



# HHS Public Access

Author manuscript

*Hous Policy Debate*. Author manuscript; available in PMC 2023 January 01.

Published in final edited form as:

*Hous Policy Debate*. 2022 ; 32(2): 369–385. doi:10.1080/10511482.2020.1834429.

## Failing the Least Advantaged: An Unintended Consequence of Local Implementation of the Housing Choice Voucher Program

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### Abstract

While scholars have acknowledged that shrinking federal resources for low-income housing programs increase economic inequality across U.S. society as a whole, the question of how the allocation of these resources affects inequality among the poor has received little attention. Using a mixed methods approach, this study examines local administrative practices of distributing scarce housing resources and the potential redistributive effects of those choices. Analyses of administrative and qualitative data collected from local housing agencies suggest that local administrative practices of managing a waitlist disadvantage residentially unstable applicants. Juxtaposing this finding with results from the Survey of Income and Program Participation suggests that among those who are income-eligible for program participation, poorer individuals have a greater likelihood of experiencing residential instability, thus compounding their disadvantage in the competition for a housing voucher.

### Introduction

Federal housing spending as a whole—particularly the mortgage interest deduction—intensifies economic inequality by disproportionately benefiting higher-income households (Fischer & Sard, 2017; Desmond, 2017; Dreier, 2006). Some housing spending seeks to ameliorate inequality by offering assistance to the needy. But the impact of these programs on inequality depends on who gains access to them. Decision-making about the allocation of limited federal resources for low-income housing programs and how it may affect economic inequality among those who are income eligible has received little attention (see Moore, 2016 for an exception). People who earn less than 50 percent of area median income (AMI), are eligible for housing assistance, but only 25 percent of them receive it (Joint Center for Housing Studies [JCHS] 2017). This raises questions about what mechanisms distinguish the “lucky 25 percent” and how rationing procedures affect the least advantaged.

Rationing is typical with limited resources, but rationing of assistance to the poor can either reinforce or mitigate pre-existing economic inequality, with potentially disastrous effects on the least advantaged. Social welfare scholars have examined the issue of limited benefit distribution from an inequality perspective, particularly focusing on the role of social service agencies as gatekeepers of benefit access and distribution (Brodkin, 2010; Hasenfeld, 2000). Martin and Stern (2004) and Bryson and Lindsey (1999) apply the analytic frame these studies have employed to the mechanisms determining the allocation of limited housing

subsidies and their impact to subpopulations of potential applicants for low-income housing programs (the homeless and domestic violence survivors respectively). This leaves open the question as to what broader analysis would reveal. While the Department of Housing and Urban Development (HUD) largely determines eligibility for federal housing subsidies such as the Housing Choice Voucher (HCV) program, local public housing agencies (PHAs) administer these programs, and they determine which minority of eligible applicants receive assistance. Considering the prevalence of housing instability among low-income people and its role in reproducing poverty (Desmond, 2016; Skobba, 2016; Phinney, 2013), it is critical to understand inequality-generating mechanisms to craft policy that might address the problem in which the welfare system, designed to remedy inequality, nonetheless reproduces it among the poor.

Using multiple data sources and analytic methods, I examine the mechanisms used to allocate limited low-income housing resources and their implications for economic inequality among the poor. I first characterize the architecture of the HCV program, the nation's largest federal rental assistance program, and then examine who is most likely to benefit from it. Using the administrative plans that PHAs in Michigan use to administer the HCV program, I examine two influential program parameters related to managing a waitlist under the discretion of PHAs to characterize housing voucher allocation processes: preferences and purging procedures. Findings show that 40 percent of local Michigan PHAs use geographically bounded eligibility for a waitlist preference, and 100 percent regularly purge applicants from the waitlist when they cannot be reached to check their continued interest in and verify their eligibility status for program participation. Both of these common tools of rationing could promote the selective attrition of applicants experiencing a higher level of residential instability from the waitlist. I then examine differences in residential instability among income-eligible individuals to understand the impact of this attrition. Results indicate that those with a lower chance of attrition are more likely to have a higher income, suggesting that the HCV program is failing to serve those who need the programs most.

## Literature Review

### Federal Housing Policy and Various Forms of Economic Inequality

The HCV Program serves 5 million people in 2.2 million low-income families by subsidizing the difference between rent and recipients' contribution of 30 percent of their adjusted income toward rent (Mazzara, 2017). U.S. federal housing assistance programs, including the HCV program, collectively lifted 3 million people above the poverty line in 2018, according to the federal government's Supplemental Poverty Measure (Fischer, Rice, & Mazzara, 2019). Also, housing assistance recipients are less likely to experience housing instability than income-eligible non-recipients (Kim, Burgard, & Seefeldt, 2017), and housing stability can promote employment stability and positive health outcomes (Desmond & Gershenson, 2016; Desmond & Kimbro, 2015).

Under the current system, cumulative economic inequality between housing assistance recipients and their income-eligible, non-recipient counterparts is inevitable. To remedy this unjustifiable horizontal inequity where some equally eligible people do not receive

any housing assistance, scholars have proposed ways to implement the progressive idea of making low-income housing programs basically an entitlement (Grigsby & Bourassa, 2004; Freeman, 2002; Hartman, 1998), but this seems an unlikely outcome of current political forces. Some have argued that policy makers need to take a bundled approach, addressing inequity in the low-income housing programs by balancing distribution of federal housing resources across income levels and redirecting some of their resources to the low-income housing programs (Desmond, 2017; Infranca, 2015; Dreier, 2006). Another approach suggests lowering the income level at which people would be determined eligible to ensure funding currently in the program goes to the least advantaged (Quigley, 2008). In any case, there is no sign that change in eligibility rules is likely, making the question of how PHAs select the lucky 25 percent among the eligible who receive an HCV an urgent one.

### **Toward a Comprehensive Model of Federal Housing Resource Allocation**

A housing voucher becomes available when current housing voucher recipients are no longer eligible for housing assistance or when HUD increases funding to PHAs for new vouchers. Newly available vouchers go to the top applicants from the waitlist PHAs administer. While past research has addressed PHA's ranking mechanisms on their waitlists (McCarty & Brick, 2012; National Low Income Housing Coalition [NLIHC], 2004; Devine et al., 2000), this study provides a comprehensive model of federal housing resource allocation at the local level by also examining waitlist purging procedures.

**Local implementation of HCV program and waitlist preferences.**—Various laws have given and taken away discretionary power in implementing federal low-income housing programs at the local level. U.S. Public Law 96–153 (1979) and U.S. Public Law 98–181 (1983) both constrained the local discretion of PHAs by establishing a federal preference system that prioritized applicants living in substandard housing, involuntarily displaced families, and those who were severely cost-burdened.<sup>1</sup> In 1998 the Quality Housing and Work Responsibility Act (QHWRA) dramatically increased local discretion in HCV recipient selection by eliminating federal preferences. At the same time, as a safety measure to prevent a dramatic shift of low-income housing resources from the economically least advantaged, the QHWRA established the income targeting requirement, which mandates that every PHA allocate 75 percent of newly issued vouchers in a given year to extremely low-income households (Dawkins, 2007). However, this does not prevent them from differentiating among extremely low-income applicants, and in a situation of scarcity and great need, the allocation of 25 percent of newly issued vouchers to comparatively better off applicants can have a significant impact on inequality.

Scholars and social justice advocates greatly welcomed the QHWRA because they considered greater local control of housing resource allocation likely to improve the program because it provided advocates better pathways to affect the process. They have recognized the importance of PHAs' role in resource allocation and developed strategies to intervene in local decision-making processes to benefit the small subset of potential voucher

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<sup>1</sup>After passage of these laws, local PHAs could make housing assistance available to “families without a Federal preference before Federal preference-holders,” but only “for up to 10 percent of the families initially receiving assistance in any one-year period” (Fed. Reg. 53, no. 10 [January 1988]: 1125).

applicants who are already involved in the welfare systems (Martin & Stern, 2004; Bryson & Lindsey, 1999). For example, Martin and Stern (2004) examine how a series of PHA administrative practices can increase assistance to domestic violence survivors, including waitlist preferences for this group.

How PHAs organize their waitlists on the basis of which priorities can influence who receives limited housing assistance because meeting the preference criteria significantly reduces individual applicants' waiting time (McCarty & Brick, 2012; NLIHC, 2004; Devine et al., 2000). However, studies of waitlist preferences have not addressed whether they have disparate impact on income-eligible groups based on the severity of their poverty. Federal regulation of the HCV program does not allow PHAs to use household income as waitlist priority criteria (HUD, 2001). However, this does not prevent them (intentionally or not) from using attributes that act as a proxy for economic marginalization. Doing so may threaten to increase the already enormous number of extremely poor who receive no subsidy.

**Selective attrition from the waitlist as a resource allocation system.**—Although meeting preference criteria can significantly reduce waiting time, extended waiting periods mitigate the role of initial placement of applicants on the waitlist by PHAs in shaping housing voucher allocation, and many communities have long waiting periods for federal housing assistance (JCHS, 2017). About a quarter of all PHAs administering HCV programs around the country reported that expected waiting times exceed 36 months, and another quarter reported that they were 18–36 months (JCHS, 2017; NLIHC, 2016). Worse, PHAs sometimes cease to offer any new vouchers when they foresee a federal budget cut, in order to avoid suddenly terminating those they are currently serving. At the same time, most people who qualify are likely to apply for the HCV program multiple times through multiple local PHAs to increase their chance of getting on the waitlist, which causes waitlists to grow longer.

Rationing during extended waiting periods could lessen inequality if time effectively differentiates those who have no alternative to waiting for assistance because they have the greatest need. On the other hand, a rationing system could also promote selective attrition of the least advantaged, and thus, increase inequalities (Herd & Moynihan, 2019; Lipsky, 2010). For example, persistence during waiting time often requires following procedural rules to access and obtain benefits, which might have disparate impacts on the economically marginalized who are less likely to comply (Herd & Moynihan, 2019; Brown et al., 2017; Seefeldt, 2016). Indeed, a qualitative study of homeless people on the waitlist for emergency shelter in a midsize Northeastern city suggests a waiting procedure can weed out the least advantaged (Brown et al., 2017). As with the HCV program, demand for an emergency shelter exceeds supply, and thus, some shelters maintain a waitlist of applicants who immediately receive an offer of assistance when a bed becomes available. Because shelters have maximum lengths of stay, these waiting times are far shorter than the wait time for a housing voucher. Nonetheless researchers found a substantial number of applicants on the waitlist are removed from the waitlist because of noncompliance to the waiting procedure. Those eventually admitted were those who were able to effectively communicate with shelter staff that they fully understand the waiting procedure, to make a weekly call to express continued interest, and to have a cell phone to make that call as well as to receive a

call once they ascend the list – or have someone they can rely on to make and receive phone calls. That study’s findings suggest that an administrative burden alone can increase the distribution of housing resources toward people who are relatively advantaged, even without waitlist preferences. The extent that getting on multiple waiting lists increases the chances of obtaining a voucher exacerbates the impact of administrative burden, as well.

HUD’s guidelines for managing the HCV program highlights the need for regular purging of applicants who are no longer interested in participating in the program (HUD 2001). But it leaves PHAs significant discretion in designing purging procedures (e.g., mode of contact, applicants’ responsibilities for expressing ongoing interest) with different levels of administrative burden on applicants. No study has empirically documented patterns of such practices or the implications of these practices for selective attrition of applicants from the waitlist. Literature on street-level bureaucracy documents that when faced with more demand for service than they can provide, front-line agencies with limited time and resources often develop administrative practices that pass most of the administrative burden on to clients (Lipsky, 2010). Financially constrained PHAs with limited administrative capacity could develop similar strategies that minimize the administrative burden of managing a long waitlist, which is exacerbated by the fact that applicants can apply to multiple PHAs to increase their chance of receiving a housing voucher. The large administrative burden on applicants who keep their names on the waitlist can promote the selective attrition of economically disadvantaged applicants, who are less likely to have time and resources to comply with the purging procedure.

## Research Questions

This study examines the question of whether local administrative practices that disadvantage applicants with certain attributes might fail to serve those who may need housing assistance most. Using a comprehensive framework of local allocation of housing vouchers that identifies PHAs as the potential site of generating inequality, this study first examines the following question:

How do PHAs manage their waitlist through initial prioritization of applicants on the waitlist and periodic purging of the list?

Next, I examine what PHA directors and HCV program administrators perceive to be the factors that shape their management of the waitlist:

What factors shape PHAs’ administrative practices of managing a waitlist?

Lastly, I examine whether an attribute that disadvantages applicants has a disparate impact on the most economically marginalized among potential HCV applicants by reducing their chance of receiving a voucher:

Do voucher distribution practices deepen economic inequality among the poor by making some people more likely to receive vouchers than others?

Considering the enormous value of housing vouchers and low likelihood that the HCV program will be better-funded in the foreseeable future, answering this question could reveal one of the important mechanisms of increasing economic inequality among the poor.

## Data

This study uses multiple sources of data to examine how the local administrative practice of running the HCV program relates to economic inequality among the poor. I first analyze administrative data to examine variations and dominant patterns of local administrative practices on initial waitlist placement and the rationing algorithm during waiting periods. After analyzing administrative data, I conduct an exploratory qualitative study to examine how the dominant pattern of a waitlist preference and purging system emerges using interviews of PHA directors and HCV program administrators. Lastly, I use population-based survey data to examine the implications of local administrative practices of managing a waitlist for economic inequality among the poor.

### Administrative Data

HUD requires PHAs to develop an HCV administrative plan describing how they will implement the program. Michigan has 63 local PHAs. I collected HCV administrative plans for 59 of them, a collection rate of 94 percent.<sup>2</sup> Some were available on the internet; the others I requested via email or in an in-person interview.<sup>3</sup> The remaining four PHAs did not respond to the request. I examined each plan's chapter on the waiting list and tenant selection process, which describes how the PHA uses its discretion regarding opening and closing the waiting list, initial placement of applicants on the waitlist, procedures for purging applicant names from the waitlist, and selection from the waitlist. To understand potential selective attrition from the waitlist during waiting periods, I examined for each PHA what mode of contacting applicants they used to check their continued interest and determine eligibility when they reach the top of the waitlist; what actions applicants must complete to remain on the waitlist and their associated burdens; and consequence of failure to complete actions to remain on the waitlist.

### PHA Interviews

After descriptive analysis of administrative data, I conducted interviews of PHA directors and key staff members to understand potential mechanisms of generating the dominant pattern of waitlist preference systems and the causes and consequences of the purging procedure. I conducted a convenience outcome-based sampling from the PHAs in the Detroit Metropolitan Statistical Areas ( $N = 21$ ) to systematically compare those with the most prevalent preference that prioritizes local residents ("residency" preference) and those without it (here I follow Miles, Huberman, & Saldaña, 2014; Yin, 2014; King, Keohane, & Verba, 1994); variation in the purging procedure among PHAs was minimal, and thus, not considered in the sampling design. I interviewed four PHA directors and two HCV program managers, representing four of the 12 PHAs with a residency preference. I interviewed four PHA directors of PHAs without a residency preference, of which there were eight. Interviews were semi-structured and took approximately one hour; I conducted

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<sup>2</sup>The state of Michigan permits cities, villages, townships, and counties to operate PHAs that oversee an HCV program, and thus has 63 local PHAs operating such programs (HUD, 2017). Local PHAs administer 52.1 percent of Michigan's 58,925 housing vouchers and the state agency administers the remainder (HUD, 2017).

<sup>3</sup>HUD reporting rules changed to reduce the administrative burden of PHAs in 2003 and no centralized data deposit is available that might list waitlist preferences for any year since (McCarty & Brick, 2012).

them between January and September 2017. I conducted 11 interviews in meeting rooms at the PHA's offices and one on the phone.

My interview questions were informed by preliminary interviews with PHA directors, my review of PHA administrative plans of the HCV program, and my understanding on street-level bureaucracy literature that shed light on external and organizational contexts of program implementation. Questions were aimed at understanding how multiple external stakeholders with varying incentives and organizational factors, especially program underfunding, interact to shape local administration of the HCV program. For this study, I focused on the relationship with the city government to understand why PHAs with at least one waitlist preference are most likely to have a residency preference. To understand the causes and consequences of purging procedures, I asked about why PHAs have the purging procedure as it is, the extent to which attrition occurs through the purging process, the primary reason for attrition, and its implication for selective attrition.

### Population-Based Survey Data

Next, I ask whether local administrative practices of managing a waitlist are exacerbating economic inequality among the poor. Having identified the characteristics that put people at a disadvantage in the competition for housing vouchers, I next ask whether people with these characteristics tend to be poorer than other applicants. The first part of the analysis with administrative and interview data in this study suggests that residential instability is such an attribute, and the quantitative data set I used contains detailed information to examine the relationship of residential instability and household income among income-eligible potential applicants for the HCV program. Using a set of population-based survey data from the Survey of Income and Program Participation (SIPP) 2014 Panel, I examine whether duration of residence spell differs among HCV-eligible people, especially whether those with lower household income are more likely to move to another residence than their higher income counterparts. The SIPP 2014 Panel includes a retrospective residential history for the last 12 months in each wave so the three waves collectively provide information on monthly moves over 36 months. I used a multi-spell discrete time proportional hazard model (complementary log-log model) to predict the transition to another residence spell with monthly time-varying covariates, with the risk onset of moving starting from the first month in each residence spell.<sup>4</sup> The analytic sample includes 8,092 persons aged 16 years old or older with at least one renter spell during which their average household income was eligible for HCV program participation.<sup>5</sup> These persons contribute a total of 13,169 person-spells and 186,177 person-month records (with a mean of 1.63 spells per respondent).

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<sup>4</sup>The complementary log-log model is appropriate when time to event is continuous in reality, but imprecise measurement results in interval-censored data. In this study, moving was measured at the monthly level, but actual date of moving happens between months. One can interpret an antilogged coefficient from a complementary log-log model as the relative risk.

<sup>5</sup>Because income eligibility for HCV program participation is determined by 50 percent of AMI and is calculated by HUD separately for each metropolitan area and non-metropolitan county, whether respondents in the survey are eligible for program participation depends on which HUD-defined area they reside in, which the data does not supply. However, one can further specify income eligibility for program participation by using respondents' state as well metropolitan residence. I used max 50% of AMI that is specific to household composition, state, and metropolitan residence as a benchmark for presumed eligibility.

## Methods and Findings

### Prevalence of Waitlist Preferences among PHAs

I conduct a descriptive analysis to examine what percentage of local PHAs in Michigan have established a waitlist preference and the prevalence of each waitlist preference among the PHAs. Next, I examine the extent to which the most prevalent waitlist preference among PHAs might influence housing voucher allocation by each PHA with a complex weighting scheme. Lastly, I discuss the implication of the most dominant waitlist preference system for housing voucher allocation.

Among the PHA plans, 76 percent (45 out of 59) report at least one form of waitlist preference; those without any preference system order applicants on the waitlist by either randomly assigning numbers to applicants or using date and time of complete application. The largest number, 44 percent of plans ( $n = 26$ ), have a “residency” preference that prioritizes those living or working in the local municipality. This means nearly six out of ten PHAs with at least one waitlist preference chose to have a residency preference. Next, 29 percent of plans have a “Continual Assistance” preference for applicants whom PHAs previously served but who were cut off because of discontinuity in federal funding. Approximately 24 percent of the PHA plans have adopted a preference for those who are currently working, followed by one for those who are displaced due to federally declared disaster (22%), the disabled (22%), the elderly (22%), the homeless (17%), veterans (14%), and domestic violence survivors (14%).

More than one waitlist preference appears in 56 percent (33 out of 59) of the PHA plans. Moreover, each local housing agency differs in how they weight each preference; some weight all preferences equally and some give them different weights. Some allow cumulative preference for applicants with multiple preference statuses and some do not. Thus, it is necessary to examine how the most prevalent preference among PHAs, which prioritizes local residents, competes with other preferences to understand its importance in housing resource allocation for each PHA. Reviewing each PHA’s weighting scheme revealed that residency preference always has an impact—some PHAs place all the local residents ahead of those outside of their local jurisdiction, while others prioritize local residents over nonresidents among those otherwise similarly preferred.

For every PHA that has a residency preference, applicants first have to declare their preference eligibility when they apply or during the time when they are on the waitlist and then they have to verify their eligibility by providing evidence for it when they get to the top of the waitlist. Thus, applicants who lack the ability to stay in place during waiting periods are not eligible for a residency preference in the city to which they have relocated. Those who are stably housed within the same local municipality during extended waiting periods benefit from this preference at the expense of those who lack such stability.

### The Emergence and Sustainability of a Residency Preference

I first compare four PHAs with a residency preference to theorize pathways leading to a preference system that prioritizes local residents, particularly focusing on the relationship with the city government to understand whether city governments intervened in the decision-



making process of establishing a waitlist preference to exclusively benefit local residents. If a PHA has a residency preference without evidence of such intervention, I examine what alternative pathway might have led to the residency preference. Lastly, I conduct cross-case comparison with four PHAs without a residency preference to understand why the pathway that worked for PHAs with a residency preference does not work in the same way.

Analysis of qualitative interviews suggests that PHAs' active embrace of implicit city intentions, a PHA's local identity, and passive acceptance of the legitimacy of a residency preference in the context of underfunding for the program administration all may have played critical roles in establishing and maintaining a residency preference. The executive director whose PHA had added the residency preference a year before he joined said it had made the change because the city government had objected to the PHA providing vouchers to people who were not city residents. As he said:

When we set the waitlist preference portion that the city, again, we were a part of the city [meaning a Detroit suburb, not Detroit itself] at the time, we were seeing a lot of influx of folks from Detroit moving up here. They were taking our vouchers, so we weren't able to serve our own folks. That was why that one [residency preference] came... so we could help serve the people of our community first. [Instead of] others from outside, because people in our own community needed services.

Federal regulation does not geographically constrain applicants to their local PHAs when they apply for the HCV program, and thus, the pool of applicants and those on the waitlist are not necessarily residents of a given PHA's local municipality. As the respondent noted, elected officials with political incentives to serve local voters might seek to make sure that housing vouchers go to local residents by pressuring local PHAs to support municipal aims because of this.

In the other three PHAs with a locally exclusive preference system in my interview sample, the residency preference dated from the inception of the HCV program. I asked these PHAs' directors how they understand the residency preference. One who was also serving in city government as a head of community development answered:

That would get back to probably the community politics. I'm sure the mayor and the city council know of low-income people in the community, and housing is a resource. They want to assist persons in their community rather than allowing other residents from Detroit or Ann Arbor [a mid-sized city 40 miles from Detroit] apply and receive dollars that were awarded to the housing commission of their particular community. So I think that's part of the rationale that housing commissions have is; this is what the city would like us to do.

When I asked about the history of and rationale for a residency preference, another director whose PHA is also part of the city government commented:

Going back with all my years of experience, because all the federal housing programs were established locally, I would say every housing commission had a waitlist preference, because that's how you can best serve your residents. That,

especially under the voucher program, has diminished somewhat, and some of them [PHAs] let it go, but [the PHA I work for] is very devoted to the residency preference.

Although local PHAs that are incorporated into local municipalities and have frequent interaction with city officials might rationalize that local housing agencies have a mission of serving their local residents, the broader sample shows no pattern linking a formal relationship between the PHA and the municipality to the residency preference. Likewise, a director of a PHA who does not currently have a preference that prioritizes city residents stated:

At least as long as I am director, I would be very open to the opinions of the elected officials because they are the elected official. What I have seen in the two mayoral terms I've been a part of, I've not seen much interest in that [administration of low-income housing programs]. We're just low priority.

In other words, if city officials intervened to try to establish a waitlist preference to benefit their local residents, they would succeed. Variation in interest level might explain the variation in the waitlist preference system; it may be that regardless of the formal relationship, the PHAs with residency priority are in communities where the city government was interested in the local administration of low-income housing programs, at least at one time.

An interview with the director of another completely independent PHA suggests another mechanism that may maintain the residency preference, once adopted. She described the relationship with the city government over her four years of employment at the PHA as "hands-off": "they have not micromanaged...they have not influenced our policy at all." Yet this PHA has a residency preference. The waitlist preference system has been in place since the inception of the HCV program and the PHA itself in 1970. The director said about this history:

Those preferences were present when I came in 2012, and when I've looked at previous policies, it looks like they date back maybe to the inception of the program over here. They've been in place for a long time. I don't know whether it was staff who felt that was very important, or whether that was the city officials who encouraged our board to adopt that.

She said the system's legitimacy had never been challenged. Changing the preference system, she noted, would be costly in staff time, and HUD underfunds all the PHAs for HCV program administration. HUD has designated this PHA as troubled due to a failing score under the Section 8 Management Assessment Program. Thus, staff have focused on taking the required corrective actions to improve their score and avoid penalty on a new HUD funding award, and residency preference does not affect their score. The PHA is therefore less willing to take any action to re-evaluate the legitimacy of waitlist preference and go through the process of changing the waitlist preference system.

## Selective Attrition from the Waitlist as a Resource Allocation System

My review reveals a universal purging procedure during waiting periods in the 59 PHAs: use of mail as a mode of contacting applicants, time limited response and removal of applicant names when they do not respond, and limited exception on reinstatement once removed from the waitlist. This procedure disadvantages people who lack housing stability. Following is a typical example of how the administrative plans describe the purging procedure:

To update the waiting list, the PHA will send an update request via first class mail to each family on the waiting list to determine whether the family continues to be interested in, and to qualify for, the program. If the family fails to respond within 15 business days, the family will be removed from the waiting list without further notice. If a family is removed from the waiting list for failure to respond, the PHA may reinstate the family if it is determined that the lack of response was due to PHA error.

To reduce purging applicants from the waitlist due to nonresponse to PHA's inquiry even when they are still interested in and eligible for program participation, PHAs could have taken more responsibility to track unreachable applicants, including sending a reminder, using multiple mode of contact, or providing more generous exceptions for reinstatement. However, none of the PHAs in the analytic sample take those measures to reduce an attrition rate. The process of purging applicants from the waitlist is structured in a way that minimizes PHAs' administrative burden of maintaining a waitlist. It is applicants' responsibility to follow the rules and purging results if they do not.

Interviews of PHA directors and HCV administrators revealed that program underfunding may have led to transferring responsibility of keeping a waitlist updated to applicants, rather than sharing it between both parties. As one PHA director mentioned, program underfunding impacts almost all administrative functions by "spreading the workload amongst fewer employees," but it freezes some more severely. Maintaining a waitlist is such a case; as one PHA director mentioned, contacting thousands of people on the waitlist would cause severe administrative burden:

You can imagine the administrative burden of collecting eight thousand applications, processing them, doing annual updates of the people who aren't on your program to make sure that they're still on the waiting list, still interested, and things of that sort.

PHA directors' comments suggest that a substantial number of applicants are removed from the waitlist through this process. Increasing the impact of housing instability, they identify a residential move as a common reason PHA staff fail to contact them. In spite of the enormous value of HCV vouchers, applicants might have little incentive to maintain a current address with the program because of the uncertainty of ever benefiting. Applicants who have sought assistance from multiple housing agencies would have an even larger burden of keeping their address up to date. One director explained:

Through the years what we've done, we've sent out annual updates to everybody who's on the waiting list, and people who did not respond who were no longer

interested, we've removed them. It's a very transient population and they don't keep up a lot of information with us so our last known address, we send it there.

Another said:

It took from 2006 until 2013 to go through eight thousand applications. After you're about halfway through that many applications, you no longer have a good application because people move. Their information changes; it's hard to contact them, which also creates additional work because you'll send a letter saying, "Come in for your meeting." They don't come, you take them off the waitlist. Two months later they call you and say, "Oh, I never got my letter because I moved" or whatever.

In sum, results from administrative data and qualitative interviews suggest that waitlist preferences and purging, two critical components that characterizes housing voucher allocation processes, collectively disadvantage residentially unstable applicants. PHAs regularly purge applicants from the waitlist who fail to respond to the PHA's inquiry about their continued interest in and eligibility for program participation. PHA directors suggest that a substantial number of applicants are removed from the waitlist through this process and identify a residential move as one of the critical reasons for the non-response to the PHA's attempts to contact them. Moreover, 44 percent of PHAs in the sample have a preference that penalizes those who move out of the local municipality where a PHA is located.

### Attrition and Residential Instability

So far, we've seen that people experiencing residential instability are at a disadvantage in the competition for housing vouchers. To learn whether these local administrative practices create inequality, I turn to representative survey data to explore whether people with this characteristic tend to be poorer than other applicants. I first conduct descriptive analyses to examine the distribution of each covariate in the analytic sample. After that, I estimate the relationship of household economic resources<sup>6</sup> and the hazard of moving from an unadjusted model. Next, I conduct multivariate analyses to examine the relationship of the household economic resources and the hazard of moving while controlling a set of variables. Lastly, I conduct a series of sensitivity analyses to test robustness of results from main analyses (see notes in Table 2 for methodological details).

Of the 8,092 individuals in the analytic sample, 3,653 (45.1%) moved at least once during the study period (2013–2015), with 1,114 (13.8%) of all individuals experiencing two or more moves. Table 1 presents characteristics of the analytic sample overall in the first column split into person-month observations (and thus, multiple data records per person) and then compares individuals who do not move (stayers) with those who move (movers) in the subsequent month. I present p-values for f-test of difference between stayers and movers,

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<sup>6</sup>I constructed a measure of economic resources based on income-to-needs ratio (monthly household income divided by the federal poverty level for a household of that size in each month). Thus, a ratio of less than 1 means household income is less than the federal poverty level set for that household size. The distribution of monthly income-to-needs ratio among income-eligible renter spells in the analytic sample indicates that cutoff values for quartiles are 0.58, 1.05, and 1.54. For ease of interpretation, I have classified monthly income-to-needs ratio into categories of less than 0.5, between 0.5 and 1.0, between 1.0 and 1.5, and 1.5 and above.

with significance denoted with asterisks and stayers as the reference group. Table 1 shows that compared to stayers, movers are more likely to have household income of less than 50 percent (Odds Ratio [OR] = 1.53,  $p < 0.001$ ), 50–100 percent (OR = 1.30,  $p < 0.001$ ), or 100–150 percent of the Federal Poverty Level (FPL; OR = 1.21,  $p < 0.001$ ) than household income of more than 150 percent of the FPL. Not only are movers more likely to have household income of less than 150 percent of the FPL, but also they were more likely to have experienced financial shocks (decline in income-to-needs ratio by more than 25 percent from the last month,  $p < 0.001$ ) and household instability (change in household type,  $p < 0.001$ ).

In Table 2, I present hazard ratios and standard errors from the complementary log-log models predicting transition to another renter spell among HCV eligible renters. Results for the unadjusted model in Table 2 suggests that potential HCV applicants with monthly household income of less than 150 percent of the FPL (three income-to-needs ratio categories below 1.5) have a increased risk of exiting current renter spells compared to those with household income of more than 150 percent of the FPL. This higher risk escalates as the income-to-needs ratio reduces, such that those with household income-to-needs ratio between 1.0 and 1.5, between 0.5 and 1.0, and below .5, are 35 percent, 25 percent and 19 percent higher than those exceeding 1.5, respectively.

The results for Model 1 in Table 2, which adjusts for a set of control variables potentially associated with residential instability and household income-to-needs ratio, present a similar pattern in the relationship between household income-to-needs ratio and the hazard of residential move as the unadjusted model. Potential HCV applicants in the three categories of income-to-needs ratio below 1.5 have a greater risk of residential move than those whose household income-to-needs ratio exceeds 1.5. However, difference in hazard ratios of residential move among those whose household income-to-needs ratio is below 1.5 was not statistically significant.

Model 2 additionally includes a variable that captures decline in income-to-needs ratio by more than 25 percent from the previous month to examine the impact of economic instability on a residential move. The result for the Model 2 in Table 2 suggests that when household income-to-needs ratio drops by more than 25 percent from the prior month, it increases the hazard of residential move by 30 percent compared to those who have not experienced economic instability. Economic instability, however, does not fully explain the difference in the hazards of residential move across levels of household income-to-needs ratio. Even after controlling for economic instability, three categories of income-to-needs ratio below 1.5 are associated with an increased risk of residential move compare to those with an income-to-needs ratio above 1.5. This result suggests that both levels of and change in household income-to-needs ratio matter in predicting the hazard of residential move.

Model 3 includes a variable that captures change in household composition. Since income-to-needs ratio is calculated using both household income and federal poverty line for a given household size, change of income-to-needs ratio can result from the change in household composition without accompanying change in monthly household income. The result for Model 3 suggests that interhousehold change increases the hazard ratio of exiting current

renter spell by 45 percent while intrahousehold change was not statistically significant at the level of 0.05. Even after controlling for household instability, those who experience economic instability have a 21 percent greater risk of residential move than those who did not experience economic instability. This model also shows that potential HCV applicants with household income-to-needs ratio less than 1.5 have a greater risk of residential move than those with household income-to-needs ratio above 1.5 after controlling for a set of control variables as well as both economic and household instability.

The results from the SIPP 2014 Panel suggests that among people likely to be HCV-eligible, individuals with lower household income-to-needs ratio are more likely to have a shorter residence spell than their counterparts with household income of more than 150 percent of the FPL. I have conducted a series of sensitivity analyses to assess the robustness of these results. First, it is plausible that residential move influences household income rather than the vice versa. Previous studies have suggested that reverse causality could apply. For example, when a residential move is involuntary, it could disrupt a work arrangement, which leads to decline in income (Desmond & Gershenson, 2016). In this study, however, all other time-varying covariates in each month temporarily precedes the outcome variable of residential move in the same month since I created the variable of residential move by comparing the residential address of a current month with the following month. As well, since this study uses multiple residence spells, they are dependent each other. The SIPP 2014 Panel has replicate weights that address complex survey design, including sampling design and household/individual correlation. I have rerun models using the replicate weights and the result remained the same.

To reinforce my argument that both purging procedures and waitlist preferences may disadvantage poorer applicants in the competition for a housing voucher, I conducted a supplementary analysis of residential mobility by income levels using the American Community Survey microdata (2012–2016). Although ACS microdata reflects a generally less accurate measure of residential mobility than SIPP data, it has relatively more detailed geographic information on residential mobility to examine the potential loss of geographically bounded preference eligibility status. Using public use microdata area (PUMA) defined as groups of counties and/or census tracts with at least 100,000 people, the lowest level of geography in the ACS microdata, I was able to differentiate moves within a PUMA from those between PUMAs. As shown in the Table 3, about 35 percent of the poorest people with household income of less than 50 percent of the FPL moved last year, which is approximately 10 percentage point higher than those with household income of more than 150 percent of the FPL. Not only the poorest people are more likely to move for a single year period, but they are most likely to move between PUMAs. About 13 percent of the poorest with household income of less than 50 percent of the FPL moved between PUMAs last year, which is 5 percentage point higher than the three groups with higher income-to-needs ratios. It is possible that moves between neighboring PUMAs do not lead to the loss of preference eligibility when a PHA jurisdiction consists of multiple PUMAs. However, results from ACS analyses at least suggest that a higher percentage of the poorest applicants make long distance moves in a single year period, and such moves raise the specter of losing preference eligibility when they involve crossing the boundary of a PHA jurisdiction.

## Discussion

The ability to receive housing assistance is not trivial for those who struggle with monthly rent payments and face threat of eviction. By reducing the chance of experiencing housing instability among housing assistance recipients, housing assistance deactivates one of the critical mechanisms of poverty reproduction and reinforcement (Desmond, 2016; Edin & Shaefer, 2015). Given rationing of low-income housing resources, some scholars have approached this issue with an inequality perspective and proposed restructuring the unequal distribution of federal housing resources across income levels (Desmond, 2017; Dreier, 2006; Infranca, 2015) or effectively ending rationing by lowering income eligibility (Quigley, 2008). Such proposals are important for long-term advocacy efforts as they will not only reduce economic inequality by providing more housing resources to the poor, but will also decrease rationing of low-income housing resources and the resulting economic inequality among the poor. At the same time, however, persistent rationing of limited low-income housing resources over decades raises the question as to whether rationing mechanisms fail the least economically advantaged, and what strategies of implementation of the HCV program might improve their lot.

Studying the implication of administrative practices of implementing programs for resource allocation from an inequality perspective requires multiple data sources and analytic methods, especially when an attribute of applicants that makes them less likely to receive benefit is not apparently linked to economic marginalization. Analyses of administrative data collected from local PHAs and qualitative interviews of PHA directors and HCV program administrators suggest that two important aspects of voucher distribution practices, initial placement on the waitlist and purging from it, jointly disadvantage residentially unstable applicants. Juxtaposing this finding with analyses of population-based survey data suggests that among those who are income-eligible for program participation, individuals with lower household income-to-needs ratio are more likely to experience residential instability than their higher income-to-needs ratio counterparts, making them relatively disadvantaged in the competition for a housing voucher.

This study has implications for social scientists, policy makers, implementing agencies, as well as social workers working with those who are unstably housed. Findings suggest that residential instability decreases the chance of participating in the low-income housing program. Poverty scholars have documented the prevalence of residential instability among the poor and identified it as one of the critical mechanisms of perpetuating poverty because it disrupts work and living arrangements and causes deteriorating health; residential instability is not only a consequence of poverty, but also a cause (Desmond, 2016). This study reveals one more pathway linking residential instability and poverty reinforcement by suggesting how residentially unstable applicants are more likely to be removed from waitlists for one of the most poverty-relieving low-income housing programs in the United States. Compounding the problem, residential instability can also influence the take-up rate of other benefits. Residential instability can take the form of involuntary moves, which typically involve severe emotional distress (Manzo, Kleit, & Couch, 2008; Serby et al., 2006). Re-establishing connections with welfare agencies and going through re-certification processes may be difficult in such circumstances, which could increase the cost of claiming

and receiving benefits. The intersection of residential instability and the continuity of welfare benefits will be a fruitful venue for future studies on stability in welfare receipt, which can provide insight into how residential instability reproduces economic hardship by discontinuing welfare benefits, temporarily at least.

This study examined local administrative practices of managing a waitlist – not only initial prioritization of applicants on the waitlist, but also periodic purging of the list – to understand the role of waiting procedures in shaping limited housing resource allocation. Implementing agencies, including social and health service providers, that have to ration services often use waitlists (Hicks, 2011). This study provides a comprehensive conceptual framework of administrative practices of managing a waitlist, considering both explicit rationing process through prioritization of applicants on the waitlist and implicit rationing through selective attrition during waiting periods. Similar to Brown and colleagues' (2017) study of selective attrition from the waitlist for a shelter bed, findings of this study suggest that the administrative burden of following the waiting procedure for a housing voucher has disparate impacts on applicants who are economically marginalized. Conceptualizing waiting time as a resource allocation process (Herd & Moynihan, 2019; Lipsky 2010) will be relevant for future research on benefit distribution, especially when there is extensive waiting time and it involves an administrative burden.

Interviews of PHA directors and HCV program administrators revealed selective attrition from the waitlist for the HCV program of residentially unstable applicants who happen to be economically marginalized or experiencing other forms of economic and household instability. There is no reason to think that PHAs intend to primarily benefit comparatively better off applicants. Rationing based on the contact procedure could actually be neutral when a waitlist is short. In the context of an extended waiting period, however, this process of rationing creates a de facto preference for those able to stay in place or those who are able to keep PHAs updated as to their residential address. To address this unintended consequence of rationing based on contact procedures, PHAs can consider practical solutions, including maintaining a shorter waitlist with more frequent waitlist openings to reduce an attrition rate, using multiple modes of contact to track applicants on the waitlist, and reinstatement of applicants who were purged from the waitlist upon request of applicants. Considering financial constraints facing PHAs in administering the HCV program (Council of Large Public Housing Authorities, 2013), however, it would be critical to increase PHAs' administrative capacity to address selective attrition of residentially unstable applicants from the waitlist. Along with fully funding administrative fees for which PHAs are eligible for the HCV program, HUD can encourage PHAs to seek interorganizational collaboration among PHAs to redesign administrative practices of managing a waitlist not only to be efficient (Sard & Thrope, 2016), but also to take measures to avoid disadvantaging the most vulnerable applicants. Interviews of PHA directors suggest that they have a history of collaboration with neighboring PHAs at a small scale in the context of program underfunding and they perceive separate waitlists for every PHA as inefficient, especially given most applicants apply for a housing voucher through multiple PHAs.



Interpretation of the findings of this study should reflect understanding of the following limitations. First, this study examined the pattern of local administrative practices of initially placing applicants on the waitlist and managing the waitlist during the extended waiting periods. However, rationing can also happen from the very early stage of application (Moore, 2016), and thus, it is also critical to ask whether and what characteristics of applicants are associated with the chance of submitting an application, among those who are eligible for HCV benefits. Even in the pre-waitlist stages, however, it is highly likely that residentially unstable applicants are less likely to learn of an opening on the waitlist, although they may be less likely to act on it. Second, although this study uses a unique dataset that captures monthly residential move with information on when current residence spell started, it does not differentiate a voluntary move from an involuntary one. A shorter residence spell could increase the chance of missing contact from PHAs, but involuntary moves could limit applicants' ability to find time to individually contact each PHA that they have applied for more than voluntary moves. Third, it is also critical to consider that this study is based on local PHAs in Michigan, and that the state administers almost half of the vouchers the federal government allocates to it (HUD, 2017). My review of the administrative plan of the HCV program by the state agency suggests that it has the same administrative practice of regularly purging applicants on the waitlist that disadvantages residentially unstable applicants on other lists, but the residency preference, which applies to the entire state, is less likely to have a significant impact on how economic advantage interacts with eligibility. Future studies need to further examine the causes and consequences of administrative practices regarding housing voucher programs by the state agency. Lastly, this study indirectly measures the selective attrition of poorer applicants from a waitlist using the two step processes; I first identified the characteristics that put people at a disadvantage in the competition for housing vouchers, and then examined whether people with these characteristics tend to be poorer than other applicants. Thus, future research can collect data to directly measure the extent to which poorer applicants are selectively removed from a waitlist as well as how each channel identified in this study, purging procedure and waitlist preference, contributes to exacerbating inequality relative to the other.

Considering that housing affordability is decreasing, particularly for low-income households (Guggenmos & Burke, 2019), housing instability and the allocation of low-income housing resources will only become more important in understanding poverty reproduction. The Housing Quality and Work Responsibility Act of 1998 relegated a great deal of authority for program implementation to PHAs. Devolution of authority is politically acclaimed as a way to promote public engagement in policy-making processes. As this study suggests, however, PHAs could unintentionally engage in discretionary practices and shape benefit access and distribution in ways that are not equitable. Analyzing local administrative practices to ration limited housing resources with an inequality perspective will provide important information for intervention to redesign low-income housing implementation in a way that is more equitable.

## Appendix

## Appendix

**Table A1.**

Characteristics of Analytic Sample Pooled Across All Survey Months from the SIPP 2014 Panel (2013–15)

	Overall	Stayers	Movers	OR
Household income-to-needs ratio (%)				
< .5	19.5	19.4	24.1	1.53 <sup>***</sup>
.5–1.0	23.0	22.9	24.3	1.30 <sup>***</sup>
1.0–1.5	26.3	26.3	26.0	1.21 <sup>***</sup>
1.5+	31.3	31.4	25.6	(ref)
Declines in income to needs ratio by 25%+ (%)	3.9	3.8	5.5	1.48 <sup>***</sup>
Intrahousehold change (%)	1.0	1.0	1.2	1.91 <sup>***</sup>
Interhousehold change (%)	1.4	1.4	2.6	1.20
Respondent's race (%)				
White	44.5	44.4	49.7	(ref)
Black	19.5	19.5	19.5	0.89 <sup>*</sup>
Hispanic	27.6	27.8	20.0	1.16 <sup>*</sup>
Other	8.4	8.3	10.8	0.64 <sup>***</sup>
Respondent's gender				
Male	44.6	44.6	44.2	(ref)
Female	55.4	55.4	55.8	1.01
Respondent's age (in years) (%)				
< 35	52.4	52.0	67.2	(ref)
35–55	28.1	28.2	23.7	0.65 <sup>***</sup>
55 <	19.5	19.8	9.1	0.36 <sup>***</sup>
Respondent's education (%)				
Less than high school	29.7	29.8	24.0	(ref)
High School Graduate	32.0	32.0	32.1	1.25 <sup>***</sup>
Some college	27.1	27.0	31.4	1.45 <sup>***</sup>
Bachelor or higher	11.2	11.2	12.5	1.40 <sup>***</sup>
Household type (%)				
Living alone	32.7	32.5	38.5	(ref)
Couples	9.0	9.1	8.7	0.81 <sup>**</sup>
Nuclear families	20.0	20.1	15.4	0.65 <sup>***</sup>
Single-parent families	14.0	14.0	14.7	0.89 <sup>*</sup>
Other-family	19.0	19.1	15.8	0.70 <sup>***</sup>
Nonfamily households	5.2	5.2	7.1	1.15
Region of residence (%)				
Northeast	15.9	16.0	10.6	(ref)
Midwest	19.8	19.7	24.8	1.91 <sup>***</sup>
South	34.8	34.7	39.0	1.70 <sup>***</sup>

	Overall	Stayers	Movers	OR
West	29.6	29.6	25.6	1.30 <sup>***</sup>
Residing in metropolitan area (%)				
Metropolitan	87.5	87.6	85.8	(ref)
Nonmetropolitan	12.5	12.4	14.2	1.16 <sup>**</sup>
Person-months	186,050	181,851	4,199	

Note.—To examine whether stayers and movers are significantly different from each other for each covariate proportions, I have separately conducted a series of analyses for each covariate as an outcome using mover status in the subsequent month as a sole predictor. For the four category variable of household income-to-needs ratio, I have used a multinomial logistic regression model with household income of more than 150 percent of the Federal Poverty Level (income-to-needs ratio = 1.5) as a base outcome; logistic regression models were used for all the other dichotomous variables. All the analyses were weighted using survey weights for each survey month. OR = odds ratio, ref = reference group.

<sup>\*\*\*</sup> p<0.001  
<sup>\*\*</sup> p<0.01  
<sup>\*</sup> p<0.05

**Table A2.**

Hazard Ratios and Standard Errors from Complementary Log-log Models Predicting Transition to Another Renter Spell among HCV Eligible Renters

	Unadjusted model		Model 1		Model 2		Model 3	
	Hazard Ratio	SE	Hazard Ratio	SE	Hazard Ratio	SE	Hazard Ratio	SE
Household income-to-needs ratio (ref = > 1.5)								
< .5	1.33 <sup>***</sup>	.07	1.17 <sup>**</sup>	.06	1.18 <sup>**</sup>	.07	1.22 <sup>***</sup>	.07
.5–1.0	1.24 <sup>***</sup>	.07	1.25 <sup>***</sup>	.07	1.25 <sup>***</sup>	.07	1.19 <sup>**</sup>	.06
1.0–1.5	1.19 <sup>**</sup>	.06	1.23 <sup>***</sup>	.07	1.23 <sup>***</sup>	.07	1.17 <sup>**</sup>	.06
Declines in income-to-needs ratio by 25%+					1.34 <sup>***</sup>	.11	1.27 <sup>**</sup>	.11
Interhousehold change							1.50 <sup>**</sup>	.19
Intrahousehold change							1.04	.17
Race (ref = White)								
Black			0.91	.05	0.91	.05	0.90 <sup>*</sup>	.05
Hispanic			0.78 <sup>***</sup>	.04	0.78 <sup>***</sup>	.04	0.72 <sup>***</sup>	.04
Other			1.20 <sup>**</sup>	.08	1.20 <sup>**</sup>	.08	1.15 <sup>*</sup>	1.15
Gender (ref = Male)								
			1.02	.04	1.02	.04	1.00	.04
Age (ref = < 35)								
35–55			0.72 <sup>***</sup>	.03	0.72 <sup>***</sup>	.03	0.74 <sup>***</sup>	
55 <			0.38 <sup>***</sup>	.03	0.38 <sup>***</sup>	.03	0.44 <sup>***</sup>	
Education (ref = less than high school)								
High School Graduate			1.06	.05	1.06	.05	1.10 <sup>*</sup>	.05
Some college			1.10	.06	1.09	.06	1.17 <sup>**</sup>	.06
Bachelor or higher			1.08	.08	1.08	.08	1.20 <sup>**</sup>	.08
Household type (ref = Living alone)								

	Unadjusted model		Model 1		Model 2		Model 3	
	Hazard Ratio	SE	Hazard Ratio	SE	Hazard Ratio	SE	Hazard Ratio	SE
Couples			0.86 <sup>*</sup>	.06	0.85 <sup>*</sup>	.06		
Nuclear families			0.62 <sup>***</sup>	.04	0.61 <sup>***</sup>	.04		
Single-parent families			0.80 <sup>***</sup>	.05	0.80 <sup>***</sup>	.05		
Other-families			0.68 <sup>***</sup>	.04	0.68 <sup>***</sup>	.04		
Nonfamily			0.80 <sup>**</sup>	.06	0.79 <sup>***</sup>	.06		
Region of residence (ref = Northeast)								
Midwest			1.58 <sup>***</sup>	.12	1.58 <sup>***</sup>	.12	1.59 <sup>***</sup>	.12
South			1.46 <sup>***</sup>	.10	1.46 <sup>***</sup>	.10	1.47 <sup>***</sup>	.10
West			1.31 <sup>***</sup>	.10	1.31 <sup>***</sup>	.10	1.29 <sup>**</sup>	.10
Residing in metropolitan area			1.05	.05	1.05	.05	1.04	.05
Time	0.98 <sup>***</sup>	.00	0.99 <sup>***</sup>	.00	0.99 <sup>***</sup>	.00	0.99 <sup>***</sup>	.00
Time <sup>*</sup> Time	1.00 <sup>***</sup>	.00	1.00 <sup>***</sup>	.00	1.00 <sup>***</sup>	.00	1.00 <sup>***</sup>	.00
Time <sup>*</sup> Time <sup>*</sup> Time	1.00 <sup>***</sup>	.00	1.00 <sup>***</sup>	.00	1.00 <sup>***</sup>	.00	1.00 <sup>***</sup>	.00
Person-months	186,050		186,050		186,050		186,050	

Note 1.—I have constructed the outcome variable of residential move from a monthly record of uniquely identifiable residential addresses. All the values of residential move from the first month of each residence spell up until one month before the last month of each spell were coded as 0. Residence spells not terminated by the end of observation period are right-censored and coded as 0. Transitioning to homeownership is a competing risk to moving to another renter spell while maintaining eligibility status for the HCV program, meaning it prevents households from experiencing the event of interest in this study by losing an eligibility status. I have recoded the last month of a residence spell that ends with moving to a homeowner spell as zero so it will be right-censored; monthly records in those spells contribute to the analysis up until one month before the last month of a renter spell (following Jenkins, 2005; Allison, 2010).

Note 2.—About half of residence spells are left-truncated, meaning risk onset (start of each residence spell) precedes an observation period, so I have calculated elapsed time after risk onset when they entered into an observation period (here I follow Guo, 1993; Jenkins, 2005). In modeling the dependence of hazard of residential move on time, I have used a cubic function for elapsed months to maximize model fit (following Singer & Willett, 2003; Carter & Signorino, 2010). I have run all the analytic models using monthly weights for each person-month record to account for sample attrition (following Hill, 1997). SE = standard error, ref = reference group

\*\*\*  
p<0.001

\*\*  
p<0.01

\*  
p<0.05

## References

- Allison PD 2010. *Survival analysis using SAS: A practical guide* (2 ed.). Cary: SAS Institute.
- Brodtkin EZ (2010). Human service organizations and the politics of practice. In Hasenfeld Y (Ed.), *Human services as complex organizations*. Thousand Oaks: SAGE Publications.
- Brown M, Mihelicova M, Lyons J, DeFonzo J, Torello S, Carrión A, & Ponce AN (2017). Waiting for shelter: Perspectives on a homeless shelter's procedures. *Journal of Community Psychology*, 45, 846–858.
- Bryson DB, & Lindsey DP (1999). Annual public housing authority plan: A new opportunity to influence local public housing and Section 8 policy. *Clearinghouse Review: Journal of Poverty Law and Policy*, 33, 87–104.
- Carter DB, & Signorino CS (2010). Back to the future: Modeling time dependence in binary data. *Political Analysis*, 18, 271–292.

- Council of Large Public Housing Authorities. 2013. Public housing and Housing Choice Voucher funding history. Council of Large Public Housing Authorities, Washington, DC.
- Dawkins CJ (2007). Income targeting of housing vouchers: What happened after the Quality Housing and Work Responsibility Act? *Cityscape: A Journal of Policy Development and Research*, 9, 69–93.
- Desmond M 2016. *Evicted: Poverty and profit in the American city*. New York: Crown.
- . 2017. How homeownership became the engine of American inequality. May 9. *New York Times*.
- Desmond M, & Kimbro RT (2015). Eviction's fallout: Housing, hardship, and health. *Social Forces*, 94, 295–324.
- Desmond M, & Gershenson C (2016). Housing and employment insecurity among the working poor. *Social Problems* 63, 46–67.
- Devine DJ, Haley BA, Rubin L, & Gray RW (2000). *The Uses of Discretionary Authority in the Tenant-Based Section 8 Program: A Baseline Inventory of Issues*. Washington, DC: US Department of Housing and Urban Development, Office of Policy Development and Research.
- Dreier P (2006). Federal housing subsidies: Who benefits and why." In Bratt R, Stone M, & Hartman C (Eds.), *A Right to housing: Foundation for a new social agenda*. Philadelphia: Temple University Press.
- Edin KJ, & Shaefer HL (2015). *\$2.00 a day: living on almost nothing in America*. New York: Houghton Mifflin Harcourt.
- Fischer W, & Sard B (2017). Chart book: Federal housing spending is poorly matched to need: Tilt toward well-off homeowners leaves struggling low-income renters without help. CBPP Policy brief. Washington, DC: Center on Budget and Policy Priorities. Retrieved December 15, 2017, from <https://www.cbpp.org/research/housing/chart-book-federal-housing-spending-is-poorly-matched-to-need>.
- Fischer W, Rice D, & Mazzara A (2019). Research shows rental assistance reduces hardship and provides platform to expand opportunity for low-income families." CBPP Policy brief. Washington, DC: Center on Budget and Policy Priorities. Retrieved December 15, 2019, from <https://www.cbpp.org/research/housing/research-shows-rental-assistance-reduces-hardship-and-provides-platform-to-expand>.
- Guggenmos S, & Burke K (2019). Diminishing affordability. Freddie Mac Policy brief. Tysons Corner, Virginia: Freddie Mac. Retrieved December 15, 2019, from [https://mf.freddiemac.com/docs/diminishing\\_affordability\\_inescapable.pdf](https://mf.freddiemac.com/docs/diminishing_affordability_inescapable.pdf).
- Freeman L (2002). America's affordable housing crisis: A contract unfulfilled. *American Journal of Public Health*, 92, 709–712. [PubMed: 11988431]
- Grigsby W, & Bourassa S (2004). Section 8: The time for fundamental program change? *Housing Policy Debate*, 15, 805–834.
- Guo G (1993). Event-history analysis for left-truncated data. *Sociological Methodology*, 23, 217–243. [PubMed: 12318163]
- Guggenmos S, & Burke K (2019). Diminishing affordability (Freddie Mac Policy brief). Tysons Corner, VA: Freddie Mac. Retrieved from [https://mf.freddiemac.com/docs/diminishing\\_affordability\\_inescapable.pdf](https://mf.freddiemac.com/docs/diminishing_affordability_inescapable.pdf)
- Hasenfeld Y (2000). Organizational forms as moral practices: The case of welfare departments." *Social Service Review*, 74, 329–351.
- Hartman C (1998). The case for a right to housing." *Housing Policy Debate*, 9, 223–246.
- Herd P, & Moynihan DP (2019). *Administrative burden: Policymaking by other means*. New York: Russell Sage Foundation.
- Hicks LL (2011). Making hard choices: Rationing health care services. *The Journal of Legal Medicine*, 32, 27–50. [PubMed: 21391054]
- Hill DH (1997). Adjusting for attrition in event-history analysis. *Sociological Methodology*, 27, 393–416. [PubMed: 12348200]
- HUD (US Department of Housing and Urban Development). 2001. *Housing Choice Voucher program guidebook*. Retrieved June 25, 2016, from [http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/publicindian\\_housing/programs/hcv/forms/guidebook](http://portal.hud.gov/hudportal/HUD?src=/program_offices/publicindian_housing/programs/hcv/forms/guidebook).

- . 2017. Picture of subsidized households, 2016. Online database. <https://www.huduser.gov/portal/datasets/picture/yearlydata.html>.
- Infranca JJ (2015). Housing resource bundles: distributive justice and federal low-income housing policy. *University of Richmond Law Review*, 49, 1071–1137.
- Jenkins SP (2005). *Survival Analysis*. Unpublished manuscript.
- Joint Center for Housing Studies. 2017. *America's rental housing*. Cambridge, MA: Joint Center for Housing Studies of Harvard University.
- Kim H, Burgard SA, & Seefeldt KS (2017). Housing assistance and housing insecurity: A study of renters in southeastern Michigan in the wake of the Great Recession. *Social Service Review*, 91, 41–70.
- King G, Keohane RO, & Verba S (1994). *Designing social inquiry*. Princeton: Princeton University Press.
- Lipsky M (2010). *Street-level bureaucracy: Dilemmas of the individual in public service* (30th Ann. ed.). New York: Russell Sage Foundation.
- Manzo L, Kleit R, & Couch D (2008). 'Moving three times is like having your house on fire once': The experience of place and impending displacement among public housing residents. *Urban Studies*, 45, 1855–1878.
- Martin EJ, & Stern NS (2004). Domestic violence and public and subsidized housing: Addressing the needs of battered tenants through local housing policy. *Clearinghouse Review: Journal of Poverty Law and Policy*, 38, 551–560.
- Mazzara A (2017). Federal rental assistance provides affordable homes for vulnerable people in all types of communities." Policy brief, Center on Budget and Policy Priorities, Washington, DC.
- McCarty M, & Brick C (2012). The use of discretionary authority in the Housing Choice Voucher program. Congressional Research Service, Washington, DC.
- Miles H, Huberman AM, & Saldaña J (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Thousand Oaks: SAGE Publications.
- Moore MK (2016). Lists and lotteries: Rationing in the Housing Choice Voucher program. *Housing Policy Debate*, 26, 474–487.
- National Low Income Housing Coalition (NLIHC). 2004. A new look at waitlists: What can we learn from the HUD approved annual plans?" Research Note 04–03. National Low Income Housing Coalition, Washington, DC.
- . 2016. *Housing spotlight: The long wait for a home*. National Low Income Housing Coalition, Washington, DC.
- Phinney R (2013). Exploring residential mobility among low-income families. *Social Service Review*, 87, 780–815.
- Quigley JM (2008). "Just suppose: housing subsidies for low-income renters." In Retinas NP, & Belsky ES (Eds.) *Revisiting rental housing*. Washington, DC: The Brookings Institution.
- Richards T, White MJ, & Tsui AO (1987). Changing living arrangements: A hazard model of transitions among household types." *Demography*, 24, 77–97. [PubMed: 3556691]
- Ruggles S, Flood S, Goeken R, Grover J, Meyer E, Pacas J, & Sobek M (2020). IPUMS USA: Version 10.0 [dataset]. Minneapolis, MN: IPUMS. doi:10.18128/D010.V10.0. Available from <https://usa.ipums.org/usa/>
- Sard B, & Thrope D (2016). Consolidating rental assistance administration would increase efficiency and expand opportunity. Policy brief, Center on Budget and Policy Priorities, Washington, DC.
- Seefeldt KS (2016). *Abandoned families: Social isolation in the twenty-first century*. New York: Russell Sage Foundation.
- Serby M, Brody D, Amin S, & Yanowitch P (2006). Eviction as a risk factor for suicide. *Psychiatric Services*, 57, 273–74.
- Singer JD, & Willett JB (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York: Oxford University Press.
- Skobba K (2016). Exploring the housing pathways of low-income women: A biographical approach. *Housing, Theory, and Society*, 33, 41–58.

Withers SD (1997). Methodological considerations in the analysis of residential mobility: A test of duration, state dependence, and associated events.” *Geographical Analysis*, 29, 354–372.

Yin RK (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks: SAGE.

**Table 1.**

Characteristics of Analytic Sample Pooled Across All Survey Months from the SIPP 2014 Panel (2013–15)

	Overall	Stayers	Movers	OR
Household income-to-needs ratio (%)				
< .5	19.5	19.4	24.1	1.53***
.5–1.0	23.0	22.9	24.3	1.30***
1.0–1.5	26.3	26.3	26.0	1.21***
1.5+	31.3	31.4	25.6	(ref)
Declines in income-to-needs ratio by 25%+ from last month (%)	3.9	3.8	5.5	1.48***
Intrahousehold change (%)	1.0	1.0	1.2	1.91***
Interhousehold change (%)	1.4	1.4	2.6	1.20
Person-months	186,050	181,851	4,199	

Note 1.—To examine whether stayers and movers are significantly different from each other for each covariate proportions, I have separately conducted a series of analyses for each covariate as an outcome using mover status in the subsequent month as a sole predictor. For the four category variable of household income-to-needs ratio, I have used a multinomial logistic regression model with household income of more than 150 percent of the Federal Poverty Level (income-to-needs ratio = 1.5) as a base outcome; logistic regression models were used for all the other dichotomous variables. All the analyses were weighted using survey weights for each survey month.

Note 2.— Also, after classifying household type into six categories—individuals living alone, couples, nuclear families, single-parent families, other-family, and other-nonfamily households—I have created two measures of household instability: interhousehold instability, meaning change in household type, and intrahousehold instability, meaning change in household size without changing household type (here I follow Withers, 1997; Richards, White, & Tsui, 1987).

Note 3.—Other covariates, including race, age, gender, education, and indicators of region of residence and metropolitan residence, were not presented in this table; see supplementary Table A1 for full descriptive results. Stayers = those who moved in the subsequent month, Movers = those who did not move in the subsequent month, OR = odds ratio, ref = reference group.

\*\*\*  
p<0.001

\*\*  
p<0.01

\*  
p<0.05



**Table 2.** Hazard Ratios and Standard Errors from Complementary Log-log Models Predicting Transition to Another Renter Spell among HCV Eligible Renters

	Unadjusted model		Model 1		Model 2		Model 3	
	Hazard Ratio	SE	Hazard Ratio	SE	Hazard Ratio	SE	Hazard Ratio	SE
Household income-to-needs ratio (ref = > 1.5)								
< .5	1.36***	.07	1.17**	.07	1.18**	.07	1.19**	.07
.5–1.0	1.25***	.07	1.32***	.08	1.33***	.08	1.24***	.07
1.0–1.5	1.19**	.06	1.22**	.07	1.22**	.07	1.15*	.07
Declines in income-to-needs ratio by 25%+					1.30**	.12	1.21*	.11
Interhousehold change							1.45**	.20
Intrahousehold change							1.10	.19
Person-months	186,050		186,050		186,050		186,050	

Note 1.—I have constructed the outcome variable of residential move from a monthly record of uniquely identifiable residential addresses. All the values of residential move from the first month of each residence spell up until one month before the last month of each spell were coded as 0. Residence spells not terminated by the end of observation period are right-censored and coded as 0. Transitioning to homeownership is a competing risk to moving to another renter spell while maintaining eligibility status for the HCV program, meaning it prevents households from experiencing the event of interest in this study by losing an eligibility status. I have recoded the last month of a residence spell that ends with moving to a homeowner spell as zero so it will be right-censored; monthly records in those spells contribute to the analysis up until one month before the last month of a renter spell (following Jenkins, 2005; Allison, 2010).

Note 2.—About half of residence spells are left-truncated, meaning risk onset (start of each residence spell) precedes an observation period, so I have calculated elapsed time after risk onset when they entered into an observation period (here I follow Guo 1993; Jenkins 2005). In modeling the dependence of hazard of residential move on time, I have used a cubic function for elapsed months to maximize model fit (following Singer & Willett, 2003; Carter & Signorino, 2010). I have run all the analytic models using monthly weights for each person-month record to account for sample attrition (following Hill, 1997).

Note 3.—All the models include cubic term of elapsed months since move-in and a set of covariates, including race, age, gender, education, and indicators of region of residence and metropolitan residence, but full model results are not presented in this table; see supplementary Table A2. SE = standard error, ref. = reference group

\*\*\* p<0.001  
 \*\* p<0.01  
 \* p<0.05

**Table 3.**

Population-Weighted Single-Year Migration Status by Income-to-Needs Ratio from the 5-Year American Community Survey (ACS) microdata (2012–16) (N = 1,323,283)

	Moved in the last year	Moved in the last year between PUMAs
Household income-to-needs ratio, % (SE)		
< .5	34.9 (0.1)	13.4 (0.1)
.5–1.0	26.2 (0.1)	8.3 (0.1)
1.0–1.5	24.8 (0.1)	8.0 (0.1)
1.5+	25.0 (0.1)	8.8 (0.1)

Note. SE = Standard Error; PUMAs = Public Use Microdata Areas. I limited my analytic sample to renters aged 18 or older who are income-eligible for the HCV program participation. To determine respondents' income eligibility status, I compared their household income to the 50% of AMI in the HUD-defined area to which they belong. When the lowest level of geography (PUMA) for place of residence does not uniquely identify a HUD defined area, I used the max 50% of AMI among possible HUD defined areas within the PUMA. Author's own calculation using IPUMS USA dataset (10.0 version) (Ruggles et al., 2020).