



Study of Household Transition from the **Disaster Housing Assistance Program (DHAP-Katrina)**

Final Report



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Final Report

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Disclaimer

The contents of this report are the views of the contractor and do not necessarily reflect the views or policies of the U.S. Department of Housing and Urban Development or the U.S. government.

Preface

This study reports on what happened to a sample of approximately 36,000 households that participated in the Disaster Housing Assistance Program (DHAP-Katrina) in terms of housing and other outcomes almost two years after DHAP-Katrina ended. Instituted through an interagency agreement between the Federal Emergency Management Agency (FEMA) and the U.S. Department of Housing and Urban Development (HUD), DHAP-Katrina was designed as a time-limited, declining rental subsidy program with a case management requirement. It served hurricane-affected households that still didn't have permanent housing almost two years after Hurricanes Katrina and Rita struck the Gulf Coast and that were having trouble transitioning from FEMA's individual assistance program and FEMA temporary housing units because of a limited supply of affordable rental housing.

Some of the study's key findings are that DHAP-Katrina provided much-needed housing assistance for a vulnerable population, but for more than half of DHAP-Katrina participants there was still no permanent housing solution without the use of HUD's Housing Choice Voucher (HCV) program for continued housing assistance four years after the hurricanes. Although a majority of households were satisfied with DHAP-Katrina and felt that the program helped them get back on their feet, study findings show that a sizeable number that did not (or could not) transition to the HCV program were at risk of housing instability almost two years after DHAP-Katrina ended based on an assessment of income, employment status, and financial security. Participants reported that case management services were helpful, but referrals focused on housing search assistance rather than self-sufficiency. Without a control or comparison group, it is not possible to know how these or similar households would have fared without DHAP-Katrina, nor is it possible to determine the role of household characteristics versus program interventions and economic or other conditions that could have influenced outcomes.

Implications for long-term major disaster planning are twofold: (1) some short-term or emergency disaster recipients will need longer-term or even permanent housing assistance after the disaster assistance has ended and (2) post-disaster case management or service connection should include job skills development, stable income from employment, and increased access to cash benefits to facilitate long-term housing stability and self-sufficiency.



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Executive Summary

This report presents the results of the *Study of Household Transition from the Disaster Housing Assistance Program (DHAP-Katrina)*. This new approach to post-disaster housing assistance provided a time-limited, declining rental subsidy along with case management services to households affected by Hurricanes Rita and Katrina who still did not have permanent housing two years after the storms. The study's results indicate that participants were largely satisfied with their DHAP-Katrina housing and with the case management services they received. Results on post-program outcomes some seven years after the storms (and two years after the program ended) indicate that many DHAP-Katrina participants transitioned to the Housing Choice Voucher (HCV) program, but that many other former DHAP-Katrina participants seem to be at risk of housing instability. In this executive summary, we provide background on DHAP-Katrina, a summary of the study's methodology and key findings, and a brief review of the implications of the results.

Background on the Disaster Housing Assistance Program (DHAP-Katrina)

In response to the housing crisis caused by Hurricanes Katrina and Rita in August and September 2005, the Federal Emergency Management Agency (FEMA), the U.S. Department of Housing and Urban Development (HUD), and other agencies provided a number of housing and financial assistance programs. FEMA housed some hurricane-impacted families and individuals in FEMA temporary housing units (THUs) and provided others with emergency housing assistance payments paid directly to landlords under its Individual Assistance (IA) program.

Nearly two years after the storms, tens of thousands of households were still receiving assistance from FEMA. There were numerous challenges to transitioning households out of THUs and off of IA, especially the limited supply of available, affordable rental housing. To provide extended assistance to households still served by FEMA emergency programs, HUD and FEMA entered into an Interagency Agreement (IAA) that created the Disaster Housing Assistance Program (DHAP-Katrina) in July 2007.

DHAP-Katrina provided extended temporary housing assistance to hurricane-affected households who initially received emergency assistance from FEMA. DHAP-Katrina was intended for households that had not previously been assisted by HUD programs. Those who had HUD assistance at the time of the storms were helped in other ways.¹

DHAP-Katrina Housing Assistance and Case Management

DHAP-Katrina operated differently from HUD's previous, non-disaster-related rental assistance subsidy programs in three ways: 1) while households receiving FEMA assistance so long after the storms were likely to be needy, the program had no income limit, and the level of rental assistance payments did not vary with the income of participating households; 2) declining rental assistance payments were intended to transition households over time to greater responsibility for their housing costs; and 3) case management services were provided to all households to help them move toward greater self-sufficiency and stable, permanent housing. Local public housing agencies (PHAs) administered the rental assistance. Case management was provided by PHA staff or by other agencies or organizations with which the PHA contracted for case management services.

Households were referred to and enrolled in DHAP-Katrina in phases. In August 2007, FEMA provided the first round of DHAP-Katrina referrals to HUD for assignment to PHAs. Phase 1 of DHAP-Katrina consisted of families in this initial set of referrals. In January 2008, FEMA began referring additional families to HUD under Phase 2 of DHAP-Katrina. Most of these families had moved from FEMA's THUs to

private rental housing and were assisted by IA at the time FEMA made a DHAP-Katrina referral. In April 2008, HUD and FEMA agreed to assist families who were moving out of THUs that were deemed to have formaldehyde risks by the Centers for Disease Control and Prevention (CDC). These families made up Phase 3 of DHAP-Katrina. Altogether, some 36,000 households were assisted.

Rental assistance was handled differently under Phase 1 compared to Phases 2 and 3. At the start of Phase 1, participants paid no rent, and the PHA sent the owner of the housing unit a check for the full rent for the unit. In March 2008, approximately four months after they started to receive assistance, Phase 1 participants were required to pay \$50. Each month thereafter, they paid an additional \$50 in a stepped-up transition at the end of which they would pay the full market rent for their housing. As tenant rent payments increased, hardship exemptions could be requested if the applicable tenant payment under the incremental rent requirement would exceed 30 percent of gross monthly income.

By contrast, Phase 2 and 3 participants received a full rental subsidy throughout their enrollment in DHAP-Katrina, paying \$0 in rent. The decision not to require Phase 2 and 3 families to pay rent under DHAP-Katrina was made to reduce any disincentive families may have had to leave their THU, for which they had not been paying rent. When compared to the Phase 1 participants, the families in Phase 2 and 3 potentially saved up to \$3,900 in rent payments during one year on the program.

Both Phase 1 and Phase 2 and 3 participants were intended to transition directly to paying the full market rent for their housing on March 1, 2009. However, HUD announced in late February 2009 that

1. U.S. Department of Housing and Urban Development, Office of Public Housing and Voucher Programs, *Disaster Housing Assistance Program (DHAP-Katrina) After Action Report*, October 2010.

both groups were eligible for the Disaster Housing Assistance Transitional Closeout Program (DHAP-Katrina TCP). Under DHAP-Katrina TCP, the rental contributions of both groups increased by \$100 per month through August 31, 2009, after which DHAP-Katrina assistance ceased.

The head of each household participating in DHAP-Katrina was required to work with a case manager to complete a needs assessment and create an individual development plan that charted a course toward housing stability and self-sufficiency. Participants were categorized into one of four “tiers” based on the severity of need. Tier 1 participants needed little or no assistance and were to receive only quarterly monitoring from case managers to update their status. By contrast, Tier 4 participants needed extensive assistance and were expected to receive weekly contacts with case managers. During TCP, there was no requirement, or federal funding, for case management services.

DHAP-Katrina staff helped potentially eligible, low-income participants apply for HUD-funded housing choice voucher (HCV) program as they transitioned off the DHAP-Katrina program.² Additional housing vouchers were authorized by Congress and made available by HUD for this purpose.

Overview of This Study

DHAP-Katrina presents a unique opportunity to find out what happened to participants in a housing assistance program that created a transition from a subsidy under which they paid no rent to either market rate housing or a program that provided permanent housing assistance. The overall research questions of the project are twofold:

1. What were the housing outcomes for DHAP-Katrina participants after the assistance ended, and how did factors such as the type and duration of DHAP-Katrina assistance, tenant characteristics, and case management services contribute to those outcomes?
2. How should future disaster housing assistance programs facilitate households’ return to market rate housing? What guidance can be provided to better shape rental assistance and accompanying case management services following a disaster?

The study uses data from administrative sources to examine participant characteristics and patterns of participation in DHAP-Katrina. To explore participant outcomes and their experiences and satisfaction with DHAP-Katrina housing assistance and case management services in more depth, the study draws on two rounds of survey data collection from a sample of DHAP-Katrina participants who were still receiving assistance in December 2008, just over three years after the hurricanes. The first survey, which we refer to as the *interim survey*, was conducted by HUD as DHAP-Katrina was ending. A *follow-up survey* of respondents to the interim survey was conducted approximately two and a half years later by Abt Associates. The study’s results were reviewed by HUD staff as well as by external experts on disaster case management; their comments and insights are reflected in this report.

Key Findings

Who Was Served by DHAP-Katrina?

- Administrative data on approximately 36,000 DHAP-Katrina households indicate that participants were primarily small households headed by people aged 25 to 54 at program entry, but also include

small numbers of elders and young heads of household under age 25. Somewhat surprisingly, more than one-quarter (27 percent) of DHAP-Katrina households were single individuals under age 55.

- We have limited data with which to assess the financial status or employment stability of DHAP-Katrina participants, but about half were employed at program entry, and three-quarters had at least a high school education. All were still receiving FEMA assistance, implying that they were still experiencing difficulty paying for housing two or more years after the hurricanes. The younger single householders who made up a quarter of participants were somewhat more likely to be working and not receiving public benefits than the DHAP-Katrina population overall. Administrative data report relatively low rates of disability among DHAP-Katrina households, but the PHAs administering the program may not have asked participants about disability, as it made no difference for a household's amount of assistance.

What Were the Patterns of Participation in DHAP-Katrina?

- According to administrative data, DHAP-Katrina participants received rental assistance for a median of just under 15 months. The median amount of combined DHAP-Katrina and TCP rental assistance was \$8,149.
- One-third of all DHAP-Katrina participants used the program for less than one year, but when the analysis is limited to participants who entered the program more than one year before it ended, only 24 percent of participants stayed less than one year.
- Households with smaller subsidies (because of lower rent), elderly households, and homeowners were more likely than other households to use DHAP-Katrina for less than one year.
- Phase 2 and 3 participants started DHAP-Katrina later and stayed through the TCP at much higher rates than Phase 1 participants and received substantially higher total amounts of assistance. This is not surprising, given that Phase 2 and 3 participants received fully subsidized rent under DHAP-Katrina—that is, the household contributed \$0 to the rent until the TCP.
- About half of DHAP-Katrina participants responding to the follow-up survey said they did not move to a new home or apartment when they received DHAP-Katrina assistance but instead stayed where they had been living. The remaining 47 percent moved to a different place, including most Phase 2 and 3 participants, the majority of whom were being relocated out of FEMA THUs.
- Most DHAP-Katrina participants were relatively satisfied with the housing they lived in during DHAP-Katrina and said the program helped them get back on their feet after the hurricanes.
- Most participants stayed on the program as long as they could. Almost three-quarters of survey respondents indicated that their reason for leaving DHAP-Katrina was that the program was ending. Receiving only a small subsidy seemed to contribute strongly to earlier exits, while Phase 1 households receiving hardship exemptions to the stepped-up rents were more likely to stay longer.
- The severity of long-term stayers' needs as assessed by case managers compared to those of early exiters suggest that relative need for assistance was not the primary driver of how long households stayed on the program. Administrative data show that the median length of stay was exactly the same (14.9 months) across all four need tiers.

- A sizable share of DHAP-Katrina participants said they had difficulty paying their rent as the tenant payment amount increased. Just 25 percent said it was *not* difficult to keep up with increasing payment amounts, while 41 percent said it was somewhat difficult, and 31 percent said it was very difficult. However, we did not find evidence that the \$50 incremental rent for Phase 1 participants had a negative effect on post-program housing outcomes.
- Some households that continued to receive DHAP-Katrina until the program ended were less needy (that is, their case managers assessed them with fewer needs at program entry) than those who left earlier. However, most were relatively low income, including nearly half (46 percent) that qualified for HUD housing assistance within two years of DHAP-Katrina ending.

What Were Participants' Experiences with DHAP-Katrina Case Management?

- The largest share of DHAP-Katrina participants (35 percent) was assigned to Tier 2, indicating that some assistance was needed with between four and nine “non-crisis” needs. The next largest group, with 32 percent of household heads, was assigned to Tier 4, the group with the greatest needs.
- Participants assessed at program entry to have higher levels of needs did not necessarily meet with their case managers more frequently or receive more referrals than those with lower levels of need. Based on the survey results, participants generally worked with one or two case managers during their participation in DHAP-Katrina. Case managers were usually located at the PHA (for 37 percent of participants) or at both the PHA and some other organization (for 29 percent of participants). Most participants were relatively satisfied with the case management services they received.
- According to survey respondents, referrals received from DHAP-Katrina case managers focused on housing search assistance and, to a lesser extent, access to benefits. Participants reported lower rates of referrals to services related to financial security or self-sufficiency, such as finding job training or employment; improving one’s education; or improving budgeting, savings, and credit skills.

What Were DHAP-Katrina Participants' Housing Situations Two and a Half Years After the Program Ended?

- Based on the follow-up survey results, two and a half years after the end of the DHAP-Katrina program, most participants were renting their own place (82 percent) or living in a home they owned (13 percent). (For comparison, 25 percent reported they had ever owned a home at the time they entered DHAP-Katrina.) A large majority of participants (71 percent) had lived in their current unit for more than one year, and nearly one-third reported they still lived in the same unit in which they were subsidized by DHAP-Katrina.
- Thinking back to their pre-storm housing, half (51 percent) of all participants said their current housing was better than their pre-storm housing, and 35 percent said the quality was the same.
- A notable share of survey respondents had experienced some housing instability in the year before we interviewed them.
 - Controlling for household characteristics and initial subsidy level, Phase 1 participants were about two times as likely as Phase 2 and 3 participants to be in stable housing at follow-up. Further, Phase 1 participants who received a hardship exemption during their DHAP-Katrina participation but did not receive a voucher later were more likely to have experienced unstable housing at follow-up.

- Nearly one-fifth of participants had to double-up with other households or had experienced homelessness in the past year; 12 percent specifically reported having had no place of their own sometime in the previous 12 months.
- Some 17 percent of DHAP-Katrina households were living in units that were overcrowded, a rate much higher than national rates of housing crowding (estimated at 2.4 percent).

What Were DHAP-Katrina Participants' Financial Circumstances Two and a Half Years After the Program Ended?

- At the time of the follow-up survey in 2011-2012, DHAP-Katrina participants reported an average household income of \$1,544 per month, or about \$18,500 per year. Almost half (44 percent) reported incomes of \$1,000 or less per month, which would be at or below the 2012 poverty line even for a household with a single person.³ Only 9 percent of households had incomes of \$3,000 or more per month.
- Fewer than 10 percent have more than \$500 in savings.
- DHAP-Katrina participants reported wages to be the most common source of income at the time of the follow-up survey, with 59 percent of the households reporting employment income. Income from the Social Security retirement and disability programs is the only other current income source for a substantial share of DHAP-Katrina participants: 42 percent reported receiving such income at follow-up.
- The downturn in the economy appears to have hit DHAP-Katrina participants particularly hard. At the time of the follow-up survey, 21 percent of household heads reported being out of work and looking for work, and only 33 percent reported full-time employment. Another 13 percent reported part-time work.
- A sizable proportion of DHAP-Katrina participants struggled with paying their rent or mortgage and utilities in the year before the follow-up survey. On average, participants reported paying monthly rent of \$409 and utilities of \$262, for a total gross monthly rent of \$671. Given their low incomes, the result is that 44 percent were paying more than half their income in rent each month.
- Some 16 percent of renters reported they had been late paying rent at least once in the previous year. Four percent reported being evicted (for any reason) from their rental unit in the previous year.
- Based on matching the survey respondents to HUD administrative data, more than half (55 percent) of former DHAP-Katrina participants had a housing voucher at the end of 2011, although none were receiving housing voucher assistance when they enrolled in DHAP-Katrina. The average rent for households with vouchers was less than half of what the households without vouchers were paying. DHAP-Katrina participants assigned to Tier 4 were more likely to have a voucher and also were less likely to report high rent burdens and difficulty meeting their household expenses compared to those in the lower-need tiers.

Implications of the Study's Findings

The findings from this study focus primarily on a group of DHAP-Katrina participants who were still receiving FEMA assistance two years after the devastating hurricanes of 2005 and who were participating in DHAP-Katrina in December 2008, about one year after the first participants entered this new transitional assistance program. This group probably comprises a more vulnerable population

3. The 2012 poverty threshold for a single-person household is \$11,170 per year or an average of \$930 per month. <http://aspe.hhs.gov/poverty/12poverty.shtml>

than would be the case for a program serving disaster victims immediately or soon after a disaster event. The study's results should thus be viewed within the context of programs serving those who are unable to secure permanent replacement housing and who are most likely to experience long-term housing instability after a disaster. Following Hurricane Katrina, this group was characterized by low rates of post-secondary education, high rates of unemployment, and relatively low rates of previous home ownership.

The findings on DHAP-Katrina participants' longer-term post-program incomes, employment status, and financial security indicate that many are at risk of housing instability. Without a control or comparison group, we do not know how these or similar households would have fared without DHAP-Katrina, nor can we determine the role of household characteristics versus program interventions and economic or other conditions that could have influenced outcomes. Participants found case management helpful, but it does not seem to have addressed the need to ensure, over time, that household income is sufficient to meet housing and other costs. This suggests the need for some greater focus on helping participants seek additional cash benefits and much greater focus on helping them increase the amount and stability of income from employment. The survey results suggest that developing skills and gaining employment income were not the focus of DHAP-Katrina case management activities. Arguably, efforts to increase benefits and employment falls outside HUD's primary domain, but it will be critical for a disaster recovery program that serves a population with challenges similar to those that faced DHAP-Katrina participants.

A major disaster like the 2005 hurricanes may result in a group of households that receive the full period of FEMA assistance—usually

18 months, but a little more than two years following Hurricanes Katrina and Rita—and still cannot find a permanent housing solution. DHAP-Katrina stepped in to provide almost two years of additional assistance, but for many there was still no permanent housing solution without the use of housing vouchers. The DHAP-Katrina households had not been receiving HUD housing assistance before the storms. The hurricanes may have eliminated whatever housing solution they had before the storm, or their pre-storm housing may have been fragile to begin with. Planning for future disasters needs to take into account that some of the households provided emergency and short-term assistance will need long-term or even permanent housing assistance, even though they did not have such assistance before the disaster event.

Chapter 1

Introduction

This document presents the final report for the *Study of Household Transition from the Disaster Housing Assistance Program (DHAP-Katrina)*. To assist households displaced by Hurricanes Katrina and Rita in 2005 and, two years later, still living in the Federal Emergency Management Agency's (FEMA's) temporary housing units or in units for which FEMA was paying the rent, DHAP-Katrina was operated by the U.S. Department of Housing and Urban Development (HUD) from September 1, 2007 through August 2009. DHAP-Katrina provided both rental assistance and case management services.

FEMA's emergency assistance was intended to be short-term. However, given the devastation caused by Hurricanes Katrina and Rita, some tens of thousands of households still needed assistance nearly two years after the storms. Rather than extending FEMA assistance, FEMA and HUD entered into an Interagency Agreement (IAA) that created the Disaster Housing Assistance Program (DHAP-Katrina) in July 2007. DHAP-Katrina was intended for households who had not previously been assisted by HUD programs. Those who had HUD assistance at the time of the storms were helped in other ways.⁴

DHAP-Katrina operated differently from HUD's previous, non-disaster-related rental assistance subsidy programs in three ways: 1) while households receiving FEMA assistance so long after the storms were likely to be needy, the program had no income limit, and the level of rental assistance payments did not vary by the income of the participating households; 2) declining rental subsidies were intended to transition households gradually to greater responsibility for their housing costs; and 3) case management services were provided to all households to help them move toward greater self-sufficiency and stable, permanent housing.

This study of how households used DHAP-Katrina and then transitioned to either unassisted, market-rate housing or a permanent housing assistance program aims to provide HUD with information to help design future disaster housing programs by increasing understanding of how to structure rental assistance and accompanying case management services following a disaster. The study draws on administrative data, survey data, and input from experts.

1.1 DHAP-Katrina Rental Assistance and Case Management

In response to the housing crisis caused by Hurricanes Katrina and Rita in August and September 2005, FEMA, HUD, and other agencies provided a number of housing and financial assistance programs. FEMA housed some hurricane-impacted families and individuals in temporary housing units (THUs) and provided others with emergency housing assistance payments paid directly to landlords under its Individual Assistance (IA) program. Nearly two years after the storms, tens of thousands of households were still receiving assistance. There were numerous

4. U.S. Department of Housing and Urban Development, Office of Public Housing and Voucher Programs, *Disaster Housing Assistance Program (DHAP-Katrina) After Action Report*, May 2010.

challenges to transitioning households off of assistance, especially the limited supply of available, affordable rental housing. To provide extended assistance to households still served by FEMA emergency programs, HUD and FEMA entered into an Interagency Agreement (IAA) that created the Disaster Housing Assistance Program (DHAP-Katrina) in July 2007.

The IAA specified that FEMA would determine eligibility for DHAP-Katrina. HUD would administer the program through local public housing agencies (PHAs) in hurricane-affected areas for up to 45,000 households that had not been receiving rental assistance through HUD prior to the hurricanes and that would be referred by FEMA. Assistance under the new program was scheduled to begin on December 1, 2007.

An important feature of DHAP-Katrina was that each head of household receiving DHAP-Katrina rental assistance was required to participate in case management. Other family members under an active DHAP-Katrina lease were also eligible for case management services. Each head of household was required to work with a case manager to complete a needs assessment and create an individual development plan that charted a course toward self-sufficiency. According to DHAP-Katrina case management guidelines, participants were categorized into one of four “tiers” based on the severity of need. Tier 1 participants needed little or no assistance and were to receive quarterly monitoring from case managers to update their status. By contrast, Tier 4 participants needed extensive assistance and required at least biweekly contacts with case managers. PHAs administering DHAP-Katrina could staff the case management component internally or contract with an outside organization for case management services. The case management type, intensity, and delivery model varied across agencies.

Households were referred to and enrolled in DHAP-Katrina in phases. In August 2007, FEMA provided the first round of DHAP-Katrina referrals to HUD for assignment to PHAs. Phase 1 of DHAP-Katrina consisted of families in this initial set of referrals. In January 2008, FEMA began referring additional families to HUD under Phase 2 of DHAP-Katrina. Most of these families had moved from FEMA’s temporary housing units (THUs) to private rental housing in which they were assisted by FEMA by the time FEMA made the DHAP-Katrina referrals. In April 2008, HUD and FEMA agreed to assist families who were moving out of THUs that were deemed formaldehyde risks by the Centers for Disease Control and Prevention (CDC). These families made up Phase 3 of DHAP-Katrina.

DHAP-Katrina rent payments did not vary with household income, but were handled differently under Phase 1 compared to Phases 2 and 3. At the start of Phase 1, participants paid no rent, and the PHA sent the owner of the housing unit a check for the full market rent of the unit. In March 2008, approximately four months after they started to receive assistance, Phase 1 participants were required to pay \$50. Each month thereafter, they paid an additional \$50 in a stepped-up transition strategy at the end of which they would pay the full market rent for their housing. By the end of DHAP-Katrina in February 2009, these participants were paying \$650 toward their rent, for a total of \$3,900 cumulatively since program enrollment. By contrast, Phase 2 and 3 participants received a full rental subsidy throughout their enrollment in DHAP-Katrina, paying \$0 in rent. The decision not to require Phase 2 and 3 families to pay rent under DHAP-Katrina was made to reduce any disincentive families may have had to leave their THUs, for which they had not been paying rent. Thus, when compared to the Phase 1 participants, the families in Phase 2 and 3 potentially saved up to \$3,900 in rent payments.

Both Phase 1 and Phase 2 and 3 participants were intended to transition directly to paying the full market rent for their housing on March 1, 2009. However, because of evidence households were not transitioning to market rate housing as quickly as expected, HUD announced in late February 2009 that both groups were eligible to transition instead to the Disaster Housing Assistance Transitional Closeout Program (DHAP-Katrina TCP). Under DHAP-Katrina TCP, the rental contributions of both groups increased by \$100 per month through August 31, 2009, after which DHAP-Katrina assistance ceased. The transition to DHAP-Katrina TCP in March 2009 eliminated the requirement, and federal funding for, case management services.

DHAP-Katrina staff helped potentially eligible, low-income participants apply for HUD housing choice voucher (HCV) assistance as they transitioned off the DHAP-Katrina program.⁵ Funding for additional housing choice vouchers was authorized by Congress and made available to HUD for this purpose.

1.2 Overview of the Research Questions and Data Sources

By providing extended but still temporary disaster housing assistance and case management services, DHAP-Katrina represents a new approach. DHAP-Katrina presents a unique opportunity to find out what happened to participants in a housing assistance program that created a transition from a subsidy under which they paid no rent to either market-rate housing or a program that provided permanent housing assistance. The overall research questions of the project are twofold:

1. What were the housing outcomes for DHAP-Katrina participants after the

assistance ended, and how did factors such as the type and duration of DHAP-Katrina assistance, tenant characteristics, and case management services contribute to those outcomes?

2. How should future programs that follow a disaster structure rental assistance and case management services to return housing assistance recipients to market rate housing?

Some administrative data were collected on the rental assistance and case management activities undertaken through DHAP-Katrina. First, data on the rental assistance provided to DHAP-Katrina participants through February 2009 was collected in HUD's *Disaster Information System (DIS)*. For participants who transitioned to the Transitional Closeout Program (TCP), HUD captured rental assistance information in a spreadsheet known as the *HAP Register*. Information on case management activities for DHAP-Katrina through February 28, 2009 was recorded in the *Tracking at a Glance (TAAG)* system. DHAP-Katrina case managers were expected to use TAAG to enter demographic information and needs assessments and to track case management contacts and referrals for DHAP-Katrina participants.

To supplement the administrative data, two rounds of survey data collection were conducted with a sample of DHAP-Katrina participants: an *interim survey* as DHAP-Katrina was ending and a *follow-up survey* approximately two and a half years later. The interim survey covered topics such as the number of residences the respondent had lived in since the hurricanes, the respondents' plans for post-DHAP-Katrina housing, household income and assets, and the case management services the respondent needed from DHAP-Katrina and whether the services had been received. The

5. Assistance continued for an additional two months for a few households that were awaiting determinations of whether they were eligible for housing voucher assistance.

follow-up survey built on the interim survey effort by conducting a detailed follow-up interview targeting the 1,438 DHAP-Katrina participants who responded to the interim survey.

Obtaining robust response rates posed challenges to both rounds of data collection. The response rate for the interim survey was 48 percent. The follow-up survey, which targeted those who responded to the interim survey, achieved a response rate of 54 percent. To adjust for differences between respondents and non-respondents, the survey data presented in this report have been weighted to reflect the characteristics of DHAP-Katrina recipients at the time the survey sample was drawn.⁶

1.3 Organization of This Report

The remainder of this document is organized as follows. In Chapter 2, we review the study methodology. Chapter 3 summarizes the characteristics of DHAP-Katrina participants and reviews their patterns of participation in, and satisfaction with, the rental assistance component of DHAP-Katrina. Participants' experiences and satisfaction with DHAP-Katrina case management are presented in Chapter 4. Chapters 5 and 6 assess DHAP-Katrina participants' post-program outcomes: Chapter 5 reviews housing outcomes, and Chapter 6 presents self-sufficiency outcomes. In Chapter 7, we revisit the analysis of patterns of participation, focusing on the survey respondents for whom we also have outcomes. The final chapter reviews the study's implications for future disaster recovery efforts.

6. The sampling and weighting methodologies are discussed further in Chapter 2 and an accompanying appendix.

Chapter 2

Study Methodology

Data for this study come from several sources. First, data on the rental assistance provided to DHAP-Katrina participants through February 2009 was collected in HUD's *Disaster Information System (DIS)*. For participants who transitioned to the Transitional Closeout Program (TCP), HUD captured rental assistance information in a spreadsheet known as the *HAP Register*. Information on case management activities for DHAP-Katrina through February 28, 2009 was recorded in the *Tracking at a Glance (TAAG)* system. Data from all of these administrative systems support the current DHAP-Katrina study. The administrative data are supplemented by data from an *interim survey* of a sample of DHAP-Katrina participants conducted as the program was ending and a *follow-up survey* conducted approximately two and a half years later. This chapter describes the administrative data and survey methods.

2.1 Administrative Data on DHAP-Katrina

The administrative data on DHAP-Katrina originate from four sources:

- **Disaster Information System (DIS)** is HUD's program and financial management control information system for DHAP-Katrina. DIS is used primarily by PHAs responsible for administering DHAP-Katrina and by HUD relocation assistance contractors. DIS provides verification of family eligibility and allows for data entry of information on new or temporary housing assistance provided to families receiving DHAP-Katrina assistance.⁷
- **HAP Register** is a freestanding data file compiled and aggregated by HUD from files used by individual PHAs to administer DHAP-Katrina. The file documented procedures and processing of housing assistance payments to DHAP-Katrina TCP participants during the period of transition from March to October 2009.
- **Tracking at a Glance (TAAG)** is a client-level data system used by PHAs and service providers to document the provision of DHAP-Katrina case management services provided during the transition from assisted status to private-market status. TAAG also provides information on demographic and socio-economic status of participants and their level of need for services at program entry.
- **The Inventory Management System/ Office of Public and Indian Housing's Information Center (IMS/PIC)** is a centralized HUD information system that allows PHAs to submit program, financial, and tenant characteristics information to HUD for the HCV and public housing

7. See the Disaster Information System (DIS) Application User Guide (September 2009) at: <http://www.hud.gov/offices/pih/systems/pic/docs/dvpusermanual.pdf>.

programs. Information on DHAP-Katrina participants is only for participants who transitioned to these HUD assistance programs after DHAP-Katrina.

The research team reviewed these data sources and prepared a *Final Database and Data Entry Plan (DDEP)* to document the strengths and weaknesses of the administrative data sources and to describe how the data sources would be used in the research. The DDEP provides extensive detail on the content and quality of each dataset, which we will not repeat here. These activities helped the team identify gaps in the data that could be filled through the follow-up survey. Further, the research team used the TAAG and DIS data to perform the non-response analyses for both the interim and follow-up surveys (described in more detail below and in an accompanying appendix.)

2.2 Survey Data Collection

In addition to the administrative data sources, the study draws on two rounds of survey data collection for a sample of DHAP-Katrina recipients: an interim and a follow-up survey.

2.2.1 Interim Survey

HUD conducted an interim survey of a sample of DHAP-Katrina participants at around the time DHAP-Katrina was ending. In December 2008, Abt Associates Inc. helped HUD select a sample of DHAP-Katrina families to include in the study. The sample was restricted to clients served by PHAs with at least 600 DHAP-Katrina clients to ensure that sampled agencies would have sufficient client volumes to merit inclusion in the study. Also, the sampling frame was limited to clients who were still receiving DHAP-Katrina assistance as of December 2008. The final sampling frame included records for 22,727 DHAP-Katrina participants (13,219 Phase 1 households and 9,508 Phase 2 and 3 households). Abt selected a simple

random sample of 1,500 Phase 1 families and 1,500 Phase 2 and 3 families for the study.

Beginning in January 2009, participating PHA staff and case managers distributed a consent form and interim survey to sampled clients. Soon after, beginning March 1, 2009, clients were transitioned from DHAP-Katrina to the DHAP-Katrina TCP. To allow PHA staff to focus on transitioning DHAP-Katrina clients, HUD took over the administration of the telephone-based follow up to the mail survey following the transition to DHAP-Katrina TCP and also mailed the consent form and the interim survey to the remaining sample of clients who had not yet received it. The interim survey covered topics such as the number of residences the respondent had lived in since the hurricanes, the respondents' plans for post-DHAP-Katrina housing, household income and assets, the case management services the respondent needed from DHAP-Katrina, and whether the services had been received. (The interim survey instrument appears in Appendix A.)

2.2.2 Follow-Up Survey

The follow-up survey built on the earlier survey effort by conducting a more detailed survey of the approximately 1,425 DHAP-Katrina participants who responded to the interim survey.

The follow-up survey focused on outcomes in the domains of housing (quality, affordability, stability) and employment and self-sufficiency (income, financial security/insecurity). In addition, the follow-up survey asked respondents about their experiences and satisfaction with the case management component of DHAP-Katrina, including what services they needed, whether they were able to access those services with the assistance of DHAP-Katrina case management, and the extent to which they were satisfied with the services they received. The follow-up survey instrument is provided in Appendix B.

2.2.3 Survey Response Rates

Achieving robust response rates was a challenge in both rounds of survey data collection.

For the interim survey, HUD initially relied on local staff administering DHAP-Katrina to distribute the survey; later, HUD staff assisted with telephone follow-up to improve response rates. Despite these efforts, of the 3,000 DHAP-Katrina participants sampled in December 2008, 1,438 completed the interim survey, for a 48 percent response rate.

The targeted sample for the follow-up survey was the 1,438 respondents to the interim survey. To encourage sample retention, we conducted brief telephone contacts with as many respondents as we could find during a brief field period in early 2010. During these contacts, we updated respondents' contact information and information for alternate contacts who would know how to reach them. We conducted additional passive and active tracking before and during the follow-up survey field period.

The follow-up survey was conducted by telephone, with some limited field locating to find hard-to-locate respondents. The follow-up survey was conducted substantially later than originally planned. Initially, the follow-up survey was expected to be fielded in mid-2010, approximately 12 months after DHAP-Katrina ended. Because of delays in the study's design phase, survey data collection did not begin until December 2011, roughly 28 months after DHAP-Katrina ended. The longer time interval meant more respondents had moved or changed phone numbers. The response rate for the follow-up survey was 54 percent.

The overall response rate—that is, the percentage of the original sample of 3,000 who responded to both the interim and

follow-up surveys—is just under 26 percent. To maximize the extent to which the study's results are generalizable, the research team needed to confirm that survey respondents are similar to the overall population served by DHAP-Katrina. They conducted non-response analysis to determine if there are observable differences between respondents and non-respondents, for both the interim survey and the follow-up survey.

In our non-response analysis, we used administrative data—program and case management data from DIS and the TAAG system—to compare respondents and non-respondents based on demographic characteristics, sources of income, DHAP-Katrina unit characteristics, and program-use patterns. The analysis indicated that there were several statistically significant differences between respondents and non-respondents to both the interim and follow-up surveys. For both rounds of data collection, respondents are older and more disadvantaged than non-respondents. Our overall assessment is that, while there are observable differences between respondents and non-respondents, the differences can be mitigated by applying non-response weights. The follow-up survey data presented in this report have been weighted to reflect the characteristics of DHAP-Katrina participants in December 2008, when the survey sample was drawn. The detailed results of the non-response analysis are presented in Appendix C.

2.3 Summary of Research Questions and Data Sources

Exhibit 2-1 provides a detailed list of the study's research questions and the data sources (administrative and surveys) we draw on to answer each question.

Exhibit 2-1. Research Questions, Outcome Domains, and Data Sources

Research Question	Domain	Data Source					
		DIS	HAP Register	TAAG	IMS/PIC	Interim Survey	Follow-Up Survey
What are the outcomes of DHAP-Katrina for participants?							
<i>What are the housing outcomes?</i>	<i>Housing</i>						
Satisfaction with DHAP-Katrina housing	Satisfaction - DHAP						X
Satisfaction with DHAP-Katrina neighborhood	Satisfaction - DHAP						X
Satisfaction with post-DHAP-Katrina housing at follow-up	Satisfaction - Follow-up						X
Satisfaction with post-DHAP-Katrina neighborhood at follow-up	Satisfaction - Follow-up						X
Type of housing, post-DHAP-Katrina (renting, own home, shared living)	Tenure type						X
Homeownership	Tenure type			X		X	X
Comparisons of housing quality:	Quality						
Pre-storm vs. at follow-up	Quality						X
Just before DHAP-Katrina entry vs. at follow-up	Quality						X
Last DHAP-Katrina housing vs. at follow-up	Quality						X
Housing costs, post-DHAP-Katrina (rent, mortgage, utilities)	Costs						X
Comparison of housing costs: DHAP-Katrina vs. at follow-up (self-report)	Costs						X
Receipt of housing assistance after DHAP-Katrina	Costs				X		
Number of places lived since storm	Stability					X	X
Incidence of homelessness after DHAP-Katrina	Stability						X
Incidence of eviction in past 12 months	Stability						X
<i>What are the employment outcomes?</i>	<i>Employment</i>						
Pre-storm employment status (retrospective report at follow-up)	Status over time						X
Employment status at DHAP-Katrina entry	Status over time			X			
Employment status at end of DHAP-Katrina	Status over time					X	
Employment status at follow-up	Status over time						X
<i>What are the outcomes in terms of financial security/economic hardship?</i>	<i>Financial Security</i>						
Incidence of late rent or mortgage payment in past 12 months	Late payments						X
Incidence of late utility payment in past 12 months	Late payments						X

continued on pg. 9

Exhibit 2-1. Research Questions, Outcome Domains, and Data Sources (continued)

Research Question	Domain	Data Source					
		DIS	HAP Register	TAAG	IMS/PIC	Interim Survey	Follow-Up Survey
Reported financial insecurity (used savings, borrowed from friend/family, etc.)	Financial insecurity			X			X
Financial security post-DHAP-Katrina compared to at DHAP-Katrina entry	Change over time (self-report)						X
Have savings	Savings			X		X	X
Credit status (self-report)	Credit			X		X	X
What factors contribute to outcomes?							
<i>How do tenant characteristics contribute to outcomes?</i>	<i>Tenant Characteristics</i>						
Gender	Demographics	X		X		X	
Race/ethnicity	Demographics			X		X	
Age	Demographics	X		X		X	
Marital status	Demographics					X	X
Disability status	Demographics			X			
Household size	Demographics	X				X	X
Language spoken	Demographics			X			
Income amount	Income					X	X
Income sources	Income			X		X	X
Employment status	Employment			X		X	X
Education level	Education			X		X	X
Need level (TAAG tier)	Service needs			X			
<i>How does DHAP-Katrina participation contribute to outcomes?</i>	<i>DHAP Participation</i>						
DHAP-Katrina phase of participation (Phase 1 or Phase 2 and 3)	Phase	X					
DHAP-Katrina duration of participation	Duration	X	X				X (confirmation)
Rent paid during DHAP-Katrina	Rent	X	X				
Received DHAP-Katrina-TCP assistance	Assistance		X				
Reason for exit from DHAP-Katrina	Reason for exit						X
Administering PHA	PHA	X					
Housing expectations at end of DHAP-Katrina (location, how to pay for post-DHAP-Katrina housing)	Post-exit housing - planned					X	
Experience with requests for hardship exemption (if applicable)	Hardship exemption experience						X

continued on pg. 10

Exhibit 2-1. Research Questions, Outcome Domains, and Data Sources (continued)

Research Question	Domain	Data Source					
		DIS	HAP Register	TAAG	IMS/PIC	Interim Survey	Follow-Up Survey
<i>How do case management services contribute to outcomes?</i>	<i>Case Management Experience</i>						
Expectations for case management (self-report)	Expectations					X	
Number of contacts with case manager	Frequency						X
Number of case managers	Number of case managers						X
Satisfaction:	Satisfaction						
With case management in general	Satisfaction						X
With services by case manager	Satisfaction						X
With ability to reach case manager	Satisfaction						X
With services the case manager connected R to	Satisfaction						X
Referrals/services/satisfaction:	Referral types						
Housing search/placement	Referral types						X
Household goods	Referral types						X
Homeownership counseling	Referral types						X
Childcare	Referral types						X
Transportation	Referral types						X
Access to benefits	Referral types						X
Legal assistance	Referral types						X
Education	Referral types						X
Employment	Referral types						X
Financial literacy	Referral types						X
Family stabilization	Referral types						X
Health/Mental health	Referral types						X
Services for elderly/disabled	Referral types						X
Do DHAP participants report the case management was helpful?	Reported outcomes of case management					X	X
Do DHAP participants report the program helped them get back on their feet after the storm?	Reported outcomes of DHAP						X
General feedback on DHAP-Katrina							
General satisfaction with DHAP	Satisfaction						X
Suggestions for program improvement	Recommendations for improvements						X

Chapter 3

DHAP-Katrina Participant Characteristics and Patterns of Participation

This chapter provides a descriptive overview of DHAP-Katrina participants and their experiences with the rental assistance component of DHAP-Katrina. We begin with an overview of the demographic characteristics of DHAP-Katrina recipients. We then look at patterns of participation in DHAP-Katrina housing, including lengths of receipt of DHAP-Katrina assistance and the amounts of rental assistance received. We conclude with participants' levels of satisfaction with DHAP-Katrina housing assistance and their recommendations for future improvements.

3.1 Who Was Served on DHAP-Katrina?

DHAP-Katrina was established to serve households who met the following criteria: 1) they had not been living in HUD-assisted

housing before the 2005 hurricanes; and 2) they were living in FEMA-assisted housing and had ongoing housing assistance needs when DHAP-Katrina was created, some two years after the storms. This section draws on administrative data to describe the approximately 36,000 households served by DHAP-Katrina.

The heads of household served by DHAP-Katrina are primarily female (65 percent) and black (86 percent), as shown in Exhibit 3-1. The median age of household heads at DHAP-Katrina entry was 42.2 years. Most household heads were between the ages of age 25 and 54 at program entry, 10 percent were elderly (age 62 or older), and 6 percent were age 24 or younger when they began receiving DHAP-Katrina assistance.

Exhibit 3-1. Demographic Characteristics of DHAP-Katrina Heads of Household

	Number of Household Heads	Percent (of Non-Missing)
Gender		
Female	23,623	65
Male	12,639	35
Age		
18-24	2,132	6
25-34	9,270	26
35-44	7,773	22
45-54	8,353	24
55-61	4,572	13
62 or older	3,404	10
Race		
African American/Black	29,210	86
White	4,325	13
Other	84	1

Source: HUD Disaster Information System (DIS) and Tracking at a Glance (TAAG); N = 36,279. Percent missing for gender = <1%; for age of household head = 2%; for race = 7%.

Most DHAP-Katrina participants lived in small households at the time they entered the program. Some 62 percent of households

had one or two members, as shown in Exhibit 3-2, and 39 percent were single-person households. The administrative data for marital status combine information on marital status and household composition, as shown in the upper panel of the exhibit, making it difficult to determine whether households had children. In addition, the missing data rate is very high for this variable, at 51 percent. For those households for whom we have data, we assume households categorized as “single parents” did have children at the time they entered the program, but it is unclear whether those in the single, divorced, separated, or widowed categories had children.⁸

Exhibit 3-2. Household Size, Composition, and Marital Status

	Number of Households	Percent (of Non-Missing)
Marital status		
Divorced	1,751	9
Married	3,678	18
Separated	855	4
Single	8,129	41
Single parent	2,463	12
Widowed	907	5
Household size		
1	12,312	39
2	7,238	23
3	5,420	17
4	3,548	11
5	1,849	6
6 or more	764	4

Source: HUD Disaster Information System (DIS) and Tracking at a Glance (TAAG); N = 36,279. Percent missing for marital status = 51%; household size = 13%. In addition, 11 percent of households' marital status is entered as “unknown.”

To better understand the types of households served on DHAP-Katrina, we attempted to

- Using the results of our follow-up survey data weighted to reflect DHAP participants receiving assistance in December 2008, we found the following results for marital status: 51 percent of DHAP participants were single/never married, 24 percent were separated or divorced, 18 percent were married or living in a marriage-like situation, and 7 percent were widowed. Some 47 percent reported having one or more children living with them at follow-up.

use the DIS data on all households to look more closely at household composition. This is somewhat difficult given missing data on the age of household members in DIS (13 percent), but the main categories of households we can identify are shown in Exhibit 3-3. The largest share of households (45 percent) is made up of households with children. The next largest share (27 percent) is comprised of people under age 54 living alone when assisted. There is a somewhat surprising group to find in a housing assistance program, especially because, according to the DIS data, only 8 percent have a disability, and only 9 percent have Supplemental Security Income (SSI). Possibly the actual rate of disability is higher.

The large percentage of younger single-person households on DHAP-Katrina may reflect the way in which households reached the program. Possibly, younger single people are more willing to remain in FEMA THUs for an extended period of time than older singles and multiple-person households.

Exhibit 3-3. Household Composition: Additional Detail

Household Membership	Percent (of Non-Missing)
Single-person households	
Younger (< age 55)	27
Near-elderly (age 55-62)	6
Elderly (> age 62)	6
Multiple-person households	
With children	45
Without children	15
Other or insufficient data to classify	1

Source: HUD Disaster Information System (DIS) and Tracking at a Glance (TAAG); N = 36,279. Percent missing for age = 13%. Among households with children, 4 percent are headed by an elderly or near-elderly person and the remainder are non-elderly. Among households without children, 5 percent are headed by an elderly or near-elderly person and the remainder are non-elderly.

The DHAP-Katrina administrative data systems have limited data on households' socio-economic status at DHAP-Katrina entry, summarized in Exhibit 3-4. At program entry, 8 percent of DHAP-Katrina participants reported being disabled. A large majority (76 percent) had a high school diploma or general equivalency diploma (GED), while a much smaller proportion (13 percent) had a college degree. Just over half (55 percent) were employed at DHAP-Katrina entry, and one-quarter had owned a home at some point. Relatively small but notable shares of new DHAP-Katrina entrants were receiving public benefits from the food stamp or SSI programs: 18 percent were receiving food stamp assistance, and 9 percent were receiving SSI.⁹

Looking again at the 27 percent of DHAP-Katrina participants that were under 55 years old and living alone, they do not seem to be more disadvantaged than other heads of household participating in DHAP-Katrina. The age distributions and educational attainment levels (shown in Exhibit 3-5) are nearly identical to those of all heads of household. They were somewhat more likely to be employed and less likely to be receiving public benefits at program entry than the DHAP-Katrina population overall (comparing Exhibit 3-5 to Exhibit 3-4). Approximately 62 percent of younger singles were employed, compared to 55 percent of the full population. Approximately 13 percent of younger singles were receiving food stamps, compared to 18 percent of the full population, and 7 percent compared to 9 percent of the full population were receiving SSI. Income data are incomplete in DIS, so we do not know how incomes for the younger single-person households compare to the full population.

Exhibit 3-4. Socio-Economic Characteristics of DHAP-Katrina Participants

Socio-Economic Indicator	Number of Heads of Household	Percent (of Non-Missing)
Disability status of non-elderly households		
Disabled	2,654	8
Educational attainment		
College degree	4,035	13
High school diploma or GED	24,097	76
Homeownership status		
Ever owned a home	7,872	25
Employment status		
Employed at program entry	17,471	55
Public benefits		
Receiving food stamps at program entry	6,540	18
Receiving SSI at program entry	3,289	9

Source: Disaster Information System (DIS) and Tracking at a Glance (TAAG); N = 36,279. Percent missing for disability status = 0.5%; educational status/college = 14%; educational status/high school = 12%; homeownership = 12%; employment status = 13%; public benefits/food stamps = 2%; public benefits/SSI = 2%.

9. The administrative data did not contain information on other public benefits such as general assistance or Temporary Assistance to Needy Families (TANF).

Exhibit 3-5. Characteristics of Younger Single-Person Households

Household Membership	Percent (of Non-Missing)
Age	
18-24	10
25-34	29
35-44	23
44-55	38
Disabled	7
College degree	13
High school diploma or GED	77
Employed at program entry	62
Receiving food stamps at program entry	13
Receiving SSI at program entry	7

Source: HUD Disaster Information System (DIS) and Tracking at a Glance (TAAG); N = 36,279. Percent missing for age = 13%.

TAAG provides some additional insight into DHAP-Katrina participants' assessed service needs. In our review of TAAG data, we found that 88 percent of households had been assigned to one of the four tiers of severity of need: from Tier 1 representing little to no assistance needed to Tier 4 indicating extensive needs. The distribution of assignments is shown in Exhibit 3-6. The largest share of DHAP-Katrina participants (35 percent) was assigned to Tier 2, indicating that some assistance was needed with between four and nine "non-crisis" needs. The next largest group, with just under one-third (32 percent) of household heads, was assigned to Tier 4. These participants had the most severe needs and were supposed to receive the most frequent contact (at least biweekly) and, one would expect, numerous referrals. Missing rates were much higher for Phases 2 and 3 (20 percent) than for Phase 1 (6 percent), so we should be somewhat cautious about comparisons across phases, but from the available data, the distributions across need levels by phase appear similar.

Exhibit 3-6. Results of Triage Classification (Reported by HUD)

Triage Classification Criteria	All	Phase 1	Phases 2 and 3
Tier 4—Extensive assistance needed: 1 crisis need or 16+ secondary needs	10,284 (32%)	6,867 (32%)	3,417 (32%)
Tier 3—Substantial assistance needed: 10-15 secondary needs	3,646 (11%)	2,773 (13%)	873 (8%)
Tier 2—Some assistance needed: 4-9 secondary needs	11,363 (35%)	7,411 (35%)	3,952 (37%)
Tier 1—Little to no assistance needed: 0-3 secondary needs	6,776 (21%)	4,228 (20%)	2,548 (24%)

Source: Disaster Information System (DIS) and Tracking at a Glance (TAAG); N = 36,279. Tier assignment missing for 12 percent for all participants (6 percent for Phase 1 and 20 percent for Phase 2 and 3).

To explore how the characteristics of DHAP-Katrina participants compare to the characteristics of the general population in the cities where most of the DHAP-Katrina participants in our study live, we assembled selected demographic data from the U.S. Census, shown in Exhibit 3-7, for New Orleans, and Baton Rouge, Louisiana; Houston, Texas; and Gulfport, Mississippi. Almost 70 percent of DHAP-Katrina recipients live in one of these cities (nearly 60 percent live in New Orleans and Houston alone).

Compared to the general population, DHAP-Katrina participants are more likely to be black (86 percent) and the same or slightly less likely to be elderly (10 percent are over age 62 compared to 9 percent or more over age 65 in these cities). Disability rates were not available at the city level, so we present 2010 statewide data in this table, which show disability rates somewhat higher for these states' populations (11 to 16 percent) than shown in DIS data for DHAP-Katrina participants (8 percent). The proportion of

Exhibit 3-7. Demographic Summary for Cities Where Most DHAP Participants Live

Demographics	New Orleans	Houston	Baton Rouge, LA	Gulfport, MS
Percent black (2010)	60	24	55	36
Percent white (2010)	33	51	39	57
Percent age 65 or over (2010)	11	9	11	12
Percent disabled (statewide civilian non-institutionalized population, 2010)	15.1 (Louisiana)	11.6 (Texas)	15.1 (Louisiana)	16.3 (Mississippi)
High school graduates, percent of person age 25+ (2006-2010)	83	74	84	82
Homeownership rate, 2006-2010	49	47	51	61
Persons per household, 2006-2010	2.44	2.67	2.48	2.63

Source: <http://quickfacts.census.gov/qfd/index.html>, accessed on July 2, 2012.

DHAP-Katrina participants who are high school graduates (76 percent) is slightly higher than Houston's general population, but 6 to 8 percent lower than the rate in the other cities. Homeownership rates in these cities are substantially higher than the rate of DHAP-Katrina participants who have ever owned a home (25 percent).

In summary, the administrative data indicate DHAP-Katrina participants were primarily small households headed by people aged 25 to 54 at program entry, but also include small shares of elders and young heads of household. We have limited data with which to assess their financial status or employment stability, but about half were employed at program entry, and three-quarters had at least a high school education. All were still receiving FEMA assistance, implying they were still experiencing difficulty paying for housing two or more years after the hurricanes. Needs assessment data indicate the largest share of DHAP-Katrina participants had moderate needs, but the second-largest group was those assessed to have the highest level of needs. DHAP-Katrina assistance was designed to provide temporary rental assistance to

disaster-affected households and help them transition to stable, affordable housing. In the next section, we review participation patterns and housing experiences in the rental assistance part of DHAP-Katrina.

3.2 Participation Patterns and Housing Experiences While on DHAP-Katrina

DHAP-Katrina was meant to provide temporary assistance to help recipients transition to permanent housing they could afford, but the path for this transition differed for participants who entered DHAP-Katrina in Phase 1 compared to those who entered in Phases 2 and 3. In this section, we use administrative data to describe the DHAP-Katrina housing experience in terms of duration of participation and subsidy costs. We also present survey results regarding participants' experiences and satisfaction with the housing component of DHAP-Katrina.

3.2.1 Patterns in DHAP-Katrina Participation

Duration of participation in DHAP-Katrina

We calculate duration of participation using the first and last dates of DHAP-Katrina payments to landlords for each DHAP-Katrina participant.¹⁰ The median period of participation in DHAP-Katrina is just under 15 months (14.7 months), including a median of two months in the TCP. The patterns of participation differ by phase, as shown in the first row of Exhibit 3-8. The median duration for Phase 1 participants is 14.9 months, slightly higher than the overall figure, while the median for Phases 2 and 3 is lower at 12 months. This is to be expected given that Phase 2 and 3 participants entered the program several months after Phase 1 enrollment began, and the TCP phase began at the same time for both groups.

The next four rows look at program stays in six-month increments. In both phases, most participants stayed between 7 and 18 months, but the distributions are different, again because of the timing of program enrollments. Among Phase 1 participants, a solid majority (60 percent) was on the program between 13 and 18 months, with a notable share (16 percent) staying 18 to 24 months. By contrast, a larger share of Phase 2 and 3 participants fall in the 7- to 12-month stay category (45 percent) compared to Phase 1 (19 percent), and very few (less than 1 percent) stayed 18 to 24 months, because the program ended 19 months after the earliest Phase 2 and 3 enrollments.

DHAP-Katrina subsidy amounts

Subsidy amounts provided to DHAP-Katrina participants reflect differences across phases both in duration of participation and in the amount of subsidy provided. Recall that referrals for DHAP-Katrina Phase 1 began in August 2007 and for Phases 2 and 3 in January 2008. PHAs began making DHAP-Katrina payments to landlords in December 2007. Beginning in March 2008, Phase 1 participants were required to pay an additional \$50 per month toward their rent—a stepped-up transition strategy—unless the household received a hardship exemption. Hardship exemptions could be requested if the applicable tenant payment under the transitional requirement would exceed 30 percent of gross monthly income. Only Phase 1 participants were eligible for hardship exemptions.

10. Phase 1 outreach and engagement began in September 2007, but it took time to put program procedures in place and PHAs faced challenges contacting and enrolling eligible families because contact information obtained from FEMA was often out of date. To accommodate the delays, HUD instructed PHAs to delay making the first rental assistance payments from November 1, 2007 to December 1, 2007, while FEMA continued that agency's individual assistance (IA) to cover this interim period. Thus, the earliest start dates in DIS are in December 2007, although some Phase 1 participants may have been referred to the program up to three months earlier.

Exhibit 3-8. Duration of Participation and Subsidy Amounts by Phase

	All (N = 36,279)	Phase 1 (N = 22,789)	Phases 2 and 3 (N = 13,490)
Duration of participation in months			
Median	14.7 months	14.9 months	12.0 months
Percent of participants staying:			
6 months or less	5	5	5
7-12 months	29	19	45
13-18 months	56	60	49
18-24 months	10	16	<1
Median total subsidy amount			
DHAP only	\$7,020	\$7,329	\$6,600
DHAP + DHAP-TCP	\$8,149	\$7,620	\$9,000
Median monthly subsidy amount			
Overall (DHAP+DHAP-TCP)	\$611	\$535	\$748
March 2009	\$600	\$400	\$750
Percent of original enrollees still enrolled in March 2009	68	56	90
August 2009	\$300	\$245	\$331
Percent of original enrollees still enrolled in August 2009	26	10	53
Hardship exemption			
Percent received hardship exemption	21	34	Not applicable

Source: HUD Disaster Information System; HAP Register.

Notes: For the DHAP-TCP period (March 2009 onward), the actual subsidy amount for each month was obtained from the HAP Register. For the DHAP period (through February 2008), the subsidy amount was estimated using various methods depending on specific participant characteristics:

- Phase 1 participants not receiving hardship exemptions and all Phase 2 and 3 participants:** The subsidy was estimated as "Rent to Owner" plus "Utility Reimbursement" for the first lease recorded in DIS minus the calculated tenant-paid portion of the rent based on the rent structure that applied to that Phase. During the DHAP period, Phase 2 and 3 participants paid \$0 rent and Phase 1 participants paid \$50 in March 2008 and \$50 more for each subsequent month on the program (e.g., \$100 in April 2008, \$150 in May 2008). Utility reimbursement was zero or missing for all but two household heads. Phase 2 and 3 participants reported to have started DHAP before May 2008 were assumed to have started on May 1, 2008 as no Phase 2 and 3 DHAP-Katrina participant should have received rental subsidies before this date according to the DHAP after-action report.
- Phase 1 participants receiving both hardship exemptions and March 2009 rental subsidies (e.g. participants entering TCP):** If the March 2009 subsidy + \$100 is greater than the initial estimated subsidy (gross rent or gross rent - \$50), then the subsidy was estimated as the initial subsidy without any decrease in subsidy over time. Otherwise, the subsidy was estimated as the greater of either the March 2009 subsidy plus \$100 OR "Rent to Owner" plus "Utility Reimbursement" for the first lease recorded in DIS minus the calculated tenant-paid portion of the rent based on the rent structure that applied to that phase (as calculated above in a).
- Phase 1 participants receiving hardship exemptions but not March 2009 rental subsidies (e.g., participants not entering TCP):** If the average March 2009 subsidies of other DHAP-Katrina participants in the same state residing in a unit with the same number of bedrooms is greater than the initial estimated subsidy (gross rent or gross rent - \$50), then the subsidy was estimated as the initial subsidy without any decrease in subsidy over time. The subsidy was estimated as the greater of the average March 2009 subsidies of other participants in the same state residing in a unit with the same number of bedrooms OR "Rent to Owner" plus "Utility Reimbursement" for the first lease recorded in DIS minus the calculated tenant-paid portion of the rent based on the rent structure that applied to that phase (as calculated above in a).

For the purpose of estimating subsidies, time participants spent receiving DHAP-Katrina assistance was rounded up to the nearest whole month. For example, a participant receiving DHAP-Katrina assistance for 2.25 months prior to March 1, 2008 would be assumed to have spent three full months and received three full-rental subsidies before the "stepped-up" rent structure took effect.

Phase 2 and 3 participants did not contribute to rent and therefore were ineligible. Some 34 percent of Phase 1 households received a hardship exemption, as shown in the last line of the exhibit.¹¹

By contrast, Phase 2 and 3 participants received fully subsidized rents throughout their enrollment in DHAP-Katrina, paying \$0 in rent. For those households that continued to receive DHAP-Katrina assistance through some or all of the TCP

11. See detailed table notes on how the subsidy amounts were calculated.

beginning in March 2009, the household contribution to rent increased by \$100 per month, regardless of phase. TCP continued through August 31, 2009, with the exception of a few potentially voucher-eligible families whose voucher applications were still under review.

As shown in the second panel of Exhibit 3-9, across all DHAP-Katrina participants, HUD provided a median total subsidy per household of \$7,020. When subsidies during TCP are included, the median total of all assistance is \$8,149 per household, and the median subsidy per month is \$611. The total amount for DHAP-Katrina-only is higher for Phase 1 participants because of the substantial share who received hardship exemptions. The higher subsidy per month of the Phase 2 and 3 households is offset by the shorter period of time during which they received the subsidy, resulting in a substantially lower DHAP-Katrina-only subsidy.

When TCP subsidies are included, the additional subsidy provided to Phase 2 and 3 participants—because their phase-down started at a higher point—is evident. The median for Phase 1 participants is

\$7,620, while the median for Phase 2 and 3 participants is \$9,000, some 18 percent higher.

We can also look at participation patterns for each of the four tier groups, and that analysis is shown in Exhibit 3-9. Recall that participants with the fewest and least severe needs are assigned to Tier 1, while those with the most numerous and severe needs were assigned to Tier 4. We might expect that those with higher levels of need might have more difficulty transitioning to a permanent housing solution, resulting in longer stays and higher subsidy costs. We do not see such patterns in duration of stay. The median duration of stay is exactly the same for all tier groups: 14.9 months. The distribution in six-month increments is similar across tier groups, although the percentages with 18- to 24-month stays are a little higher for Tiers 3 and 4 than for Tiers 1 and 2.

As shown in the second panel of Exhibit 3-9, subsidy amounts trend up for Tiers 1 and 2, but Tier 4 has a lower median subsidy amount than Tier 3, both for DHAP-Katrina-only subsidies and for the sum of DHAP-Katrina and TCP subsidies.

Exhibit 3-9. Duration of Participation and Subsidy Amounts by Tier Group

	Tier 1 (N = 6,776)	Tier 2 (N = 11,363)	Tier 3 (N = 3,646)	Tier 4 (N = 10,284)
Duration of participation in months				
Median	14.9 months	14.9 months	14.9 months	14.9 months
Percent of participants staying:				
6 months or less	4	4	3	4
7-12 months	26	26	22	27
13-18 months	60	60	60	58
18-24 months	9	10	15	12
Median total subsidy amount				
DHAP only	\$6,930	\$7,200	\$7,713	\$7,350
DHAP + DHAP-TCP	\$8,000	\$8,300	\$8,698	\$8,300

Source: HUD Disaster Information System; HAP Register.

Notes: For the DHAP-TCP period (March 2009 onward), the actual subsidy amount for each month was obtained from the HAP Register. Please see Exhibit 3-7, explanatory note, for information on how DHAP-Katrina rental subsidies were estimated.

DHAP-Katrina enrollment over time

As expected, enrollment dropped off sharply once the TCP rent increases began to provide a strong incentive for participants to leave assistance. Median monthly subsidy amounts declined through the TCP period, from \$600 in March 2009 to \$300 in August 2009 (Exhibit 3-7). Again, Phase 2 and 3 median subsidy amounts start higher and end higher than comparable numbers for Phase 1. In addition, Phase 2 and 3 participants were more likely to remain on the program until the end. At the beginning of the TCP period in March 2009, 90 percent of Phase 2 and 3 participants were still on the program, compared to just 56 percent of Phase 1 participants. By August 2009, more than half of Phase 2 and 3 participants (53 percent) were still enrolled, but only 10 percent of Phase 1 participants remained.

Exhibit 3-10 shows the flow of program enrollments and exits from December 2007 through October 2009. The graph shows

the more rapid pace of exits among Phase 1 compared to Phase 2 and 3 participants in the last several months of the program.

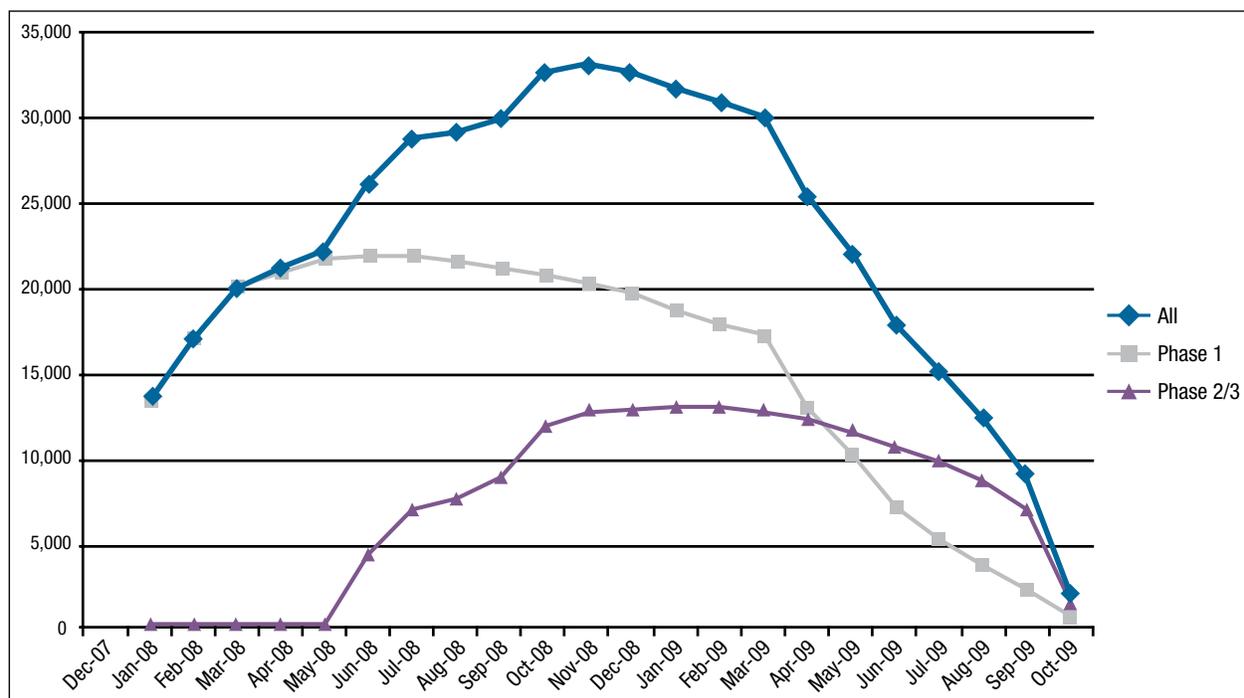
In Chapter 7, we will discuss patterns of participation in more depth, including an assessment of the relationships between duration of stay, household characteristics, and outcomes based on the results of our survey.

3.2.2 Participant Satisfaction with DHAP-Katrina

The follow-up survey provides some additional insights into DHAP-Katrina participants' experiences and satisfaction with DHAP-Katrina's program features and how the program was administered.

DHAP-Katrina was a new program and operated differently both from most of HUD's housing assistance programs and from FEMA's recovery assistance. PHAs needed to communicate the DHAP-Katrina rent policies to participants to ensure they

Exhibit 3-10. DHAP-Katrina Participants by Month



understood their obligations as tenants. Most DHAP-Katrina participants reported that the PHAs conveyed the information effectively. Just over half (58 percent) of DHAP-Katrina participants said they were very satisfied with the information they received from the PHA about how much they would pay each month in rent, and 28 percent were somewhat satisfied.

Slightly lower proportions were very satisfied (53 percent) or somewhat satisfied (26 percent) with their ability to contact the PHA if they had concerns about their housing. This is the one area of satisfaction in which the sum of those somewhat or very dissatisfied approached 20 percent. As discussed more below, when asked for suggestions for improving programs like DHAP-Katrina in the future, respondents often mentioned that it was difficult to reach DHAP-Katrina staff (whether housing or case management staff) and that this should be improved in the future.

About half of DHAP-Katrina participants (53 percent) said they did not move to a new home or apartment when they received DHAP-Katrina assistance, but instead stayed where they had been living. The remaining 47 percent moved to a different place, including nearly all Phase 2 and 3 participants, the majority of whom were being relocated out of FEMA travel trailers.

Housing affordability during DHAP-Katrina was a concern for some participants, according to survey respondents. Respondents were asked to compare the rent they paid and the quality of their housing during DHAP-Katrina to their pre-DHAP-Katrina housing. The question about rent was worded to refer to rent paid over time and not just at program entry: “Compared to the place you lived in just before DHAP-Katrina, was the amount you paid in rent more affordable, less affordable,

or about the same?” One in four DHAP-Katrina participants found the DHAP-Katrina rent to be less affordable than the rent they had been paying before DHAP-Katrina, as shown in the bottom panel of Exhibit 3-11. Just over one-third (34 percent) found the DHAP-Katrina rent more affordable, and the remaining 38 percent said it was about the same. Responses were nearly the same by phase.

Housing quality was less of a concern, as shown in the top panel of Exhibit 3-11. The majority of DHAP-Katrina participants (52 percent) said their DHAP-Katrina housing was of better quality than the housing they lived in before, and 24 percent said the quality was about the same. Phase 2 and 3 participants were somewhat more likely to say their DHAP-Katrina housing was better (55 percent) compared to Phase 1 (48 percent.) For all DHAP-Katrina participants and by phase, 13 percent found the quality of their DHAP-Katrina housing was worse than the housing they lived in before.

Exhibit 3-11. Housing Quality and Affordability Before vs. During DHAP-Katrina

	Percent of All Participants	Percent of Phase 1 Participants	Percent of Phase 2 and 3 Participants
DHAP-Katrina housing quality			
DHAP quality better than pre-DHAP-Katrina housing	52	48	55
DHAP quality the same	34	39	30
DHAP quality worse than pre-DHAP-Katrina housing	13	13	13
Don't know/refused	1	<1	2
DHAP-Katrina housing affordability			
DHAP rent <u>more affordable</u> than pre-DHAP-Katrina housing	34	34	35
DHAP rent the same	38	39	37
DHAP rent <u>less affordable</u> than pre-DHAP-Katrina housing	25	25	26
Don't know/refused	3	3	3

* Indicates statistically significant difference at 10 percent significance level. ** Indicates significant difference at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

Most DHAP-Katrina participants were relatively satisfied with the housing choices they had through DHAP-Katrina. More than half (56 percent) were very satisfied, and 29 percent were somewhat satisfied. Nearly identical proportions said they were very or somewhat satisfied with the housing they lived in during DHAP-Katrina. As they progressed in the program, however, a sizable share of DHAP-Katrina participants said they had difficulty paying their rent as the tenant payment amount increased, as shown in the bottom panel of the Exhibit 3-12. Just one in four said it was *not* difficult to keep up with increasing payment amounts, while 41 percent said it was somewhat difficult, and 31 percent said it was very difficult.

Exhibit 3-12. Participant Satisfaction with DHAP-Katrina Housing

	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
Satisfaction with information from PHA about rent structure			
Very satisfied	59	60	56
Somewhat satisfied	28	28	29
Satisfaction with housing choices/options			
Very satisfied	57	55	59
Somewhat satisfied	29	31	26
Satisfaction with DHAP-Katrina housing			
Very satisfied	56	56	56
Somewhat satisfied	32	33	31
Satisfaction with ability to contact PHA with housing concerns			
Very satisfied	53	51	56
Somewhat satisfied	26	29	22
Somewhat dissatisfied	9	8	10
Very dissatisfied	11	11	11
Difficulty of paying increasing rent			
Not difficult	26	27	24
Somewhat difficult	41	43	39
Very difficult	31	29	34
Don't know/refused	2	<1	3

* Indicates statistically significant difference at 10 percent significance level. ** Indicates significant difference at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

3.2.3 Reasons for Leaving DHAP-Katrina

Peak participation in DHAP-Katrina was in the fall of 2008, with approximately 32,500 participants. The rate of exiting from DHAP-Katrina rose sharply with the start of the DHAP-TCP program in March 2009. The TCP program phased in tenant-paid rents by increasing rents by \$100 for each subsequent month on the program. By August 2009, the number of participants had dropped to less than one-fourth of the peak, to about 9,100 participants.

Survey respondents were asked why they left DHAP-Katrina; multiple responses to this question were permitted. Consistent with the participation patterns discussed

previously, almost three-quarters of DHAP-Katrina participants (72 percent) said they left DHAP-Katrina because the program was ending, as shown in Exhibit 3-13. Significantly more Phase 2 and 3 participants said they left because the program was ending, compared to Phase 1 participants. A little more than one-third of DHAP-Katrina participants (36 percent) said they found another program to help pay for housing. Smaller numbers said they no longer needed financial assistance (17 percent overall) or that DHAP-Katrina assistance had become too small (16 percent overall.)

Termination happened relatively frequently, based on the survey results. Among Phase 1 participants, one in five participants said termination was a reason they left DHAP-Katrina, and among Phase 2 and 3 participants, termination was cited by almost one in four.¹² We did not ask for specific information about reasons for termination. Lack of compliance with the case management requirement is one possibility, but there are probably others such as lease violations or fraud.

Approximately 20 survey respondents (unweighted) said they stopped receiving DHAP-Katrina because they were “not eligible” or “not qualified.” It is unclear what these respondents meant, given that DHAP-Katrina was not a means-tested program. It is possible that, as DHAP-Katrina was ending, these participants applied for a voucher or public housing but were found ineligible. It is also possible they were ineligible for other reasons, such as lack of compliance with DHAP-Katrina program requirements.

As noted above, as tenant rent payments increased, hardship exemptions could be requested if the applicable tenant payment under the transitional requirement would exceed 30 percent of gross monthly income. Only Phase 1 participants were eligible for hardship exemptions. Phase 2 and 3 participants did not contribute to rent and therefore were ineligible. During the TCP, all households regardless of phase or exemption status were subject to the increased rent payments.

According to our survey data, just over one-third (34 percent) of DHAP-Katrina Phase 1 recipients applied for a hardship exemption, as shown in Exhibit 3-14. Just 46 percent of those who applied said they received a hardship exemption, or approximately 16 percent of all Phase 1 participants.¹³ Of the rest, 46 percent said they did not receive an exemption, and 11 percent were not sure whether or not they received the exemption.

Exhibit 3-13. Reasons for Leaving DHAP-Katrina

Reason	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
DHAP-Katrina ended/was ending soon	72	68	76**
Found another program to help pay for housing	36	39	32*
Terminated from DHAP-Katrina	22	20	24
Did not need assistance	17	18	16
DHAP-Katrina assistance became too small	16	15	17
House repair completed/could move back	9	7	12**
Wanted to move in with other people	5	5	5
Tired of program rules	4	3	5

* Indicates statistically significant difference at 10 percent significance level. ** Indicates significant difference at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

12. We do not have administrative data on terminations, so we cannot confirm whether this termination rate is accurate.

13. According to administrative data, approximately 34 percent of Phase 1 DHAP-Katrina participants received a hardship exemption.

It may be that those who had exemptions that were discontinued at the beginning of the TCP reported they did not receive an exemption.

Among those who recalled applying for an exemption, 49 percent were very satisfied with the information they got about the exemption, and 24 percent were somewhat satisfied. Similarly, more than two-thirds reported they were very or somewhat satisfied with the amount of time it took to get a response to their hardship exemption request.

Exhibit 3-14. DHAP-Katrina Participant Experiences with Hardship Exemptions

	Percent of Phase 1
Applied for exemption	34
Received exemption (of those who applied)	62
Satisfaction with information received about exemption among those who applied	
Very satisfied	49
Somewhat satisfied	24
Somewhat dissatisfied	13
Very dissatisfied	14
Satisfaction with how long exemption took among those who applied	
Very satisfied	43
Somewhat satisfied	27
Somewhat dissatisfied	13
Very dissatisfied	17

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn. Only Phase 1 participants were eligible for hardship exemptions. Phase 2 and 3 participants did not contribute to rent and therefore were not eligible for hardship exemptions.

In addition to the questions about specific aspects of DHAP-Katrina, survey respondents were also asked a general question about how helpful DHAP-Katrina rental assistance was “in helping you get back on your feet after the 2005 hurricanes.” As shown in Exhibit 3-15, more than 70 percent of DHAP-Katrina participants found the rental assistance to be

“very helpful,” and nearly all the rest said it was “somewhat helpful.” Although we saw some differences in program experiences and satisfaction rates between Phase 1 and Phase 2 and 3 on certain DHAP-Katrina features or practices, the overall assessments of the two groups as reflected in their responses to this general question are nearly identical. Both view DHAP-Katrina rental assistance as helpful in getting back on their feet after a major disaster.

Exhibit 3-15. How Helpful Was DHAP-Katrina Rental Assistance?

	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
Very helpful	72	72	71
Somewhat helpful	24	23	26
Not helpful at all	4	5	2
Don't know/refused	<1	<1	<1

* Indicates statistically significant difference at 10 percent significance level. ** Indicates significant difference at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

3.2.4 Participant Recommendations for Improvements

To supplement the closed-ended questions about housing outcomes and satisfaction, we asked follow-up survey respondents an open-ended question about suggestions on “how HUD could improve the housing assistance you received.” The responses were audio-recorded. About half of survey respondents provided comments on suggested improvements. We reviewed these to identify common themes. Respondents raised a number of issues and concerns that planners should consider for future programs:

- **Monitor housing quality and landlords' property management carefully:** Although DHAP-Katrina participants were generally satisfied with the quality of their housing, among those who made suggestions, a

sizeable number raised concerns about the poor quality of their DHAP-Katrina housing and lack of landlord responsiveness. The comments were generally not strongly worded, however. For example, one respondent commented, “The apartments that we live in here...they’re not in the best of shape.” Another suggested that units should be inspected more frequently to ensure landlords are keeping up their properties: “I think they were willing to get someone a place to stay but not a quality place to stay. Of course, everyone would like to live like they lived before the hurricane, but I think sometimes places were a little bit substandard.”

- **Monitor affordability, extend period of assistance:** Some commenters called for longer periods of assistance and less abrupt increases in rent. Some said that more affordable units needed to be available when the DHAP-Katrina assistance ended. Since rental housing was in very short supply, finding affordable units was challenging. Several people mentioned that they struggled to pay for housing after DHAP-Katrina, even though in at least one case the household was found ineligible (over-income) for assisted housing. One commented, “I think the payment should be allowed longer. I think there should be a little less red tape on getting the assistance that you need.”

3.3 Summary

DHAP-Katrina participants served primarily small households headed by people aged 25 to 54, but also included small shares of elders and young heads of household. We have limited data with which to assess their financial status or employment stability at the start of DHAP-Katrina, but about half were employed at program entry, and three-quarters had at least a high school education. They received DHAP-Katrina rental assistance for a median of just under

15 months and received a median of \$8,149 in DHAP-Katrina and TCP rental assistance.

Phase 2 and 3 participants stayed through the TCP at much higher rates than Phase 1 participants, and they received higher median amounts of assistance. This is not surprising, given that Phase 2 and 3 participants received full subsidies under DHAP-Katrina; that is, the household contributed \$0 to the rent. In theory, this would provide Phase 2 and 3 households with greater opportunities to save for the transition to post-DHAP-Katrina housing and fewer incentives to leave early, compared to Phase 1 households. In Chapters 5 and 6, we review DHAP-Katrina participants’ post-program housing and self-sufficiency outcomes to assess the extent to which this happened.

Chapter 4

DHAP-Katrina

Case Management Experiences

An important feature of DHAP-Katrina was that each head of household receiving DHAP-Katrina rental assistance was required to participate in case management. Other family members under an active DHAP-Katrina lease were also eligible for case management services. Each head of household was required to work with a case manager to complete a needs assessment and create an individual development plan that charted a course toward housing stability and self-sufficiency. According to DHAP-Katrina case management guidelines, participants were categorized into one of four “tiers” based on the severity of need. Tier 1 participants needed little or no assistance and were to receive quarterly monitoring from case managers to update their status. By contrast, Tier 4 participants needed extensive assistance and required at least biweekly contacts with case managers. PHAs

administering DHAP-Katrina could staff the case management component internally or contract with an outside organization for case management services. The case management type, intensity, and delivery model varied across agencies.

One of the central research questions of this study is to identify what case management services or model should accompany future programs like DHAP-Katrina. The research literature is sparse on this topic, and the DHAP-Katrina interim survey asked only two general questions about DHAP-Katrina participants’ case management experience. The follow-up survey covered this topic in more depth. This section briefly reviews the research literature and other background materials on disaster case management and presents the follow-up survey results on DHAP-Katrina participants’ experiences and satisfaction with DHAP-Katrina case management.

4.1 Background on Disaster Case Management

The federal government’s role in funding and coordinating disaster case management was not spelled out until 2006, with the passage of the Post-Katrina Emergency Management Reform Act of 2006.¹⁴ This act amended the Stafford Act to give the President the authority to provide financial assistance for case management services for disaster victims. According to a report by the U.S. Government Accountability Office (GAO), by 2009 more than \$209 million in federal funds had been allocated for case management, serving as many as 116,000 victims of Hurricanes Katrina and Rita.¹⁵

14. Public Law No. 109-295, title VI, codified at 42 USC Section 5189d.

15. U.S. Government Accountability Office, *Disaster Assistance: Greater Coordination and an Evaluation of Programs’ Outcomes Could Improve Disaster Case Management*, July 2009.

DHAP-Katrina was one of the programs that received case management funding. The GAO identified a number of challenges to effective implementation of case management services, including overlapping programs and breaks in federal funding. The agency also noted that it was difficult to assess the outcomes of the disaster case management provided, because there had been no thorough evaluations up to that point.

The contractor that administered the Tracking at a Glance (TAAG) system to collect data on DHAP-Katrina participants and their case management activities completed a close-out report in February 2009.¹⁶ Like the GAO report, this report identified some of the challenges both to implementing disaster case management under DHAP-Katrina and to using available program data to assess outcomes for participants, largely because of delayed or incomplete data entry. Anecdotally, we were told that services that households needed were sometimes unavailable or had long waiting lists, making it difficult for households to receive the services to which they were referred. Given the lengthy interval of time that had passed since the storms, it is quite possible that “compassion fatigue” may have reduced the level of resources, including donations and volunteer efforts as well as publicly funded supports that were available in communities affected by the storms. The GAO report also states that some households found case management to be intrusive, that some case management providers did not have the capacity to serve the caseloads associated with DHAP-Katrina (including keeping up with data entry requirements), and that many households had complex service needs that were difficult to address—for example, serious physical or mental health issues. A recent study of job stress among

case managers working with Hurricane Ike disaster recovery found that the challenge of finding available resources for clients was one of the primary sources of job stress for case managers, and “increasing and improving the distribution of resources” was a key area cited for improvement.¹⁷

4.2 Needs Among DHAP-Katrina Participants

The population served by DHAP-Katrina experienced not only the trauma of the 2005 hurricanes but also a persistent lack of permanent housing for two years after the storms. The case management component required DHAP-Katrina recipients to prepare for a transition to permanent housing. Case managers began by assessing the households’ needs and helping develop a plan to address them.

As discussed in Chapter 3, case managers conducted a needs assessment of DHAP-Katrina participants and assigned them to one of the four “tiers” of severity of need, from Tier 1 representing little to no assistance needed to Tier 4 indicating extensive needs. The largest share of DHAP-Katrina participants was assigned to Tier 2, indicating that some assistance was needed with between 4 and 9 “non-crisis” needs. The next largest group, with just under one-third (32 percent) of household heads, was assigned to Tier 4. These participants had the most severe needs and were supposed to have at least biweekly contact with their case managers. We also expect they would have had numerous referrals for services.

TAAG data on the outcomes of case management and referrals are not complete. According to HUD staff and the contractor close-out report, referrals were

16. PRS & Associates, *DHAP Case Management Closeout Report*, February 11, 2009.

17. Megan Hajecate Forman, *Job Stress in Disaster Case Managers Working with Hurricane Ike Recovery*, Thesis submitted August 2010, Office of Graduate Studies of Texas A&M University.

under-reported, and information on contacts with clients was often entered months after the contact occurred.¹⁸ Further, there is no information in TAAG on the outcomes of referrals—that is, whether the participant accessed the referred services and whether the services were helpful and addressed their needs. This makes it difficult to ascertain if the goals identified in participants' individual development plans were achieved.

The follow-up survey conducted for this study helps address the gaps in knowledge about the outcomes and effectiveness of DHAP-Katrina-funded case management. The follow-up survey included a series of questions about the respondents' needs, service referrals, and referral outcomes. We asked whether the respondents received the services to which they were referred and whether the services were helpful. We asked about the frequency of contact between the respondent and the case manager, how many case managers the respondent had during the course of DHAP-Katrina, and how satisfied the respondent was with the case manager's availability and effectiveness. We also asked an open-ended question to get respondents' suggestions for improving case management in future disaster response efforts.

Although the follow-up survey captures more detail on DHAP-Katrina case management than is available from any other source, it is important to note that about one-third of the respondents to the follow-up survey did not recall receiving DHAP-Katrina case management. This is not surprising given that the survey was administered nearly four years after the earliest participants began entering DHAP-Katrina (when case management may have been most intense)

and about three years after DHAP-Katrina case management ended. The survey results presented here reflect only those respondents who did remember their DHAP-Katrina case management experiences.

4.3 Experiences with Case Managers

The role of case managers was to determine DHAP-Katrina participants' needs and help them access appropriate services and resources. Some case managers worked for the PHA that administered the DHAP-Katrina rental assistance, while others worked for another organization to which the PHA contracted the case management function.

4.3.1 Frequency of Case Management Contact

In the follow-up survey, we asked respondents how many case managers they had and how often they met with the case manager(s). As shown in Exhibit 4-1, more than one in five DHAP-Katrina participants did not recall where his or her case manager was located. Of those who did recall, 37 percent remembered working with a case manager at the PHA, while 12 percent worked with a case manager at another agency. Just under 30 percent said they worked with case managers both at the PHA and at another organization.¹⁹ The distribution is nearly identical for Phase 1 and Phase 2 and 3.

Most respondents worked with a small number of case managers during their time on the program: 40 percent reported they worked with only one case manager, 42 percent worked with two, and 11 percent worked with three. The remaining 7 percent of respondents worked with four or more case managers.

18. Reporting improved toward the end of the program, as PHAs were required to report all cases in order to be paid.

19. The language in the survey specified that we were only interested in respondents' experiences with DHAP-Katrina case management and not with other case management respondents may have received through other programs. However, some respondents—especially those who said they received case management from multiple entities—may have confused DHAP-Katrina case management with similar services under other assistance programs.

Exhibit 4-1. Location and Number of Case Managers by Phase

	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
Location of case manager			
At PHA	37	37	37
At another organization the PHA referred to	12	11	13
Both	29	30	28
Neither	1	1	1
Don't know	21	21	21
Number of case managers			
1	40	40	40
2	42	44	38
3	11	9	15
4 or more	7	8	6

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

Respondents were asked how often they were in contact with their DHAP-Katrina case manager(s), including contacts by phone, in person, or by email or text message. Most DHAP-Katrina participants (about two-thirds) met with their case managers once a month or less frequently than that, as shown in Exhibit 4-2. The pattern is similar across participants in Phase 1 and Phase 2 and 3. Most respondents said they were at least somewhat satisfied with the frequency of contact, as shown in the bottom panel of the exhibit. Overall, just over half were always satisfied (54 percent), and an additional 32 percent were sometimes satisfied. Phase 1 participants were a little more likely to be always satisfied (56 percent), while Phase 2 and 3 participants were somewhat less so (49 percent).

Exhibit 4-2. Frequency of Contact with Case Managers by Phase

	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
Frequency of contact			
More than once a week	7	8	4
Once a week	10	10	11
Once every two weeks	14	14	15
Once a month	38	36	40
Less than once a month	27	28	27
Don't know/refused	4	4	4
Satisfaction with frequency of contact			
Always satisfied	54	56	49
Sometimes satisfied	32	30	36
Never satisfied	13	13	14
Don't know/refused	<1	<1	1

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

We also looked at frequency of contact and referral rates by tier level. The recommended frequency of contact for participants in each tier level was: quarterly for Tier 1; monthly for Tier 2; and at least biweekly for Tiers 3 and 4. Survey respondents reported a range of frequency of contacts that did not always align with their tier assignment. As shown in the top panel of Exhibit 4-3, DHAP-Katrina participants assigned to Tier 4 were most likely to report at least biweekly contact with their case managers (37 percent). Yet more than one in four participants in Tiers 1 and 2 reported at least biweekly contacts with their case managers, and one in five participants assigned to Tier 4 said they had contact with their case managers less than once a month.

Exhibit 4-3. Case Management Contacts and Referrals by Tier Group

	Percent of Tier 1	Percent of Tier 2	Percent of Tier 3	Percent of Tier 4
Percent of participants meeting with their case manager:				
At least biweekly	26	29	27	37
Once per month	38	38	43	35
Less than once per month	33	31	28	20
Don't know	2	2	3	7
Number of referrals received:				
None	17	19	21	20
1 referral	33	24	24	18
2-3 referrals	24	24	32	28
4-5 referrals	13	19	16	17
6 or more referrals	12	14	7	18

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

Similarly, as shown in the lower panel of Exhibit 4-3, Tier 3 and 4 participants did not report much higher numbers of referrals than those in Tiers 1 or 2. One-fifth of the participants in the high-need Tiers 3 and 4 reported zero referrals, while one-quarter of Tier 1 participants and one-third of those in Tier 2 received at least four referrals.

There are a number of possible reasons for apparent mismatches between need level and frequency of contact and referral rates. It may simply be that, given the long recall period, respondents do not accurately recall the frequency of contact they had with DHAP-Katrina case managers. Also, contact could be initiated by participants as well as by case managers. Some participants may have sought out their case managers more frequently than indicated by their tier level. Those with less contact may have preferred less contact or may have been deterred by other factors such as lack of transportation or lack of a telephone or computer for communication. From the case managers' perspective, it is also possible that large caseloads or large service areas may have meant some participants (those closer to the

office or easiest to contact) may have received more contacts, regardless of tier assignment. The rate of referrals may have been based on what services were available in the area as well as the participant's needs. If fewer services were available, fewer referrals may have been made, regardless of need level.

4.3.2 Experience with Referrals

Case managers worked with clients to access needed services, but anecdotal reports raised concerns that services were in short supply and that participants could not always access the services to which they were referred. In this section, we review the kinds of referrals DHAP-Katrina participants received, the extent to which DHAP-Katrina participants received the services to which they were referred, and their satisfaction with the services they received. The survey results are summarized in Exhibit 4-4, which shows overall results and results by phase.

Because DHAP-Katrina began about two years after Hurricanes Rita and Katrina struck the Gulf Coast, the needs identified among the DHAP-Katrina population

may not be typical of those one would see immediately after a disaster. Also, we asked respondents whether they were referred for services or not. Those who were not referred may either 1) not have needed the service, or 2) needed the service but were not referred. Anecdotally, we understand that there was a lack of available services in some areas, so it is also possible that referrals were not made because there was no appropriate source of services to which to refer DHAP-Katrina participants. We are not able to distinguish among these conditions. Note that these results are entirely based on survey responses, not on administrative data from TAAG, because HUD staff cautioned that referrals were under-reported in TAAG.

Overall, DHAP-Katrina participants were most frequently referred for help searching for housing. More than half (57 percent) received a referral for housing search assistance. Assistance accessing benefits such as food stamps or Supplemental Nutrition Assistance Program (SNAP), veteran's benefits or Social Security (presumably SSI or SSDI) was the next most-frequently referred service for 39 percent of DHAP-Katrina participants. Less than one-third of participants were referred for any of the other services we asked about. Fewer than 20 percent were referred for any of the services related to financial security or self-sufficiency, including finding job training or employment; improving one's education; or improving budgeting, savings, or credit skills.

Exhibit 4-4. DHAP-Katrina Recipient Referral Requests, Outcomes, and Satisfaction

Did Your DHAP-Katrina Case Manager Refer You for Assistance with ...	Percent Referred	Of Those Referred, Percent Received Service	Of Those Who Received Service, Percent Said Service Was Very Helpful	Of Those Who Received Service, Percent Said Service Was Somewhat Helpful
Searching for housing				
All	57	75	71	24
Phase 1	55	74	73	21
Phase 2 and 3	59	76	67	27
Accessing benefits (such as food stamps/SNAP, veterans benefits, Social Security)				
All	39	69	82	17
Phase 1	42	72	83	15
Phase 2 and 3	33**	61	78	22
Getting household goods (such as furniture, linens, kitchen equipment)				
All	32	73	87	11
Phase 1	36	75	85	11
Phase 2 and 3	25**	67	89	11
Counseling about buying a home				
All	22	41	68	28
Phase 1	25	36	77	21
Phase 2 and 3	18*	50	55	39
Finding job or job training				
All	19	60	74	21
Phase 1	25	59	79	17
Phase 2 and 3	11**	63	61	34

continued on pg. 33

Exhibit 4-4. DHAP-Katrina Recipient Referral Requests, Outcomes, and Satisfaction (continued)

Did Your DHAP-Katrina Case Manager Refer You for Assistance with	Percent Referred	Of Those Referred, Percent Received Service	Of Those Who Received Service, Percent Said Service Was Very Helpful	Of Those Who Received Service, Percent Said Service Was Somewhat Helpful
Getting medical or mental health care				
All	17	61	79	13
Phase 1	19	64	79	10
Phase 2 and 3	13*	52	77	23
Improving your education				
All	16	31	68	15
Phase 1	18	33	60	21
Phase 2 and 3	13	28	88	0
Improving your credit/savings/budgeting skills				
All	14	60	57	37%
Phase 1	15	66	62	32%
Phase 2 and 3	13	47	43	51%
Getting legal assistance				
All	14	45	82	12
Phase 1	16	40	81	10
Phase 2 and 3	10*	56	84	16
Getting transportation				
All	13	71	87	13
Phase 1	17	79	92	8
Phase 2 and 3	8**	43**	57	43
Finding elderly/disability services				
All	9	50	95	5
Phase 1	11	54	94	6
Phase 2 and 3	6*	41	100	0
Finding/paying for child care				
All	8	33	78	15
Phase 1	10	35	91	0
Phase 2 and 3	4**	28	29	71
Marriage/family issues				
All	6	44	89	12
Phase 1	7	42	100	0
Phase 2 and 3	5	49	67	33

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

DHAP-Katrina participants had varying levels of success accessing the services to which they were referred. More than two-thirds of those referred to housing search assistance, benefits assistance, or help getting household goods or transportation reported that they received the service. Between one-third and two-thirds of those referred were able to access counseling about buying a home; help finding a job or job training; assistance with medical or mental health care; or help with savings/budgeting/credit, legal assistance, elderly/disability services, finding/paying for child care, or marriage/family issues. Less than one-third of those referred were able to get education assistance.

Continuing to focus on participants in all phases of DHAP-Katrina, for those who received the services to which they were referred, satisfaction rates were generally quite high, with 70 percent or more of those who received services saying they were very satisfied with the services in almost all categories. Slightly lower rates of high satisfaction were reported for homeownership counseling and improving education (68 percent very satisfied for each) and improving savings/budgeting/credit skills (57 percent).

Exhibit 4-4 also shows, within each panel, the responses for DHAP-Katrina participants in Phase 1 and those in Phase 2 and 3. There do appear to be differences in the rates of referrals between the two phases. In every referral category with the exception of housing search, the proportion of Phase 2 and 3 participants referred to a given service is lower than the proportion of Phase 1 participants referred. In many cases the difference is a small number of percentage points, but in several categories—accessing benefits, getting household goods, finding a job or job training, and getting transportation—the difference is 10 percentage points or more, a statistically significant difference. We do not know

whether Phase 2 and 3 participants received fewer referrals because they had a lower rate of need or because they did need the services but did not receive referrals.

There is some variation in satisfaction levels between Phase 1 and Phase 2 and 3 participants, but the largest differences tend to be in categories in which relatively few referrals were made. Where there are differences, Phase 2 and 3 participants tended to be less satisfied with the services they received than Phase 1 participants. Given the relatively low rates of referral, this could just be due to chance or individual circumstances.

4.3.3 Satisfaction with Case Management and Recommendations for Improvement

Overall, survey respondents expressed satisfaction with case management, although they were less satisfied with case management than with the rental assistance part of DHAP-Katrina (discussed in Chapter 3). Roughly half said they were always satisfied with how easy it was to reach the case manager, and a similar proportion said they were always satisfied with the help received, as shown in Exhibit 4-5. About one-third said they were sometimes satisfied with both of these aspects of case management, and the remainder (17 percent) was sometimes or always dissatisfied.

Overall satisfaction rates with the help received from the case management component were also quite high with more than 80 percent of all participants reporting they were very or somewhat satisfied. Satisfaction rates are similar for Phase 1 and Phase 2 and 3 participants. Across the tier categories, those in Tier 4 (those with the most severe needs) expressed a slightly higher rate of dissatisfaction (20 percent), but those in Tier 3 were least likely to express dissatisfaction (10 percent).

Exhibit 4-5. Satisfaction with DHAP-Katrina Case Management

	Percent Always Satisfied	Percent Sometimes Satisfied	Percent Sometimes or Always Dissatisfied	Don't Know/ Refused
How easy it was to reach your case manager				
All	48	34	17	<1
Phase 1	49	34	17	<1
Phase 2 and 3	47	35	17	<1
Overall satisfaction with the help you received				
All	53	29	16	<1
Phase 1	54	28	16	<1
Phase 2 and 3	51	32	17	0
Tier 1	57	26	17	0
Tier 2	54	28	17	<1
Tier 3	59	31	10	0
Tier 4	50	31	20	0
	Percent Very Helpful	Percent Somewhat Helpful	Percent Not Helpful	Don't Know/ Refused
How helpful was DHAP-Katrina CM re: getting back on your feet?				
All	60	32	8	<1
Phase 1	63	30	6	<1
Phase 2 and 3	54*	34*	11*	<1

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008 when the survey sample was drawn.

When asked the more general question, “Overall, how helpful was DHAP-Katrina case management in helping you get back on your feet after the 2005 hurricanes?,” respondents in Phase 1 were significantly more favorable in their assessments: 63 percent of Phase 1 respondents said DHAP-Katrina case management was very helpful, but only 54 percent of Phase 2 and 3 respondents said they found DHAP-Katrina case management very helpful. It is unclear why this might be the case. The distribution of tier assignments for the two groups is similar, indicating similar overall levels of needs. It is possible that Phase 2 and 3 participants received relatively less case management because the case management component was discontinued when

DHAP-Katrina ended and participants transitioned to DHAP-TCP. Phase 2 and 3 participants spent more time on DHAP-TCP compared to Phase 1 participants.

We asked follow-up survey respondents for suggestions on “how HUD could improve the way case managers help people after a hurricane or other disaster.” The responses to this open-ended question were audio-recorded. About half of survey respondents provided comments on suggested improvements, and we reviewed these to identify common themes.

Most of the suggestions fall in the following general categories:

- **Provide more and better information:**
The most commonly suggested area for

improvement had to do with providing more and better information, implying that participants found DHAP-Katrina case managers not sufficiently knowledgeable about available services. Respondents did not provide detail on specific types of information they needed, which likely varied from participant to participant, and possibly from location to location. This concern may also be related to the difficulties some participants had reaching their case managers, discussed below. Disaster case management experts who reviewed this study suggested that information sharing among entities that are providing housing and other assistance could improve efficiency and effectiveness, but acknowledged that the privacy concerns related to data sharing make it challenging to implement.

- **Be accessible:** Comments on this topic focused on difficulties reaching case managers and infrequent contact. For example, one respondent said, “In reaching your worker, it is very difficult. All you keep getting is a recorder, leave a message, they really never call you back. You really need to find out the date that your worker takes walk-ins, go in and make a surprise visit.” Another recalled that there was no “direct line” between the DHAP-Katrina participant and the case manager, but rather she had to “go through a chain of people” to reach the case manager. Respondents frequently commented that case managers should check in regularly to see how participants are doing and whether they are getting the services they need. We understand from HUD staff that the average caseload was expected to be about 50 per case manager. Some advocates we spoke to about the study’s results indicated that smaller caseloads of 25 to 30 would be more appropriate for disaster recovery case management.
- **Be compassionate:** A number of respondents said their case managers did not seem appropriately compassionate about the DHAP-Katrina participants’ situations. In part, the comments implied that case managers should treat clients with respect simply because that is the right way to treat people. Respondents called for case managers to “be more polite,” “more courteous,” “more receptive,” and “more understanding.” One respondent noted that compassion and respect may also result in more open communication and perhaps improved outcomes: “Some of them have attitudes and when people have attitudes you hide everything that you really need help about.”

4.4 Summary

DHAP-Katrina case management was expected to focus on helping recipients transition to stable, permanent housing they could afford. Overall, survey respondents expressed satisfaction with case management, although they were less satisfied with case management than with the rental assistance part of DHAP-Katrina.

The intensity of case management assistance was supposed to be aligned with the types and severity of needs identified when participants entered DHAP-Katrina. The follow-up survey results on the frequency of contact and referral rates indicate some mismatch between tier assignments and case management intensity. The findings on types of referrals indicate that case management focused on housing search assistance and, to a lesser extent, access to benefits. Survey respondents had mixed success accessing services to which they were referred, with better rates of access to housing search, benefits assistance, and help with household goods and transportation, but less success with accessing assistance with education, budgeting, child care, and medical or mental health services.

Successful transition would also include efforts to increase household income to afford housing once the program of temporary assistance ended. Participants reported lower rates of referrals to services related to financial security or self-sufficiency, such as finding job training or employment, improving one's education, or improving budgeting, savings or credit skills. We cannot distinguish whether case managers made fewer referrals because they identified fewer needs in these areas or because needs were identified but referrals were not made. In the next chapters, we review the study's findings on housing and self-sufficiency outcomes to shed further light on how DHAP-Katrina helped participants make transitions following the storms.

Chapter 5

Housing Outcomes for DHAP-Katrina Participants

DHAP-Katrina served Hurricane Katrina and Rita survivors who lost their housing in the 2005 storms and did not have a permanent housing solution by December 2007, more than two years later. Starting in December 2007, DHAP-Katrina provided rental subsidies through local public housing agencies for up to 21 months, through August 2009.²⁰ The objective of DHAP-Katrina was to stabilize participants' housing and provide case management services so that participants could continue to recover from the storms and find a permanent housing solution. This chapter examines whether DHAP-Katrina participants are in stable housing approximately 2.5 years after

the program ended. It also examines participants' perceptions of the quality of their current housing and neighborhoods, based on survey data.

An important note on housing outcome results: The housing outcome results reported here reflect the experiences and attitudes of the 778 respondents who completed the follow-up survey, or 26 percent of the original survey sample of 3,000 participants. As noted elsewhere in the report, the survey data have been weighted to reflect the characteristics of DHAP-Katrina households on the program in December 2008, when the survey sample was drawn. The weighting helps adjust for survey non-response by taking into account certain observable characteristics that are available in administrative data: age, race, receipt of SSI, gender, and participation in the DHAP-TCP portion of DHAP-Katrina. However, we cannot observe and, therefore, cannot take into account all of the households' characteristics and experiences that might affect outcomes. It is possible that the survey respondents we reached and who completed the interview had more stable housing since DHAP-Katrina ended and, therefore, were more easily located than those who we were unable to contact.

5.1 Post-DHAP-Katrina Housing

DHAP-Katrina participants were expected to transition to a permanent housing solution, which could include renting, purchasing a home, or returning to a pre-storm home that was undergoing repairs. Households needing ongoing rental assistance could apply for HUD assistance through the public housing or Housing Choice Voucher (HCV) programs.

20. A small number of households received DHAP-Katrina assistance for an additional two months through October 31, 2009. These were households that had applied for Housing Choice Voucher assistance, but whose eligibility for the voucher had not yet been determined.

In addition to PHAs' existing allocation of vouchers, a special allocation of HCVs became available in January 2009 to help eligible households transitioning off DHAP-Katrina afford rental housing.²¹

As shown in Exhibit 5-1, two years after DHAP-Katrina ended, most DHAP-Katrina participants are renting their own place (75 percent) or living in a home they own (13 percent). According to DHAP-Katrina administrative data, about one-quarter of the participants had owned a home sometime prior to the 2005 hurricanes, about twice as many as currently do. Of the post-DHAP-Katrina homeowners, 53 percent owned their homes before the 2005 hurricanes, and presumably many of them moved back to their rebuilt homes.

one-third reported they still lived in the unit that had been subsidized by DHAP-Katrina. Of those who moved out of their DHAP-Katrina unit, most only moved one or two times, as shown in Exhibit 5-2. Only a small proportion of households (5 percent) had moved four or more times, or nearly two times a year since DHAP-Katrina ended. A large majority of participants (71 percent) have lived in their current unit for more than one year. When asked the likelihood they would still be living in the same unit one year after the survey interview, two-thirds of participants in both groups said they expected to do so.

Exhibit 5-1. Current Housing Tenure of DHAP-Katrina Participants

	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
Homeowner	13	12	14*
Renter	82	84	78*
Other living situation	6	4	8*

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

Most DHAP-Katrina participants were in relatively stable housing in the period between the end of DHAP-Katrina and the follow-up survey. Survey respondents had exited DHAP-Katrina assistance between 2 and 3.3 years prior to the survey, yet nearly

21. On September 28, 2008, Congress appropriated \$85 million to provide a special allocation of HCVs for DHAP-Katrina families who qualified for assistance after DHAP-Katrina ended (Public Law 110-329). According to HUD documents, these funds were made available to PHAs beginning January 1, 2009.

Exhibit 5-2. Housing Stability after DHAP-Katrina

	All Participants	Phase 1 Participants	Phase 2 and 3 Participants
Average time since exited DHAP-Katrina assistance	2.6 years	2.7 years	2.4 years**
Number of moves since exited DHAP-Katrina assistance			
0 moves	32%	32%	32%
1 move	30%	28%	32%
2 moves	25%	26%	23%
3 moves	9%	10%	7%
4+ moves	5%	4%	6%
Mean # of moves per year	0.49 per year	0.47 per year	0.52 per year
Length of time in current unit			
1 year or less	30%	30%	30%
>1 to 2 years	26%	27%	26%
>2 to 5 years	34%	31%	37%
More than 5 years	10%	12%	8%
Expect to live in same place one year from now	68%	68%	67%

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

Note: Respondents in shelters or who reported being currently homeless are not included in the estimates in this exhibit.

While most DHAP-Katrina participants reported being in relatively stable housing since the program ended, a notable share experienced housing instability. Overall, nearly one-fifth of participants had doubled-up with other households or had experienced homelessness in the past year, as shown in Exhibit 5-3, with significantly more Phase 1 participants reporting instability than Phase 2 and 3 participants. In addition to the 1 percent of participants who reported being homeless at the time of the survey, an additional 17 percent reported either currently sharing their rental unit and not paying any rent (4 percent) or having had no place of their own sometime in the previous 12 months (13 percent). More than one-third (37 percent) of the people without a place of their own

reported living in a shelter or on the streets, while the rest reported living with friends or family during that time. Nationally, about 2 percent of households are doubled-up²² and only 0.21 percent of households are homeless on a single night,²³ so the former DHAP-Katrina participants are struggling more than average.

The remaining 4 percent of participants are sharing housing with someone and also sharing their rent. Because these participants did not report not having a place of their own to stay in the past year, the shared housing arrangement may be by choice. However, these households may be at some risk of housing instability if the shared arrangements are not tenable in the longer term.

22. Doubled-up estimates are from: Peter Witte, "The State of Homelessness in America." Homelessness Research Institute of the National Alliance to End Homelessness: Washington DC, 2012.

23. Homelessness estimates are from: U.S. Department of Housing and Urban Development, Office of Community Planning and Development. *The 2010 Annual Homeless Assessment Report to Congress*, 2011.

Exhibit 5-3. Homeless or Doubled-Up in Past 12 Months

	Percent of All Participants	Percent of Phase 1 Participants	Percent of Phase 2 and 3 Participants
Currently homeless ^A	1	1	1**
Currently sharing place, not paying rent	4	3	6**
Homeless in past 12 months—No place of their own and stayed in shelter, on the streets, or lived with friends or families	12	11	14**
Currently sharing place, paying part of rent ^B	4	3	6**
Live in own place, not homeless in past 12 months.	78	82	73**
Other (e.g., dorm, nursing home)	<1	0	1**
Total	100	100	100

^A Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ^{**} Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

^A Includes respondents reporting living in a shelter and respondents who volunteered they were homeless, but did not specify the type of location.

^B In total, 7 percent of participants reported currently sharing a place and paying part of the rent, but 3 percent of that 7 percent reported having no place of their own in the past 12 months and are included in that category.

5.2 Quality of Post-DHAP-Katrina Housing

Most participants reported that their post-DHAP-Katrina housing was as good as or better than their housing at each of three points in time: 1) before the hurricanes; 2) just before entering DHAP-Katrina (that is, in the FEMA assisted housing they were living in before entering DHAP-Katrina); and 3) during DHAP-Katrina.

Thinking back to their pre-storm housing, half (51 percent) of all participants said their current housing is better than their pre-storm housing, and 36 percent said the quality is the same. Phase 2 and 3 participants were significantly more likely to say their current housing is worse than their pre-storm housing (18 percent) compared to Phase 1 participants (11 percent), as shown in Exhibit 5-4.

A higher proportion (58 percent overall) said their current housing is of better quality than the housing they lived in just before entering DHAP-Katrina (presumably referring to their FEMA-assisted housing), although not substantially so. Phase 1 participants' ratings are similar to those of Phase 2 and 3 participants: 57 percent of Phase 1 participants and 60 percent of Phase 2 and 3 said their current housing is better, and just over 30 percent of both groups said the quality is the same.

When asked to compare their current housing to their DHAP-Katrina-assisted housing, exactly half of all participants said their current housing is better, and 40 percent said it is the same. As noted above, nearly one-third (32 percent) of participants still live in their DHAP-Katrina unit, so technically this group is comparing the quality of the same unit over time.

Exhibit 5-4. Current Housing Quality Compared to Previous Housing

	Percent of Housing Better Now	Percent of Housing the Same	Percent of Housing Worse Now
All participants			
Compared to pre-hurricane housing	51	35	14
Compared to pre-DHAP-Katrina housing	58	31	11
Compared to DHAP-Katrina housing	50	40	10
Phase 1 participants			
Compared to pre-hurricane housing	53	36	11
Compared to pre-DHAP-Katrina housing	57	32	11
Compared to DHAP-Katrina housing	50	40	10
Phase 2 and 3 participants			
Compared to pre-hurricane housing	47**	35**	18**
Compared to pre-DHAP-Katrina housing	60	30	10
Compared to DHAP-Katrina housing	50	39	11

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

In addition to asking for participants' overall assessment of housing quality, we also assessed housing crowding based on the number of people in the household and the reported number of rooms (excluding hallways and bathrooms) in the current unit. *Overcrowded housing* is defined as too many people living in the available space or sleeping areas. This situation can lead to stress and mental health problems, result in the spread of illnesses, and result in lower educational achievement of children, who may not be able to find space to study and/or finish homework.²⁴ A unit with one or fewer persons per room is not considered overcrowded. Units with between one and two persons per room are considered overcrowded, and those with more than two persons per room are

considered severely overcrowded. According to national data from the American Housing Survey, the national rate of overcrowded households is 2.4 percent.²⁵

As shown in Exhibit 5-5, 18 percent of DHAP-Katrina households are living in units that are overcrowded, a rate much higher than the national figures. The high rate of overcrowding is indicative of the relatively high rate of shared housing (11 percent) and the low incomes of DHAP-Katrina participants that make larger housing for their family unaffordable. Phase 2 and 3 participants were significantly more likely to report overcrowding than Phase 1 participants.

24. Office of the Deputy Prime Minister, Great Britain, "The Impact of Overcrowding on Health and Education: A Review of Evidence and Literature." London: Office of the Deputy Prime Minister Publications, 2004.

25. Kevin S. Blake, Rebecca Kellerson, and Aleksandra Simic, "Measuring Overcrowding in Housing." A report prepared by Econometrica, Inc. and ICF International for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2007.

Exhibit 5-5. Level of Overcrowding

Persons per Room	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
Not overcrowded (≤ 1 persons per room)	82	81	84
Overcrowded (>1 to 2 persons per room)	17	19	13
Severe overcrowding (>2 persons per room)	1	0.4	3

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

5.3 Post-DHAP-Katrina Location and Perceptions of Neighborhood

Two and a half years after DHAP-Katrina ended, 40 percent of participants are still living in the same neighborhood they lived in while receiving assistance, as shown in Exhibit 5-6. (As noted earlier in the chapter, 32 percent are still in the same unit.) Only about 20 percent said they are living in the same neighborhood they lived in before the 2005 storms, although significantly more Phase 2 and 3 participants (25 percent) reported living in their pre-storm neighborhoods compared to Phase 1 participants (17 percent). Recall that many Phase 2 and 3 participants came from THUs, which may have been placed on the participants' own lots. The results for length of neighborhood tenure are similar to what we saw in unit tenure, although with more households having long (five years or more) tenure in their neighborhoods than in their units. About one in five DHAP-Katrina participants has been living in her post-program neighborhood for more than five years.

As shown in the bottom panel of Exhibit 5-6, Louisiana is home to the largest share of former DHAP-Katrina households, with 67 percent of the total. Texas and Mississippi follow, with 21 percent and 11 percent respectively. Mississippi has a larger relative share of Phase 2 and 3 households, while Texas has a larger share of Phase 1 households.

Exhibit 5-6. Location of Current Housing

	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
Same neighborhood as DHAP-Katrina unit	40	38	42
Same neighborhood as pre-storm housing	20	17	25**
Length of time living in current neighborhood			
1 year or less	24	24	23
1 to 2 years	22	24	20
2 to 3 years	18	17	19
3 to 4 years	10	9	12
4 to 5 years	6	7	4
More than 5 years	21	20	22
State where housing located			
Louisiana	67	64	72**
Mississippi	11	1	24**
Texas	21	34	3**
Other states	1	1	2**

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

DHAP-Katrina participants who responded to the follow-up survey were asked how satisfied they were with their current neighborhood and whether they consider it safe (Exhibit 5-7). Just over half said they are very satisfied with their current neighborhood and 35 percent are somewhat satisfied, with similar responses for Phase 1 participants and those in Phase 2 and 3.

Neighborhood safety is a concern for a small but notable proportion of households. Overall, 11 percent of respondents indicated the streets near their homes are unsafe or very unsafe during the day (Exhibit 5-8). The proportion raising safety concerns is much higher when asked about safety on the streets at night. Some 14 percent consider the streets near their home to be unsafe at night, and an additional 10 percent consider the streets very unsafe.

Exhibit 5-7. Satisfaction with Current Neighborhood

	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
Very satisfied	52	54	51
Somewhat satisfied	36	35	36
Somewhat dissatisfied	8	7	8
Very dissatisfied	5	4	5

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

Exhibit 5-8. Perception of Safety in the Neighborhood

	Percent of Total	Percent of Phase 1	Percent of Phase 2 and 3
On the streets near home during the day			
Very safe	46	46	46
Safe	43	45	41
Unsafe	8	5	10
Very unsafe	3	4	3
On the streets near home at night			
Very safe	34	33	34
Safe	43	45	41
Unsafe	14	12	16
Very unsafe	10	10	9

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

5.4 Summary

Two years after DHAP-Katrina ended, the majority of participants are living in their own place that they either rent (75 percent) or own (13 percent.) Many are still in the unit they lived in during DHAP-Katrina or have moved only once or twice since the program ended. Most are satisfied with their housing and their neighborhoods. However, a sizable number of DHAP-Katrina participants had experienced housing instability in the year before we interviewed them or may be at risk because they are living in doubled-up or overcrowded situations. As we discuss in the next chapter, many DHAP-Katrina participants had high rent burdens; had lacked a place to stay in the past year; or had been late with rent, mortgage, or utility payments.

Chapter 6

Self-Sufficiency Outcomes for DHAP-Katrina Participants

A key goal of the transitional assistance provided by DHAP-Katrina was to help households who still needed housing assistance two years after the 2005 hurricanes move toward greater housing stability and self-sufficiency. In this chapter, we review the study's findings on the income and employment of DHAP-Katrina households approximately two and a half years after DHAP ended. We also examine other indicators of self-sufficiency: housing costs and housing assistance, and current savings and ability to obtain credit.

6.1 Income and Employment

DHAP-Katrina could affect post-DHAP income and employment either by helping stabilize participants' housing situations so they could focus on other aspects of recovery or through the case management services.

Case management services included housing search assistance, help accessing benefits, and—to a lesser extent—referrals to job search and job training services.

At the time of the follow-up survey in 2011-2012, DHAP-Katrina participants reported an average household income of \$1,544 per month, or about \$18,500 per year (Exhibit 6-1). For comparison, the median monthly incomes in New Orleans and Houston (where about 60 percent of participants live) are \$3,122 and \$3,580 respectively, according to U.S. Census data. Participants' average incomes are just under half these cities' medians. Almost half (44 percent) reported incomes of \$1,000 or less per month, which would be at or below the 2012 poverty line, even for a household with a single person.²⁶ Only 9 percent of households had incomes of \$3,000 or more per month.

Income level was not an eligibility criterion for DHAP-Katrina, so the program's baseline administrative data does not have reliable household income information. The follow-up survey asked participants to recall their monthly income at the start of DHAP-Katrina. The responses were similar to their reports of their current incomes, which cause some concern about the accuracy of the responses. Survey respondents estimated their average monthly income at DHAP-Katrina entry as \$100 higher on average than their current income, and fewer households reported incomes of less than \$1,000 per month or more than \$3,000 per month. Given the large share of respondents who could not answer the question (38 percent) and the long recall period for those who did, we do not believe these recall estimates are precise. It is evident, however, that a large share of the households served by DHAP-Katrina had low incomes at the time they entered the program.

26. The 2012 poverty threshold for a single-person household is \$11,170 per year, or an average of \$930 per month. <http://aspe.hhs.gov/poverty/12poverty.shtml>

DHAP-Katrina participants reported earnings to be the most common source of income at the time of the follow-up survey, with nearly three-fifths of the households reporting employment income, as shown in the second panel of Exhibit 6-1. Nevertheless, the downturn in the economy appears to have hit DHAP-Katrina participants particularly hard. At the time of the follow-up survey, 21 percent of household heads reported being out of work and looking for work, and only 33 percent reported full-time employment.

Another 13 percent reported part-time work. The combined 46 percent of household heads with full- or part-time work is much lower than their employment rate when they started receiving DHAP-Katrina assistance. According to the program's administrative data, 58 percent of household heads had employment income at that time.

Exhibit 6-1. Post-DHAP Income and Employment

	All Participants	Phase 1 Participants	Phase 2 and 3 Participants
Household monthly income (typical month)			
\$1,000 or less	44%	44%	45%
\$1,001 to \$2,000	30%	29%	30%
\$2,001 to \$3,000	17%	18%	15%
\$3,001 to \$4,000	6%	5%	7%
\$4,001 or more	3%	4%	3%
Average (mean)	\$1,544	\$1,537	\$1,553
Median	\$1,200	\$1,200	\$1,200
Sources of income (multiple responses permitted)			
Employment	59%	56%	62%*
Social Security retirement or disability	42%	42%	42%
Unemployment Income	6%	6%	7%
Child support, alimony or maintenance	5%	10%	4%**
TANF	4%	4%	5%
Other pensions or retirement income	4%	4%	5%
Veteran's benefits	2%	2%	3%
Investment income (e.g., interest, dividends)	2%	2%	3%
Other income sources	17%	18%	16%
Current employment status of household head			
Employed full-time	33%	36%	29%*
Employed part-time	13%	12%	16%*
Unemployed (looking for work)	21%	22%	20%*
Not working and not looking	32%	30%	35%*
More than one adult in household employed	14%	14%	14%

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP participants as of December 2008, when the survey sample was drawn.

Nearly one-third of the DHAP-Katrina participants (32 percent) reported that they were not working and were not looking for work, but it appears most of these participants are retired or have a disability. Most of them (87 percent) reported that their household received Social Security retirement or disability benefits. The income source categories combine retirement and disability income, so the share with disability income cannot be separately estimated. However, 82 percent of the respondents under age 62 who reported they were not working and not looking for work report receiving Social Security income, suggesting a high rate of disability in this group. For the most part, this Social Security income would be SSI, although some non-elderly respondents may have another household member receiving that Social Security income that has an age qualification. Elderly respondents comprise 30 percent of the not working, not looking for work group, and most of them report receiving retirement or disability income.

The recession officially started at the same time as DHAP-Katrina in December 2007 and continued almost as long as the program. Even though the recession officially ended in July 2009, the economy had not fully recovered when the survey was conducted between December 2011 and March 2012. Furthermore,

the Gulf Coast had an additional setback with the Deepwater Horizon Oil Spill in the spring of 2010. These factors likely contribute to the decrease in employment and the large number of DHAP-Katrina participants looking for work at the time of the survey. Unemployment rates have increased substantially in the communities where most of the survey respondents live, as shown in Exhibit 6-2. The cities of New Orleans, Houston, Baton Rouge, and Gulfport are home to almost 70 percent of survey respondents. The unemployment rate in New Orleans more than doubled between December 2007 and December 2011, while the rates in the other communities increased by 67 to 89 percent. Despite the high rates of unemployment in these communities during the recession, DHAP-Katrina participants' unemployment rate of 31 percent was more than three times higher, indicating these participants were having more trouble in the labor market than rest of the community.²⁷

Income from the Social Security retirement and disability programs is a current income source for a substantial share of DHAP-Katrina participants: 42 percent reported receiving such income at follow-up. The third most common source of income was income from child support and alimony, but only 7 percent of households received it. The amount and sources of income are very

Exhibit 6-2. Unemployment Rates over Time

	New Orleans, LA	Houston, TX	Baton Rouge, LA	Gulfport-Biloxi, MS
Percent of survey respondents residing in community at follow-up	41	20	5	3
December 2007 community unemployment rate (in %)	3.2	4.3	3.5	5.2
December 2011 community unemployment rate (in %)	6.5	7.2	6.6	9.5

Source: Bureau of Labor Statistics State and County Quick Facts, <http://www.bls.gov/> (accessed on July 2, 2012).

27. The unemployment rate for DHAP-Katrina participants was calculated by dividing the number of people unemployed and looking for work by the total of those either employed or unemployed and looking.

similar for Phase 1 and Phase 2 and 3 participants, although the Phase 2 and 3 participants are a little more likely to have income from employment.

Exhibit 6-3 shows a comparison of income and income sources for DHAP-Katrina participants when they were interviewed toward the end of DHAP-Katrina or shortly after it ended in 2009 to their situation two to three years later at the time of the follow-up survey. The median monthly income is very similar, rising about \$130 to \$1,200, but a significantly larger share of participants

report monthly incomes above \$2,000 per month now (26 percent) than did so at the end of DHAP-Katrina (17 percent).

The share of households with each source of income is almost exactly the same in each time period, with the only significant change being a significant increase from 35 to 42 percent in the share reporting Social Security retirement or disability income. Some people may have reached retirement age, but otherwise this suggests case managers may have helped some people begin the process of qualifying for SSI.

Exhibit 6-3. Comparison of 2009 and 2012 Income and Employment

	All Participants	
	Interim Survey in 2009	Follow-Up Survey in 2011-2012
Household monthly income (typical month)		
\$1,000 or less	48%	44%**
\$1,001 to \$2,000	36%	30%**
\$2,001 to \$3,000	9%	17%**
\$3,001 to \$4,000	4%	6%**
\$4,001 or more	4%	3%**
Median	\$1,071	\$1,200
Household sources of income (multiple responses permitted)		
Employment	57%	59%
Social Security retirement or disability	35%	42%**
Child support or alimony payments	6%	7%**
Unemployment Income	5%	6%
TANF	n/a	4%
Other pensions or retirement income	3%	4%
Veteran's benefits	3%	2%
Investment income (e.g., interest, dividends)	1%	2%
Other income sources	12%	17%**
Current employment status of household head		
Employed full-time	37%	33%**
Employed part-time	15%	13%**
Unemployed (looking for work)	19%	21%**
Not working and not looking	29%	32%**

* Indicates statistically significant difference between interim and follow-up survey responses at 10 percent significance level. ** Indicates significant difference between interim and follow-up survey responses at 5 percent significance level.

Sources: Interim (2009) and follow-up survey (2011-2012) completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

Unemployment is a serious problem in both periods, increasing from 19 to 21 percent of household heads from 2009 to 2011-2012. Interestingly, the share of household heads reporting they were currently working either full- or part-time decreased from 52 to 46 percent even though the share of households reporting having employment income increased slightly from 57 to 59 percent. This suggests that DHAP-Katrina households are relying more on the earnings of members other than the household head now than they were at the end of DHAP-Katrina. Whether this change is from other household members newly employed or from household members continuing to work while the household head no longer does is not clear. Employment of other household members was not directly asked about on either survey, although the follow-up survey found that more than one household member worked in 14 percent of the households.

6.2 Housing Costs and Housing Assistance

The hurricanes created a shortage of rental housing in the Gulf Region, contributing to sharp increases in rents between 2004 and 2009.²⁸ HUD compiled a descriptive comparison of New Orleans data from the American Housing Survey that show that the supply of rental housing decreased by 32,000 units during this period, and rents increased by 45 percent from a median of \$602 per month in 2004 to \$876 per month in 2009. HUD's Fair Market Rents (FMR) reflect the trend as well. The FMR for a two-bedroom apartment in New Orleans increased from \$676 in 2005 to \$949 in 2009, a 40 percent increase. Houston did not experience the amount of damage to the housing stock seen in New Orleans, but did experience some pressure on the rental housing supply and

costs as evacuees from both Hurricanes Rita and Katrina sought post-storm housing. The FMR for a two-bedroom apartment in Houston increased from \$733 in 2005 to \$866 in 2009, an 18 percent increase.²⁹

A sizable share of DHAP-Katrina participants struggled with paying their rent or mortgage and utilities in the year before the follow-up survey—that is, between 1.5 and 2.5 years after DHAP-Katrina ended. On average, participants reported paying monthly rent of \$409 and utilities of \$262, for a total gross monthly rent of \$671. Given their low incomes, the result is that 44 percent paid more than half their income in rent each month (Exhibit 6-4). Utility costs were a significant cause of the high rent burdens, equaling 39 percent of gross rent costs on average, according to survey responses. Typical monthly utility costs can be difficult for survey respondents to estimate, so the level of severe rent burden based on gross rent may be an upper bound. When rent burden is calculated on just the rent paid to the owner, the rate of severe rent burden decreases to 15 percent. However, DHAP-Katrina participants also reported having difficulties paying their utilities, suggesting that these costs are a real burden. Nearly half of the DHAP-Katrina participants reported making late utility payments, and 17 percent reported having a utility shutoff for non-payment in the past year.

Although most participants said they made their rent payments on time, 16 percent of renters reported late rental payments, and 4 percent reported being evicted from their rental unit in the previous year. Phase 2 and 3 respondents report an average gross rent approximately \$100 less than Phase 1 respondents, but similar burden levels and difficulties paying their rent and utilities on time.

28. http://www.huduser.org/portal/datasets/ahs/ahsdata09_metro.html

29. <http://www.huduser.org/portal/datasets/fmr.html>

Congress recognized that many DHAP-Katrina participants were not able to afford a rental unit on their own as DHAP-Katrina was coming to an end and authorized a special allocation of housing vouchers available to households receiving DHAP-Katrina assistance. Participants who were elderly or disabled received first priority for the vouchers, followed by other households with very low incomes.

DHAP-Katrina participants had to meet the standard income-eligibility requirements (income less than 50 percent of area median income) and provide the required income and household documentation to their local PHA to qualify for a voucher. According to HUD reports, approximately 27,600 families were invited to apply, and about 22,600 did so. Of these, about 14,500 were found eligible, and about 13,000 came under lease.

Exhibit 6-4. Current Housing Costs

	All Participants	Phase 1 Participants	Phase 2 and 3 Participants
Average monthly rent or mortgage	\$409	\$421	\$393
Average utility payments	\$262	\$269	\$250
Average gross rent or mortgage	\$671	\$690	\$589
Gross rent/mortgage categories			
\$0	4%	2%	5%*
\$1-\$200	11%	12%	9%*
\$201-\$400	20%	20%	19%*
\$401-\$600	18%	16%	20%*
\$601-\$800	12%	11%	14%*
\$801-\$1000	16%	17%	16%*
\$1,001 or more	19%	21%	17%*
Rent burden			
0 to 30% of income	62%	61%	63%
31 to 50% of income	23%	23%	22%
>50% of income	15%	16%	15%
Rent and utilities (gross rent) burden			
0 to 30% of income	24%	21%	28%**
31 to 50% of income	32%	34%	29%**
>50% of income	44%	45%	42%**
Housing and utility payment issues			
Late paying rent in last 12 months (renters only)	16%	14%	18%
Evicted from home in last 12 months (renters only)	4%	4%	3%
Late paying utilities in last 12 months	48%	49%	47%
Utility shutoff for non-payment in last months	17%	17%	17%

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

To determine the extent to which our survey respondents received vouchers, we matched our sample against HUD's Inventory Management System/Public and Indian Housing Information Center (IMS/PIC) data system. IMS/PIC contains information on households assisted by HUD's HCV and public housing programs. Between the special allocation and the natural rise to the top of the waiting list for families that had already applied for assistance, the HCV program was able to provide a permanent, affordable housing solution for nearly half (47 percent) of the households in the survey sample as of December 2009 (Exhibit 6-5). Most of the participants who transitioned from DHAP-Katrina to HCV were still receiving assistance in 2011, two years after DHAP-Katrina ended. Additional DHAP-Katrina households received a housing voucher after the program ended (presumably by rising to the top of the waiting list at their local PHA), resulting in 55 percent of participants using a HCV by the end of 2011. A significantly lower proportion of Phase 2 and 3 participants were receiving housing assistance at each point.

HCVs have made a significant difference in the cost of housing for the DHAP-Katrina participants responding to the survey, reducing the average rent for assisted households to \$267, less than half of what the unassisted households were paying (Exhibit 6-6). Assisted renters were also significantly less likely than unassisted renters to have been late paying their rent or to have been evicted in the past year. However, when utility costs are considered, the assisted households appear to have a higher rent burden than unassisted households. Respondents were not asked about utility reimbursements from the PHAs, so it is possible that these payments reduced their actual rent burden. On the other hand, assisted households are just as likely as unassisted household to report that they had trouble paying their utility bills.

Exhibit 6-5. Housing Assistance

	Percent of All Participants	Percent of Phase 1 Participants	Percent of Phase 2 and 3 Participants
Housing assistance status in December 2011			
Housing choice voucher	55	58	50**
Other housing assistance	1	1	1
Housing assistance status in December 2009 (soon after DHAP-Katrina-TCP ended)			
Housing choice voucher	47	50	41*
Other housing assistance	1	1	1
Housing assistance status over time			
In 2009 and 2011	46	49	41**
In 2011 only	10	10	10
In 2009 only	2	2	1
No assistance either time	43	39	48**

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: IMS/PIC data from HUD on the respondents to the follow-up survey (completed by 352 Phase 1 and 426 Phase 2 and 3 participants). Estimates are weighted to represent all DHAP participants as of December 2008, when the survey sample was drawn.

Exhibit 6-6. Housing Costs by Housing Assistance Status

	Assisted Households in 2011 (N = 439)	Unassisted Households in 2011 (N = 339)
Average monthly rent/mortgage	\$267	\$587**
Average monthly utility costs	\$271	\$250
Average gross rent/mortgage	\$538	\$837**
Gross rent/mortgage categories		
\$0	2%	6%**
\$1-\$200	14%	7%**
\$201-\$400	28%	9%**
\$401-\$600	24%	11%**
\$601-\$800	11%	14%**
\$801-\$1,000	12%	21%**
\$1,001 or more	9%	32%**
Rent burden		
0-30% of income	73%	49%**
31-50% of Income	17%	30%**
>50% of income	11%	22%**
Rent and utility (i.e., gross rent) burden		
0-30% of income	19%	31%**
31-50% of income	34%	30%**
>50% of income	47%	40%**
Housing and utility payment issues		
Late paying rent in last 12 months (renters only)	10%	25%**
Evicted from home in last 12 months (renters only)	2%	6%**
Late paying utilities in last 12 months	48%	48%
Utility shutoff for non-payment in last 12 months	18%	16%

* Indicates statistically significant difference between assisted and unassisted households at 10 percent significance level. ** Indicates significant difference between assisted and unassisted households at 5 percent significance level.

Source: Assistance status determined from IMS/PIC data from HUD. All other data are from the follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

6.3 Current Savings and Credit Situation

By subsidizing rents, DHAP-Katrina was expected to allow participants to focus on other aspects of their economic and personal recovery. One aspect of participants' economic recovery is to rebuild assets such as savings. However, two years after DHAP-Katrina ended, more than two-thirds of DHAP-Katrina participants reported no savings, and most of the participants with savings had less than \$500 (Exhibit 6-7).

During DHAP-Katrina, the Phase 2 and 3 participants had more opportunity to save, all else being equal, because they were not charged any rent until the Transitional Closeout Program (TCP) phase of the program started in March 2009. By contrast, Phase 1 participants' portion of the rent was increasing by \$50 a month starting in December 2008. Over a one-year period, this would result in a Phase 1 participant paying \$2,250 more in rent than a Phase 2 and 3 participant. Below we look at whether the

Exhibit 6-7. Post-DHAP-Katrina Savings and Financial Situation

	Percent of All Participants	Percent of Phase 1 Participants	Percent of Phase 2 and 3 Participants
Savings			
\$0	68	71	63
\$1-\$500	22	21	24
\$501-\$1,000	3	3	3
\$1,001-\$2,000	2	1	3
\$2,001-\$5,000	1	1	1
\$5,001 or more	3	2	4
Since DHAP-Katrina ended, able to save for unexpected expenses	11	13	9
Received a report on your credit recently	21	22	18
Expected ease of getting a loan for house, car, or college			
Very easy	4	5	4
Somewhat easy	15	16	14
Somewhat hard	24	24	23
Very hard	56	55	59
Ability to pay essential living expenses, last 12 months			
None	4	3	5
Less than half	21	22	19
More than half, but not all	29	29	29
All	45	44	45
Ability to pay living expenses now compared to before DHAP-Katrina			
Easier now	20	22	18*
About the same	38	40	36*
Harder now	41	37	45*

* Indicates statistically significant difference between Phase 1 and Phase 2 and 3 at 10 percent significance level. ** Indicates significant difference between Phase 1 and Phase 2 and 3 at 5 percent significance level.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP participants as of December 2008, when the survey sample was drawn.

different rent structures are correlated with different levels of savings. Phase 2 and 3 participants were slightly more likely to have savings than Phase 1 participants (37 percent compared to 29 percent), but the level of savings for all but a small share was still less than \$500. Furthermore, the additional savings of Phase 2 and 3 participants does not seem to translate into better access to credit. A majority of participants reported that it would be very hard for them or their co-borrowers to get a loan for a major expense such as a house, a car, or college.

The follow-up survey also asked respondents about their ability to meet their essential living expenses over the last 12 months and to compare their current situation to their circumstances before entering DHAP-Katrina. Participants were nearly evenly split in reporting whether they had been able to meet all their essential living expenses over the past 12 months or not. One-quarter of respondents reported they could meet less than half of their essential living expenses. About twice as many

participants reported it was harder to meet their living expenses at the time of the survey than before DHAP-Katrina. This is consistent with the lower employment and income reported in the follow-up survey than recorded in the administrative data at the time the household started receiving DHAP-Katrina assistance.

Exhibit 6-8 shows a comparison of the level of savings and perceptions of credit availability of DHAP-Katrina participants from the end of the program to the time of the follow-up survey. The share of households in each savings category is very similar in both time periods, with the only notable difference a small decrease in the share reporting zero savings (from 71 to 68 percent). The perception of the ease of getting a loan for a major purpose is also similar, although there is a small shift from people saying it would be “somewhat hard” to it would be “very hard” to get such credit.

Exhibit 6-8. Comparison of 2009 and 2012 Savings and Financial Situation

	All Participants (Percent of Respondents)	
	Interim Survey in 2009	Follow-Up Survey in 2011-2012
Savings		
\$0	71	68
\$1-\$500	21	22
\$501-\$1,000	3	3
\$1,001-\$2,000	2	2
\$2,001-\$5,000	2	1
\$5,001 or more	2	3
Received a report on your credit recently	21	21
Expected ease of getting a loan for house, car, or college		
Very easy	4	4**
Somewhat easy	13	15**
Somewhat hard	33	24**
Very hard	50	56**

* Indicates statistically significant difference between interim survey and follow-up survey responses at 10 percent significance level. ** Indicates significant difference between interim survey and follow-up survey responses at 5 percent significance level.

Sources: Interim (2009) and follow-up survey (2011-2012) completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn.

6.4 Summary

The findings on DHAP-Katrina participants' post-program incomes, employment status, and financial security indicate that many may be at risk of housing instability. Employment rates are lower than at program entry, and most households have little or no savings. Most find it more difficult to pay for housing costs and other household expenses now than before the 2005 storms. The proportions reporting they have been late with rent or utility payments or have lacked a place to stay are troubling. Nearly half are receiving housing assistance, which should make rent more affordable, but low household incomes indicate many are still struggling. These results likely reflect the effects of the recession and of more recent events in the Gulf region, such as the Deepwater Horizon oil spill.

These findings raise further questions about how patterns of participation and participant characteristics interact, including how they may be associated with outcomes. In the next chapter, we revisit the analysis of patterns of participation begun in Chapter 3, with a focus on the survey respondents for whom we have more detailed information on program experiences and outcomes.

Chapter 7

Factors Associated with Longer Participation in DHAP-Katrina and Post-Program Outcomes

A key question for this study is what role the DHAP-Katrina rent structures played in patterns of participation and post-program outcomes. In this section, we build upon the overall participation patterns and outcomes reported in Chapters 3, 5, and 6 to explore this topic, including an assessment of the characteristics of participants who stayed longer on the program compared to those with shorter periods of participation and whether outcomes differ based on length of stay and rent structure.

Rent structure could affect length of stay on the program because it determines the size of the monthly subsidy and thus the financial benefit of staying on the program. The DHAP-Katrina program initially paid the entire rent for participants. For participants in Phase 1 who began receiving DHAP-Katrina assistance as early as December 2007, the subsidy phased out by \$50 a month starting in March 2008 and then by \$100 a month when the Transitional Close-out Program (TCP) started in March 2009. Phase 1 participants were able to obtain a hardship exemption to limit their portion of the rent to 30 percent of income, but hardship exemptions ended when the TCP started. Phase 2 and 3 participants, who entered DHAP-Katrina as early as May 2008, paid zero rent until the TCP's \$100 per month incremental rent started in March 2009.

The different rent rules across phases meant that a Phase 2 or 3 participant received a larger monthly subsidy than a Phase 1 participant with the same rent charged by the owner of the housing unit. We hypothesize that, other things being equal, participants are more likely to have stayed on the program longer if they had a higher initial subsidy, were in Phase 2 or 3 and thus not subject to the \$50 per month incremental rent, or had a hardship exemption restricting their maximum rent.

The rent structure could also affect post-program outcomes either indirectly through the influence of length of stay on outcomes or directly by dictating the monthly subsidy amount. Length of stay could affect outcomes because the longer subsidy period ensures a longer period of stable housing for post-disaster recovery and allows a longer period for participants to save money that they otherwise might have spent on housing.³⁰

30. Some DHAP-Katrina participants have spent less on housing in the absence of the DHAP-Katrina program, either by renting less expensive (and presumably smaller or lower-quality) housing or by sharing rental expenses with another family while living in more crowded conditions. In these situations, the effect of the subsidy is to temporarily improve the quality of housing and living conditions of participants.

Such savings could help a participant pay the security deposit or other move-in expenses in a different rental unit, make a down payment for a home purchase, invest in education or training opportunities, or protect the family from a future financial crisis. In addition to its potential indirect effect through length of stay, rent structure could have a direct effect on post-program outcomes because it determines the amount of subsidy the participant receives each month on the program. For example, in a six-month period a Phase 2 and 3 participant would have \$1,050 more in rental subsidy (and thus potential savings) than a similar Phase 1 participant because the Phase 2 and 3 participant is not subject to the \$50 per month incremental rent. We hypothesize that, other things being equal, DHAP-Katrina participants will have better outcomes if: 1) they stay longer on the program; or 2) they are Phase 2 or 3 participants.

The rest of this chapter explores the relationship of rent structure and household characteristics to the length of stay on DHAP-Katrina and post-program outcomes using both raw cross-tabulations and multivariate analysis. Sections 7.1 and 7.2 examine the factors that affect length of stay on DHAP-Katrina, and Sections 7.3 and 7.4 examine the factors that affect post-program outcomes. Section 7.5 compares the characteristics of participants who continued receiving DHAP-Katrina assistance until

the end to those who exited earlier. The final section summarizes the findings.

7.1 Did Rent Structure Affect Length of Stay on DHAP-Katrina?

In this section, we present both cross-tabulations of length of stay by rent structure variables and multivariate analysis of the relationship between length of stay and rent structure. The crosstabulations show the share of participants that stayed on DHAP-Katrina for longer than one year based on their program participation phase, the initial monthly subsidy amount, and receipt of a hardship exemption. The multivariate analysis (logit regression) estimates the relationship between staying on the program for longer than one year and each rent structure variable while controlling for household characteristics that may also affect length of stay.³¹ We conducted the multivariate analysis to estimate the relationship of all three rent structure variables at the same time and to control for household characteristics that differ across program participation phases or that might affect both the initial subsidy and length of stay. For example, household size affects initial subsidy level because larger households rent larger and presumably more expensive units. Household size may directly affect length of stay if it is more challenging for a larger family to find a permanent housing solution. This section discusses the logit regression

31. We tried to conduct more a detailed analysis of factors affecting length of stay by analyzing the number of months on DHAP-Katrina assistance using proportional hazard analysis (also known as *survival analysis*). The results were inconclusive. The effect of the different rent structures are confounded by the systematic differences in the start dates of households across the phases. That is, Phase 1 households started earlier and thus had an opportunity to stay on the program longer than participants from the other phases. In addition, the TCP rent structure was implemented at a later point in the length of stay for Phase 1 participants than for Phase 2 and 3 participants because it was based on a calendar date rather than how long the household had been on the program. We tried various ways of restricting the sample so that Phase 1 and Phase 2 and 3 participants had the same maximum potential length of time they could be on the program—by limiting the sample to those who started after a certain date and censoring the maximum length of stay. However, there was not enough overlap in the start dates of participants from the different phases to conduct a reliable “apples-to-apples” comparison. This is why we chose to conduct the length-of-stay analysis based only on whether a participant stayed on the program longer than one year after limiting the sample to participants that started at least one year before DHAP-Katrina and the TCP ended.

results for the rent structure variables. Section 7.2 discusses the results for the household characteristics. The full regression results are presented in Appendix D.

For a sizable share of DHAP-Katrina participants, the program provided relatively short-term assistance. Overall, 34 percent of all DHAP-Katrina participants stayed on the program for one year or less. However, this number includes the participants who entered the program within 12 months of it ending. We limited the length of stay analysis to participants who started on July 31, 2008 or earlier so they had the possibility of staying at least 12 months before DHAP-Katrina ended. Because this analysis is based only on the program's administrative data, we are able to conduct the analysis with the full population of DHAP-Katrina participants who entered in July 2008 or earlier, resulting in an analysis sample of more than 30,000 participants (more than 80 percent of all DHAP-Katrina participants.) In this population, 24 percent of the participants received DHAP assistance for one year or less while the vast majority (76 percent) received it for a longer period.

Exhibit 7-1 shows the share of participants who received DHAP-Katrina assistance for more than one year by their program participation phase, subsidy amount, and receipt of a hardship exemption. The two results that stand out are that participants receiving a hardship exemption are much more likely to stay longer than one year, while those with an initial monthly subsidy of \$500 or less are much less likely than their counterparts to receive assistance for more than one year. The finding that 90 percent of participants with a hardship exemption stayed on the program longer than one year is likely because the exemption limits the participant-paid portion of the rent to 30 percent of income, thus negating the potential for the subsidy to become negligible for very low income families. Overall, 25 percent of

DHAP-Katrina participants who started DHAP Katrina in July 2008 or earlier received a hardship exemption, and they comprise 30 percent of long-term stayers and 10 percent of short-term stayers.

Exhibit 7-1. Percent of Participants on DHAP-Katrina for More than One Year, by Program Characteristics (Among Participants Who Started in July 2008 or Earlier)

	Percent of Participants Staying on DHAP-Katrina One Year or Longer
All participants	76
DHAP-Katrina phase	
Phase 1	77
Phase 2 and 3	74*
First month's subsidy in DHAP-Katrina	
First month subsidy \$500 or less	54**
First month subsidy \$501-\$900	79
First month subsidy \$901-\$1,200	82**
First month subsidy of \$1,201 or more	85**
Receipt of hardship exemption	
Yes, received hardship exemption	90
No hardship exemption	71**

* Indicates statistically significant difference between share of participants in that category who stayed on the program longer than one year compared to the share of participants in other categories who stayed longer than one year at 10 percent significance level. ** Indicates significant difference is at the 5 percent significance level.

Sources: Disaster Information System (DIS) and Tracking at a Glance (TAAG), N = 30,049 DHAP-Katrina participants that started DHAP-Katrina in July 2008 or earlier.

The exhibit also shows that 54 percent of households that started off receiving a housing subsidy of \$500 per month or less stayed on the program for longer than one year compared to more than 80 percent of participants with a higher initial subsidy. This makes sense for several reasons. First, a smaller benefit provides less of an incentive to participate in the program. Second, the incremental rent transition for Phase 1 households required these households to pay \$50 a month in rent their first month on

the program and their rent increased by \$50 a month in each subsequent month.³² Thus the subsidy value would be zero after 10 months, even if the participant started out with a \$500 subsidy. Phase 2 and 3 households did not have to pay any rent until the TCP began in March 2009. Once the TCP started, participants had to pay \$100 more in rent for each month they were on the program.

Exhibit 7-1 also shows that about three-fourths of both Phase 1 and Phase 2 and 3 participants stayed on the program longer than one year, but that Phase 1 participants (77 percent) were slightly more likely to stay than Phase 2 and 3 participants (74 percent). This is counter to the expectation that the \$50 per month incremental rent for Phase 1 participants would lead to shorter stays. It may be that the \$50 incremental rent effect was partially negated by a combination of the hardship exemption for eligible Phase 1 participants and the fact that the latter part of 12-month stays for Phase 2 and 3 participants overlapped with the start of the TCP. The \$100 incremental rent in the TCP lessened the sharp rent structure distinction between the phases.

When we control for hardship exemption and household characteristics in the multivariate analysis, the difference between the phases is still small, but the estimate indicates that Phase 1 participants are less likely than Phase 2 and 3 participants to stay on DHAP-Katrina for longer than one year. The odds-ratios for the logit estimates of length of stay longer than one year on the rent structure and control variables are shown in Exhibit 7-2. The odds ratio measures the relative change in the likelihood of the outcome that is associated with a one-unit change in the independent

variable. An odds ratio of 1 indicates that no association exists. An odds ratio above 1 indicates that an increase in the independent variable is associated with a higher likelihood that the outcome is observed (in this case, staying on DHAP-Katrina for more than one year). An odds ratio below 1 indicates that a decrease in the independent variable is associated with a lower likelihood that the outcome is observed.

The odds ratio for the Phase 1 variable is less than 1 (0.938), indicating that Phase 1 participants were less likely than the Phase 2 and 3 participants to stay longer than one year when initial subsidy, receipt of hardship exemption, and household characteristics are controlled for. An odds ratio of 0.938 means that, holding the other variables constant, if 75 percent of Phase 1 participants stayed longer than one year, then approximately 80 percent of Phase 2 and 3 participants with the same characteristics would have stayed longer than one year.³³

The logit estimates for hardship exemption and initial subsidy are consistent with the crosstabs, except that the results suggest that these factors have an even stronger influence on length of stay than is evident in the raw percentages. Participants with a hardship exemption were more than 4.5 times as likely as similar participants without a hardship exemption to stay longer than one year. Compared to participants with an initial subsidy of more than \$900, the participants with the lowest initial subsidy (indicating those with the lowest rental costs) were one-fifth as likely to stay more than one year, and participants with an initial subsidy between \$501 and \$700 were about half as likely.

32. Phase 1 participants who started before March 2008 (i.e., in December 2007 through February 2008) had a short grace period, as their \$50 incremental rent did not start until March 2008.

33. This is from the calculation $(0.75/0.80) = 0.938$.

Exhibit 7-2. Rent Structure Effect of Staying on DHAP-Katrina for More than One Year (Logit Estimation)

	Odds Ratio	P-Value
Phase 1 participant	.938*	.085
Initial subsidy <\$500	.205**	<.001
Initial subsidy \$501-\$700	.500**	<.001
Initial subsidy \$701-\$900	.717**	<.001
Received hardship exemption	4.576**	<.001

* Indicates statistically significant difference between specified group and counterfactual group (i.e., the omitted variable group) at the 10 percent significance level. ** Indicates significant difference at 5 percent significance level.

Sources: Disaster Information System (DIS) and Tracking at a Glance (TAAG), N = 30,049 DHAP-Katrina participants that started DHAP-Katrina in July 2008 or earlier.

Notes: Results are from logit regression with a dependent variable = 1 if participant was on DHAP-Katrina for more than one year. The regression included the rent structure control variables in this exhibit and demographic and economic characteristics of the household and household head at the time the household started DHAP-Katrina. Full results from the logit regression are shown in Appendix D.

7.2 Did Household Characteristics Affect the Length of Stay on DHAP-Katrina?

We also examined DHAP-Katrina administrative data to determine whether there are household characteristics that could be collected early in a disaster housing assistance program to help predict which groups will likely stay on the program longest. Exhibit 7-3 shows the crosstabs of staying on the program longer than one year and household characteristics and Exhibit 7-4 shows the logit estimates.

Both the cross tabulations and the multivariate analysis indicate that households headed by a non-elderly person or an employed person were substantially more likely to stay on DHAP-Katrina for longer than one year. Having an employed household head at the time the household starts DHAP seems to have the largest effect on staying longer than one year. The cross tabulations show that 80 percent of households with an employed household head stayed longer than one year compared

to 74 percent of non-employed households. The logit estimates indicate that employed households are 1.5 times more likely than non-employed households to stay longer than one year. One possible explanation for this finding is that households that relied on income from employment had more uncertain and volatile incomes than elderly households that relied on Social Security or other retirement income or households with a disabled member that relied on disability income. The DHAP-Katrina program was operating during the midst of the 2007 to 2009 economic recession, a time period when unemployment grew substantially. Another possible factor is that HUD prioritized helping very low-income elderly and disabled households obtain the Housing Choice Vouchers that Congress made available for DHAP-Katrina participants. This may have resulted in shorter stays for elderly and disabled households relative to non-elderly, working households.

DHAP-Katrina participants who ever owned a home prior to Hurricane Katrina were significantly less likely to stay longer than one year according to both the crosstabs and the multivariate analysis. Exhibit 7-3 shows that 74 percent of pre-Katrina homeowners stayed more than one year compared to 78 percent of non-homeowners. Some of the homeowners may have been able to return to their rehabbed homes during this period, or the pattern may just indicate that some of the pre-Katrina homeowners had more resources to find and afford a permanent housing than other households.

Exhibit 7-3. Percent of DHAP-Katrina Participants Who Stayed on DHAP for More Than One Year, by Household Characteristics (Among Participants Who Started in July 2008 or Earlier)

	Percent of Participants Staying on DHAP-Katrina One Year or Longer
All participants	76
Household head characteristics (at start of DHAP-Katrina)	
Age	
61 or younger	77
62 or older	69**
Employment status	
Employed	80
Not employed	74**
Disability status of non-elderly	
Disabled	76
Not disabled	77
Educational attainment	
High school or higher degree	78
Less than high school	76
Household characteristics (at start of DHAP-Katrina)	
Need tier	
Tier 1	76
Tier 2	77
Tier 3	79
Tier 4	77
Household composition	
Household with children	78
Single-person household	73*
Other households	76
Size of DHAP-Katrina unit	
1 or 2 bedroom unit	75
3 bedroom or larger unit	78**
Pre-Katrina homeowner	
Pre-Katrina homeowner	74
Not an owner	78*

* Indicates statistically significant difference between share of participants in that category that stayed on the program longer than one year compared to the share of participants in other categories that stayed longer than one year at 10 percent significance level. ** Indicates significant difference is at the 5 percent significance level.

Sources: Disaster Information System (DIS) and Tracking at a Glance (TAAG). N = 30,049 DHAP-Katrina participants that started DHAP in July 2008 or earlier.

Exhibit 7-4. Household Predictors of Staying on DHAP-Katrina for More than One Year (Logit Estimation)

	Odds Ratio	P-Value
Household head characteristics (at start of DHAP)		
Age 30 to 61	1.122**	.002
Age 62 or older	1.015	.816
Disabled (non-elderly)	0.879**	.027
Employed	1.542**	<.001
High school or higher degree	1.089**	.026
Household characteristics (at start of DHAP)		
Need Tier (Tier 1 is omitted variable)		
Tier 2	.946	.184
Tier 3	1.015	.788
Tier 4	.994	.888
Household composition		
Children in household	.878**	.003
Single-person household	.900**	.017
Size of DHAP-Katrina Unit		
3 bedroom unit	.984	.678
4 bedroom or larger unit	.914	.247
Pre-Katrina homeowner	.849**	<.001

* Indicates statistically significant difference between specified group and counterfactual group (i.e., the omitted variable group) at the 10 percent significance level. ** Indicates significant difference at 5 percent significance level.

Sources: Disaster Information System (DIS) and Tracking at a Glance (TAAG), N = 30,049 DHAP-Katrina participants that started DHAP-Katrina in July 2008 or earlier.

Notes: Results are from logit regression with a dependent variable = 1 if participant was on DHAP-Katrina for more than one year. The regression included a rent structure variable, the demographic and economic characteristics of the household, and household head at the time the household started DHAP-Katrina. Full results from the logit regression are shown in Appendix D.

Other household characteristics either have no significant relationship with length of stay or the relationship is not consistent in the crosstabs and the multivariate analysis. Case managers assessed the needs of DHAP-Katrina participants and rated their needs on a scale of 1 to 4 with Tier 1 having the least severe needs and Tier 4 having the most severe needs. However, 77 percent of participants in Tier 4 (the highest need group) stayed longer than one year, almost the same exact share (76 percent) as in Tier 1 (the lowest need group). Furthermore the multivariate results are not statistically significant for the need tier variables. This finding suggests that need tier is not a good predictor of who will be the long stayers on a program operated like DHAP-Katrina.

7.3 Are Post-DHAP Outcomes Related to Length of Stay or Rent Structure in DHAP-Katrina?

This section present cross tabulations of the length of stay and post-program outcomes and multivariate estimates of the housing stability outcome regressed on length of stay and rent structure while controlling for household characteristics that might also affect outcomes. These analyses rely on the survey sample because outcomes are known only for the respondents to the follow-up survey.

Exhibit 7-5 shows the cross tabulations of post-program outcomes for short-term stayers

(one year or less) compared to longer-term stayers, to explore whether early exiters were the households most capable of self-sufficiency and whether length of stay is correlated with participants' housing and financial situations after exiting from DHAP-Katrina.

Short-term stayers were significantly more likely to have moved into a home they owned (26 percent) than the longer-term stayers (9 percent). These presumably were primarily households that were receiving FEMA and then DHAP-Katrina assistance while their storm-damaged units were repaired or rebuilt. Other than the higher probability of owning a home two years after DHAP-Katrina ended, the short-term stayers did not seem to be any better off financially than the long-term stayers. Short-term stayers had lower average incomes and were less likely to have employment income two years after DHAP-Katrina ended. Short-term stayers were significantly more likely than long-term stayers to have Social Security retirement or disability income two years after the program ended, which is consistent with the earlier cross tabulation finding that elderly households were more likely than younger households to leave the program within one year.

The stability of housing; the level of overcrowding; and the ability to pay rent, utilities, and other expenses were not significantly different for short-term and long-term stayers. There is no statistically significant difference in the receipt of housing assistance between the groups, and the point estimates suggest that longer-term stayers were more likely to receive housing assistance, so receipt of housing assistance does not appear to explain the differences in financial outcomes between short and long-term stayers.

Exhibit 7-5. Outcomes of Households That Stayed on the Program One Year or Less Compared to Long-Term Stayers (Among Participants Who Started in July 2008 or Earlier)

	Percent of Short-Term Stayers (One Year or Less)	Percent of Long-Term Stayers (More Than One Year)
Housing outcomes 2011-2012		
Receiving housing assistance in 2009	44	50
Receiving housing assistance in 2011	49	59
Homeowner	26	9**
Stable housing ^A	78	80
Severe rent burden (>50% of income)	16	14
Severe rent and utility burden (>50% of income)	34	45
Overcrowded housing (>1 person per room)	19	17
Housing the same or better than pre-hurricane housing	88	87
Financial outcomes 2011-2012		
Mean monthly household income (in \$s)	\$1,317	\$1,599**
Median monthly household income (in \$s)	\$1,100	\$1,200
Household has employment income	49	61*
Household head unemployed (looking for work)	18	23
Household has Social Security retirement or disability income	60	38**
Late paying rent in past 12 months	14	15
Late paying utilities in past 12 months	42	49
Had ability to pay all living expenses in past 12 months	45	45

* Indicates statistically significant difference between short-term and long-term stayers at 10 percent significance level. ** Indicates significant difference at 5 percent significance level.

Sources: Housing Assistance from December 2009 and 2011 IMS/PIC. All other outcomes from the follow-up survey of study participants who started DHAP-Katrina in July 2008 or earlier (N = 595). Estimates are weighted to represent all such DHAP-Katrina participants that were on the program in December 2008, when the survey sample was drawn.

^A Stable housing means that household is not currently homeless or doubled-up and reported that they were not homeless or doubled-up in the past 12 months.

The multivariate analysis results for the rent structure variables are shown in Exhibit 7-6. In the multivariate analysis, the length of time on DHAP-Katrina did not have a significant effect on the stability of housing after the program ended. This result was not sensitive to how we defined the length of time on DHAP-Katrina in the analysis. For example, the length-of-stay variable was not significantly correlated with the stability of housing when we defined it as a continuous variable (number of months on DHAP-Katrina) or as a binary variable (one year or more on DHAP-Katrina). We also tried adding other various length-of-stay terms to capture non-linearities (e.g., months on DHAP-Katrina squared and binary variable

for being on the program until the end), but these additional variables did not change the results. However, the estimates indicate that Phase 1 participants were more than two times as likely as Phase 2 and 3 participants to be in stable housing after the program. This is consistent with the crosstabs presented in Chapter 5 that showed 82 percent of Phase 1 participants were in stable housing compared to 73 percent of Phase 2 and 3 participants. We had speculated that Phase 2 and 3 participants would have better outcomes because they did not have the \$50 per month incremental rent and could save more money, but our logit estimates (and Chapter 5 crosstab estimates) suggest that is not the case.

Exhibit 7-6 also shows that having received a hardship exemption during DHAP-Katrina is associated with a significantly lower likelihood of having stable housing after the program ended. Receiving a hardship exemption may be a proxy for a very low level of income during the DHAP-Katrina period. Only very low-income families were eligible for the exemption, and only if the \$50 per month incremental rent made their rental payment higher than 30 percent of their income.³⁴ Thus, the negative correlation of receipt of a hardship exemption and stable housing is likely driven by low income rather than by receiving an exemption. Another possible proxy for households with low income was using a housing voucher after exiting from DHAP-Katrina. When we controlled for HCV receipt in the analysis, it was highly correlated with stable housing after DHAP-Katrina (see Appendix D). Since many of the voucher holders had received a hardship exemption, this suggests that it is participants who received a hardship exemption during the program, but did not have a housing voucher when their participation ended, who were without stable housing.

Exhibit 7-6. Rent Structure Effect on Stability of Housing Two Years After DHAP-Katrina (Logit Estimation)

	Odds Ratio	P-Value
Number of months on DHAP	1.238	.243
Phase 1 participant	2.131**	.036
Hardship exemption	0.321**	.002

* Indicates statistically significant difference between specified group and counterfactual group (i.e., the omitted variable group) at the 10 percent significance level. ** Indicates significant difference at 5 percent significance level.

Sources: The dependent variable (housing stability) is from follow-up survey. The rent structure and other independent variables in the regression are from the Disaster Information System (DIS), Tracking at a Glance (TAA), and IMS/PIC. The sample is follow-up survey respondents who started DHAP in July 2008 or earlier (N = 595).

Notes: Stable housing means that the household was not homeless or doubled-up at the time of the follow-up survey and reported that they were not homeless or doubled-up in the past 12 months. Estimates are from a logit regression with a dependent variable = 1 if participant was stably housed two years after DHAP-Katrina ended. The regression included the length of stay, rent structure, and housing assistance variables in this exhibit and demographic and economic characteristics of the household and household head at the time that the household started DHAP-Katrina. Full results from the logit regression are shown in Appendix D.

7.4 Are Post-DHAP-Katrina Outcomes Related to Need at the Time of Entry to DHAP-Katrina?

Case managers were expected to use their classification of DHAP-Katrina participants into need tiers to provide more intensive services to the needier households. However, as reported in Chapter 4, the survey respondents reported almost no differences in the frequency of case management meetings or referrals based on need tier. A concern is that this could have resulted in the neediest households having the worst post-DHAP outcomes, but this does not seem to be the case.

The outcomes shown in Exhibit 7-7 indicate that the neediest households, categorized at Tier 4 by the case managers, have housing outcomes as good as or better than the less needy households. The Tier 4 households are just as likely as other households to be in stable housing, not to have a severe rent burden, and to report the quality of their housing is as good as or better than their pre-storm housing.

The bottom panel of Exhibit 7-7 shows the financial outcomes by tier. Tier 4 households have the lowest household income, but reported they had no more trouble in the past year paying their rent, utilities, and other living expenses than the households in the other need tiers. However, Tier 3 households—the second most needy group—had more trouble paying their living expenses than the other groups.

34. Household income was not recorded in the DHAP-Katrina administrative data because the program was not means tested.

Exhibit 7-7. Housing and Financial Outcomes by Need Tier Group

Lowest (Tier 1) to Highest (Tier 4) Need	Percent of Tier 1	Percent of Tier 2	Percent of Tier 3	Percent of Tier 4
Housing outcomes 2011-2012				
Receiving housing assistance (2011)	44	50	63	67
Homeowner	16	13	10	10
Stable housing ^A	75	79	80	80
Severe rent burden (>50% of income)	17	17	14	13
Severe rent and utility burden (>50% of income)	39	44	57	44
Overcrowded housing (>1 person per room)	17	21	23	13%
Housing the same or better than pre-hurricane housing	87	86	90	87
Financial outcomes 2011-2012				
Median monthly household income (in \$s)	\$1,500	\$1,200	\$1,200	\$962
Household has employment income	70	64	67	41
Household head unemployed (looking for work)	19	22	29	20
Household has Social Security retirement or disability income	36	37	35	56
Late paying rent in past 12 months	16	13	21	15
Late paying utilities in past 12 months	48	49	58	43
Had ability to pay all living expenses in past 12 months	49	46	31	49

^A Stable housing means that household is not currently homeless or doubled-up and reported that they were not homeless or doubled-up in the past 12 months.

Source: Follow-up survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008, when the survey sample was drawn. The need tier categories are from DHAP administrative data and was missing for 9.5 percent of weighted survey respondents.

This raises the question of why Tier 3 households are having more trouble paying their expenses than Tier 4 households, given that Tier 4 households have lower household incomes. About two-thirds of Tier 3 households (63 percent) and Tier 4 households (67 percent) have housing assistance. It appears that this safety net housing assistance enables households in this group to live in the same stable, quality housing as other DHAP-Katrina participants. However, the Tier 3 and 4 households rely on different sources of income, which may explain the difference in their financial situations. Tier 3 households rely more on employment income than Tier 4 households (67 percent

compared to 41 percent) and appear to be hurt more by the current economic conditions than Tier 4 households. The household head is unemployed in 29 percent of Tier 3 households compared to 20 percent of Tier 4 households. Tier 4 households are much more likely than Tier 3 households to receive Social Security retirement or disability income (56 percent compared to 35 percent); receipt of these relatively reliable and predictable benefits may contribute to the more stable financial situations in Tier 4 households.

The need tiers of participants were included as independent variables in the logit regression of the stability of housing on rent structure and household characteristics. The odds-ratio for the need tier variables are shown in Exhibit 7-8. The multivariate results are consistent with the crosstabs. The stability of housing two years after DHAP-Katrina ended is not correlated with the level of household need determined by case managers when the household began participating in DHAP-Katrina.

Exhibit 7-8. The Effect of Need Tier on the Stability of Housing Two Years After Katrina (Logit Estimation)

	Odds Ratio	P-Value
Need Tier 1 (lowest need)	omitted category	
Need Tier 2	.946	.184
Need Tier 3	1.015	.789
Need Tier 4 (highest need)	.994	.888

* Indicates statistically significant difference between specified group and counterfactual group (i.e., the omitted variable group) at the 10 percent significance level. ** Indicates significant difference at 5 percent significance level.

Sources: The dependent variable (housing stability) is from follow-up survey and the rent structure and other independent variables in the regression are from the Disaster Information System (DIS), Tracking at a Glance (TAAG), and IMS/PIC. The sample is follow-up survey respondents who started DHAP-Katrina in July 2008 or earlier (N = 595).

Notes: Stable housing means that household was not homeless or doubled-up at the time of the follow-up survey and reported that they were not homeless or doubled-up in the past 12 months. Estimates are from a logit regression with a dependent variable = 1 if participant was stably housed two years after DHAP-Katrina ended. The regression included the length of stay, rent structure, and housing assistance variables in this exhibit and demographic and economic characteristics of the household and household head at the time the household started DHAP-Katrina. Full results from the logit regression are shown in Appendix D.

7.5 Are Households That Stayed on DHAP-Katrina to the End Needier Than Those That Exited Earlier?

To explore whether some households stayed on the program to the end even if they did not need the assistance, we compared baseline and post-program socio-economic characteristics for households that exited before the end of the program to those who received assistance until the program ended (Exhibit 7-9).

A key driver of whether or not a household stayed on DHAP-Katrina to the end is whether they were still receiving a substantial subsidy even after the TCP incremental rents were implemented. Following the incremental rent rules of the TCP, by August 2009, DHAP-Katrina participants would be paying at least \$600 in rent. Phase 1 participants who were subject to the incremental rent before then would be paying even more. As we would expect given these program rules, administrative data indicate that almost no households that had an initial program subsidy of \$500 or less per month were on the program in August 2009. The higher the initial subsidy, the higher the share of households who stayed on the program until the end relative to the share of households that left earlier.

Another key factor is timing. Households that started receiving DHAP-Katrina assistance later in the program—August 2008 or later—were more likely to still be on the program in August 2009. It may be that the households joining the DHAP-Katrina program that late is an indicator of a needier household, because they had not yet found a non-DHAP housing solution nearly three years after the storm. These households also had less time working with a case manager before the end of the program to get assistance in identifying a permanent housing solution.

The findings by need tier and income suggest that some households that stayed on the program until the end were not as needy as households that left earlier. The least needy households according to case manager assessments at baseline (Tier 1 households) comprise almost twice as high a share of the households that stayed on the program until the end (32 percent) as the share of households that exited earlier. The mean post-DHAP-Katrina income of households that stayed to the end was also higher than earlier leavers (\$1,761 per month

compared to \$1,448 a month). However, despite having higher average income, it is important to note that half of the households that stayed on the program until the end had an estimated annual income of \$18,000 or less (based on median reported monthly income of \$1,500). Furthermore, households that left earlier were disproportionately more likely to receive housing assistance when they left the DHAP-Katrina program. More than half of the households (55 percent) that left the program before the end were receiving housing assistance in December 2009 compared to 29 percent of households that stayed until the end. Thus, some of the neediest DHAP-Katrina households had received another longer-term form of assistance for their housing that enabled them to exit earlier than some of the less needy households.

A few outcome measures also indicate that households staying on the program until the end were struggling after DHAP-Katrina more than those who left earlier. Households that stayed until the end were less likely to have been in stable housing the month before we surveyed them (72 percent compared to 80 percent of those who left before DHAP ended) and less likely to be able to pay all of their living expenses in the past 12 months (41 percent compared to 48 percent of those who left before DHAP ended).

In summary, while some households that stayed until the end were less needy than households that left the program earlier and may have been financially able to exit the program earlier, it appears as though

most of the households that stayed until the end were relatively low income and needed assistance, including nearly half (46 percent) that qualified for housing assistance from HUD within two years of the end of DHAP-Katrina.³⁵

35. Most of the DHAP-Katrina participants (88 percent) who used a housing voucher after the program was over started using their voucher during the TCP period in 2009. This is probably because the appropriation of supplemental vouchers for DHAP-Katrina participants became available in the fall of 2008. It took until early 2009 for PHAs to refine their policies for issuing these vouchers and for participants to demonstrate their eligibility. It may also reflect the fact that until the TCP incremental rents took effect, many participants received a deeper subsidy from the DHAP-Katrina program than they would have received from the HCV program.

Exhibit 7-9. Socio-Economic Characteristics and Outcomes of Participants on the Program at the End of DHAP-Katrina Compared to Earlier Exiters

	Percent of Participants Exiting July 31, 2009 or Earlier (N = 507)	Percent of Participants that Stayed until End of Program—August 1, 2009 or Later (N = 271)
Started DHAP-Katrina in August 2008 or later	12	33**
Household head characteristics (from baseline administrative data)		
College degree	11	14
Employed	57	61
Receives SSI	11	5**
Non-elderly disabled (as share of non-elderly)	10	4**
Household characteristics (from baseline administrative data)		
Need Tier 1	17	32**
Need Tier 2	38	29**
Need Tier 3	13	13
Need Tier 4	33	26
Pre-Katrina homeowner	19	25
Program participation (from baseline administrative data)		
Phase 1	72	26**
First month subsidy \$500 or less	8	<1**
First month subsidy \$501-\$700	35	15**
First month subsidy \$701-\$900	26	29**
First month subsidy \$901-\$1,200	23	35**
First month subsidy of \$1,201 or more	8	21**
Received hardship exemption	31	18**
Post-program self-sufficiency outcomes (from PIC and follow-up survey)		
Use housing assistance (Dec. 2009)	55	29**
Use housing assistance in 2009 and/or 2011	62	46**
Mean income (in \$s)	\$1,448	\$1,761**
Median income (in \$s)	\$1,100	\$1,500
Some savings (>\$0)	29	35*
Homeowner	12	13
Had own place for last 12 months (not homeless or sharing place)	80	72**
Ability to meet all essential living expenses in past 12 months	48	41*

* Indicates statistically significant difference between percent of participants that exited before the end early and share of participants that were on the program at the end at 10 percent significance level. ** Indicates significant difference between difference between percent of participants that exited before the end early and share of participants that were on the program at the end at 5 percent significance level. Significance tests were not conducted for median income.

Sources: Baseline administrative data is from Disaster Information System (DIS) and Tracking at a Glance (TAAG). Assistance status determined from PIC data from HUD. Follow-up Survey completed by 352 Phase 1 and 426 Phase 2 and 3 participants. Estimates are weighted to represent all DHAP-Katrina participants as of December 2008 when the survey sample was drawn.

Notes: In this exhibit, the end of the program is defined as August 2009. The DHAP-Katrina program ended on October 31, 2009, but only a few hundred participants were allowed to stay on the program after August 2009—households whose eligibility for the voucher program was being assessed.

7.6 Summary

The primary goal of this chapter was to explore the effect of rent structure on length of stay on DHAP-Katrina and post-program outcomes. The \$50 per month incremental rent for Phase 1 participants appears to have a very small negative effect on the likelihood of staying more than one year on the program when the other rent structure variables and the available household characteristics are controlled for. The dollar value of the monthly subsidy and whether the household received a hardship exemption from the incremental rent are strongly correlated with the likelihood of staying on the program more than one year.

While our estimates did not identify a relationship between the length of stay on the program and post-program housing outcomes, Phase 1 participants were significantly more likely to be in stable housing two years after the program ended than Phase 2 and 3 participants. However, there is a caveat accompanying these findings: the recognition that there may be unobserved differences between Phase 1 and Phase 2 and 3 participants in addition to the incremental rent structure. First, we did not have information on the level of household income, health, or support networks in the administrative data, and thus could not control for these variables in the analysis. Nevertheless, we did not find evidence that the \$50 per month incremental rent had a negative effect on post-program housing outcomes, probably because the hardship exemption and the availability of HCVs shielded some of the most vulnerable participants from such negative effects.

We also explored the characteristics of households that stayed on DHAP-Katrina until the program ended. We found that some households that stayed until the end were less needy than households that left the program

earlier and may have been financially able to exit the program earlier. It appears, however, that most of the households that stayed until the end were relatively low income and needed assistance, including nearly half (46 percent) that qualified for housing assistance from HUD after DHAP-Katrina ended.

Chapter 8

Summary and Implications of the Study's Findings

The findings from this study are for households that were still receiving FEMA assistance two years after the devastating hurricanes of 2005 and, therefore, were eligible for the DHAP-Katrina program. Furthermore, a major source of information for the study was a survey of households who were still participating in DHAP-Katrina in December 2008, about one year after the first participants entered this new transitional assistance program and more than three years after the storms. Therefore, the study's findings are applicable to a more vulnerable group than the entire population that would be served by disaster assistance immediately or soon after a disaster event. The study's results should thus be viewed within the context of programs serving those who were unable to secure permanent housing several years after a disaster and who may be most likely to experience long-term housing instability.

Who Did DHAP-Katrina Serve and What Were Patterns of Participation?

DHAP-Katrina served primarily small households headed by working-age adults. Elderly-headed households comprised only 10 percent of the participating households. Most participants were black (86 percent). Most had at least a high school diploma or GED (76 percent), but relatively few were college educated (13 percent). Just over half were employed at DHAP-Katrina program entry. All were still receiving FEMA housing assistance two years after the storms or they would not have been eligible for the program; this in itself may indicate the vulnerability of DHAP-Katrina participants.

The typical DHAP-Katrina participant received rental assistance for just under 15 months, and the median total subsidy amount was \$8,149 per household, including both DHAP-Katrina and Transitional Closeout Program (TCP) subsidy payments. Counting the TCP, Phase 2 and 3 participants had higher total subsidy amounts because they received a subsidy equal to the full rent of their housing unit until the TCP began. They were also more likely to stay longer into the TCP period. A full 90 percent of Phase 2 and 3 participants were still receiving assistance at the start of TCP in March 2009, compared to 56 percent of Phase 1 participants. By August 2009, as DHAP-Katrina was ending, 53 percent of Phase 2 and 3 participants were still assisted, compared to just 10 percent of Phase 1 participants.

A higher tenant-paid portion of the rent contributed strongly to earlier exits as households with higher subsidies or a hardship exemption limiting their rent to 30 percent of their gross income were more likely than otherwise similar households to stay on the program more than one year. The results on the need tier of households that stayed on the program until it ended

suggests, however, that some of those who stayed longer may not have needed the assistance. Nevertheless, most participants on the program at the end were relatively low income, including the nearly half that received HUD housing assistance within two years of DHAP-Katrina ending.

How Did DHAP-Katrina Case Managers Assist Participants?

The mandatory case management component of DHAP-Katrina was designed to help households transition to paying the full market rent for their housing. About one-third of respondents to the follow-up survey did not recall receiving case management services and thus were not asked about their case management experiences. Two-thirds of those who remembered case management reported that they met with their case manager once a month or less. Households assessed at program entry to have high levels of needs did not necessarily report meeting with their case managers more frequently or receiving more referrals to services than those with lower levels of need.

The most frequent type of referral received was for help searching for housing (reported by 57 percent of participants), followed by assistance with benefits (39 percent). No more than one-third reported receiving referrals for any of the other services we asked about, including employment or job training assistance, improving budgeting/credit skills, legal assistance, or medical/mental health services. Participants said that the program helped them get back on their feet, and most were satisfied with the housing assistance and case management services they received. The administrative data on case management are insufficient to show whether households accomplished their goals.

How Did DHAP-Katrina Participants Fare After the Program Ended?

When interviewed for the follow-up survey, a large proportion of DHAP-Katrina recipients were experiencing economic hardship. Household incomes and employment rates were no better than at program entry, despite the continued recovery of the Gulf Region following the hurricanes. The national economic recession and the Deepwater Horizon oil spill may have created additional challenges for the most vulnerable hurricane victims. As of 2011, housing cost burdens (the proportion of household income spent on rent or mortgage payments and utilities) were very high for a large proportion of former DHAP-Katrina participants. Nearly half reported having had difficulty paying their housing costs in the year before we interviewed them. Fewer than 10 percent had at least \$500 in savings, and most said they would have some difficulty obtaining credit for a home, car, or college. A troublingly high proportion had lacked a place to stay at some point in the previous year, resulting either in literal homelessness (entering a shelter) or having to move in with friends or family.

Almost half of our survey sample members were using permanent HUD housing assistance (housing vouchers) in 2011, which contributed to the high rates of housing stability (own place to stay in previous year) of most of the lower-income DHAP-Katrina participants. The housing vouchers help with housing affordability, but low household incomes and limited savings mean these families have little to cushion them in the event of illness, reduced or lost employment, or other financial hardships. It does not appear that the zero-rent strategy for Phase 2 and 3 helped people save, or at least any savings did not persist over time. This may be because, even without paying rent, their incomes were too low to permit savings after paying other household expenses.

Most DHAP-Katrina participants were of working age and appear not to have disabilities, although the study's data on disability status are weak. Other factors may account for the participants' weak financial situation several years after the storms, including lack of employment opportunities and limited educational attainment (most have only a high school degree.) Unemployment rates in the Gulf Region increased substantially between 2007 and 2011. One in five participants reported being unemployed and looking for work at the time of the follow-up survey in 2011. Case management does not seem to have focused on addressing these issues, although the recession and other sources of economic hardship in the region may have made that difficult during DHAP-Katrina.

People who moved into a home they owned and people with Social Security retirement or disability income were more likely to leave the program within one year, but the post-program outcomes for housing (e.g., overcrowding, stability) and ability to pay rent and other expenses are similar for short-term and longer-term stayers.

How Should These Results Inform Future Post-Disaster Housing Assistance Efforts?

The findings on DHAP-Katrina participants' longer-term post-program incomes, employment status, and financial security indicate that many may be at risk of housing instability. Without a control or comparison group, we do not know how these or similar households would have fared without DHAP-Katrina; thus, we cannot determine the relative roles of household characteristics, the effect of the DHAP-Katrina program, and economic or other conditions.

Participants found case management helpful, but it does not seem to have addressed

the need to ensure in the longer term that household income is sufficient to meet housing and other costs. This suggests the need for some greater focus on budgeting and credit repair, helping participants seek additional cash benefits, and much greater focus on helping them increase the amount and stability of income from employment. From what we can tell from the survey results, developing skills and gaining employment income were not the focus of DHAP-Katrina case management activities. Arguably, efforts to increase benefits and employment fall outside HUD's primary domain, but will be critical for a disaster recovery program that is serving a population with challenges similar to those that faced DHAP-Katrina participants. The review panel that reviewed this report further suggested that household budgeting skills should be an important component of post-disaster case management and case managers may need more training on budgeting to make these services effective.

A major disaster like the 2005 hurricanes results in a group of households that receive the full period of FEMA assistance—usually 18 months, but a little more than two years following Hurricanes Katrina and Rita—and still cannot find a permanent housing solution. DHAP-Katrina stepped in to provide almost two years of additional assistance, but for many there was still no permanent housing solution without the use of housing vouchers. The DHAP-Katrina households had not been receiving HUD housing assistance before the storms, suggesting that the hurricanes may have eliminated whatever housing solution they had before the storm or that their pre-storm housing solution was fragile to begin with and was exacerbated by the shortage of affordable housing following the storm. The review panel for this study suggested that the duration of post-disaster housing assistance needs to be linked to the

expected availability of affordable rental housing, which may be three years or more following a major disaster. More broadly, the study's results suggest that planning for future disasters needs to take into account that some of the households provided emergency and short-term assistance will need long-term or even permanent housing assistance, even though they did not receive such assistance before the disaster event. They may also need other case management services and supports to obtain and maintain stable housing.

Appendix A.
Interim Survey
Instrument

DHAP Incremental Rent Transition Study Interim (Baseline) Questionnaire

The U.S. Department of Housing and Urban Development (HUD) is conducting a study of how well DHAP has met your housing and case management needs and how to improve services provided to you and future recipients of disaster housing assistance. We'd like to ask you some questions about yourself and any people you might be renting, buying a house, or living with. Your answers to all questions will be confidential and will not affect any housing assistance, case management, or other services you receive. Answering the questions will take about 20 minutes. If you have any questions as you complete the questionnaire, please ask the PHA or case management agency staff helping to oversee this survey.

This first set of questions is about where you lived before Hurricane Katrina or Rita, how many different apartments or houses you have rented since then, and your current housing.

1. Think back to the time just before Hurricane Katrina or Rita, that is in August or September 2005. Where were you living at that time?

Address: _____ 10-49/

City: _____ 50-79/

State: _____ 80-81/

Zip Code: _____ 82-86/

87-90/

2. Since you were displaced by Hurricane Katrina or Rita in 2005, how many different apartments, houses, or travel trailers have you lived in? (CHECK ONE)

- ₀ 0
₁ 1
₂ 2
₃ 3
₄ 4
₅ 5 or more

91/

3. Have you ever owned your own home?

- ₁ Yes

₂ No

92/

The next set of questions is about where you plan to live after your DHAP assistance ends.

4. Where do you expect to live after DHAP ends in February 2009? (CHECK ONE BOX ONLY)

- ₁ The home I am in living in now
- ₂ A different home of my own
- ₃ Move in with relatives
- ₄ Move in with friends
- ₅ Homeless shelter
- ₆ Other (specify): _____

93/
94-343/

5. After DHAP assistance ends, do you expect to own or rent the place where you will live?

- ₁ Own
- ₂ Rent
- ₃ Don't Know
- ₇ Not Applicable

344/

6. How do you expect to pay your rent or mortgage payments after DHAP ends?
 (CHECK ALL THAT APPLY)

- ₁ Income from employment 345/
- ₂ Child support payments, alimony, or maintenance payments 346/
- ₃ Voucher or Housing Assistance Payment (HAP) from PHA or from HUD 347/
- ₄ Social Security retirement or disability benefits 348/
- ₅ Other pensions or retirement income 349/
- ₆ Unemployment benefits 350/
- ₇ Veterans' benefits 351/
- ₈ Interest, dividend, or other investment income 352/
- ₉ Other income 353/
- ₁₀ Do not expect to have income to pay rent 354-355/

7. After DHAP ends, do you plan to stay in the city you are living in now or do you plan to move to another city?

- ₁ Same City
- ₂ Different City:
 Please Specify: City _____, State: _____

356/
357-386/
387-388/

8. One year from now, do you plan to live in the same city you are living in now or do you plan to move to another city?

- ₁ Same City
- ₂ Different City: 389/
Please Specify: City _____, State: _____ 390-419/
420-421/

The next set of questions is about you personally, they help us better understand how DHAP has helped people from different backgrounds.

9. What is your marital status? (CHECK ONE)

- ₁ Now married
- ₂ Widowed
- ₃ Divorced
- ₄ Separated
- ₅ Never married
- ₆ Other (please describe) _____ 422/
423-447

10. What is the highest degree or level of school you have completed? (CHECK ONE)

- ₁ Less than 12th grade
- ₂ 12th grade, no diploma
- ₃ High school diploma or equivalent (e.g., GED)
- ₄ 1 or more years of college, no degree
- ₅ Associate degree
- ₆ Bachelor's degree
- ₇ Master's degree, professional degree, or doctorate degree 448/

11. What is your current work status? (CHECK ONE)

- ₁ Employed full-time
- ₂ Employed part-time
- ₃ Homemaker or student
- ₄ Unemployed, looking for work
- ₅ Unemployed, not looking for work
- ₆ Temporarily laid off or on leave
- ₇ Retired or disabled 449/

12. How many dependents (under the age of 18) do you currently have living with you? (CHECK ONE)

- ₀ 0
- ₁ 1
- ₂ 2
- ₃ 3
- ₄ More than 3

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- 450/
13. What is your gender?
- ₁ Male
- ₂ Female
- 451/
14. What is your date of birth?
- ____/____/____ (month/date/year)
- 452-453/
454-455/
456-459/
15. Which describes your ethnicity? (SELECT ONLY ONE)
- ₁ Hispanic or Latino
- ₂ Not Hispanic or Latino
- 460/
16. Which describes your race? (SELECT ONE OR MORE)
- ₁ American Indian or Alaska Native 461/
- ₂ Asian 462/
- ₃ Black or African American 463/
- ₄ Native Hawaiian or Other Pacific Islander 464/
- ₅ White 465/

The following questions ask about the amount of income and other assets you have to pay rent, pay a mortgage, or purchase a house. Answer the questions for yourself plus anyone you plan to rent, purchase, or live with.

17. What is your gross monthly income? Gross monthly income is the amount of money you receive from all sources. It is calculated before taxes and other deductions are taken out. (Include all sources of income you have. You should also include the income of any one else who lives with you or will live with you.)

\$ _____

466-475/

- 17a. Does this total income include...? (CHECK ALL THAT APPLY)

- ₁ Income from employment 476/
- ₂ Interest, dividend, or other investment income 477/
- ₃ Child support payments, alimony, or maintenance payments 478/
- ₄ Social Security retirement or disability benefits 479/
- ₅ Other pensions or retirement income 480/
- ₆ Unemployment benefits 481/

- | | | |
|-----|--|----------|
| | <input type="checkbox"/> ₇ Veterans' benefits | 482/ |
| | <input type="checkbox"/> ₈ Other income | 483/ |
| 18. | How much money do you have in savings? ("Savings" includes money in checking accounts, savings accounts, money market accounts, certificates of deposit, mutual funds, brokerage accounts, savings at home, savings with others who are keeping it safe, and any other kinds of savings. Include your savings as well as the savings of anyone living with you.) | |
| | \$ _____ | 484-497/ |
| | <input type="checkbox"/> ₈ Don't know | 498/ |
| 19. | How much money do you have in retirement accounts, such as 401(k) accounts, 403(b) accounts, or IRAs? (Include your retirement accounts as well as those of anyone living with you.) | |
| | \$ _____ | 499-512/ |
| | <input type="checkbox"/> ₈ Don't know | 513/ |
| 20. | Have you received a report on your credit recently? | |
| | <input type="checkbox"/> ₁ Yes | |
| | <input type="checkbox"/> ₂ No | |
| | <input type="checkbox"/> ₈ Don't Know | 514/ |
| 21. | Given your credit, how easy or hard do you think it will be for you (and any co-borrowers) to get a loan to purchase a house, a car, or get a college/student loan? | |
| | <input type="checkbox"/> ₁ Very easy | |
| | <input type="checkbox"/> ₂ Somewhat easy | |
| | <input type="checkbox"/> ₃ Somewhat hard | |
| | <input type="checkbox"/> ₄ Very hard | |
| | <input type="checkbox"/> ₈ Don't know | 515/ |
| 22. | What did you hope the DHAP case management services would help you with?
(CHECK ALL THAT APPLY) | |
| | <input type="checkbox"/> ₁ Determining how much rent I can afford | 516/ |
| | <input type="checkbox"/> ₂ Searching for the right apartment for me | 517/ |
| | <input type="checkbox"/> ₃ Improving my credit or getting out of debt | 518/ |
| | <input type="checkbox"/> ₄ Financial education or money management | 519/ |
| | <input type="checkbox"/> ₅ Helping me obtain a permanent housing voucher | 520/ |
| | <input type="checkbox"/> ₆ Helping me obtain other assistance such as TANF, Food Stamps/SNAP,
and SSI/SSDI | 521/ |
| | <input type="checkbox"/> ₇ Buying a house | 522/ |

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- ₈ Medical needs 523/
₉ Legal issues 524/
₁₀ Other reason (specify): _____ 525-526/
 527-626/

23. Did the DHAP case management provide the help you wanted or needed?

- ₁ Yes
₂ No

627/

24. Do you have any other comments you would like to make about the DHAP case management services or program overall?

628-1127

Those are all the questions we have.

Thank you for participating in this survey!

**Please return this questionnaire to the case management
 staff person overseeing this survey.**

Appendix B.
Follow-Up Survey
Instrument

*DHAP IRT STUDY: Follow-Up Survey***INTRODUCTION**

SC1. May I speak with (SAMPLE MEMBER)? [IF ASKED: Hello, my name is _____. I'm calling on behalf of the Department of Housing and Urban Development, or HUD to follow up on a letter that we sent.]

SPEAKING	1	[GO TO INTRO BEFORE CELL1]
NEW PERSON COMES TO PHONE	2	[GO TO INTRO BEFORE CELL1]
NOT AVAILABLE/BAD TIME	3	[GO TO SC2]
NO SUCH PERSON.....	4	[THANK AND END]
NO LONGER LIVES HERE.....	5	[SC1a]
DECEASED.....	6	[GO TO D1a]
DON'T KNOW	8	[GO TO T1]
REFUSED	9	[GO TO T1]

SC1a. Do you have (SAMPLE MEMBER)'s current telephone number and address?

GAVE ADDRESS AND TELEPHONE.....	1	(RECORD ADDRESS AND PHONE; SCHEDULE CB)
DON'T KNOW	8	[DISPO AS NON-LOCATE]
REFUSED	9	[DISPO AS NON-LOCATE]

SC2. It is important that I speak directly to (SAMPLE MEMBER). Do you know when (he/she) will be home?

YES	1	[ARRANGE CALLBACK]
NO	2	[GO TO T1]
DON'T KNOW	8	[GO TO T1]
REFUSED	9	[GO TO T1]

IF CELL (PTYPE=2):

CELL1: Are you currently driving?

YES	1	[CALLBACK]
NO	2	
REFUSED	9	[SOFT REFUSAL]

IF CELL (IF PTYPE=2):

CELL2. Are you in a safe place to talk right now?

YES	1	
NO, CALL ME LATER	2	[CALLBACK]
NO, CALL BACK ON LANDLINE	3	[RECORD NUMBER, CALLBACK]
REFUSED	9	[SOFT REFUSAL]

[IF CELL2 = 3 UPDATE PTYPE TO 1]

NTRO1:

Hello (SAMPLE MEMBER), my name is [INTERVIEWER NAME] from Abt SRBI and I am calling on behalf of the U.S. Department of Housing and Urban Development (HUD). HUD's Office of Policy Development and Research has contracted with Abt Associates and Abt SRBI to conduct a study of the Disaster Housing Assistance Program (also called DHAP). Through the DHAP program, HUD provided people with assistance in paying rent for their housing after Hurricanes Katrina and Rita. You should have received a letter from us recently.

You may recall completing and mailing in a survey or talking to someone by phone for this study [CONSENT DATE]. At that time, you became one of 1,400 people who agreed to participate in this study. At that time, we also indicated we planned to contact you again at a later date for the study. This is that call to complete the follow-up survey. During this part of the study, we will ask you questions about your housing and economic situation and your experiences during and after your participation in DHAP. HUD is interested in learning whether DHAP helped you get back on your feet after the hurricane and what the agency can learn from DHAP to help improve future programs.

Your continued participation in the study is voluntary. Any information you share with us will be kept confidential to the full extent provided by the Privacy Act, unless that information implies that you or someone else is at risk of being hurt. Otherwise, your responses will only be reported as part of a group for this research. Your name will not be linked with your answers in any reports. Your participation will not affect any benefits you may receive now or in the future. The information you provide will help HUD improve future emergency housing programs.

At the end of your interview, we will verify your address so we can send you [\$20/\$30 [BASED ON WHETHER CALL COMPLETED ON LANDLINE (PTYPE = 1) OR CELL PHONE (PTYPE = 2)] to thank you for your time.

SC3. This interview will take about 40 minutes. Let's start the interview now.

R AGREES YES..... 1 [CONTINUE TO SC4]
R IMPLIES NOT AVAILABLE/BAD TIME 3 [ARRANGE CALLBACK]

[IF DOB IS BLANK, SKIP TO SC4A]

SC4. Just to make sure that I am speaking to the correct person, I'd like to confirm your date of birth with what we have in our records. My records show your date of birth as [DISPLAY DOB FROM SAMPLE], is that correct?

DOB MATCHES RECORDS 1 [GO TO A1]
DOB DOES NOT MATCH RECORDS 2 [GO TO SC4A]
DON'T KNOW 8 [GO TO SC5]
REFUSED 9 [GO TO SC5]

SC4A. [IF DOB IS BLANK: "I do not have your date of birth recorded in our records."] Can you please provide me with your correct birthday?

GAVE UPDATED DOB 1 [RECORD DOB, GO TO SC5]
DON'T KNOW 8 [GO TO SC5]
REFUSED 9 [GO TO SC5]

SC5. As an alternate way of confirming that I have the correct person, can you please confirm the last four digits of your social security number. I have the last four digits as: (READ LAST 4 DIGITS OF SSN). Is that correct?

YES 1 [GO TO A1]
 NO 2 [GO TO SC5A]
 DON'T KNOW 8 [GO TO T2]
 REFUSED 9 [GO TO T2]

SC5a. Can you please provide me with the correct social security number?

GAVE UPDATED SSN 1 [RECORD SSN, Go to T2]
 DON'T KNOW 8 [Go to T2]
 REFUSED 9 [Go to T2]

T1. Thank you for your time. I will try [SAMPLE MEMBER] back at another time.

T2. I need to check this with my supervisor. I may call you back at a later date once I resolve this discrepancy. Thank you for your time. [S/O, different SSN]

D1a. I am sorry for your loss. Could you please tell me your first and last name, including the spelling, as well as your relationship to the deceased, so that I can record who I spoke to?

YES 1 [RECORD NAME AND
 RELATIONSHIP, THANK AND
 END]
 NO 2 [THANK AND END]
 DON'T KNOW 8 [THANK AND END]
 REFUSED 9 [THANK AND END]

SECTION A. CURRENT HOUSING

Now I'd like to ask you about your current housing.

- A1. Which of the following best describes the type of housing you live in? Are you currently (READ LIST, SINGLE RESPONSE)

Renting your home or apartment.....	1
Living in a home you own.....	2
Living with others and pay part of the rent	3
Living with others and do not pay rent	4
Living in a shelter	5
INTERVIEWER: A SHELTER IS A HOMELESS SHELTER, EMERGENCY SHELTER, OR DOMESTIC VIOLENCE SHELTER BUT NOT A GROUP HOME]	
(VOL) HOMELESS	6
(VOL) LIVING IN A GROUP HOME, DORM OR BARRACKS	7
(VOL) LIVING IN A HOSPITAL/NURSING HOME/SPECIAL SCHOOL	8
(VOL) INCARCERATED	9
(VOL) OTHER (SPECIFY: _____)	95
 (VOL) DON'T KNOW.....	 98
(VOL) REFUSED.....	99

[CATI: CREATE A DUMMY VARIABLE, HOUSING. IF A1 = 1 OR 3 OR 4, HOUSING = 1 'current renter'. IF A1 = 2, HOUSING = 2 'current owner'. IF A1 >4, HOUSING = 3 'current other'.]

[IF HOUSING = 3, SKIP TO A6.]

- A2. Not counting bathrooms and hallways, how many rooms are in the place you are currently living in?

One.....	1
Two.....	2
Three	3
Four	4
Five.....	5
Six	6
Seven	7
Eight	8
Nine or more.....	9
DON'T KNOW	98
REFUSED	99

- A3. Is the place where you are living now the same place you lived in while you were receiving DHAP assistance?

YES	1	[SKIP TO A4]
NO	2	[SKIP TO A4]
HAD MULTIPLE DHAP RESIDENCES.....	3	
DON'T KNOW	8	[SKIP TO A4]
REFUSED	9	[SKIP TO A4]

A3a. Is the place where you are living now one of the places you lived in while you were receiving DHAP?

YES 1
 NO 2
 DON'T KNOW 8
 REFUSED 9

A4. How many months or years have you lived in this place?

TIME IN MONTHS 1
 TIME IN YEARS 2
 TIME IN MONTHS AND YEARS 3
 DON'T KNOW 8 [SKIP TO A4b]
 REFUSED 9 [SKIP TO A4b]

[Range 0-99]

A4a. I have recorded that you have lived in this place for [AMOUNT FROM A4 years] years and [AMOUNT FROM A4 months] months, is that correct?

YES 1
 NO 2 [GO BACK TO A4 AND REPEAT Q]
 DON'T KNOW 8
 REFUSED 9

A4b. Do you expect to be living in this place one year from now?

YES 1
 NO 2
 DON'T KNOW 8
 REFUSED 9

Housing Costs

(CATI NOTE: IF HOUSING = 1 (current renters)—ASK A5, IF HOUSING=2 (current owners) SKIP TO A8)

A5. Altogether in the past month, what did you pay for rent? We are interested only in knowing the amount of the rent payment that you paid.

Please do not include any amount that may have been paid by a government agency or other people who did not live with you. Please do not include any utilities that you paid directly to the utility company. (By 'you' we mean you and your family. For purposes of this study, 'your family' is defined as you and any family members that live with you now and would move with you if you were to find another place to live.)

GAVE ANSWER 1 [RECORD AMOUNT]
 Don't Know 8 [SKIP TO A5b]
 Refused 9 [SKIP TO A5b]

[CATI: AMOUNT SHOULD BE PER MONTH: \$__ __ __ __ .00 (FOUR DIGITS, ROUNDED TO DOLLAR; RANGE = \$0-5000)]

A5a. I have recorded that you paid [AMOUNT FROM A5] in rent last month, is that correct?

- YES 1 [SKIP TO A6]
- NO 2 [GO BACK TO A5 AND REPEAT Q]
- DON'T KNOW 8 [SKIP TO A5b]
- REFUSED 9 [SKIP TO A6]

A5b. Would you say that the amount you paid for rent last month was:

- Between 0 and \$200 per month 1
- Between \$201 and \$400 2
- Between \$401 and \$600 3
- Between \$601 and \$800 4
- More than \$800 per month 5
- DON'T KNOW 8
- REFUSED 9

[ASK IF HOUSING=1 (RENTER) OR HOUSING=3 (OTHER)]

A6. During the past 12 months, were you ever more than 15 days late paying your rent? (By 'you' we mean you and your family. For purposes of this study, 'your family' is defined as you and any family members that live with you now and would move with you if you were to find another place to live.)

- YES 1
- NO 2
- DON'T KNOW 8
- REFUSED 9

A7. During the last 12 months, have you been evicted from a home or apartment for any reason?

- YES 1
- NO 2
- DON'T KNOW 8
- REFUSED 9

(CATI NOTE: IF HOUSING = 2 (current owner) ASK A8, IF HOUSING = 1(current renter)—GO TO A10; IF HOUSING = 3 (other) GO TO A13)

A8. Altogether in the past month, what did you pay for your mortgage? We are interested only in knowing the amount of the mortgage payment that you paid.

Please DO NOT include any amount that may have been paid by a government agency or by other people who do not live with you. (By 'you' we mean you and your family. For purposes of this study, 'your family' is defined as you and any family members that live with you now and would move with you if you were to find another place to live.)

- GAVE ANSWER 1 [RECORD AMOUNT]
- DON'T KNOW 8 [SKIP TO A8B]
- REFUSED 9 [SKIP TO A8B]

[CATI: AMOUNT SHOULD BE PER MONTH: \$__ __ __ __ .00 (FOUR DIGITS, ROUNDED TO DOLLAR; RANGE = \$0-5000)]

A8a. I have recorded that you pay [AMOUNT FROM A8] monthly to own the place that you live, is that correct?

- YES 1 [SKIP TO A9]
- NO 2 [GO BACK TO A8 AND REPEAT Q]
- DON'T KNOW 8 [SKIP TO A8b]
- REFUSED 9 [SKIP TO A9]

A8b. Would you say that the amount you paid for your mortgage last month was:

- Between 0 and \$200 per month 1
- Between \$201 and \$400 2
- Between \$401 and \$600 3
- Between \$601 and \$800 4
- Between \$801 and \$1000 4
- More than \$1000 per month 5
- DON'T KNOW 8
- REFUSED 9

A9. During the past 12 months, were you ever more than 15 days late paying your mortgage?

- YES 1
- NO 2
- DON'T KNOW 8
- REFUSED 9

A10. During the past twelve months, did you pay for any utilities that are not included as part of any rent or mortgage that you pay? By utilities, I mean electricity, heat, gas, telephone, and water. (By 'you' we mean you and your family. For purposes of this study, 'your family' is defined as you and any family members that live with you now and would move with you if you were to find another place to live.) [INTERVIEWER NOTE: This includes cell phone service.]

- YES 1
- NO 2 [SKIP TO B1]
- DON'T KNOW 8 [SKIP TO B1]
- REFUSED 9 [SKIP TO B1]

A11. What is the total amount of all utility payments that you pay in a typical month—that is not a month with unusually high or low heat or air conditioning bills?

- GAVE ANSWER 1 (RECORD AMOUNT)
- DON'T KNOW 8 [SKIP TA12]
- REFUSED 9 [SKIP TO A12]

(CATI: AMOUNT SHOULD BE MONTHLY UTILITIES: \$__ __ __ __ .00 (FOUR DIGITS, ROUNDED TO DOLLAR; (EXPECTED RANGE: \$0-2000)

A11a. I have recorded that you pay [AMOUNT FROM A11] monthly for utilities in the place where you live. Is that correct?

YES 1 [SKIP TO A13]
 NO 2 [GO BACK TO A11 AND REPEAT Q]
 DON'T KNOW 8 [ASK A12]
 REFUSED 9 [SKIP TO A13]

A12. Would you say that the amount you paid for your utilities last month was...

Between 0 and \$100 per month 1
 Between \$101 and \$200 2
 Between \$201 and \$300 3
 Between \$301 and \$400 4
 Between \$401 and \$500 5
 More than \$500 per month 6
 DON'T KNOW 8
 REFUSED 9

[ASK ALL]

A13. People sometimes have trouble paying their utility bills on time. During the past 12 months, were you ever more than 15 days late paying your electric, gas, heat, telephone, or water bill?

YES 1
 NO 2 [SKIP TO B1]
 UTILITIES INCLUDED IN RENT/CONDO FEES 3 [SKIP TO B1]
 DON'T KNOW 8 [SKIP TO B1]
 REFUSED 9 [SKIP TO B1]

A13a. In the past 12 months, was your gas, water, heat, telephone, or electricity ever shut off for nonpayment?

YES 1
 NO 2
 DON'T KNOW 8
 REFUSED 9

SECTION B: DHAP HOUSING ASSISTANCE AND COMPARISON TO CURRENT HOUSING

IF WE HAVE SDATE IN SAMPLE, ASK B1. IF WE DON'T HAVE SDATE, SKIP TO B1a.

B1. Our records indicate that you started to receive DHAP assistance in [SDATE]. Does that seem right to you?

YES 1 [SKIP TO B2]
 NO 2
 DON'T KNOW 8[SKIP TO B2]
 REFUSED 9[SKIP TO B2]

B1a. In what month and year did you start receiving DHAP assistance?

GAVE ANSWER 1 (RECORD MONTH/YEAR)
 DON'T KNOW 8
 REFUSED 9

[RANGE: MONTHS: 1-12; YEARS 2007-2008. PLEASE INSERT A CHECK SO THE START DATE IS NOT BEFORE SEPTEMBER 2007.]

IF WE HAVE AN EDATE IN SAMPLE, ASK B2. IF WE DON'T HAVE EDATE, SKIP TO B2a.

B2. Our records indicate that you received DHAP assistance until [EDATE] Does that seem right to you?

YES 1 [SKIP TO B3]
 NO 2
 DON'T KNOW 8[SKIP TO B3]
 REFUSED 9[SKIP TO B3]

B2a. Participants in the DHAP program stopped receiving DHAP assistance by October 2009. In what month of 2009 did you stop receiving DHAP assistance?

GAVE ANSWER 1 (RECORD MONTH)
 DON'T KNOW 8
 REFUSED 9

[RANGE: 1-10]

CATI NOTE: FOR START AND END DATE OF DHAP ASSISTANCE, USE PRE-POPULATED DATES FOR THOSE WHO SAY YES TO B1 and B2; USE B1A AND B2A FOR THOSE WHO GIVE NEW DATES THERE, AND DO NOT USE ANY DATES FOR THOSE WHO RESPONDED NO TO B1 AND B2 AND CANNOT GIVE CORRECTED DATE INFORMATION.

[CATI: CREATE DUMMY VARIABLE STDDATE. IF B1 = 1, STDDATE = sdate. IF B1a = 1, STDDATE = response to B1a. IF B1 ≠ 1 AND B1a ≠ 1, STDDATE is (blank). CREATE DUMMY VARIABLE ENDDATE. IF B2 = 1, ENDDATE = edate. IF B2a = 1, ENDDATE = response to B2a. IF B2 ≠ 1 AND B2a ≠ 1, ENDDATE is (blank). FORMAT FOR BOTH = MONTH AND YEAR. EXAMPLE: MAY 2007.]

B3. People stopped getting DHAP assistance for different reasons. Which of the following factors are reasons you stopped receiving DHAP assistance [in ENDDATE MONTH AND YEAR]? You may have more than one reason. Would you say...

PROGRAMMER INSTRUCTIONS: PLEASE RANDOMIZE ORDER THESE QUESTIONS ARE READ

Q#		YES	NO	DK	REF
B3b	The DHAP program ended or was ending soon	1	2	8	9
B3d	I did not need the financial assistance any more	1	2	8	9
B3f	I wanted to move in with other people	1	2	8	9
B3h	I was terminated from the program	1	2	8	9

B4. Were there any other reasons you stopped receiving DHAP assistance?

- YES 1
- NO 2 [SKIP TO B5]
- DON'T KNOW 8 [SKIP TO B5]
- REFUSED 9 [SKIP TO B5]

B4a: What were the other reasons you stopped receiving assistance (in MONTH AND YEAR ENDDATE)? (RECORD REASONS)

Now I would like to ask you a few questions about your experience with the DHAP housing assistance you received from [NAME OF PHA], This is the agency that provided your DHAP assistance. We will refer to this agency as the Public Housing Authority or PHA throughout the rest of the survey..

B5. Did you move to a different house or apartment when you started receiving DHAP assistance [IF STD DATE IS NOT BLANK: in [STD DATE],] or did you stay in the same house or apartment you lived in before?

- Moved to a different house or apartment 1
- Stayed in the same house or apartment 2 [SKIP TO B6]
- Don't know 8 [SKIP TO B6]
- Refused 9 [SKIP TO B6]

B5a. Compared to the place you lived in just before you started receiving DHAP assistance in, was the quality of your DHAP housing better, worse, or the same?

- DHAP housing quality better 1
- DHAP housing quality worse 2
- DHAP housing quality the same 3
- DON'T KNOW 8
- REFUSED 9

B5b. Compared to the place you lived in just before you starting receiving DHAP assistance [in STDATE], was the amount you paid in rent more affordable, less affordable, or about the same?

- DHAP rent more affordable 1
- DHAP rent less affordable 2
- DHAP rent about the same 3
- DON'T KNOW 8
- REFUSED 9

B6 Thinking back on your experience with DHAP [IF STDATE AND ENDDATE ARE NOT BLANK: between [STDATE] and [ENDDATE]], how satisfied were you with the information you got from the PHA about how much rent you would pay each month? Were you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with the information you received?

- VERY SATISFIED 1
- SOMEWHAT SATISFIED 2
- SOMEWHAT DISSATISFIED 3
- VERY DISSATISFIED 4
- DON'T KNOW 8
- REFUSED 9

B7. How satisfied were you with your housing options or choices while you were receiving DHAP? Were you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with your housing?

- VERY SATISFIED 1
- SOMEWHAT SATISFIED 2
- SOMEWHAT DISSATISFIED 3
- VERY DISSATISFIED 4
- DON'T KNOW 8
- REFUSED 9

B8. How satisfied were you with the housing you lived in while you were receiving DHAP? Were you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with your housing?

- VERY SATISFIED 1
- SOMEWHAT SATISFIED 2
- SOMEWHAT DISSATISFIED 3
- VERY DISSATISFIED 4
- DON'T KNOW 8
- REFUSED 9

- B9. Were you satisfied with how easy it was to contact the PHA when you had questions or concerns about your housing? Were you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with your ability to contact the PHA?

VERY SATISFIED 1
 SOMEWHAT SATISFIED.....2
 SOMEWHAT DISSATISFIED.....3
 VERY DISSATISFIED4
 DON'T KNOW8
 REFUSED9

- B10. As you may recall, under DHAP, the amount of rent you were responsible for paying increased over time, and the amount HUD paid decreased. Thinking back to your experience with DHAP, how difficult was it for you to pay the rent as your payment amount went up? Was it not difficult at all, somewhat difficult, or very difficult?

NOT DIFFICULT 1
 SOMEWHAT DIFFICULT2
 VERY DIFFICULT3
 DON'T KNOW8
 REFUSED9

(IF A3 = YES, SKIP TO B12)

- B11. Since you stopped receiving DHAP assistance [in ENDDATE], how many different apartments or houses have you lived in, including the one you are living in now?

Zero (LIVE IN SAME UNIT AS IN DHAP)0
 One..... 1
 Two.....2
 Three3
 Four4
 Five or more5
 DON'T KNOW8
 REFUSED9

- B12. Compared to the amount of rent you were paying at the end of your DHAP assistance, are you now paying more, less, or about the same for your monthly housing costs?

PAY MORE NOW 1
 PAY LESS NOW2
 PAY ABOUT THE SAME3
 DON'T KNOW8
 REFUSED9

- B13. Some people qualified to apply for a hardship exemption under DHAP. Did you apply for a hardship exemption? [INTERVIEW NOTE: In the DHAP program, the amount of rent you had to pay each month increased by \$50. If you did not have enough money to pay the increases, you could apply for a hardship exemption so the amount you had to pay did not go up.]

YES 1
 NO2 [SKIP TO B14]
 DON'T KNOW8 [SKIP TO B14]
 REFUSED9 [SKIP TO B14]

B13a. Did you receive a hardship exemption?

YES	1
NO	2
DON'T KNOW	8
REFUSED	9

B13b. How satisfied were you with the information you received about how to apply for a hardship exemption? Would you say you were...

VERY SATISFIED	1
SOMEWHAT SATISFIED.....	2
SOMEWHAT DISSATISFIED.....	3
VERY DISSATISFIED	4
DON'T KNOW	98
REFUSED	99

B13c. How satisfied were you with the amount of time it took to get a response to your request for a hardship exemption? Would you say you were...

VERY SATISFIED	1
SOMEWHAT SATISFIED.....	2
SOMEWHAT DISSATISFIED.....	3
VERY DISSATISFIED	4
DON'T KNOW	98
REFUSED	99

B14. Now, I'd like you to compare the quality of your current housing to the other places you have lived in the past.

B14a. Compared to the place you lived in before Hurricanes Katrina or Rita—that is the place you lived in August or September 2005—is the quality of the housing you live in now better, worse, or the same?

HOUSING BETTER NOW	1
HOUSING WORSE NOW	2
HOUSING THE SAME	3
DON'T KNOW	8
REFUSED	9

B14b. Compared to the place you lived in just before you started receiving DHAP assistance [in STDATE], is the quality of the housing you live in now better, worse, or the same?

HOUSING BETTER NOW	1
HOUSING WORSE NOW	2
HOUSING THE SAME	3
DON'T KNOW	8
REFUSED	9

B14c. Compared to the place you lived in just before you stopped receiving DHAP assistance (in [ENDDATE]), is the quality of the housing you live in now better, worse, or the same?

- Housing better now 1
- Housing worse now 2
- Housing the same 3
- DON'T KNOW 8
- REFUSED 9

B15. (SKIP TO B16IF A1=5 (LIVING IN A SHELTER) OR 6 (HOMELESS)) Was there ever a time during the past 12 months when you did not have your own place to stay? For this question you should consider living in a FEMA or DHAP unit as having your own place.

- YES 1
- NO 2 [SKIP TO C1]
- DON'T KNOW 8 [SKIP TO C1]
- REFUSED 9 [SKIP TO C1]

B16. During the past 12 months when you did not have your own place to stay, we would like to know about any places where you stayed. Did you...

	YES	NO	DK	REF
B16a. Stay with a relative	1	2	8	9
B16b. Stay with a friend	1	2	8	9
B16c. Stay in a shelter [INTERVIEWER: A SHELTER IS A HOMELESS SHELTER, EMERGENCY SHELTER, OR DOMESTIC VIOLENCE SHELTER BUT NOT A GROUP HOME]	1	2	8	9
B16d. Stay on the streets or in some other place that is not generally used for housing	1	2	8	9

[CATI: AUTOPUNCH B16c=YES IF A1 = 5.]

SECTION C: CURRENT NEIGHBORHOOD

[CATI: IF A1=5-9, SKIP TO NEXT SECTION]

Now we have a few questions about your current neighborhood.

C1. How many months or years have you lived in your current neighborhood?

TIME IN MONTHS 1
 TIME IN YEARS 2
 TIME IN MONTHS AND YEARS
 DON'T KNOW 8
 REFUSED 9

[RANGE 0 – 99]

C1a. I have recorded that you have lived in your current neighborhood for [AMOUNT FROM C1 YEARS] years and [AMOUNT FROM C1 MONTHS] months, is that correct?

YES 1
 NO 2 [GO BACK TO C1 AND REPEAT Q]
 DON'T KNOW 8
 REFUSED 9

C2. Do you live in the same neighborhood as you did before Hurricanes Katrina and Rita in 2005?

YES 1
 NO 2
 DON'T KNOW 8
 REFUSED 9

C3. Do you live in the same neighborhood as you did just before you stopped receiving DHAP assistance [in ENDDATE]?

YES 1
 NO 2
 DON'T KNOW 8
 REFUSED 9

C4. Now we'd like to get a sense of how safe you think the area is where you currently live. How safe do you feel...[READ ITEM.] Would you say...

	Very safe	Safe	Unsafe	Very unsafe	DK	REF
C4a. On the streets near your home during the day?	1	2	3	4	8	9
C4b. On the streets near your home at night?	1	2	3	4	8	9

- C5. Overall, how satisfied are you with the neighborhood where you currently live? Are you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with the neighborhood where you currently live?

VERY SATISFIED	1
SOMEWHAT SATISFIED.....	2
SOMEWHAT DISSATISFIED.....	3
VERY DISSATISFIED	4
DON'T KNOW	8
REFUSED	9

SECTION D: CURRENT HOUSEHOLD COMPOSITION

[CATI: IF A1=7-9, SKIP TO D3]

Now I'd like to change topics and ask you some questions about the people who are living with you now.

- D1. Other than yourself, how many adults, that is, people who are 18 years old or older, are living with you right now?

IF A1=5 OR 6: For purposes of this study, please include any family members that are living with you now and would move with you if you were to find a place to live

GAVE ANSWER..... 1 (RECORD NUMBER ADULTS)
 DON'T KNOW 8
 REFUSED 9

[Range 0-15]

- D2. How many children are living with you right now? By children I mean people 17 years old or younger.

IF A1=5 OR 6: For purposes of this study, please include any family members that are living with you now and would move with you if you were to find a place to live

GAVE ANSWER..... 1 (RECORD NUMBER CHILDREN)
 DON'T KNOW 8
 REFUSED 9

[Range 0 – 15]

- D3. What is your marital status? Are you currently:

Single, never married 1
 Married or living in a marriage like situation 2
 Widowed..... 3
 Separated or divorced 4
 DON'T KNOW 8
 REFUSED 9

SECTION E: EDUCATION, EMPLOYMENT AND INCOME

Now I am going to ask you some questions about your education, employment and income.

F1. What is the highest degree or level of school you have completed?

- Less than 12th grade..... 1
- 12th grade, no diploma.....2
- High school graduate or equivalent (GED).....3
- 1 or more years of college, no degree.....4
- Associates degree5
- Bachelors degree6
- Masters, doctorate or other professional degree.....7
- DON'T KNOW8
- REFUSED9

E1. Are you currently...

- Employed full-time (30 hours of work per week or more)..... 1
- Employed part-time (less than 30 hours per week)..... 2
- Unemployed Looking for Work 3
- Not working for pay (retired, disabled, taking care of family, etc....).... 4
- DON'T KNOW 8
- REFUSED 9

[CATI: IF A1=7-9, SKIP TO E3]

E2. How many adults age 18 or older in your household (including yourself) are employed full time or part time?

IF A1=5 OR 6: For purposes of this study, please include any family members that are living with you now and would move with you if you were to find a place to live

- GAVE ANSWER..... 1 (RECORD NUMBER EMPLOYED)
- DON'T KNOW8
- REFUSED9

[RANGE: 0-15. CATI CHECK THAT E2 <= D1. IF NOT: You said [ANSWER TO D1] adults are living in your household. The number of adults who are employed should be less than or equal to [ANSWER TO D1].]

E3. Thinking about your total monthly income do you or anyone in your household receive income from...

	YES	NO	DK	RF
E3a. Income from employment	1	2	8	9
E3b. Interest, dividend, or other investment income	1	2	8	9
E3c. Child support payments, alimony, or maintenance payments	1	2	8	9
E3d. Social Security retirement or disability benefits	1	2	8	9
E3e. Other Pensions or retirement income	1	2	8	9
E3f. Unemployment benefits	1	2	8	9
E3g. Veteran's benefits	1	2	8	9

E3h. Temporary Assistance for Needy Families (welfare)	1	2	8	9
E3i. Other sources of income	1	2	8	9

E4. [IF NO INCOME REPORTED FROM E3a THROUGH E3i] I just want to confirm that you have no monthly income at all from any of sources I just read. Is that correct?

- YES 1
- NO 2 [GO BACK AND FIX INCOME SOURCES]
- DON'T KNOW 8
- REFUSED 9

[IF D4 = YES, SKIP TO E8]

E5. Last month, what was your gross monthly household income? Gross monthly income is the amount of money you receive from all sources. It is calculated before taxes and other deductions are taken out. (Include all sources of income you have. You should also include the income of any one else who lives with you.)

- GAVE ANSWER 1 (RECORD AMOUNT)
- DON'T KNOW 8
- REFUSED 9

Gross Monthly Household Income: _____ .00 (0-15,000, ROUNDED TO WHOLE NUMBER)

E5A. I recorded that your total gross monthly household income last month was _____ [answer from E5], is that correct?

- YES 1
- NO 2 [GO BACK AND REPEAT E5 UNTIL CORRECT]
- DON'T KNOW 8
- REFUSED 9

E6. Was your total gross monthly household income last month what you would receive in a typical month?

- YES 1 [SKIP TO E8]
- NO 2
- DON'T KNOW 8 [SKIP TO E8]
- REFUSED 9 [SKIP TO E8]

E7. What is your typical gross monthly household income?

- GAVE ANSWER 1 (RECORD AMOUNT)
- DON'T KNOW 8
- REFUSED 9

Typical Gross Monthly Household Income: _____ .00 (0-15,000, ROUNDED TO WHOLE NUMBER)

- E7a. I recorded that your typical gross monthly household income is _____ [Answer from E7], is that correct?
- YES 1
 NO 2[GO BACK AND REPEAT E7 UNTIL CORRECT]
 DON'T KNOW 8
 REFUSED 9
- E8. Last month, that is in [MONTH PRIOR], did you or anyone in your household have to use one of the following sources to cover your living expenses? [MULTIPLE RECORD]
- Money from your savings (by savings I mean money that you put aside for use at a later date) 1
 A credit card or other debt (that you did not pay off this month) 2
 A payday loan..... 3
 A loan from a relative or friend 4
 DON'T KNOW 8
 REFUSED 9
- E8a. About how much money would you say you have in savings? Would you say...
- \$0..... 1
 1-\$500 2
 \$501-\$1000 3
 \$1001-\$2000 4
 \$2001-\$5000 5
 \$5000 or more? 6
 DON'T KNOW 8
 REFUSED 9
- E9. Since DHAP ended [IF ENDDATE IS NOT BLANK: in [ENDDATE]], have you been able to put some money in savings for unexpected expenses or for things like education?
- YES 1
 NO 2
 DON'T KNOW 8
 REFUSED 9
- E10. Have you received a report on your credit recently?
- YES 1
 NO 2
 DON'T KNOW 8
 REFUSED 9
- E11. Given your credit, how easy or hard do you think it will be for you (and any co-borrowers) to get a loan to purchase a house, a car, or get a college/student loan? Would you say it would be....
- Very easy 1
 Somewhat easy 2
 Somewhat hard 3
 Very hard 4
 DON'T KNOW 8
 REFUSED 9

E12. Now I will read you some statements about paying for your living expenses. Thinking about the last 12 months, please tell me which statement best describes your ability to pay your essential living expenses, such as food, rent or mortgage, and utilities (e.g., heat, gas, electricity, water, telephone)?

- I have not been able to pay any essential living expenses 1
- I have been able to pay some essential living expenses, but not more than half 2
- I have been able to pay most essential living expenses, more than half but not all 3
- I have been able to pay all, or almost all essential living expenses 4

E13. How does your current financial situation compare to just before you started receiving DHAP [in STDATE]? Is it easier to cover household expenses now, harder now, or about the same?

- Easier now 1
- Harder now 2
- About the same 3
- DON'T KNOW 8
- REFUSED 9

E14. At the time you started receiving DHAP Assistance, were you...

- Employed full-time (30 hours of work per week or more) 1
- Employed part-time (less than 30 hours per week) 2
- Unemployed Looking for Work 3
- Not working for pay (retired, disabled, taking care of family, etc...).... 4
- DON'T KNOW 8
- REFUSED 9

E15. Do you recall what your gross monthly household income was before the hurricane? (Gross monthly income is the amount of money you receive from all sources. It is calculated before taxes and other deductions are taken out.)

- GAVE ANSWER 1 (RECORD AMOUNT)
- DON'T KNOW 8 SKIP TO
- REFUSED 9 SKIP TO

Monthly Household Income: _____ .00 (0-15,000, ROUNDED TO WHOLE NUMBER)

E15A. I recorded that your total gross monthly household income was _____ [answer from E15], is that correct?

- YES 1
- NO 2 [GO BACK AND REPEAT E15 UNTIL CORRECT]
- DON'T KNOW 8
- REFUSED 9

E16. Before Hurricanes Katrina and Rita in 2005, did you live in a home that you owned or inherited from a relative? [INTERVIEWER NOTE: If the respondent was renting a home, the answer is "No".]

- YES 1

NO	2
DON'T KNOW	8
REFUSED	9

SECTION G: CASE MANAGEMENT EXPERIENCE

The next set of questions ask about the types of case management services you received through your participation in DHAP.

G1. Now I would like you to think back to the time you received your DHAP assistance [in STDATE]. Do you remember working with a DHAP case manager to help you improve your housing, employment, or financial situation?

- YES 1
- NO 2 [SKIP TO G21]
- MAYBE/THINK SO 3
- DON'T KNOW 8 [SKIP TO G21]
- REFUSED 9 [SKIP TO G21]

G1a: Was your DHAP case manager someone who works at [PHA NAME] ,someone the PHA referred you to at a different organization, or both?

- CASE MANAGER AT PHA 1
- CASE MANAGER PHA REFERRED ME TO 2
- BOTH..... 3
- VOL: NEITHER..... 4 [SKIP TO G21]
- DON'T KNOW 8 [SKIP TO G1b]
- REFUSED 9 [SKIP TO G21]

G1b: How many DHAP case managers did you have while you were receiving DHAP assistance? Please include the total number of DHAP case managers at the PHA and case managers the PHA referred you to.

- GAVE ANSWER 1 (RECORD NUMBER)
- DON'T KNOW 8
- REFUSED 9

[CATI: IF ONE CASE MANAGER, DK, OR REF IN G1a USE READ-INS FOR SINGLE CASE MANAGER. OTHERWISE, USE PLURAL READ-IN.]

The next set of questions asks about referrals for services you may have received from your DHAP case manager(s). We would like to ask you about your experience with those referrals - whether you got the services you were referred to and whether the services helped you.

Q #	Base Question: Did your DHAP case manager refer you for help with ...	Answer to base question	A. [IF ANSWER TO BASE IS YES, OTHERWISE SKIP TO NEXT QUESTION] Did you receive that service?	B. [IF ANSWER TO Q#A IS YES, OTHERWISE SKIP TO NEXT QUESTION]. How would you rate that service? As....
G2	...accessing benefits such as Food Stamps/SNAP, veterans benefits, or social security?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful..... 2 Very Helpful 3 DON'T KNOW 8 REFUSED..... 9

Q #	Base Question: Did your DHAP case manager refer you for help with ...	Answer to base question	A. [IF ANSWER TO BASE IS YES, OTHERWISE SKIP TO NEXT QUESTION] Did you receive that service?	B. [IF ANSWER TO Q#A IS YES, OTHERWISE SKIP TO NEXT QUESTION]. How would you rate that service? As....
G3	...searching for housing?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9
G4	...getting counseling about buying a home?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9
G5	...getting household goods such as furniture, linens, or kitchen equipment?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9
G6	...finding or paying for child care?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9
G7	...getting transportation?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9
G8	...improving your education?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9
G9	...finding a job or job training?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9
G10	...getting legal assistance?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9
G11improving your credit, savings, budgeting skills, or other financial skills	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9
G12	...obtaining medical or mental health care?	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	YES 1 NO 2 DON'T KNOW 8 REFUSED 9	Not Helpful 1 Somewhat Helpful 2 Very Helpful 3 DON'T KNOW 8 REFUSED 9

Q #	Base Question: Did your DHAP case manager refer you for help with ...	Answer to base question	A. [IF ANSWER TO BASE IS YES, OTHERWISE SKIP TO NEXT QUESTION] Did you receive that service?	B. [IF ANSWER TO Q#A IS YES, OTHERWISE SKIP TO NEXT QUESTION]. How would you rate that service? As....
G13	...finding elderly or disability-related services?	YES 1	YES 1	Not Helpful 1
		NO 2	NO 2	Somewhat Helpful..... 2
		DON'T KNOW 8	DON'T KNOW 8	Very Helpful 3
		REFUSED 9	REFUSED 9	DON'T KNOW 8
G14	...dealing with marriage or family issues?	YES 1	YES 1	Not Helpful 1
		NO 2	NO 2	Somewhat Helpful..... 2
		DON'T KNOW 8	DON'T KNOW 8	Very Helpful 3
		REFUSED 9	REFUSED 9	DON'T KNOW 8
				REFUSED..... 9

G15. Are there other services that I did not mention that would have been helpful to you, but you were unable to get?

[RECORD ANY SERVICES MENTIONED] _____

Thinking about the help you received from the DHAP case manager, I want to ask you a few questions about how satisfied you were with the staff that helped you.

G16. Please think about your overall experience working with (your case manager/all of your case managers). How often were you in touch with your case manager(s) by phone, in person, or by email or text? On average, was it...

- More than once a week 1
- Once a week 2
- Once every two weeks 3
- Once a month 4
- Less than once a month 5
- DON'T KNOW 8
- REFUSED 9

G17. Were you satisfied with how often you spoke with your DHAP case manager(s)? Would you say you were always, sometimes, or never satisfied with how often you spoke with your case manager(s)?

- ALWAYS 1
- SOMETIMES 2
- NEVER 3
- DON'T KNOW 8
- REFUSED 9

G18. Were you satisfied with how easy it was to reach the case manager(s)? Would you say you were always, sometimes, or never satisfied with how easy it was to reach your case manager(s)?

- ALWAYS 1
- SOMETIMES 2
- NEVER 3
- DON'T KNOW 8
- REFUSED 9

G19. How satisfied were you overall with your experience working with the DHAP case manager(s)? Overall, were you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with the help you received?

VERY SATISFIED	1
SOMEWHAT SATISFIED.....	2
SOMEWHAT DISSATISFIED.....	3
VERY DISSATISFIED	4
DON'T KNOW	98
REFUSED	99

I have just a few more questions about your participation in DHAP.

G20. Overall, how helpful was DHAP case management in helping you get back on your feet after the 2005 hurricanes? Would you say DHAP case management was very helpful, somewhat helpful, or not helpful at all? (By case management, we mean both the case manager(s) you worked with and the services you received.)

VERY HELPFUL	1
SOMEWHAT HELPFUL	2
NOT HELPFUL AT ALL.....	3
DON'T KNOW	98
REFUSED	99

G21. Overall, how helpful was DHAP rental assistance in helping you get back on your feet after the 2005 hurricanes? Would you say DHAP rental assistance was very helpful, somewhat helpful, or not helpful at all? (By rental assistance, we mean the subsidy/money the housing authority paid to your landlord.)

VERY HELPFUL	1
SOMEWHAT HELPFUL	2
NOT HELPFUL AT ALL.....	3
DON'T KNOW	98
REFUSED	99

The next two questions ask for your suggestions for HUD to improve future programs to help people after a hurricane or other disaster. We would like to audio record your responses to these two questions. This helps me so we can make sure we don't miss anything you say. And if it's okay with you, we may play some parts of your answers to HUD when we present our summary of the interviews.

G21a. Do I have your permission to record your answers to these two questions?

YES	1	
NO	2	[SKIP TO H1]

IF G1a = 4 or 9, SKIP TO G23. ELSE CONTINUE.

G22. Do you have any suggestions for HUD to improve the way case managers help people after a hurricane or other disaster?

G23. Now thinking about the housing part of DHAP, do you have any suggestions for HUD to improve the housing assistance you received from DHAP after a hurricane or other disaster?

SECTION H: DEBRIEFING MODULE

We have a few final questions.

H1. How do you feel after completing this survey?

INTERVIEWER: LISTEN TO RESPONSE AND CODE THE RESPONSE THAT MATCHES BEST BELOW ABOUT HOW THE RESPONDENT FEELS ABOUT THE SURVEY. IF RESPONDENT VOLUNTEERS THAT THEY FOUND THE INTERVIEW UPSETTING, PUNCH 3.

FINE/NO PROBLEMS/IT WAS LONG BUT I'M FINE	1	[SKIP TO END]
SOME OF THE QUESTIONS WERE UPSETTING, BUT I'M FINE].....	2	[SKIP TO END]
UPSET/A LITTLE ON EDGE/IT WAS HARD TO RELIVE IT/IT WAS STRESSFUL [ASK H1a]	3	
DON'T KNOW	8	[SKIP TO END]
REFUSED	9	[SKIP TO END]

H1a. Are you okay now or do you still feel upset?

FINE NOW	1	[SKIP TO END]
STILL UPSET [CONTINUE]	2	
DON'T KNOW	8	[SKIP TO END]
REFUSED	9	[SKIP TO END]

If you would like to talk to someone about how you are feeling, you can call someone at the National Alliance on Mental Illness. They have set up a special helpline for people that are upset or sad and would like to talk to someone.

H2. Would you like me to give you the phone number so you can call and speak to someone about how you are feeling now?

Yes [SKIP TO INTERVIEWER NOTE AND THEN TO INCENTIVE]	1
No [SKIP TO INCENTIVE]	2

INTERVIEWER: (1) PROVIDE NUMBER - 1 (800) 950-NAMI (6264), AND (2) COMPLETE ADVERSE EVENT REPORT

INCENTIVE: As I mentioned at the start of the interview, you will receive a [IF LANDLINE: \$20; IF CELLPHONE: \$30] check for completing the telephone interview today. In order to mail you that check, we need to verify the spelling of your name and your address.

H3. I'd like to start by confirming the spelling of your name. Our records show your name as [SPELL NAME FROM (NAME FROM SAMPLE)]. Is that correct?

YES	1	
NO	2	(RECORD OTHER NAME)
DON'T KNOW	8	(SKIP TO CLOSING)
REFUSED	9	(SKIP TO CLOSING)

[IF CSTREET IS NOT NULL]

- H4. Now I'd like to confirm your current address. Our records show your current address as [ADDRESS FROM SAMPLE]. Is that correct?
- | | | |
|------------------|---|------------------------|
| YES | 1 | |
| NO | 2 | (RECORD OTHER ADDRESS) |
| DON'T KNOW | 8 | (SKIP TO CLOSING) |
| REFUSED | 9 | (SKIP TO CLOSING) |

[IF C STREET IS NULL]

- H4a. Now I'd like to collect information about your current address. What is your current address?
- | | | |
|--------------------|---|-------------------|
| GAVE ADDRESS | 1 | (RECORD ADDRESS) |
| DON'T KNOW | 8 | (SKIP TO CLOSING) |
| REFUSED | 9 | (SKIP TO CLOSING) |

- H5. Do you use that address as your mailing address, or do you have a different mailing address?
- | | | |
|---------------------------------------|---|-------------------|
| USES RESIDENCE ADDRESS FOR MAIL | 1 | (SKIP TO CLOSING) |
| HAS DIFFERENT MAILING ADDRESS..... | 2 | (RECORD BELOW) |
| DON'T KNOW | 8 | (SKIP TO CLOSING) |
| REFUSED | 9 | (SKIP TO CLOSING) |

H5a. What is your mailing address?

- | | | |
|--------------------|---|------------------|
| GAVE ADDRESS | 1 | (RECORD ADDRESS) |
| DON'T KNOW | 8 | |
| REFUSED | 9 | |

CLOSING: Thanks again for taking the time to speak with me today. What you've told us is very important, and it will help HUD help others after disasters. You should receive your check in about six to eight weeks. If you do not receive the check, please call us at [TOLL FREE STUDY NUMBER].

[CATI; IF H2 = 1, add this text on screen: FILL OUT AN ADVERSE EVENT REPORT AND GIVE IT TO YOUR SUPERVISOR.]

Appendix C.
**Final Non-Response
Analysis**

DHAP IRT Follow-Up Survey Non-Response Analysis: Comparison of Respondents to Original Sample of 3,000

Exhibit A: Follow-Up Survey Response Rates by Phase

Category	Number	Percent
Phase 1		
Non-respondents	1,148	76.53
Respondents	352	23.47
Phases 2 and 3		
Non-respondents	1,074	71.6
Respondents	426	28.4
All phases		
Non-respondents	2,222	74.07
Respondents	778	25.93

Exhibit B: Follow-Up Survey Response Rates by PHA and Phase

	LA001	LA003	LA013	LA187	LA889	LA996	LA997	LA99	TX005	TX009	TX441	Tot.
	HA NO	HA East Baton Rouge	HA Jefferson Parish	St. Bernard Parish	Pilgrim Rest CDA	NO (Phase 2 and 3 only)	Slidell (Phase 2 and 3 only)	Jefferson Parish (Phase 2 and 3 only)	Houston HA	HA City of Dallas	Harris Cnty HA	
Phase 1 sample												
Total sample size	527	55	172	14	60	0	0	0	132	50	490	1500
Total forms received	140	19	31	4	16	0	0	0	26	15	101	352
Percent responded	26.6%	34.5%	18.0%	28.6%	26.7%	0.0%	0.0%	0.0%	19.7%	30.0%	20.6%	23.5%
Phase 2 and 3 sample												
Total sample size	307	78	87	0	355	350	86	152	64	17	4	1500
Total forms received	92	33	17	0	105	102	18	43	10	5	1	426
Percent responded	30.0%	42.3%	19.5%	0.0%	29.6%	29.1%	20.9%	28.3%	15.6%	29.4%	25.0%	28.4%
All phases												
Total sample size	834	133	259	14	415	350	86	152	196	67	494	3000
Total forms received	232	52	48	4	121	102	18	43	36	20	102	778
Percent responded	27.8%	39.1%	18.5%	28.6%	29.2%	29.1%	20.9%	28.3%	18.4%	29.9%	20.6%	25.9%

Exhibit C: Statistically Significant Differences Between Respondents and Non-Respondents (Baseline Characteristics)

Variable	Overall Comparison	Phase 1 Comparison	Phase 2 and 3 Comparison
Average age	X	X	X
Age 62 or older	X	[X]	
Female	X		X
Race: Black or African-American			
Disabled			
High school degree or GED			
College degree			
Employment			
Food stamps	X		[]
SSI	X	X	X
Administering PHA			
Months on DHAP		[]	
Receive DHAP-TCP assistance (i.e., on program March 2009 or later)	X	X	
Household size			
Highest need tier (Tier 4)	[]	[]	
Ever owned a home			X
# of bedrooms in unit		[]	[X]
Self-reported high crime neighborhood at initial assessment			
Rent to owner in DHAP			X

Note: X indicates statistically significant at the 5 percent level

[X] indicates a variable that is statistically significant now but was not before.

[] indicates a variable that was statistically significant before but is not now.

Exhibit D-1: Comparison of ALL Respondents and Non-Respondents on Baseline Characteristics

Characteristic	Respondents (N = 778)	Non-Respondents (N = 2,222)	Difference (Respondents Minus Non-Respondents)
Household head characteristics			
Average age	45.5049	41.8449	+3.66 years*
Age 62 or older	11.27%	7.42%	+3.85 percentage points (pp)*
Female	68.85%	63.64%	+5.2 pp*
Race: Black or African-American	88.44%	87.39%	+1.05pp
Disabled	6.25%	4.82%	+1.43pp
High school degree or GED	75.5%	74.76%	+0.74pp
College degree	11.82%	12.1%	-0.28pp
Sources of income (household head)			
Employment	54.98%	59.17%	-4.19pp
Food Stamps	20.92%	17.48%	+3.44pp*
SSI	12.24%	7.63%	+4.61pp*
Program characteristics and use			
Administering PHA			
Months on DHAP	14.1149	14.2352	-0.1204 months
Receive DHAP-TCP assistance (i.e., on program March 2009 or later)	88.82%	83.21%	+5.61pp*
Household characteristics			
Household size	2.3471	2.3724	-0.0254
Highest need tier (Tier 4)	32.18%	30.67%	+1.51pp
Ever owned a home	22.99%	23.05%	-0.06pp
Unit characteristics			
# of bedrooms in unit	2.0116	2.0306	-0.019
Self-reported high crime neighborhood at initial assessment	21.22%	21.59%	-0.37pp
Rent to owner in DHAP	\$883.40	\$906.40	+\$22.96

Notes: * indicates significant at the 5 percent level. T-Test used for tests of significance difference for continuous variables and chi-square test used for proportions and other categorical variables.

Exhibit D-2: Comparison of Phase 1 Respondents and Non-Respondents

Characteristic	Respondents (N = 352)	Non-Respondents (N = 1148)	Difference (Respondents Minus Non-Respondents)
Household Head Characteristics			
Average age	44.5242	39.3611	+5.1631 years*
Age 62 or older	11.11%	5.84%	+5.27pp*
Female	76.35%	73.17%	+3.18pp
Race: Black or African-American	93.86%	92.43%	+1.43pp
Disabled	2.62%	1.24%	+1.38pp
High school degree or GED	75.59%	75.37%	+0.22pp
College degree	11.57%	12.4%	-0.83pp
Sources of income (household head)			
Employment	53.55%	59.26%	-5.71pp
Food stamps	26.14%	21.19%	+4.95pp
SSI	14.49%	8.89%	+5.6pp*
Program characteristics and use			
Administering PHA			
Months on DHAP	16.0374	15.8682	+0.1691 months
Receive DHAP-TCP assistance (i.e., on program March 2009 or later)	80.97%	72.47%	+8.5pp*
Household characteristics			
Household size	2.2548	2.3282	-0.0735 members
Highest need tier (Tier 4)	33.72%	31.3%	+2.42pp
Ever owned a home	20.93%	16.96%	+3.97pp
Unit characteristics			
# of bedrooms in unit	1.9773	1.9277	+0.0496 bedrooms
Self-reported high crime neighborhood at initial assessment	23.37%	23.24%	+0.13pp
Rent to owner in DHAP	\$860.20	\$855.70	+\$4.50

Notes: * indicates significant at the 5% level. T-Test used for tests of significance difference for continuous variables and chi-square test used for proportions and other categorical variables.

Exhibit D-3: Comparison of Phase 2 and 3 Respondents and Non-Respondents

Characteristic	Respondents (N = 426)	Non-Respondents (N = 1074)	Difference (Respondents Minus Non- Respondents)
Household head characteristics			
Average age	46.3591	44.6736	+1.6854 years*
Age 62 or older	11.41%	9.23%	+2.18pp
Female	62.68%	53.45%	+9.23pp*
Race: Black or African-American	83.72%	81.45%	+2.27pp
Disabled	9.18%	8.59%	+0.59pp
High school degree or GED	75.42%	73.97%	+1.45pp
College degree	12.07%	11.73%	+0.34pp
Sources of income (household head)			
Employment	56.34%	59.05%	-2.71pp
Food stamps	16.42%	13.29%	+3.13pp
SSI	10.29%	6.2%	+4.09pp*
Program characteristics and use			
Administering PHA			
Months on DHAP	12.5444	12.4956	+0.0488 months
Receive DHAP-TCP assistance (i.e., on program March 2009 or later)	95.31%	94.69%	+0.62pp
Household characteristics			
Household size	2.4262	2.4232	+0.00298 members
Highest need Tier (Tier 4)	30.68%	29.87%	+0.81pp
Ever owned a home	25.00%	30.88%	-5.88pp*
Unit characteristics			
# of bedrooms in unit	2.0399	2.1406	-0.1007 bedrooms*
Self-reported high crime neighborhood at initial assessment	19.14%	19.5%	-0.36pp
Rent to owner in DHAP	\$902.60	\$960.50	-\$57.90*

Notes: * indicates significant at the 5 percent level. T-Test used for tests of significance difference for continuous variables and chi-square test used for proportions and other categorical variables.

Appendix D.
**Multivariate
Analysis
Estimates**

Exhibit D-1: Coefficient Estimates from Length of Stay Logistic Regression

Dependent Variable: Stayed on DHAP-Katrina longer than 12 months (1 = yes, 0 = no)

Sample: DHAP-Katrina Participants that joined program in July 2008 or earlier

Sample Size: 27,983 (excludes 2,066 observations with substantial missing data)

Data Sources: DHAP-Katrina Disaster Information System (DIS) and Tracking at a Glance (TAAG).

Parameter	Coefficient	Std. Error	P-Value
Intercept	1.193	.091	<.001
Household head characteristics (at start of DHAP-Katrina)			
Age 30 to 61	.116	.037	.002
Age 62 or older	.014	.062	.816
Employed	.433	.036	<.001
Missing employment status	.177	.128	.166
Disabled and non-elderly	-.129	.058	.027
College degree	-.004	.047	.929
High school degree or higher	.085	.038	.026
Missing education status	.110	.163	.499
Female	-.036	.033	.271
Black	.051	.045	.258
Household characteristics (at start of DHAP-Katrina)			
Food stamps	.01	.041	.811
Need Tier 2	-.056	.042	.184
Need Tier 3	.015	.057	.789
Need Tier 4	-.006	.046	.888
Missing need tier status	-.639	.099	<.001
Children in household	-.130	.043	.003
Missing children in household	-.037	.100	.714
Single-person household	-.105	.044	.017
Missing single-person household	.426	.053	<.001
Three-bedroom unit	-.016	.039	.678
Four-bedroom unit	-.089	.077	.247
Owned home before Katrina	-.163	.038	<.001
Missing homeownership	-.201	.140	.137
Phase 1 participant	-.064	.038	.085
Phase 3 participant	-.019	.089	.823
Hardship waiver	1.42	.047	<.001
Initial subsidy \$500 or less	-1.584	.056	<.001
Initial subsidy \$501 to \$700	-.694	.042	<.001
Initial subsidy \$701 to \$900	-.333	.042	<.001

Exhibit D-2: Odds Ratio Estimates from Length of Stay Logistic Regression

Variable	Odds Ratio	95% Confidence Interval	
Household head characteristics (at start of DHAP-Katrina)			
Age 30 to 61	1.122	1.044	1.207
Age 62 or older	1.015	0.898	1.146
Employed	1.542	1.436	1.655
Missing employment status	1.193	0.929	1.533
Disabled and non-elderly	0.879	0.784	0.985
College degree	0.996	0.908	1.092
High school degree or higher	1.089	1.011	1.174
Missing education status	1.117	0.811	1.537
Female	0.964	0.904	1.029
Black	1.052	0.963	1.150
Household characteristics (at start of DHAP-Katrina)			
Food stamps	1.01	0.931	1.096
Need Tier 2	0.946	0.871	1.027
Need Tier 3	1.015	0.908	1.136
Need Tier 4	0.994	0.908	1.087
Missing need tier status	0.528	0.434	0.641
Children in household	0.878	0.807	0.956
Missing children in household	0.964	0.792	1.173
Single-person household	0.900	0.826	0.982
Missing single-person household	1.531	1.379	1.700
Three-bedroom unit	0.984	0.911	1.063
Four-bedroom unit	0.914	0.786	1.064
Owned home before Katrina	0.849	0.788	0.915
Missing Homeownership	0.818	0.629	1.064
Phase 1 participant	0.938	0.871	1.009
Phase 3 participant	0.980	0.824	1.167
Hardship waiver	4.576	4.176	5.013
Initial subsidy \$500 or less	0.205	0.184	0.229
Initial subsidy \$501 to \$700	0.500	0.460	0.542
Initial subsidy \$701 to \$900	0.717	0.66	0.778

Exhibit D-3: Coefficient Estimates from Post-Program Stable Housing Regression

Dependent Variable: In Stable Housing 2 Years After Katrina Ended (1 = yes, 0 = no)

- Stable housing means that household was not homeless or doubled-up at the time of the follow-up survey and reported that they were not homeless or doubled-up in the past 12 months.

Sample: DHAP-Katrina Participants that joined program in July 2008 or earlier and responded to follow-up survey.

Sample Size: 778 (excludes 57 observations with substantial missing administrative data). Estimates weighted.

Data Sources: DHAP-Katrina Disaster Information System (DIS) and Tracking at a Glance (TAAG).

Parameter	Coefficient	Std. Error	P-Value
Intercept	-1.383	1.327	.298
Household head characteristics (at start of DHAP-Katrina)			
Age 18 to 30	-.455	.274	.098
Age 62 or older	.305	.398	.444
Employed	-.060	.260	.817
Missing employment status	0.347	1.515	.818
Disabled and non-elderly	-.531	.393	.177
College degree	.108	.343	.752
High school degree or higher	.421	.257	.101
Missing education status	-1.937	1.800	.282
Female	.503	.230	.029
Black	-.252	.334	.451
Household characteristics (at start of DHAP-Katrina) and participation patterns			
Food stamps	-.227	.265	.393
Need Tier 2	.173	.289	.550
Need Tier 3	-.064	.371	.863
Need Tier 4	.118	.310	.701
Missing need tier status	1.478	.926	.112
Children in household	-.159	.303	.600
Missing children in household	-1.438	.640	.025
Single-person household	-.133	.326	.683
Missing single-person household	-.243	.4342	.478
Two-bedroom unit	0.206	.271	.447
Three-bedroom unit	-.016	.314	.959
Four-bedroom unit	.501	.532	.346
Owned home before Katrina	-.118	.299	.690

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Exhibit D-3: Coefficient Estimates from Post-Program Stable Housing Regression (continued)

Parameter	Coefficient	Std. Error	P-Value
Missing homeownership	.236	1.280	.853
Phase 1 participant	.757	.362	.036
Phase 3 participant	.794	.429	.064
Hardship waiver	-1.136	.372	.002
Received housing assistance after DHAP-Katrina	1.195	0.244	<.001
Received case management every 2 weeks or more often	-.232	.248	.348
Months on DHAP-Katrina	0.214	.183	.243
Months on DHAP-Katrina squared	-.169	.298	.569
On DHAP-Katrina in August 2009	-.169	.298	.570

Exhibit D-4: Odds Ratio Estimates from Post-Program Stable Housing Regression

Variable	Odds Ratio	95% Confidence Interval	
Household head characteristics (at start of DHAP-Katrina)			
Age 18 to 30	0.635	0.371	1.087
Age 62 or older	1.356	0.621	2.962
Employed	0.941	0.566	1.566
Missing employment status	1.415	0.073	27.57
Disabled and non-elderly	0.588	0.272	1.271
College degree	1.115	0.569	2.183
High school degree or higher	1.524	0.922	2.521
Missing education status	0.144	.004	4.910
Female	1.654	1.053	2.598
Black	0.777	0.404	1.496
Household characteristics (at start of DHAP-Katrina) and participation patterns			
Food stamps	0.797	0.474	1.341
Need Tier 2	1.189	0.674	2.097
Need Tier 3	0.938	0.453	1.942
Need Tier 4	1.126	0.613	2.069
Missing need tier status	4.385	0.709	27.113
Children in household	0.853	0.471	1.545
Missing children in household	0.237	0.068	0.831
Single-person household	0.875	0.462	1.658
Missing single-person household	0.785	0.401	1.534
Two-bedroom unit	1.228	0.723	2.088
Three-bedroom unit	0.984	0.532	1.820
Four-bedroom unit	1.650	0.582	4.680
Owned home before Katrina	0.889	0.497	1.589
Missing homeownership	1.267	0.103	15.562
Phase 1 participant	2.131	1.049	4.327
Phase 3 participant	2.213	0.954	5.133
Hardship waiver	0.321	0.155	0.666
Received housing assistance after DHAP-Katrina	3.303	2.047	5.328
Received case management every 2 weeks or more often	0.792	0.487	1.288
Months on DHAP-Katrina	1.238	0.865	1.772
Months on DHAP-Katrina squared	0.994	0.981	1.097
On DHAP-Katrina in August 2009	0.844	0.471	1.514

