

Policy Briefs

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HOPE and Choice for HUD-Assisted Households

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Abstract

From 1993 to 2011, the U.S. Department of Housing and Urban Development's (HUD's) HOPE VI Program provided 260 grants totaling \$6 billion for the demolition and redevelopment of severely distressed public housing. In 2010, HUD created the Choice Neighborhoods program as the successor to HOPE VI and has since awarded \$633 million in implementation grants. Considerable debate has taken place among researchers, policymakers, and advocates about whether HOPE VI, Choice Neighborhoods, and similar redevelopment programs provide benefits for the residents who were living in properties before redevelopment. This article explores existing research on HOPE VI and presents early evidence on the experiences of residents in Choice Neighborhoods redevelopment sites, with particular emphasis on household incomes and attrition rates (that is, the rate at which households cease to receive housing assistance). Six years after the initial awarding of Choice Neighborhoods grants, household incomes have increased and attrition rates have been lower than one would expect based on the experiences of similar programs.

Introduction

Since the establishment of HUD in 1965, the agency has struggled to address the deterioration of assisted housing, particularly public housing, and urban neighborhoods. Often, those two challenges have gone hand in hand. Public housing was racially segregated, targeted to households with very low incomes, and typically built in older, inner-city neighborhoods that previously contained substandard housing (Khadduri, 2015; Schill, 1993). Over time, these neighborhoods declined further, and public housing properties deteriorated with age. Many factors contributed to this decline, including concentration of poverty, migration of jobs and middle-income households to the suburbs, poor design of public housing properties, inadequate funding of public housing, public housing occupancy and rent rules, public housing management practices, and more (Schill, 1993).

By the late 1980s, many public housing properties had accrued substantial capital needs. In 1992, the National Commission on Severely Distressed Public Housing issued a report estimating that 86,000 public housing units—6 percent of the total public housing stock at the time—were severely distressed and in need of major rehabilitation or replacement (National Commission on Severely Distressed Public Housing, 1992). Congress responded in 1992 with the creation of the HOPE VI Program. The central goal of HOPE VI was to transform severely distressed public housing through rehabilitation, demolition, and reconstruction. Secondary goals of HOPE VI included the deconcentration of poverty and provision of supportive services for public housing residents. Projects funded by HOPE VI varied widely across sites and over time. Some sites used HOPE VI funding to demolish public housing and rebuild in the same location with the same number of units, improving the physical condition of the public housing without substantially redesigning the site or the community. Other sites used HOPE VI to demolish public housing and replace the demolished units with housing choice vouchers, focusing on deconcentrating poverty through vouchers. Still other sites used HOPE VI to completely transform a development and neighborhood, attempting to reduce the concentration of poverty by demolishing public housing and rebuilding a mix of housing—including public housing, other assisted housing, and market rate housing. The program evolved substantially over time. It was a “laboratory to test new and often contentious ideas about public housing finance, management, and design” (Popkin et al., 2004: 3).

From 1993 to 2011, HUD provided 260 HOPE VI grants totaling \$6 billion (Gress, Cho, and Joseph, 2016). In total, 98,592 public housing units were demolished—more than the 86,000 severely distressed units that were estimated to exist in 1992—and 97,389 new units were built, including 55,318 public housing units and 28,979 affordable units (Gress, Cho, and Joseph, 2016). However, the remaining public housing stock continues to include many severely distressed developments in low-opportunity neighborhoods. Finkel et al. (2010) estimated that the backlog of capital needs among the nearly 1.2 million public housing units was approximately \$26 billion, with each subsequent year accruing an additional \$3.4 billion in capital needs. In 2015, 4,792 out of 26,711 public housing developments (18 percent) were in census tracts with poverty rates of 40 percent or higher.¹

¹ Author’s analysis of HUD’s 2015 *Picture of Subsidized Households*. This analysis excludes 4,101 public housing developments for which the census tract poverty rate was unavailable.

HUD created the Choice Neighborhoods program (hereafter, Choice) in 2010 as the successor to the HOPE VI Program, with the objective of continuing to support large-scale redevelopment of severely distressed assisted housing. Choice embraces many of the programmatic elements of the HOPE VI Program, such as an emphasis on mixed finance redevelopment, the inclusion of a variety of housing types (including market rate units and subsidized units targeted to different income groups), one for one replacement of hard units of subsidized housing, right to return for original residents, and a greater emphasis on supportive services for residents (Buron et al., 2002; HUD, 2015, 2013). Whereas HOPE VI could be used only for public housing redevelopment, Choice can target other HUD-assisted housing, primarily project-based Section 8 properties supported by HUD's Office of Multifamily Housing Programs. A wider variety of local entities can apply for Choice funds, including public housing agencies, local governments, nonprofit organizations, and even for-profit entities—if they partner with another eligible entity, such as the public housing agency. Choice also places greater emphasis on comprehensive neighborhood transformation and explicitly aims to benefit existing residents in the neighborhoods and assisted housing properties being redeveloped (HUD, 2015, 2013).

Considerable debate has occurred among researchers, policymakers, and advocates about whether HOPE VI, Choice, and similar redevelopment programs provide benefits for residents living in properties before redevelopment. This article explores this issue on several fronts. First, it reviews existing literature on resident experiences in HOPE VI. Second, it examines attrition—that is, the rate at which households cease to participate—in HUD's core programs, using administrative data. Finally, the article presents new evidence on the experiences of Choice residents during the first 6 years of the program.

Literature Review—HOPE VI Resident Experiences

One of the most common criticisms of HOPE VI was that the program did not do enough to ensure that original residents of targeted properties benefited from its redevelopment. HOPE VI grants focused on properties meeting the definition of severely distressed, and demolition or full replacement was usually necessary. This level of construction activity required that residents of HOPE VI properties relocate, at least *temporarily*, during demolition and reconstruction. Furthermore, many grantees relocated residents on a *permanent* basis, either by moving them to another public housing property or giving them housing choice vouchers (also known as Section 8 vouchers) to use in the private rental market (Polikoff, 2009). HOPE VI properties were in neighborhoods with concentrated poverty, often having poverty rates in excess of 60 percent (Kingsley, Johnson, and Pettit, 2003). Reducing the concentration of poverty was one key objective of the HOPE VI program. Policymakers and staff implementing HOPE VI grants believed that the program was in the best interest of residents—whether residents returned to completed (and hopefully, vastly improved) HOPE VI properties or simply relocated to better neighborhoods (Cisneros, 2009; Katz, 2009). Some residents, however, felt as if they were being pushed aside and that redevelopment was meant to make their neighborhood more appealing to new, higher-income residents (Keating, 2000; Popkin et al., 2004; Wexler, 2001; Zielenbach, 2002).

The evidence shows that, for the most part, HOPE VI helped improve the quality of the housing and neighborhoods in which original residents lived. Buron et al. (2002) surveyed residents of

eight HOPE VI properties that were either complete or in the process of completion, meaning that original residents had relocated and were either living in temporary units, had returned to completed developments, or had settled in new locations (using vouchers in the private rental market or living in different public housing properties). Buron et al. found that, in this short period of time, the average neighborhood poverty rate experienced by HOPE VI affected households declined from 43 to 29 percent. They also examined the housing conditions experienced by relocated HOPE VI residents and found that 56 percent were living in units in better condition than before HOPE VI activity, and another 29 percent rated their new homes as about the same as their prior homes. Comey (2007) found that in 2005, 85 percent of households living in new HOPE VI units rated their housing as being in excellent or good condition. Kingsley, Johnson, and Pettit (2003) focused on households who moved out of HOPE VI properties using housing choice vouchers and found that these households experienced declines in average neighborhood poverty rate from 61 to 27 percent. Households that moved to other public housing, rather than taking vouchers, did not experience the same magnitude of decline in poverty rates or improvement in housing conditions, but these households did move to homes and neighborhoods that were better than those in which they lived before HOPE VI, primarily because their pre-HOPE VI environments were “intolerable” (Popkin, Levy, and Buron, 2009: 485). Households affected by HOPE VI—whether or not they returned to completed developments—also experienced dramatic improvements related to public safety. For example, the percentage of residents reporting big problems with drug sales in the neighborhood dropped from 78 percent at baseline to 33 percent 4 years later (Popkin, Levy, and Buron, 2009).

Although HOPE VI activity correlates with many positive changes in the living environments of affected households, the program has drawn criticism for its effect on baseline residents. In particular, the number of residents able to move back into completed HOPE VI units has continued to fall short of expectations. When asked at baseline, 70 percent of HOPE VI residents replied that they would like to return to their properties after rehabilitation (Buron et al., 2002). The HOPE VI grantees typically expected about one-half of baseline residents to return, but expected return rates declined over time as grantees worked through the redevelopment process (GAO, 2003). Actual return rates are even lower. GAO (2003) concluded that, for 39 sites where reoccupancy was completed at the time of analysis, 17 had return rates below 25 percent and only 16 had return rates of 50 percent or higher. In their analysis of data that HOPE VI grantees report to HUD, Gress, Cho, and Joseph (2016) found a mean return rate of 27 percent for the 237 HOPE VI developments reporting data on reoccupancy. In some sites, HOPE VI grantees lost track of relocated residents or imposed screening criteria that made it difficult for baseline residents to return (GAO, 2003; Popkin et al., 2004).

Of course, low rates of return do not tell the whole story. Some households may have decided after relocation that they preferred their new homes and neighborhoods, and thus chose not to return. Evidence previously cited—showing that HOPE VI relocatees (particularly those with vouchers) experienced substantial improvements in neighborhood poverty—suggests that this situation is likely to have occurred for some residents (Cunningham, 2004). Also, many reasons unrelated to HOPE VI could explain why baseline residents might not return. Households exit HUD assistance regularly for reasons that can be positive, such as income gains that make them no longer eligible

or choosing to purchase a home, or negative, such as death, eviction, or incarceration. Popkin, Levy, and Buron (2009) reported that, as of 2005, 10 percent of HOPE VI Panel Study respondents were renting in the private market with no assistance, 4 percent had become homeowners, and 1 percent were either homeless or in prison. The pace of research on HOPE VI slowed after 2005, along with the program's appropriations. Several projects surveyed HOPE VI residents in the late 1990s and early 2000s, but no followup surveys have been conducted since 2005. As a result, many unanswered questions exist about how HOPE VI affected original residents.

Household Attrition in HUD's Core Programs

What proportion of baseline residents should we expect, or hope, to return to a property after redevelopment through programs such as HOPE VI or Choice? As discussed previously, HOPE VI properties have typically experienced return rates below 50 percent. Is this unacceptably low, indicative of mistakes made by HUD and HOPE VI grantees in program administration? Alternatively, is there effectively an upper bound limiting return rates due to factors beyond the control of HUD and HUD grantees?

To return to redeveloped properties, residents must continue to receive HUD assistance during the course of redevelopment, which usually takes several years. Thus, to understand the rate of return, we must first understand how likely HUD-assisted households are to continue receiving HUD assistance for 4 or more years. Several researchers have examined how long HUD-assisted households live in subsidized housing, using a concept known as "length of stay."

Many length-of-stay analyses, based on limited data, involved identifying groups of active HUD-assisted households and computing the difference between the current date (that is, the date of the data extract) and the date on which each household was admitted to the program through which they receive assistance. Lubell, Shroder, and Steffen (2003) found that the median length of stay for public housing residents was 4.69 years. Thompson (2007) built on Lubell, Shroder, and Steffen's analysis in several ways, including using a broader cross section of data to include households that had exited assistance programs, and found slightly shorter lengths of stay—a median of 3.97 years for public housing. Both studies found that mean length of stay tends to be much longer than median length of stay, reflecting a skewed distribution with a large number of households having short stays. These studies and others also examined how length of stay varies with different household characteristics, such as age of the householder, family composition, disability status, and income. Most studies found that length of stay was longer for households that included elderly people or people with disabilities, households that lived in public housing (rather than received housing choice vouchers), and for households with lower incomes (Ambrose, 2005; Olsen, Davis, and Carrillo, 2005). Recent work from McClure (2017) indicates that length of stay has increased in recent years and that earlier findings that public housing households had longer lengths of stay than voucher households may no longer hold true.

The length-of-stay literature is highly relevant to this effort to understand return rates in redevelopment programs. However, length-of-stay research may not provide the best benchmark for assessing return rates in redevelopment programs for one important reason—length-of-stay analyses are point-in-time estimates that use *retrospective* data for the population *currently receiving assistance*,

with *currently* meaning at the time of data extraction for analysis.² In this article, I use a cohort approach and examine attrition over time. I identify a baseline population at a particular point in time, several years in the past, and follow them longitudinally as they proceed toward the present. This analysis relies on HUD administrative data collected via the HUD-50058 and HUD-50059 forms and stored in the Public and Indian Housing Information Center (PIC) and Tenant Rental Assistance Certification System (TRACS) databases.

I choose December 1, 2010 as the reference date, at which time I estimate that 4,675,777 households were receiving assistance through HUD's rental housing assistance programs.³ Exhibit 1 shows how this total breaks down by program.

I estimate that 4,106,835, or 88 percent, of the 4,675,777 households in the 2010 cohort were still receiving assistance on December 1, 2011. In each subsequent year, more households dropped out, and after 5 years nearly 40 percent of the December 2010 cohort had left HUD assistance. The largest year-over-year attrition rate was in the first year from December 1, 2010, to December 1, 2011. Exhibits 2 and 3 show the attrition of this cohort over time.

Exhibit 1

Active Households on December 1, 2010, by Program Type

Program Type	Number of Households	Percent
Mod Rehab	34,607	0.74
Rent Supp/RAP	20,843	0.45
Section 202/811	145,727	3.12
Section 236/BMIR	41,135	0.88
Housing choice voucher	2,132,277	45.60
Public housing	1,051,312	22.48
Project-based Section 8	1,249,876	26.73
Total	4,675,777	100.00

BMIR = below market interest rate. Mod Rehab = moderate rehabilitation. RAP = rental assistance payment. Rent Supp = rent supplement.

Exhibit 2

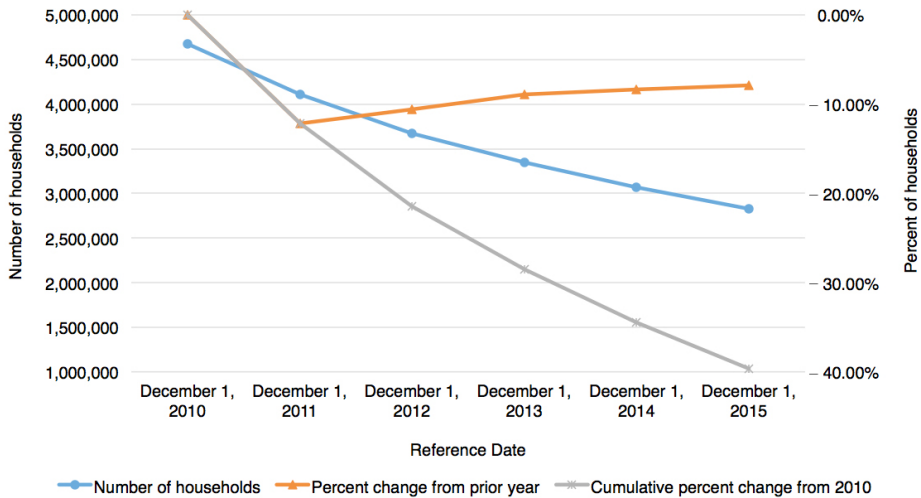
Households From December 1, 2010 Cohort Still Active in Subsequent Years

Date	Number of Households From 2010 Cohort	Percent Change From Prior Year	Cumulative Percent Change From 2010
December 1, 2010	4,675,777	NA	NA
December 1, 2011	4,106,835	- 12.17	- 12.17
December 1, 2012	3,671,702	- 10.60	- 21.47
December 1, 2013	3,344,242	- 8.92	- 28.48
December 1, 2014	3,063,867	- 8.38	- 34.47
December 1, 2015	2,822,287	- 7.88	- 39.64

NA = not applicable.

² In the case of McClure (2017), which used survival analysis, the data were limited to households that had left assistance.

³ HUD's rental housing assistance programs include public housing, housing choice vouchers (tenant-based and project-based), Project-Based Rental Assistance contracts administered through HUD's Office of Multifamily Housing Programs, and a few other small legacy programs such as Moderate Rehabilitation and Rent Supplement. This analysis does not include households assisted by HUD funds distributed to local governments, such as through the HOME Investment Partnerships and Community Development Block Grant programs.

Exhibit 3**Count and Percent Change of December 1, 2010 Cohort in Subsequent Years**

The preceding analysis includes households participating in all HUD's major rental assistance programs, but a nearly identical pattern is evident for the 1,051,312 households that were in public housing on December 1, 2010. After 5 years, 40.4 percent of these baseline public housing households were no longer assisted.

Compared with the length-of-stay literature previously discussed, these findings seem to reflect a lower level of attrition. Results from Lubell, Shroder, and Steffen (2003) and Thompson (2007) suggest that one-half of HUD-assisted households will leave HUD assistance after 4 or 5 years. I find that only 40 percent had left after 5 years. Several possible explanations exist for this difference. My analysis focuses on a different time period, and it is possible that changing economic conditions in the wake of the Great Recession made HUD-assisted households less likely to leave assistance. Recent evidence from McClure (2017) supports this hypothesis, showing that length of stay has increased in recent years. Another likely explanation is that length-of-stay analyses are right censored. Most households being analyzed have not yet exited assistance, so their length of stay would be underestimated. The cohort-based approach I use is not affected by right-censored data, because I do not attempt to determine the entire duration of assistance.

This analysis requires an important caveat. Residents of HOPE VI and Choice developments may be systematically different from the general population of HUD-assisted households. Popkin et al. (2002) found that 53 percent of the HOPE VI residents in their sample had lived in public housing for 10 or more years, and 72 percent had lived in public housing for 5 or more years. The same study also found that HOPE VI residents struggled with serious health problems. It is likely that the residents of HOPE VI and Choice developments are less willing or less able to move, than the general HUD-assisted population. HOPE VI and Choice developments are, by definition, among the most distressed properties in the HUD portfolio. It is reasonable to assume that people who

had the means and inclination to move elsewhere would have done so long before redevelopment. Those who remain by the time redevelopment begins are probably more likely to be long-time residents who will continue to receive assistance throughout the redevelopment period.

In the following sections, I examine attrition among Choice grantees and use two benchmark trend lines for comparison. Benchmark 1 relies on the attrition rate presented in exhibit 2, based on the entire population of HUD-assisted households. The attrition rate slows over time, as short-term residents cycle out and the remaining population consists of people who require sustained support. Benchmark 2 is adjusted to reflect the likelihood that residents in Choice developments are systematically different from the HUD-assisted population at large. For benchmark 2, I assume attrition of 8 percent in year 1; this rate is roughly equal to the attrition rate after 3 years for the larger HUD-assisted population, based on an assumption that Choice developments are likely to have fewer short-term residents. For benchmark 2, I assume an additional 6-percent attrition in year 2 and an additional 4-percent attrition in each subsequent year. This projection is purely hypothetical for the purpose of comparison and should not be used to evaluate success or failure in a particular site.

Choice Neighborhoods—Program Overview and Data Sources

In August 2011, HUD awarded the first Choice Neighborhoods implementation grants to support revitalization efforts in Boston, Massachusetts; Chicago, Illinois; New Orleans, Louisiana; San Francisco, California; and Seattle, Washington. As of April 2017, HUD had awarded Choice implementation grants worth \$633,020,927 to 22 communities. As with HOPE VI, these revitalization efforts exhibit considerable variation. Many involve demolition of obsolete buildings and new construction, and some include rehabilitation of old buildings. Each grantee identifies a target development, a public or assisted housing site to rebuild or rehabilitate, which can range in size from roughly 100 to 500 or more units. Each grantee also identifies the boundaries of the surrounding neighborhood, which they will seek to revitalize. Some grantees use Choice as part of an ambitious plan to remake an entire neighborhood. For example, in the downtown-adjacent Yesler neighborhood of Seattle, the production of as many as 8,000 units—including subsidized units, market-rate rentals, and for-sale units—is expected during the course of a decade or more. Other grantees have more modest production goals. For example, Boston's Quincy Corridor redevelopment focuses primarily on rehabilitation and preservation of affordable housing and will not result in an increase from the 129 units at baseline (HUD, 2015, 2013).

For this article, the most important forms of variation across sites relate to redevelopment time frames and relocation strategies. In San Francisco's Eastern Bayview neighborhood, the Alice Griffith public housing development is being replaced in a phased approach whereby new units are produced before old units are demolished. This phased approach should allow for residents to remain in place until new units are available and to move only once. Other sites use an approach common under HOPE VI in which residents leave their original units and temporarily live off site as new units are built. Many factors drive construction schedules, including availability of financing, scope of the redevelopment, local market conditions, and grantee capacity. Boston's Quincy

Corridor and San Francisco's Eastern Bayview neighborhoods received Choice grants at the same time, but Boston completed its construction when San Francisco had barely begun. Of course, grantees that received Choice funding in 2011, such as Boston and San Francisco, faced much different circumstances than grantees that received Choice funding in 2015, such as Atlanta and Kansas City. As a result, it is important to examine each Choice grant independently, or at the very least, to group by cohort. This article focuses primarily on the first cohort of Choice implementation grantees, which received funding in 2011 and have had more than 5 years to make progress on redevelopment.

It is notoriously difficult to conduct a true evaluation of programs like Choice that do not consist of a single consistent intervention and do not lend themselves to the development of a counterfactual scenario. However, it is possible, even necessary, to use data to monitor progress and measure performance on an ongoing basis. In recognition of this need, HUD established an extensive performance measurement system to track progress for all Choice grantees as they proceed through implementation. This performance measurement system (known as Choice Neighborhoods Inform, or CN Inform) includes metrics related to Choice's core focus areas: housing, people, and neighborhood. Grantees report some of these metrics, and HUD collects many others from existing data sources such as HUD's PIC and TRACS databases. These data allow for HUD and Choice grantees to report on program-relevant outcomes and to revise their strategies in response to evolving needs. In the remainder of this article, I present some preliminary findings from the PIC and TRACS data that feed into CN Inform.

Most data presented here focus on the households living in assisted housing developments at the core of each Choice development. I refer to these properties as target developments. Households that lived in target developments when grantees submitted the first round of Choice applications to HUD (December 9, 2010) are *baseline households*. A household that continues to receive HUD assistance at a later date is an *active* baseline household. Active baseline households are not necessarily still living in the Choice target development. They may have relocated temporarily while construction is under way, or they may have relocated permanently to other assisted housing or with a housing choice voucher. As long as a household still receives HUD rental assistance, it is considered active.

In many Choice sites, households continued to *move in* to the target development after the Choice application was submitted to HUD. These "new" households are not officially considered baseline residents, although many Choice sites do provide them with similar rights and opportunities. None of the information presented here includes households that moved in after the Choice application was submitted to HUD.

Attrition of Choice Neighborhoods Target Development Residents

The five Choice Neighborhoods sites that I examine vary considerably in size. The smallest, Boston, had only 130 households at baseline, and the largest, Seattle, had 504 households. Exhibit 4 presents quarterly estimates, for each site, of the number of baseline target development

households that continue to receive HUD assistance. In all sites, I see some level of attrition over time. Causes for this attrition could include death, incarceration, eviction, or assisted households choosing to move into the private market.

Exhibit 5 better illustrates the level of attrition by controlling for the baseline number of households in each site. This plot shows the cumulative level of attrition in each site as a percentage of the baseline household count, on a quarterly basis. The number of active baseline households should not exceed the baseline level. Overall, the trend line should be flat or downward sloping. However, in any one quarter, these numbers may go up. For example, in San Francisco, a sharp

Exhibit 4

Count of Active Baseline Households for Each Choice Neighborhoods Target Development

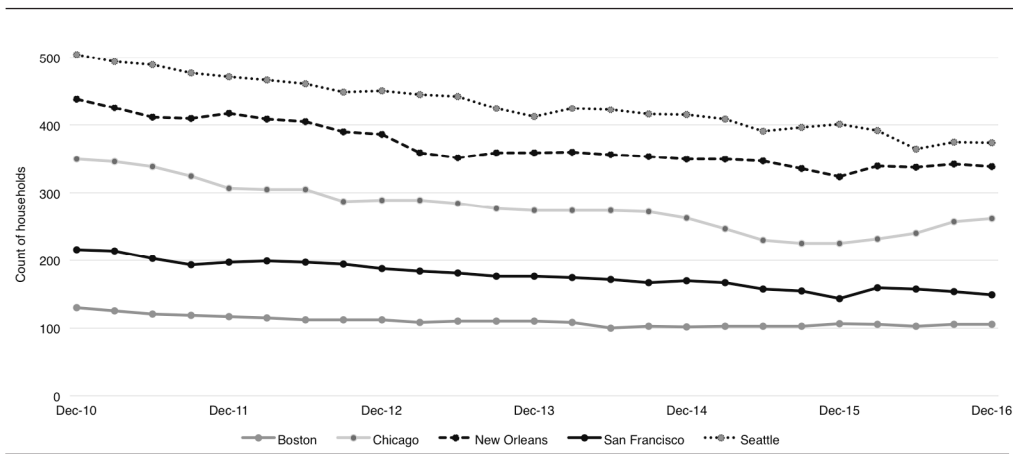
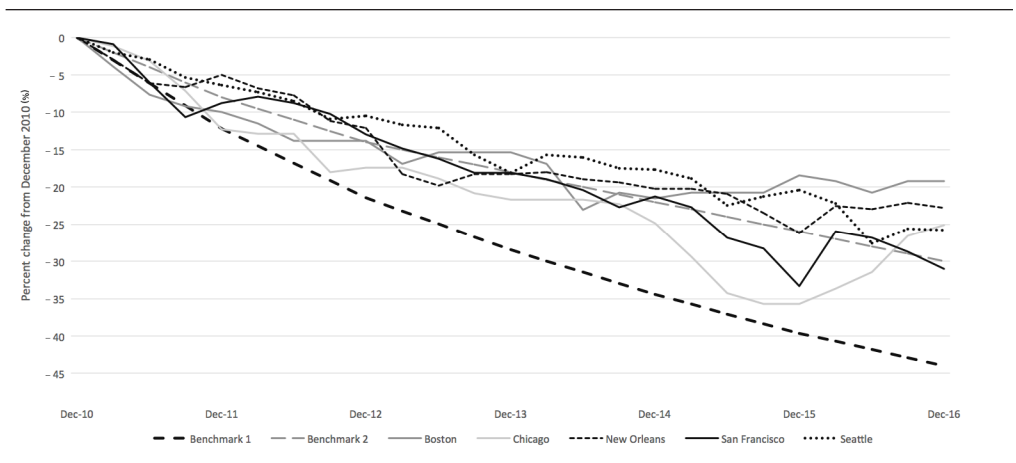


Exhibit 5

Percent Change in Baseline Households Continuing To Receive Assistance



drop is evident in the quarter ending December 2015, followed by a sharp increase in the quarter ending March 2016. In Chicago, the number of active baseline households dropped from 272 in September 2014 to 225 in September 2015, only to recover to 262 by December 2016. It is important not to read too much into these quarterly fluctuations. Some households may temporarily leave HUD assistance then return in subsequent quarters. Quarter-to-quarter fluctuations may also reflect delayed or inconsistent reporting by grantees.

In addition to showing the actual level of attrition in each site, exhibit 3 includes the two benchmark trend lines discussed previously. Benchmark 1 is based on actual attrition among the full HUD-assisted population, and benchmark 2 is an estimate of attrition for severely distressed developments.

The rate of attrition among these five sites varies during the period of analysis. In Boston, 19.2 percent of the 130 baseline households were no longer receiving HUD assistance of any form in December 2016, 6 years after the launch of Choice. Compared with evidence from HOPE VI, and the preceding analysis of attrition in the general HUD-assisted population, this level of attrition is low. During a period of 6 years, in the midst of major redevelopment efforts, at least 70 percent of baseline households still receive HUD assistance in four of the five sites. Even the sites with the highest level of attrition—Chicago at 25.1 percent, Seattle at 25.8 percent, and San Francisco at 31.0 percent—compare favorably with both benchmark trend lines.

It appears that attrition rates start out high and slow as Choice redevelopment progresses. HUD awarded the Choice grants in August and September 2011. By that point, each site had seen at least 5 percent of its baseline households leave HUD assistance. Among the first five sites, Boston made the most rapid progress on construction, with all construction complete as of December 2016. Boston also appears to have the most stable trend. After dropping 10 percent in year 1 and another 4 percent in year 2, Boston's cumulative attrition rate stabilized around 15 percent through year 3. After another sharp drop in year 4, the cumulative attrition rate stabilized once again around 20 percent, where it remained through the end of 2016. Chicago, which experienced significant attrition through December 2015, is another site that has made considerable progress on construction. During that time, the demolition of the target development (Grove Parc), construction of new buildings, and relocation of households were in progress. After December 2015, many households that had appeared to leave assistance were once again recorded in HUD's data systems. This trend suggests that, as Choice units are completed and the initial disruption of redevelopment fades, affected households settle into a relatively stable long-term home.

Relocation and Return

The preceding section discusses the extent to which baseline households continue to receive HUD assistance over time. The fact that they continue to receive assistance does not mean that they returned or will return to a completed Choice development. Where do these households live? What form of HUD assistance do they receive? Have they returned to completed Choice developments? In this section, I explore these questions on a site-by-site basis, which is necessary because of the vastly different redevelopment schedules across sites.

In Boston, the development at the center of the Choice neighborhood was home to 130 households at the time of application. In December 2016, redevelopment was completed, and 105 of the baseline households were still receiving HUD assistance. Fifty-eight baseline households lived at Quincy Heights, the completed Choice development, which equates to a rate of return of 44.6 percent. Of the other 47 households still receiving assistance, the majority, 42, were participating in the Housing Choice Voucher program, and the remainder lived in public housing or other Project-Based Rental Assistance (PBRA) properties. It is important to note that Quincy Heights, in December 2016, was home to 130 households. In addition to the 58 baseline households that returned, 72 other low-income households moved into the renovated units.

We also examine *where* the active baseline households lived in December 2016. This analysis is limited to those households for whom HUD had a valid geocoded address in both December 2010 and December 2016 (n=1,221). This distance analysis is presented for all sites in exhibit 6. In Boston, in 2016, I find that 31 percent of these households lived within 200 feet of their original locations. This finding is consistent with the 44.6-percent return rate, because the Quincy Heights development comprises multiple buildings spread across several adjacent blocks. A substantial proportion of Boston residents appear to have returned not only to the same development but also to the same building.

In 2016, 72 percent of Boston’s active baseline households lived within 1 mile of their original location. In addition to those who returned to completed Choice developments, some households relocated to other nearby HUD-assisted housing. The remaining households (28 percent) were HUD assisted but living more than 1 mile from their original homes. Two households relocated more than 10 miles away.

Exhibit 7 illustrates the locations of baseline residents from the Boston Choice development in 2010 and in 2016. The hexagonal symbols on the map are sized to represent the number of active baseline households living within a 0.5-mile radius. The light gray symbol represents the base year—that is, the baseline location (the location of the target development), and number of households in December 2010. Darker gray symbols represent the end year—that is, locations and household counts as of December 2016. In exhibit 7 and subsequent maps for other sites, outliers (households that relocated farther away) are omitted for the purpose of map legibility. On the Boston map, 22 hexagons are present. The two overlapping hexagons at the center indicate the location of the target development. Their sizing indicates that the 2016 household count, at that location, was roughly one-half of the 2010 household count. The other 20 hexagons are identically sized,

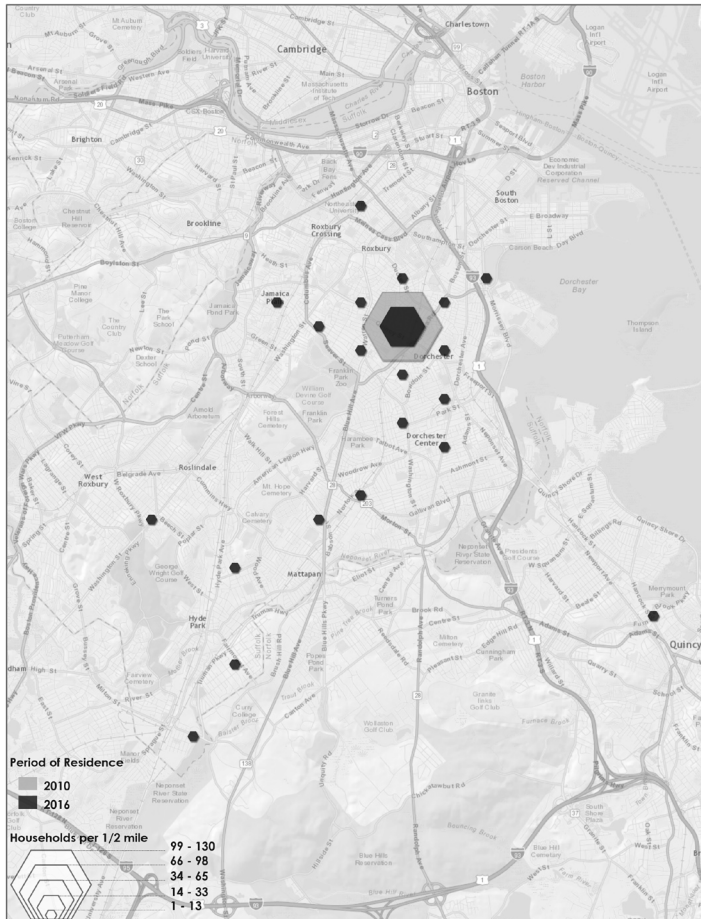
Exhibit 6

Distance Between 2010 and 2016 Locations for 1,221 Active Choice Neighborhoods Baseline Households

Distance	Boston	Chicago	New Orleans	San Francisco	Seattle	Total
Less than 200 feet (%)	31.43	20.69	1.51	63.76	19.25	21.21
200 to 500 feet (%)	6.67	9.58	5.12	15.44	14.97	10.48
500 feet to 1 mile (%)	34.29	32.95	25.30	7.38	33.16	27.93
1 to 10 miles (%)	25.71	31.42	63.55	11.41	26.20	35.63
More than 10 miles (%)	1.90	5.36	4.52	2.01	6.42	4.75

Exhibit 7

Map of Boston Choice Neighborhoods Households in 2010 and 2016

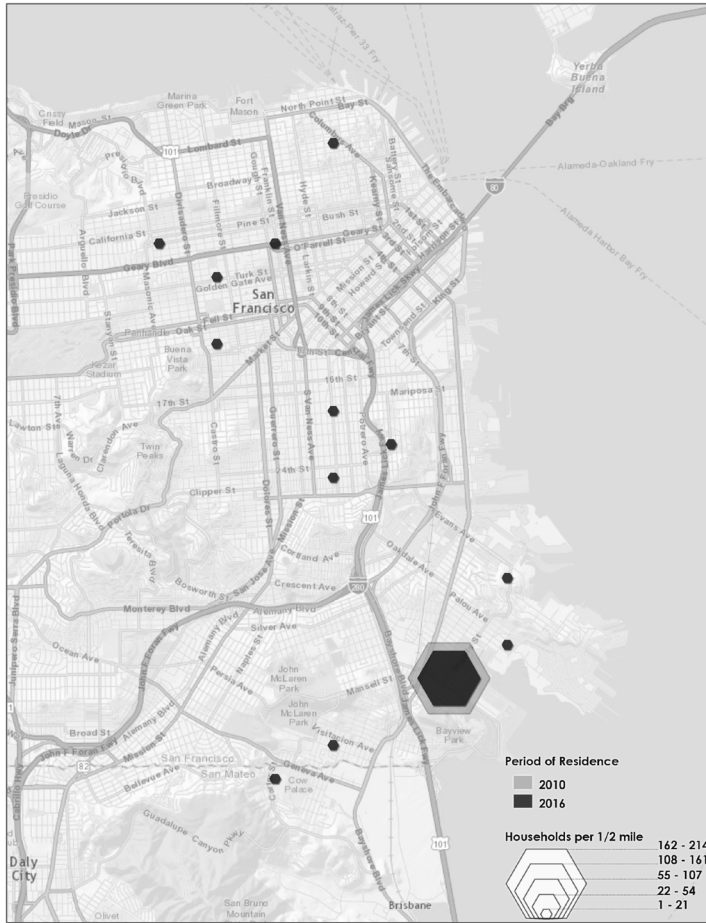


indicating 1 to 13 households in each location. I selected class breaks to provide as much visual variation as possible, masking locations with only one or two households for privacy reasons.

Boston presents a fairly simple case because of the fact that housing redevelopment is complete. San Francisco is equally simple but for the opposite reason—as of December 2016, no Choice replacement units had been completed, and no old units had been demolished. The San Francisco Choice development, the Alice Griffith public housing community, was home to 216 households at baseline. In December 2016, 149 baseline households were still HUD-assisted. Nearly all, 121 out of 149, were still living at Alice Griffith, within 500 feet of their original units. Another 17 households had relocated with a housing choice voucher, and 2 had relocated to a PBRA property. These relocations seem to be unrelated, or at most tangentially related, to the Choice redevelopment process. Exhibit 8 shows the location of Alice Griffith households at baseline and followup.

Exhibit 8

Map of San Francisco Choice Neighborhoods Households in 2010 and 2016



The other three sites—Chicago, New Orleans, and Seattle—present more complicated situations. In all three sites, some old units had been demolished and some new units had been built. It is difficult to know whether households (1) are in temporary relocation status, (2) have not yet moved at all, or (3) have completed relocation and settled into permanent units.

In Chicago, the Grove Parc apartments were a HUD-assisted PBRA property, occupied by 350 households at baseline. As of December 2016, 88 of these households were no longer assisted, and the remaining 262 had dispersed across geography and HUD programs. Of those 262 households, 30 percent lived within 500 feet of their original location, 33 percent lived 500 feet to 1 mile from their original location, and the remaining 37 percent moved more than 1 mile. There are 99 active baseline households living at three new developments referred to collectively as Woodlawn Center. I assume that these 99 households have completed the relocation process, which equates to an interim return rate of 28 percent. There are 38 households living at a development called Grove Parc Apartments,

although it is not clear whether this building has completed the redevelopment process. There are 114 households renting on the private market with housing choice vouchers, and the remaining 11 active baseline households live in public housing or some other HUD-assisted development. Because the Grove Parc redevelopment is not yet complete, it is safe to assume that the return rate will increase from its current level of 28 percent. The new Woodlawn Center development is also home to an additional 72 low-income households that were not baseline residents, bringing the total units at Woodlawn Center to 171. Exhibit 9 shows the location of Grove Parc households at baseline and followup.

In New Orleans, the Iberville public housing development was home to 439 households at baseline. In December 2016, 339 of these households were still HUD-assisted, primarily through the Housing Choice Voucher program—248 households, or 73 percent, of the 339 still assisted. This high proportion of HCV households reflects the fact that the site of the former Iberville development, being renamed Bienville Basin, is currently undergoing major construction, and households

Exhibit 9

Map of Chicago Choice Neighborhoods Households in 2010 and 2016



have relocated using vouchers. In December 2016, 103 units were occupied in Bienville Basin, 51 of which were occupied by baseline Choice households that had returned to the completed property (an interim return rate of 12 percent). Most (64 percent) active baseline households lived 1 to 10 miles from their original location, consistent with the widespread use of vouchers for temporary relocation. Exhibit 10 shows the location of Iberville households at baseline and followup.

In Seattle, the Yesler Terrace public housing development and surrounding Yesler neighborhood are part of a major redevelopment that will add thousands of new housing units. This redevelopment is moving forward in phases, and as of February 2016, 148 replacement units had been completed (Seattle Housing Authority, 2016). These replacement units are subsidized through project-based housing choice vouchers. This program type makes them indistinguishable from other housing choice vouchers, and I cannot determine which households are settled in replacement units in December 2016. Overall, 374 of the 504 baseline households continued to receive HUD assistance. The Housing Choice Voucher program supported 170 households, presumably including some living in Choice replacement units. As of December 2016, 202 households lived in public housing, including 137 still living at Yesler Terrace in unrenovated units. Another 36 households lived in public housing properties that were redeveloped with HOPE VI funds not long ago. Distance analysis reveals that, in 2016, 34 percent of active baseline residents lived within 500 feet of their original location and another 33 percent lived 500 feet to 1 mile away. The remainder, slightly less than one-third of those still assisted, lived more than 1 mile from their original location. Exhibit 11 shows the location of Yesler households at baseline and followup.

Exhibit 10

Map of New Orleans Choice Neighborhoods Households in 2010 and 2016

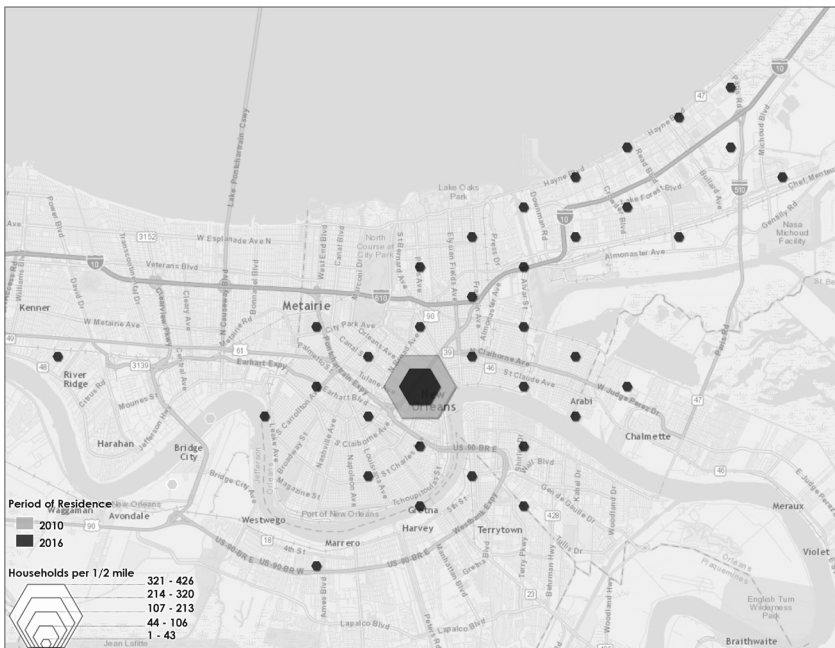
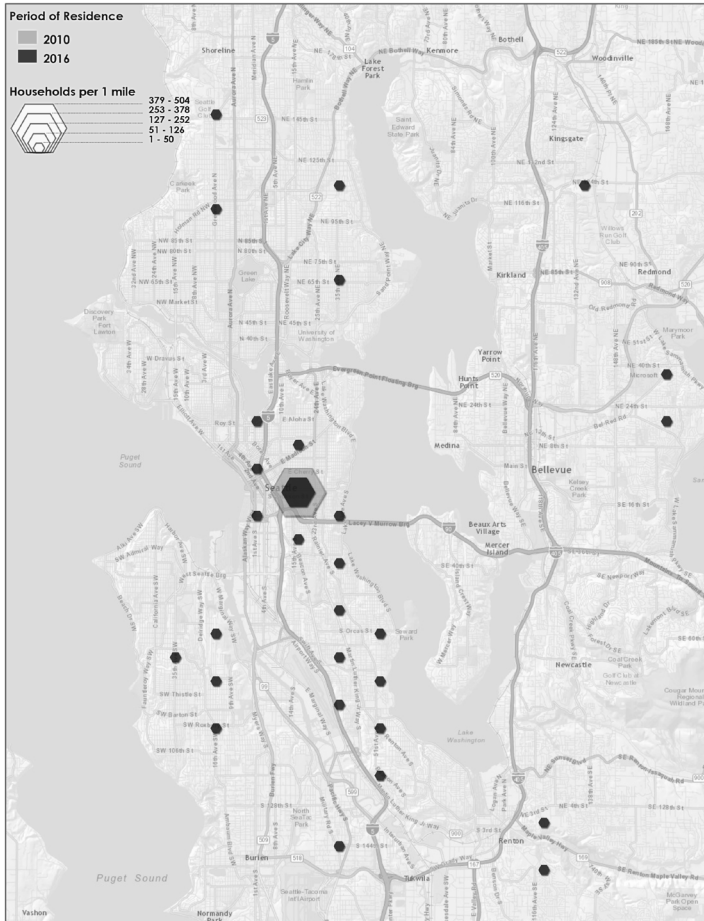


Exhibit 11

Map of Seattle Choice Neighborhoods Households in 2010 and 2016



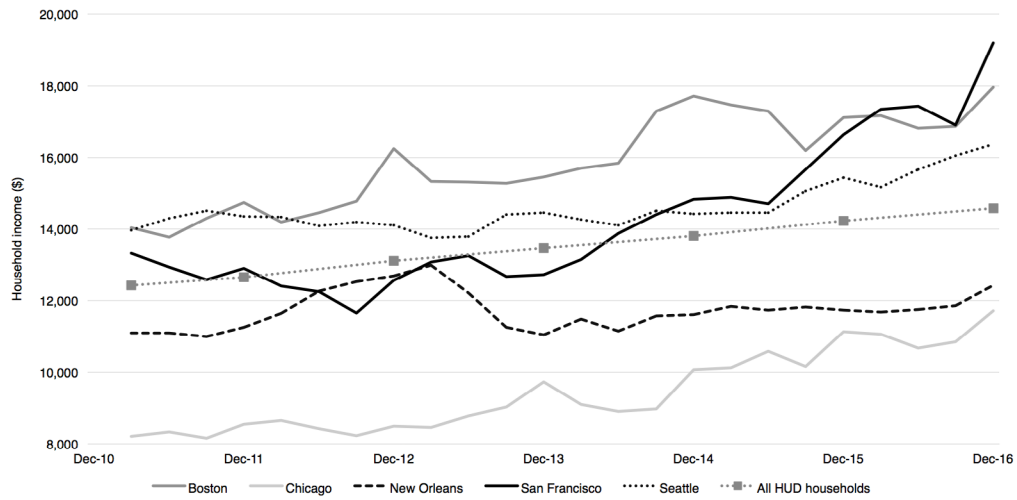
One thing that is clear from all five maps is that no major clusters of relocated households exist. Aside from the location of the target development, no single area—based on the 0.5-mile or 1-mile diameter scale, depending on site—received more than 10 percent of baseline households. However, obvious patterns are apparent at higher levels of geographic aggregation. In Chicago, nearly all relocated households remain on the south side. In New Orleans, relocated households mostly moved east, not west. In Boston, relocated households dispersed in multiple directions but mostly remained close to their original homes.

Choice Neighborhoods—Income and Demographics of Target Development Residents

Attrition and relocation are important issues to monitor in Choice Neighborhoods, due to the controversy that often plagued the HOPE VI program related to right-to-return, but Choice aspires to do much more than simply avoid displacing people. The program is also meant to spur positive outcomes for baseline residents on dimensions such as income, employment, health, and education. Some of these outcomes, such as income sources and amounts, can be monitored using PIC and TRACS data. Exhibits 12 and 13 present the mean and median annual household income for active baseline households, starting with the first quarter after grant application, or March 2011.⁴ Also, each exhibit includes a comparison trend line labeled “All HUD households,” which is based on the previously discussed cohort of all households receiving HUD assistance in December 2010. For the comparison trend line, I rely on data from March 2011, then each December thereafter. As with Choice residents, this comparison group is a longitudinal panel, meaning that it includes only those households that were assisted in December 2010 and continued to receive assistance in a subsequent quarter.⁵

Exhibit 12

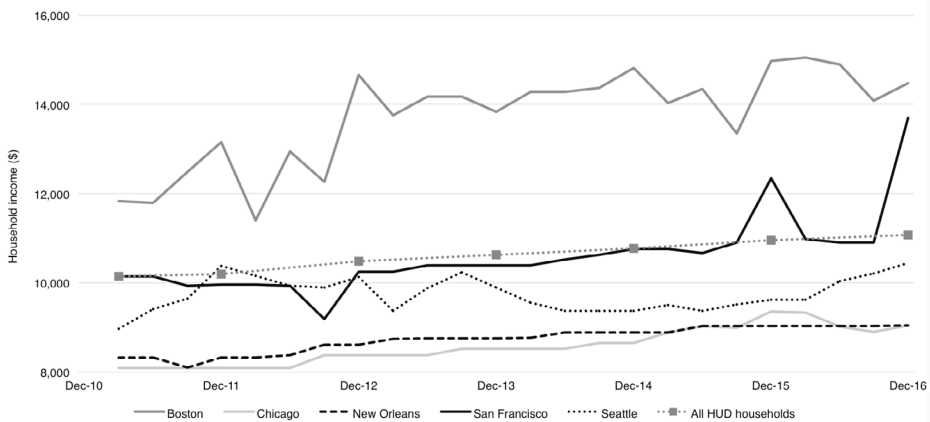
Mean Household Income for Choice Neighborhoods Active Baseline Households



HUD = U.S. Department of Housing and Urban Development.

⁴ Although these figures present *annual* household income, they change on a *quarterly* basis, because records in the PIC and TRACS systems are updated throughout the year. During any particular quarter, the income figure I use is the most recent available for each household. When I report that residents of the Boston Choice development had a mean household income of \$14,037 in March 2011, it could include some households that reported incomes on February 1, 2011, and others that reported incomes on November 1, 2010.

⁵ This comparison group is matched longitudinally to minimize differences based on attrition. It does not include households that began receiving assistance after December 2010, as these households might be systematically different. Beyond that, the comparison group is not deliberately designed to mirror the characteristics of Choice residents. This information is presented for context and is not meant to illustrate a counterfactual against which Choice should be evaluated.

Exhibit 13**Median Household Income for Choice Neighborhoods Active Baseline Households**

HUD = U.S. Department of Housing and Urban Development.

Incomes increased, on average, for all five cohort 1 sites between March 2011 and December 2016. Mean incomes, which are more vulnerable to changes in extreme values, increased by more than 40 percent in Chicago and San Francisco, 28 percent in Boston, 17 percent in Seattle, and 12 percent in New Orleans. Median incomes, which should be more stable and representative of a typical household, increased by 35 percent in San Francisco, 22 percent in Boston, 16 percent in Seattle, 12 percent in Chicago, and 9 percent in New Orleans. For the comparison group, mean income increased by 17 percent and median income increased by 9 percent.

This income growth appears promising, but it is possible that average incomes increased due to changes in the composition of residents over time. Households with zero income being disproportionately evicted would cause an apparent increase in average incomes, even if the remaining households do not experience any increase. Conversely, higher-income households disproportionately leaving to move into the private housing market would drive down average incomes independent of any change among the remaining households. To overcome this challenge, I attempt to identify a consistent panel of households from the five Choice sites. I focus on 1,232 households assisted at baseline (December 9, 2010) and in December 2016, and I then examine the annual income of these households in December of each year from 2010 to 2016.⁶ I find that, from December 9, 2010, to December 2016, this group of households experienced a 29-percent increase in mean income and a 17.7-percent increase in median income. As shown in exhibit 14, the growth was consistently positive throughout the 6-year period. This evidence suggests that the increases in average incomes are legitimate and not simply driven by the attrition of lower-income households.

⁶ This approach is not perfect. These 1,232 households were all HUD assisted on December 9, 2010, and in December 2016, but they are not necessarily assisted continuously in between. For example, in December 2013, 62 of the 1,232 households did not appear to receive assistance. I assume that any year-to-year fluctuation in this population is random and not driven by household characteristics that would be endogenous with earnings potential.

Exhibit 14

Median and Mean Income, Cohort 1 Panel of Consistently Assisted Households

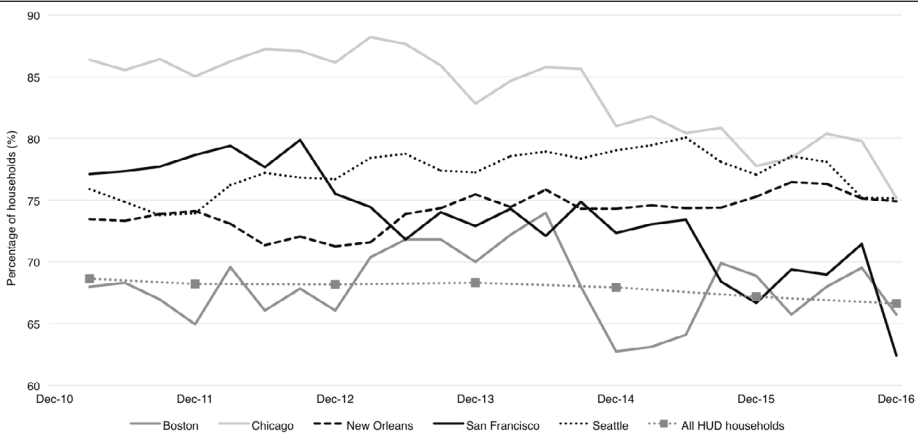
Date	Mean Income (\$)	Median Income (\$)
December 2010	11,417	8,640
December 2011	11,547	8,640
December 2012	12,069	8,928
December 2013	12,130	9,119
December 2014	12,915	9,241
December 2015	13,642	9,600
December 2016	14,758	10,169

Although household income is increasing among the cohort 1 grantees, other measures make it clear that Choice residents still face extreme economic headwinds. Exhibit 15 shows the poverty rate for households in each development. I use poverty guidelines from the U.S. Department of Health and Human Services, which are updated every year and adjusted for household size. In two sites, the poverty rate declined substantially, by 15 percentage points in San Francisco and 11 percentage points in Chicago. In Boston, New Orleans, and Chicago, the poverty rate fluctuated during the period of analysis and does not show a clear trend. In December 2016, the poverty rate was down in Boston and Seattle, by less than 2 percentage points, and was up in New Orleans, by less than 2 percentage points. In all five sites, the poverty rate remained more than 60 percent in December 2016. During the same time period, the poverty rate among the comparison group declined from 69 to 67 percent.

Several mechanisms exist by which Choice could lead to increased income for assisted housing residents. Choice grantees provide some form of case management to assisted households. At the very least, these case managers help residents through the relocation process. Some provide more extensive services, such as connecting residents to job training programs or helping them to access other forms of public assistance. Also, a hope exists that the Choice redevelopment will spur

Exhibit 15

Poverty Rate for Choice Neighborhoods Active Baseline Households



HUD = U.S. Department of Housing and Urban Development.

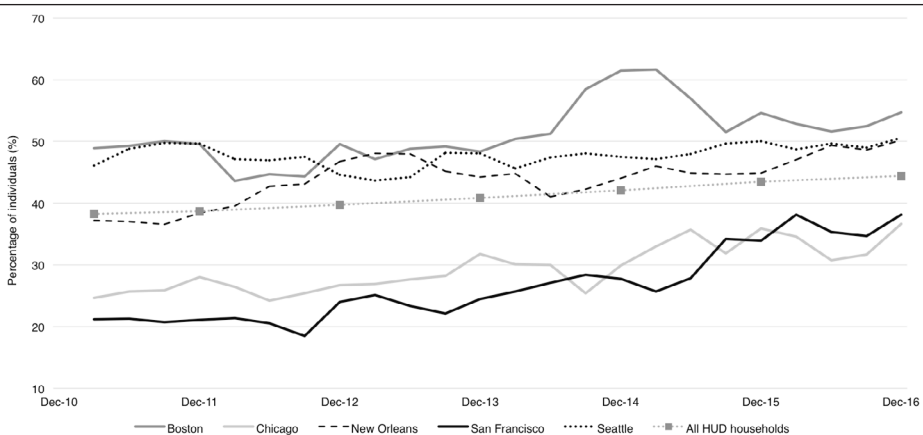
broader economic activity throughout the neighborhoods and create an environment with more jobs. One important trend that can be examined using PIC and TRACS data is the prevalence of wage income among assisted residents. First, I categorize all individuals receiving HUD assistance based on age and whether they identify as having a disability.⁷ For all work-able individuals—that is, those ages 18 to 64 with no disability—I calculate the percentage that report at least some income from wages. As with other analysis in this article, this calculation is limited to individuals who are part of a baseline household that remains assisted in a subsequent quarter. Exhibit 16 presents results for each of the five sites.

As with income, all five sites experienced substantial positive changes. Three sites experienced double-digit growth in the percentage of work-able adults with wage income—San Francisco from 21 to 38 percent, New Orleans from 37 to 50 percent, and Chicago from 25 to 37 percent. Boston and Seattle, the sites with the highest percentage of wage earners at baseline, increased by 6 and 5 percentage points, respectively. During the same time period, the comparison group also experienced an increase in the prevalence of wage income, from 38 to 44 percent.

A thorough analysis of the demographic composition in these Choice developments is outside the core focus of this article, but it is important to look at a few key characteristics of the population. As noted previously, I examine wage prevalence with a focus on those who I expect to work for pay—able-bodied adults. Changes in this population could be important drivers of the economic circumstances of Choice residents. I find that that is likely the case. Exhibits 17 and 18 show the percentage of individuals from each site that are age 65 or older or have a disability.

Exhibit 16

Percentage of Choice Neighborhoods Work-able Adults With Wage Income

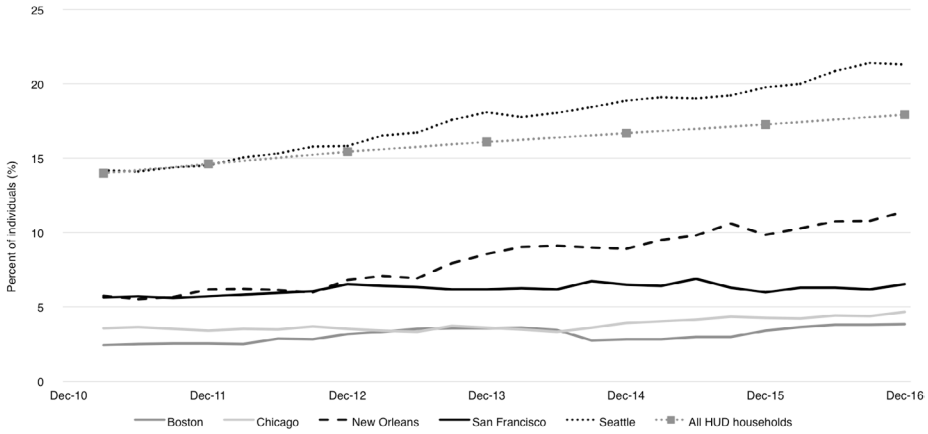


HUD = U.S. Department of Housing and Urban Development.

⁷ Disabled status is self-reported—first, by the household to the property owner or public housing agency, and then by the property owner or public housing agency to HUD. It is not independently verified.

Exhibit 17

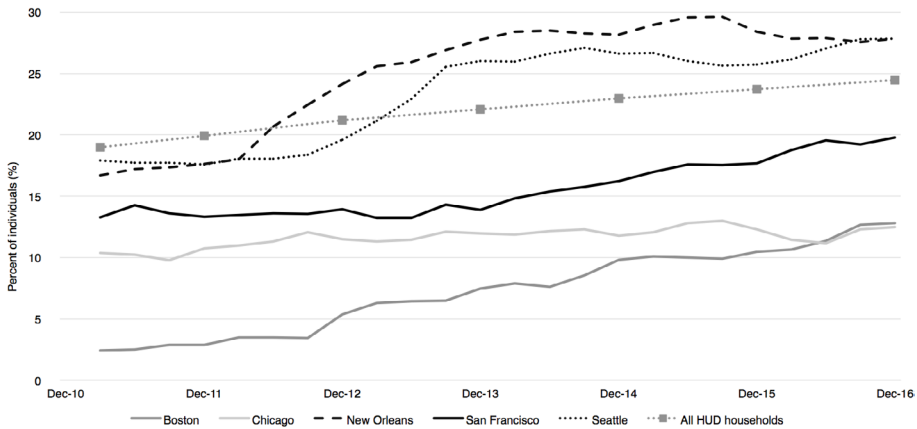
Percentage of Choice Neighborhoods Active Baseline Residents Age 65 or Older



HUD = U.S. Department of Housing and Urban Development.

Exhibit 18

Percentage of Choice Neighborhoods Active Baseline Residents With a Disability



HUD = U.S. Department of Housing and Urban Development.

These exhibits illustrate several remarkable facts. First, Yesler Terrace in Seattle has a very high proportion of seniors and people with disabilities, and both groups have grown as a proportion of the total population at the site. The senior population has increased in New Orleans and Seattle, in both raw numbers and as a proportion of the total population. Boston, New Orleans, and Seattle have experienced increases in the number of people with disabilities, even as the total number of residents has declined. All five sites have experienced proportional increases in the number of people with disabilities, although by only 2 percentage points in Chicago and 6 percentage points in San Francisco. The comparison group also has a very high, and increasing, proportion of elderly people and people with disabilities.

Conclusion

Choice Neighborhoods is a relatively new program, and very little research exists to date about the program's outcomes. Research on HOPE VI, the place-based precursor to Choice, also left many unanswered questions. In this article, I sought to compile preliminary evidence about the welfare of Choice residents 6 years after HUD awarded the first grants. I focus on attrition rates, relocation patterns, and changes to the economic circumstances of residents. With respect to attrition, I find most baseline residents continue to receive HUD assistance, and the rate of attrition they experience (ranging from 18 to 31 percent) is roughly in line with, or perhaps better than, what I would expect based on experiences of other HUD-assisted households. Although these households continue to receive HUD assistance, the nature of that assistance varies widely. Many households transitioned from one HUD program, such as public housing, to another, such as housing choice vouchers, and many households also relocated, at least temporarily. Pooled across all five sites, in December 2016, 68 percent of active baseline households lived at least 500 feet from their original locations. It is too early to speculate about the ultimate rate of return at these five sites. However, in Boston, the only site where construction is complete, 44.6 percent of baseline households returned to the property.

With respect to income and earnings, conditions are improving for baseline residents of Choice developments. Household income has increased, wage income has become more prevalent, and poverty rates have declined (except in New Orleans). The rate of improvement varies by site, and further research is needed to understand the drivers of these gains. Furthermore, it is not obvious that the Choice program *caused* these improving conditions. Comparisons with the broader HUD-assisted population suggest that other factors, like an improving economy, might drive income gains. Nonetheless, it is encouraging to see economic improvements among households living in communities that were previously among the most distressed in the HUD portfolio. Further research should apply more advanced statistical techniques to determine whether Choice investments caused these positive changes.

Much of this article intentionally focuses on baseline residents who also continued to receive HUD assistance. This population is of great interest to the Choice program. However, two other important populations require attention—baseline residents who dropped out of HUD programs and HUD-assisted residents who moved into a Choice development after baseline. Additional research is needed to understand the experience and outcomes of these households. Of course, it will also be important to examine additional cohorts of Choice implementation grantees as they progress through the redevelopment process. Further research on all these areas would add to the current body of knowledge on both the HOPE VI program and the nascent Choice program and help determine whether these programs are cost-effective mechanisms for revitalizing neighborhoods and improving the lives of low-income families now and into the future.

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