HUD) awarded grants to 23 Continuums of Care, or CoCs, through its 2008 annual competition for McKinney-Vento homeless assistance funding. The legislation specified that the program was intended to serve families with "moderate barriers" to housing who could independently sustain housing, either subsidized or unsubsidized, at the end of the leasing subsidy that they received through RRHD.

HUD commissioned Abt Associates Inc. to conduct an evaluation of RRHD. The evaluation included site visits to all 23 communities to learn about their program models. The evaluation also tracked a cohort of families served in RRHD programs and attempted to conduct an interview with the family head approximately 12 months after program exit. The site visits and further work with the RRHD communities during the tracking process have produced indepth information about the ways communities organize and implement their homeless services systems for families.

For more information about the study, contact Anne Fletcher at anne.l.fletcher@hud.gov or at 202-402-4347, or contact Brooke Spellman at brooke_spellman@abtassoc.com or at 301-634-1816.

 Data on 203 families from a detailed survey that was administered 12 months after families exited the RRHD program.

Returns to homelessness during the year after program exit were measured based on a combination of HMIS and survey data. Housing stability was measured based on a combination of HMIS, tracking, and survey data.

This supplementary report on returns to homelessness is based on HMIS data only and covers a larger number of families — an additional 969 families for whom the research team collected data from HMIS in the 23 RRHD communities, plus the 490 families in the primary evaluation, for a total of 1,459 families. Given the absence of survey data, the supplementary analysis can report only on returns to *sheltered* homelessness. Due to the absence of tracking and survey data, the supplementary analysis cannot

report on the housing stability outcome (that is, remaining in the same housing unit for 12 months after program exit) examined in the primary evaluation.

The primary evaluation of RRHD outcomes found that 10 percent of study families had documented rates of return to homelessness (both sheltered and unsheltered) within the year after their exit from RRHD programs. Multivariate analysis conducted for the primary evaluation identified a small number of family characteristics that appeared to be associated with returns to shelter. Families with incomes at 30 percent of Median Family Income (MFI) or higher were less likely to return to shelter, while non-Hispanic Black heads of household were more likely to return. Younger heads of household – ages 18 to 24 years - also were more likely to return to homelessness, but that finding had only weak statistical significance.2

² The finding was significant only at the 10-percent confidence level.

The findings of the primary evaluation were limited by the small sample size, a wide degree of variation in RRHD program design across the 23 sites, and other differences in the RRHD communities. The sample size was not large enough for the multivariate analysis to include variables that controlled for unobserved site differences. This supplemental report presents the rates of returns to the homeless system for a larger, combined sample of 1,459 families to test whether the findings from the primary evaluation can be validated. This larger sample still is not large enough to support site-level control variables.

The supplemental analysis found that 88 families – less than 6 percent of families assisted in RRHD - returned to shelter within the year after their exit from the RRHD program. Of those families who returned to the homeless assistance system, 45 percent did so almost immediately, either exiting the program directly to an emergency shelter, a transitional housing program, or an unsheltered location (23 families) or returning to shelter within weeks (17 families). The 6-percent return-to-shelter figure documented in the supplemental analysis should be thought of as a lower bound estimate for returns to homelessness, because the estimate does not include episodes of homelessness in places not meant for human habitation, and the families interviewed for the primary evaluation reported some episodes of unsheltered homelessness. Further, the estimates also do not include stays in emergency or transitional programs that do not report to the HMIS of the Continuum of Care (CoC) in which the RRHD program is located.

The multivariate analysis conducted for this larger sample found that none of the families' personal characteristics were associated with statistically significant differences in families' likelihood to return to shelter. By contrast, the type of rental subsidy and the relative availability of rental housing were associated with lower likelihood of returning to the homeless system.

These results are inconsistent with the primary evaluation's finding that some family characteristics are associated with returns to homelessness and also that the type of rent subsidy and the characteristics of the site's rental market made no difference. The inconsistency in findings between the main study group and this supplemental analysis is troubling. Given the limitations of both the primary study sample and the expanded sample, however - in particular, the inability of either analysis to fully account for differences in the local RRHD programs across the 23 sites or for differences in the welfare and employment environments experienced by homeless families - the instability of findings is not surprising.

Data Sources

This supplemental analysis presents the characteristics and outcomes of 1,459 families served by the 23 RRHD programs, including the 490 families who consented to participate in the primary evaluation and an additional 969 families who were not included in the main study group. These families were not included in the primary evaluation for three reasons: (1) they did not exit RRHD programs before the cutoff date of June 1, 2012; (2) they could not be located to be invited to participate; or (3) they declined to participate.

The data sources used to describe RRHD families are —

entry and exit for 1,459 families. HMIS data, collected directly from families by local RRHD programs, include demographic and disability information, income information collected at program entry and exit, information about families' living situation before RRHD program entry, and destination (type of housing setting) upon exit from the local RRHD program.

RRHD sites provided nonidentifiable data on all adults served in the additional 969 families served by RRHD programs through August 1, 2012.³ Because the nonidentifiable data did not identify a head of household for multi-adult households, the research team designated one adult per family as the head of household, based on age, gender, and income, in order to make analysis possible at the household level.

HMIS data on subsequent homelessness for 22 of the 23 CoCs. HMIS data provided by 22 of the 23 CoCs include dates associated with enrollment in emergency shelters or transitional housing. These programs are different from rapid re-housing, and families staying in beds provided by such programs are considered homeless. The data on shelter stays are used to measure whether the families served in these 22 sites returned to the homeless system in the 12 months after their RRHD program exit. HMIS data on returns to shelter were not available from one RRHD site.

Characteristics of RRHD Families

At the time of entering the local RRHD programs, most heads of families were —

- · Women.
- Single parents with one child or two children.
- Less than 35 years of age, with the largest group being between 25 and 34 years of age.
- Unemployed and without earned income.
- Recipients of cash or noncash benefits.

Most RRHD family heads were between the ages of 25 and 44; 44 percent were between the ages of 25 and 34, and 24 percent were between the ages of 35 and 44 (see exhibit 1). Nearly all heads of families were female (92 percent).

A similar share of family heads served in RRHD were non-Hispanic Black (44 percent) as were non-Hispanic White (41 percent). Roughly 12 percent were Hispanic or Latino. Approximately 16 percent of RRHD participants reported a mental health problem at their RRHD entry. One-third of RRHD heads of families reported being survivors of domestic violence at entry.

Families served by RRHD programs were small in size (see exhibit 2). In approximately 74 percent of families in the study, only one adult was in the household at program entry. Approximately 26 percent of the families had more than one adult present. Other adults could be spouses, adult children, and grandparents. The most common household composition at entry was a single adult (most often a woman) with one child (30 percent) and 35 percent were larger families, with four or more people.

Nearly three-fourths of RRHD families (73 percent) had some form of cash income at entry, but less than one-third (32 percent) had earned income (see exhibit 3). The remainder of those families with cash income reported only unearned income at entry, such as Temporary Assistance for Needy Families (TANF) or Supplemental Security Income (SSI). In relation to the local MFI, 67 percent of all RRHD families reported incomes of less than 15 percent of MFI (28 percent with no income, 39 percent earning more than 0 but less than 15 percent of MFI, and 11 percent earning 30 percent of MFI or more.

³ Some sites provided data through a later date, although these data were not used.

⁴ The 74 families without children shown in exhibit 9 were single adults.

Exhibit 1. Demographic Characteristics of RRHD Families

Characteristic Number of RRHD Families		Percent of RRHD Families	
Total participants	1,459	100.0	
Gender	1,409		
Female	1,290	91.6	
Male	119	8.4	
Participant's age	1,459		
18 to 24	339	23.2	
25 to 34	646	44.3	
35 to 44	352	24.1	
45 to 54	101	6.9	
55+	21	1.4	
Participant's race/ethnicity	1,366		
Hispanic (regardless of race)	161	11.8	
Non-Hispanic Black or African-American	594	43.5	
Non-Hispanic White	563	41.2	
Non-Hispanic other	48	3.5	
Veteran status	1,416		
No	1,385	97.8	
Yes	31	2.2	
Healtha	1,459		
Disabling condition (universal indicator in HMIS)	224	16.3	
Physical disability	78	5.3	
Developmental disability	22	1.5	
Chronic health problem	86	5.9	
Mental health problem	235	16.1	
Substance abuse	53	3.6	
HIV/AIDS	3	0.2	
Domestic violence survivor	992		
No	663	66.8	
Yes	329	33.2	

HIV/AIDS = human immunodeficiency virus/acquired immune deficiency syndrome. HMIS = Homeless Management Information System. RRHD = Rapid Rehousing for Homeless Families Demonstration.

Source: HMIS data

N = 1,459 families served in RRHD, although families missing individual data elements are excluded as noted in this table.

^a The N for disabling condition is 1,375 families. The N for specific conditions is calculated based on 1,459 families because a response is not required if the condition is not relevant for the family head. Disabling condition is based on the HMIS universal data element, which records responses of Yes, No, Don't know, and refused. Some HMIS have controls to align responses for specific conditions with the universal disabling condition, but other HMISs permit a specific condition to be marked as Yes, even if the universal disabling condition is marked No, which explains why the number of people with a reported mental health problem is higher than the number reported with a disabling condition.

Exhibit 2. Household Size of RRHD Families at Entry

Characteristic	Number of RRHD Families	Percent of RRHD Families
Households with no children (including those with a single adult and with multiple adults)	94	6.6
Households with a single adult, one child	434	30.3
Households with a single adult, two children	132	9.2
Households with a single adult, three or more children	276	19.3
Households with multiple adults, one child	132	9.2
Households with multiple adults, two children	111	7.8
Households with multiple adults, three or more children	111	7.8

 $[\]label{eq:RRHD} \mbox{RRHD} = \mbox{Rapid Re-housing for Homeless Families Demonstration}.$

Source: Homeless Management Information System data

Exhibit 3. Income Characteristics of RRHD Families

Characteristic	Number of RRHD Families	Percent of RRHD Families
Any cash income reported at entry (earned or unearned)	1,459	
Yes	1,064	72.9
No or not reported	395	27.1
Monthly earned income at entry	1,442	
None	983	68.2
Under \$500	72	5.0
\$500 to \$999	164	11.4
\$1,000 to \$1,499	107	7.4
\$1,500 to \$1,999	64	4.4
\$2,000 or more	52	3.6
Any cash income reported at exit (earned or unearned)	1,459	
Yes	1,074	73.6
No or not reported	385	26.4
Percent of MFI at entry	1,430	
No income	395	27.6
More than 0% to less than 15%	564	39.4
15% to less than 30%	311	21.8
30% or higher	160	11.2

 $[\]label{eq:mfl} \text{MFI} = \text{Median Family Income. RRHD} = \text{Rapid Re-housing for Homeless Families Demonstration.}$

Sources: Homeless Management Information System data; MFI based on county-level estimates from the U.S. Department of Housing and Urban Development

N = 1,430 families served in RRHD with data on household composition (108 were missing household identifiers and have been excluded from this table).

N = 1,459 families served by the RRHD program.

The most common sources of unearned income at RRHD program entry were TANF (27 percent), child support (12 percent), SSI (9 percent), and unemployment insurance (5 percent). Most families reported receiving noncash benefits at the time of RRHD program entry (80 percent). RRHD families most frequently reported receiving Medicaid

(56 percent) and Supplemental Nutritional Assistance Program, or SNAP, benefits (75 percent). (The information on noncash sources is not shown in the exhibit.)

Exhibit 4 shows the number of families who reported receiving cash and noncash income at RRHD program entry as compared with the number at their exit.

Exhibit 4. Families With Earned Income, Unearned Income, and Noncash Benefits at Their RRHD Entry and Exit

Characteristic	At RRHD Program Entry Number (%)	At RRHD Program Exit Number (%)
Any cash income (earned or unearned)	1,064 (73)	1,074 (74)
Earned income	476 (33)	568 (39)
TANF	390 (27)	384 (26)
Child support	174 (12)	175 (12)
SSI	124 (9)	130 (9)
Unemployment insurance	79 (5)	65 (4)
SSDI	47 (3)	57 (4)
Noncash benefits	1,168 (80)	1,155 (79)
Any income (earned or unearned, noncash benefits)	1,320 (90)	1,298 (89)
No income or noncash benefits	139 (10)	161 (11)

RRHD = Rapid Re-housing for Homeless Families Demonstration. SSDI = Social Security Disability Insurance. SSI = Supplemental Security Income. TANF = Temporary Assistance to Needy Families.

Source: Homeless Management Information System data from RRHD program participants' entry and exit

Characteristics of Programs and Local Markets Serving Families

The 23 RRHD grantees all offered rental assistance and case management to all program participants. However, the rapid re-housing intervention varied in some fairly basic ways by site, including the length of RRHD assistance provided, the depth of rental subsidy provided, and the frequency of case management required for program participants.

The 23 RRHD grantees were required to operate a coordinated assessment system as a condition of their selection by HUD as a

demonstration site. In the process evaluation, the research team categorized the communities into two groups: (1) those with centralized — or largely centralized — intake systems and (2) those with decentralized intake systems that assessed whether the family should be accepted into the RRHD program itself but did not have the ability to refer or place families beyond their own program.

The research team also examined housing market indicators for the rental vacancy rate and local Fair Market Rent (FMR) levels.⁵

As shown in exhibit 5, most RRHD families received between 3 and 9 months of RRHD

N = 1,459 RRHD families.

⁵ FMRs are determined by HUD each year to reflect the 40th percentile rent of housing units in the area and are used to determine payment subsidies for federally subsidized housing.

Exhibit 5. Program and Market Features of the RRHD Sites

Characteristic	Number of RRHD Families	Percent of RRHD Families
Amount of assistance received	1,456	
Less than 3 months	110	7.5
3 to less than 6 months	333	22.8
6 to less than 9 months	407	27.9
9 to less than 12 months	302	20.7
12 months to less than 18 months	271	18.6
18 or more months	33	2.3
Depth of assistance	1,459	
Full rent for duration of program enrollment	131	8.9
Graduated rental assistance, stepped down over time	892	61.1
Participant paid a percent of income toward rent	436	29.9
Expected frequency of RRHD case management	1,459	
Case management designed to occur once per month or less often	1,167	80.0
Case management expected to occur more than once per month	292	20.0
RRHD site intake approach	1,459	
Served in site with centralized intake	558	38.3
Served in site without centralized intake	901	61.7
Rental vacancy rate	1,459	
More than 5%	1,132	77.6
Less than 5%	327	22.4
FMR (two BR)	1,459	
Low (less than 25th percentile)	0	0.0
Moderate (25th to less than 75th percentile)	806	55.2
High (75th percentile or more)	653	44.8

BR = bedroom. FMR = Fair Market Rent. RRHD = Rapid Re-housing for Homeless Families Demonstration.

Sources: Homeless Management Information System data; information from the process evaluation

assistance, and families were most likely to be served by programs and in communities with the following characteristics:

- Local programs that provided graduated or step-down rental assistance.
- Local programs that offered case management no more often than once a month.
- Sites without a central intake system.
- Communities with rental vacancy rates of more than 5 percent.

 Communities with moderate rent levels (measured by where the local FMR falls in the national distribution of FMRs).

Most families in RRHD were expected to pay some amount of rent during the RRHD program. Of RRHD families, 61 percent were provided graduated rental assistance, meaning they paid an increasing share of the rent as the subsidy was stepped down. Another 30 percent paid a percentage of their income toward rent each month, most often 30 percent.

 $N=1,\!459$ families served by the RRHD program.

About one-half of all RRHD families received between 3 and 9 months of assistance, 21 percent received assistance for 1 year or more, and few received less than 3 months of assistance. The median length of assistance provided to families in RRHD programs was 8 months.

Most RRHD families (80 percent) were served by programs that offer relatively infrequent case management (once per month or less), and 62 percent of families lived in communities that did not use a centralized intake for their RRHD program.

As shown in exhibit 5, more than three-fourths of families (78 percent) were served in communities with *loose* housing markets, meaning those communities with rental vacancy rates of more than 5 percent. Further, 45 percent of families were in housing markets with FMRs in the top quartile nationally. The remaining 55 percent of families were served in communities with moderate FMRs, meaning those communities in the 25th to 75th percentile nationally.

Subsequent Homelessness Among All RRHD Families

HMIS data collected from RRHD programs when families leave and data about subsequent entries to emergency shelter and transitional housing were used to identify: (1) how many families exited to permanent housing immediately after their exit from RRHD programs,

(2) how many returned to shelter or transitional housing within the year after their RRHD exit, and (3) among those families that did return to shelter, the immediacy with which they entered shelter after program exit. HMIS data collected at the time of entry into the RRHD program were used in multivariate analyses to identify if personal and programmatic factors were associated with the likelihood of returning to shelter or transitional housing in the year after their RRHD exit.

Of those families with known destinations, most exited the RRHD program to rental housing (83 percent) and most of those exited to rental housing without a subsidy (70 percent); 13 percent exited to rental housing with a housing subsidy. The remaining participants exited to doubled-up situations (11 percent), homeless situations (2 percent), or other situations such as institutional settings (see exhibit 6).

Including the 23 families who exited RRHD programs directly to homeless situations, 88 families (6 percent of the 1,459 families studied) returned to shelter or transitional housing within the year after their exit from the RRHD program (see exhibit 7).

Of those families who returned to the homeless system within the year after their RRHD exit, one-fourth exited the RRHD program directly to a homeless situation, and almost one-half (46 percent) returned to a shelter or transitional housing program either immediately or within weeks of exiting the program.

Exhibit 6. Destination at RRHD Exit for RRHD Families

Housing Destination at Exit	Number of RRHD Families	Percent of RRHD Families
Rental housing without housing assistance	919	69.7
Rental housing with a housing subsidy	174	13.2
Permanent supportive housing	22	1.7
Doubled-up situations with family or friends	143	10.8
Homeless (emergency shelter or transitional housing)	23	1.7
Other	38	2.9

 $RRHD = Rapid \; Re\text{-}housing \; for \; Homeless \; Families \; Demonstration.$

N = 1,319 (140 families were missing a destination in the exit data).

Source: Homeless Management Information System data

Exhibit 7. Returns to Shelter or Transitional Housing for All RRHD Families

Time of Return	Number of Families Who Returned to Shelter or Transitional Housing Within 12 Months	Percent of Families Who Returned to Shelter or Transitional Housing Within 12 Months (N = 88)	Percent of All RRHD Families Studied
Returned to shelter immediately	23	26.1	1.6
Returned to shelter in less than 6 months	58	65.9	4.0
Returned to shelter in less than 12 months	88	100.0	6.0

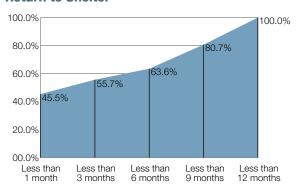
RRHD = Rapid Re-housing for Homeless Families Demonstration.

N = 1,459 families.

Source: Homeless Management Information System data

About two-thirds of those families who returned within the year after their RRHD exit did so within 6 months of exit. (Tabular results are shown in exhibit 7 and graphed results are shown in exhibit 8.)

Exhibit 8. Number of Months to Families' First Return to Shelter



 $\mbox{\it N}=88$ families who returned to shelter or transitional housing within the year after their RRHD exit.

Source: Homeless Management Information System data

Factors Associated With Subsequent Returns to Shelter

Data on the characteristics of the 1,459 RRHD families and the programs and housing markets in which they were served were used in a multivariate model that sought to identify factors associated with the likelihood of returning to shelter.

Returns to Shelter Within a Year After RRHD Exit

Exhibit 9 shows the results of the multivariate analysis. Unlike the primary evaluation that examined the likelihood of becoming homeless in sheltered or unsheltered circumstances, this analysis is limited to returns to shelter or transitional housing, because HMIS data are the only source of data about homelessness available for the 1,459 families included in the analysis. The exhibit shows the variables included in the model, the odds ratio for each variable, and an indication of whether each variable is statistically significant.

None of the families' characteristics—for example, age, race/ethnicity, and family size—were associated with statistically significant differences (at the 5-percent confidence level) in the families' likelihood to return to shelter. Two program and market characteristics, however, seem to be correlated with a family's likelihood of returning to shelter.

 Families receiving a full rental subsidy during their participation in the RRHD program were only 7 percent as likely to return to a homeless shelter within 12 months compared with other families receiving a partial subsidy based on their income.

⁶ The model used is similar to one of the models presented in the primary evaluation report for the 490 study participants. Because this analysis involves a larger number of families, the research team was able to include a variable for race/ethnicity that could not be included with the smaller sample.

 Families in areas where vacancy rates are more than 5 percent were only 40 percent as likely to return to a homeless shelter within 12 months as families in tighter markets, perhaps because families were more readily able to move to alleviate high rent burdens or other housing challenges. The multivariate analysis conducted for the primary evaluation did not find significant relationships between outcomes and either program or market characteristics. The primary evaluation did find, however, that families with younger heads—between 18 and 24 years of age—were substantially more likely to return to homelessness than families with a head of household between 25 and 34 years of age.

Exhibit 9. Factors Associated With Returning to Sheltered Homelessness Within 12 Months

Explanatory Variable	Odds Ratio Shelter Return Within 12 Months
Participant's age (omitted category: ages 25 to 34 years)	
Age is 18 to 24 years	1.29
Age is more than 34 years	0.93
Participant's race/ethnicity (omitted category: non-Hispanic non-Black)	
Non-Hispanic Black	1.61
Hispanic	0.92
Accompanied by three or more children	1.03
Accompanied by children less than age 5	1.14
Had any earned income at RRHD entry	1.25
Exited program with a housing subsidy	0.72
Participant's income entry as percent of MFI (omitted category: no income entry)	
Income more than 0% but less than 15%	0.95
Income 15% to less than 30%	0.65
Income 30% or more	1.12
Had any disabling condition	1.68
Length of RRHD assistance received (omitted category: 6 months to 1 year)	
Received less than 6 months of RRHD assistance	0.81
Received more than 1 year of RRHD assistance	1.25
Assisted in RRHD program with case management offered more than once per month	0.88
Assisted in RRHD program with specified subsidy model (omitted category: subsidy based on a percent of income)	
Program paid full rent	0.07*
Participant's rent contribution was graduated (or stepped up) over time	0.74
Site used central intake model	1.84
Local rental vacancy rate was more than 5%	0.40*
Area FMR was in the highest 25% nationally	0.56
Number of participants included in the model	1,148

FMR = Fair Market Rent. MFI = Median Family Income. RRHD = Rapid Re-housing for Homeless Families Demonstration.

Note: The model uses 1,148 of the 1,459 families with sufficient data on homeless returns and complete data on the specified explanatory variables. Age, subsidy at exit, or other key variables are missing for 311 of the 1,459 study participants. Those 311 participants were excluded from the multivariate analysis. Sources: Homeless Management Information System baseline and returns data; process evaluation; previously specified sources of housing market data

^{*}Signifies statistically significant at the 0.05-percent confidence level.

The model used for the analysis of returns to sheltered homelessness for 1,148 families was similar to the models presented in the primary evaluation report for the 490 study participants.

The instability of findings between the primary evaluation and the analysis of the larger sample for which deidentified HMIS data were available may reflect unobserved differences between the characteristics of the families who did not participate in the primary study and the characteristics of those families who did. More likely, the instability of the findings across the smaller and larger groups of families analyzed may reflect program and market features that the study was unable to observe across the 23 RRHD sites or, possibly, unobserved differences in local factors, such as the job market or state TANF policies. Neither the analysis conducted for the primary evaluation nor the supplementary analysis had large enough numbers of observations per site to make possible a fixed effects control for site differences.

Number of Months Between Program Exit and Shelter Return

To identify if any factors were associated with returning to shelter sooner rather than later within the 12-month period of observation, the team conducted an analysis on 73 families who returned to sheltered homelessness within 12 months after their RRHD program exit. (The explanatory variables were not available for 15 of the 88 families who returned to shelter.)

Because the outcome measure in this model is a continuous variable (that is, number of months), rather than a Yes/No variable, an ordinary least squares (OLS) model was chosen instead of a logistic model. The OLS model assumes a linear relationship between the explanatory variables and the outcome measure. Therefore, parameter estimates can be interpreted directly without additional transformation into odds ratios. For example, a parameter estimate of -2.24 for the explanatory variable high FMR implies that, among families who returned to homelessness, those families living in a community with relatively high FMRs return to homelessness, on average, 2.24 months earlier than otherwise similar families who live in communities with lower rent levels.

Exhibit 10 shows the results of several models that were tested with different sets of explanatory variables to determine which variables may have impacted a families' likelihood of a return to sheltered homelessness. The exhibit shows the variables included in each model, the parameter estimate for each variable, and

Exhibit 10. Factors Associated With Number of Months Between RRHD Exit and Return to a Shelter or Transitional Housing (1 of 2)

Explanatory Variable	Base Model	Incudes Race/ Ethnicity and Domestic Violence	Includes Income at Exit Instead of Entry	Includes Only Full Rent/ Other Instead of Three Options
	(months betwe	en RRHD exit & ret	urn to shelter/t	ransitional housing)
Participant's age (omitted category: ages 25 to 34 years)				
Age is 18 to 24 years	2.04	1.87	2.01	1.51
Age is more than 34 years	0.56	0.09	0.56	0.19
Participant's race/ethnicity (omitted category: non-Hispanic non-Black)				
Non-Hispanic Black		1.27		
Hispanic		0.09		

Exhibit 10. Factors Associated With Number of Months Between RRHD Exit and Return to a Shelter or Transitional Housing (2 of 2)

Explanatory Variable	Base Model	Incudes Race/ Ethnicity and Domestic Violence	Includes Income at Exit Instead of Entry	Includes Only Full Rent/ Other Instead of Three Options
	(months betwe	en RRHD exit & ret	urn to shelter/t	ransitional housing)
Accompanied by three or more children	1.45	1.46	1.09	1.88
Accompanied by children less than age 5	- 0.47	0.50	- 0.00	0.58
Had any earned income at RRHD entry	1.33	- 0.07		1.42
Had any income at RRHD exit			0.66	
Exited program with a housing subsidy	0.88	0.59	1.77	0.04
Participant's income at entry as percent of MFI (omitted category: no income entry)				
Income more than 0% but less than 15%	0.12	- 1.14		0.03
Income 15% to less than 30%	- 2.72	- 3.22		- 0.91
Income 30% or more	- 2.75	- 2.66		- 1.89
Participant's income at exit as percent of MFI (omitted category: no income exit)				
Income more than 0% but less than 15%			0.18	
Income 15% to less than 30%			- 1.14	
Income 30% or more			1.03	
Had any disabling condition	1.33	2.26	1.44	2.46**
Domestic violence survivor		- 2.35		
Length of RRHD assistance received (omitted category: 6 months to 1 year)				
Received less than 6 months of RRHD assistance	0.12	1.46	0.28	- 0.64
Received more than 1 year of RRHD assistance	- 0.15	- 1.55	- 1.01	0.62
Assisted in RRHD program with case management offered more than once per month	- 2.02	– 1.35	- 1.28	0.45
Assisted in RRHD program with specified subsidy model (omitted category: subsidy based on a percent of income)				
Program paid full rent	- 1.80	0.61	0.06	- 4.10
Participant's rent contribution was graduated (or stepped up) over time	- 5.09**	- 3.16	- 4.78**	
Site used central intake model	- 1.27	- 2.66	- 0.94	0.37
Local rental vacancy rate was more than 5%	1.01	0.71	2.93**	- 0.18
Area FMR was in the highest 25% nationally	- 2.24	- 2.92	- 1.43	- 1.19
Number of participants included in the model	73	52	73	73
R-square	0.36	0.45	0.35	0.22

FMR = Fair Market Rent. MFI = Median Family Income. RRHD = Rapid Re-housing for Homeless Families Demonstration.

Sources: Homeless Management Information System; followup survey; tracking data

 $^{^{\}star}$ Signifies statistically significant at the 0.10-percent confidence level.

 $^{^{\}star\star}$ Signifies statistically significant at the 0.05-percent confidence level.

an indicator of whether a variable is statistically significant. The base model includes a core set of demographic and program features that maximize available data on the 73 families. The second model includes race/ethnicity and whether the respondent is a survivor of domestic violence. Including these variables reduced the sample by 15 respondents - those who are missing these data on their HMIS records. The third model is similar to the base model, except that the independent variable for presence of cash income at a family's RRHD entry is replaced with a variable for presence of cash income at the time of their RRHD exit. Finally, the fourth model simplifies the variable for the type of rent subsidy provided by the RRHD program to full rent subsidy and partial rent subsidy, rather than distinguishing between the two models of partial rent subsidies.

Given the small number of families, it is not surprising that the models found no statistically significant differences associated with personal characteristics or program features in relation to a family's likelihood to return to shelter more quickly at the 5-percent confidence level.

Two of the models (one without race/ethnicity and domestic violence status and one with the more detailed rent subsidy variable) found that the graduated rent subsidy model was associated with more rapid returns to homeless settings (returns 5 months sooner) in comparison with programs that provided a subsidy based on percentage of a family's cash income. The model that accounted for a family's cash income at their RRHD exit found that families in loose rental markets were associated with delayed returns to homeless settings of nearly 3 months. The model that used the simplified rent subsidy variable found that having a disabling condition was associated with delays in returns to homelessness by about 2.5 months, but it did not find any differences associated with programmatic or market characteristics.

Conclusion

This supplemental analysis measures whether a larger sample of RRHD families experienced subsequent returns to sheltered homelessness in the 12 months after program exit, and it enables the research team to observe whether the results from the primary outcomes evaluation can be confirmed with a larger sample. The supplemental analysis is limited by a narrow definition of return-to-shelter or transitional housing and cannot measure families' housing stability or other outcomes.

Most families served by RRHD did not return to formal shelter within a year after exiting the program. Less than 6 percent (88 families) were found in emergency shelter or transitional housing within 12 months after exiting the RRHD program. Of those families who returned to the homeless system, 45 percent did so almost immediately, either going directly to an emergency shelter or transitional housing program or returning to shelter within a few weeks. Of families studied in the primary outcomes evaluation, 10 percent had documented returns to homelessness. Unlike the primary outcomes evaluation, however, the supplemental analysis is based only on HMIS data and does not include periods of self-reported homelessness beyond those instances recorded in HMIS.

None of the families' personal characteristics were associated with statistically significant differences in their return to shelter. This finding is important because many communities screened families on the basis of personal characteristics they deemed indicators of whether the rapid re-housing model was appropriate. For instance, some programs screened out families without income at RRHD program entry.

Some program and market features were found to be associated with slightly lower rates of return to sheltered homelessness, however. Families receiving a full rental subsidy during their participation in the RRHD program were only 7 percent as likely to return to a homeless shelter within 12 months after the end of

the RRHD subsidy as were families receiving a partial subsidy based on their income levels. Of those families who returned to shelter within the year, those receiving a graduated or step-down rental subsidy were more likely to return sooner than those receiving an incomebased subsidy. While statistically significant, the differences in the likelihood of returning to shelter based on the type of rental subsidy received are small, and this finding may not warrant major consideration.

More noteworthy is that families in areas where vacancy rates are more than 5 percent were only 40 percent as likely to return to a homeless shelter within 12 months as were families in tighter markets. Perhaps families living in markets with more housing options were more able to move to alleviate high rent burdens or other housing challenges, whereas those families in tight markets had fewer options to resolve housing-related issues on their own. Again, this finding may not suggest policy or programmatic implications, but it helps providers and communities better understand

the challenges inherent in housing families in tight rental markets and may suggest a need for more intentional followup or safety networks for families exiting rapid re-housing programs in difficult housing markets.

These results from the supplemental analysis for all families differ from the multivariate analysis of outcomes for the smaller cohort of families enrolled in the primary evaluation. Analysis of outcomes for the families enrolled in the primary evaluation showed that personal characteristics such as age (family heads 18 to 24 years of age), race (African-American), income at entry, and income of less than 15 percent of MFI were associated with higher rates of returns to homelessness. Families with incomes of more than 30 percent of MFI were significantly less likely to become homeless. In the analysis data collected from families enrolled in the primary evaluation, none of the program or market features examined were associated with statistically significant differences in the likelihood of returning to homelessness within a year. Exhibit 11 summarizes

Exhibit 11. Factors Significantly Associated With Returning to Homelessness Within 12 Months After Exit for Study Participants and All RRHD Families

Variable	Primary Evaluation Study Families (N = 417) ^a	All RRHD Families (N = 1,148) ^b
Family characteristics		
Age was 18 to 24	More likely*	_
African-American	More likely** c	_
Earned income at entry	More likely*	_
Income at exit was more than 0% but less than 15% of MFI	More likely* d	_
Income at entry was 30% or more of MFI	Less likely**	_
Program characteristics		
Full rent paid by program	_	Less likely*
Market characteristics		
Local rental vacancy rate was more than 5%	_	Less likely*

MFI = Median Family Income. RRHD = Rapid Re-housing for Homeless Families Demonstration.

Sources: Homelessness Management Information System; followup survey; tracking data

a 417 of the 490 study participants had data sufficient to be included in the multivariate analysis (base model).

b 1,148 of the 1,459 RRHD families had data sufficient to be included in the multivariate analysis.

^c Significant in an alternate model that includes race and incidence of domestic violence before entry, N = 356.

^d Significant in an alternate model that includes income at exit instead of income at entry, N = 420.

^{*} Signifies statistically significant at the 0.10-percent confidence level.

^{**} Signifies statistically significant at the 0.05-percent confidence level.

the results of the multivariate analysis on returns to homelessness for the study families who were part of the primary evaluation as compared to the larger cohort of families included in the supplemental analysis.

Neither the primary evaluation nor this supplemental analysis assessed whether rapid re-housing was needed to help families secure and maintain permanent housing. It is possible that families would have fared equally well without the rapid re-housing, with no more than 6 percent returning to emergency shelter or transitional housing within 12 months. More will be learned on that question from the forthcoming HUD-sponsored Family Options Study, which compares the outcomes of families randomly assigned to rapid rehousing and three other interventions. The analysis in this study confirms, however, that the vast majority of families who receive rapid re-housing through the RRHD program exited homelessness to permanent housing settings and did not return to sheltered homelessness within the next year.

The findings in this supplemental report do not reinforce the findings from the multivariate analysis conducted solely on the 490 families in the primary evaluation. The primary evaluation offers more than the multivariate analysis, however. The information collected using telephone-based followup surveys and tracking efforts revealed that many families who do not return to homelessness still experience housing instability, and they report many other challenges in their lives, such as hunger and economic instability.

In sum, the research team draws the following conclusion from this supplemental analysis and the primary evaluation: *In most housing markets, rapid re-housing is an effective means of helping families return to housed situations – usually housing they rent themselves – and most families assisted avoid returning to homelessness the year after their exit, regardless of their personal characteristics.* Rapid re-housing, however, at least as it is currently designed, should not be expected to result in long-term housing stability, increased family income, or other desirable family outcomes.