PRICE DISCRIMINATION AGAINST VOUCHER TENANTS[†]

Konhee Chang[*]

October 2026
Link to the latest version

Preliminary and incomplete.

Abstract

The Housing Choice Voucher (HCV) program provides more than $30 billion a year in rental subsidies to low-income households renting in the private market. Using administrative data that track rents for the same units under both voucher and market-rate tenancies, I show that landlords charge voucher tenants about 6% higher rents. At turnover, landlords raise rents by about $80 more when the incoming tenant holds a voucher. Leveraging variation in voucher generosity arising from program design, I find that rent premia are largest where voucher tenants are least sensitive to rent. Premia increase with landlords' experience in the program, and voucher tenancies are not more costly to serve along several direct measures of cost. These patterns are difficult to reconcile with cost-based explanations and instead point to third-degree price discrimination against voucher tenants.

JEL: D43, H22, I38, R31, R38.
Keywords: Housing vouchers, price discrimination, subsidy incidence, landlords, rental markets.

[†] This paper is a revised version of Chapter 3 of my dissertation at the University of California, Berkeley. I am grateful to Cecile Gaubert, Amir Kermani, Nick Tsivanidis, Nancy Wallace, and Danny Yagan for their guidance. I thank Grace Choi, Junseok Lee, Brad Lipton (discussant), Kate O'Regan (discussant), Chris Palmer, Carolina Reid (discussant), Elif Taşar, Jason Ward (discussant), and conference and seminar participants at the Berkeley Consumer Law Scholars Conference, the Washington DC Urban Economics Day, the U.S. Department of Housing and Urban Development (HUD), Sogang University, Seoul National University, the System Community Development Research Conference, the North American Meeting of the Urban Economics Association, and the Federal Reserve Board for valuable feedback.

[*] Federal Reserve Board of Governors (e-mail: konhee.chang@frb.gov). The analysis and conclusions contained in this paper are those of the author and do not necessarily reflect the views of the Board of Governors of the Federal Reserve System, its members, or its staff.

1. Introduction

The Housing Choice Voucher (HCV) program is the largest rental assistance program in the United States, costing more than $30 billion a year to serve more than two million households. The program subsidizes low-income households renting in the private market with the aim of increasing their access to a broader set of housing and neighborhoods, outside of public housing. Despite its policy motivation and large scale, the program faces several challenges. Only about 60% of recipients lease a unit before their voucher expires (Ellen et al. 2025), and those who do largely remain in low-opportunity neighborhoods (Bergman et al. 2024). The program is also heavily oversubscribed, with eligible households waiting years for a voucher. Budgetary concerns have become more salient amid recent proposals to cut the funding for the Department of Housing and Urban Development (HUD) programs by 8% in fiscal year 2027 (U.S. House of Representatives, Committee on Appropriations 2026).

A key question around the fiscal cost of privately delivered social safety net programs such as the HCV program is how much of the subsidy is captured by the supply side. One way private sellers capture part of the transfer is by charging subsidized buyers more than other buyers for the identical good (Meckel 2020). However, such evidence is rare because few settings reveal the prices the same seller charges subsidized and unsubsidized buyers for the same good.

This paper provides direct evidence of such price differentials in the HCV program, using administrative data on the rents private landlords charge voucher and market-rate tenants for the same unit. I proceed in two steps. First, I estimate the gap in the rents that landlords charge voucher tenants and market-rate tenants for the same unit. Second, I investigate the mechanisms driving any such gap, testing for two competing possibilities: a markup made possible by voucher tenants' lower sensitivity to rent, or a higher cost of serving them.

Whether some tenants pay more than others for the same housing is a long-standing question in rental markets, including in the HCV program (see Olsen 2019 for a review). Yet, estimating rent gaps and quantifying their mechanisms have remained challenging for two reasons. First, no two housing units are identical, even within a building, so comparing voucher units with market-rate units that look similar confounds tenant type with unobserved quality. Second, unlike consumer goods, rental housing is a service, and the cost of serving a tenant may depend on the tenant type. A rent differential between voucher and market-rate tenants may reflect cost differences such as nonpayment risk or administrative burden, rather than a markup.

To address these challenges, I draw on administrative rent registry data from one of the twenty largest U.S. cities. The registry covers every unit under the city's rent stabilization program from 2018 to 2025 and records for each tenancy the rent, the security deposit, the dates of and reasons for tenancy changes, the owner and manager information, and importantly, whether the tenant holds a voucher. Unlike administrative records from HUD, which cover only subsidized tenancies, the registry covers both voucher and market-rate tenancies. In contrast to Multiple Listing Service (MLS) data, it records the contract rent each tenant actually pays, not an asking price at listing. I can therefore compare the rents the two types of tenants pay for the same unit under the same landlord. To the best of my knowledge, this paper provides the first such comparison. The registry also records tenancy outcomes, which lets me measure the cost of serving each type of tenant directly.

In the first step of the paper, I estimate the pricing gap between voucher tenants and market-rate tenants. Using a repeat-rent design, I compare rents for the same unit across tenancies, controlling for unit fixed effects and granular building-by-time trends. Voucher tenants pay about 6% more in rent and 7% more in security deposit for the same unit. Comparing the same unit matters quantitatively. Without unit fixed effects, the same approach yields a pricing gap of nearly 12%. This suggests that unobserved unit-level characteristics are correlated with voucher tenancies and that a hedonic approach would produce a biased estimate of the voucher rent premium.

While the unit fixed effects control for time-invariant unobservables, there may be time-varying unit characteristics that covary with tenancy type that also affect rents. For example, landlords may maintain voucher units better than they maintain market-rate units to pass the program's inspection requirements. Such within-tenancy divergence in unit quality can bias the estimate of the voucher rent premium. I address this concern by turning to the moment landlords set prices when tenancy changes. In a movers design that compares rent changes at turnover, landlords raise the rent by about $80 more for the same unit when the incoming tenant holds a voucher.

In the second step, I investigate the mechanisms driving the voucher rent premium. One mechanism is that landlords charge higher markups to voucher tenants, because the voucher program design makes voucher recipients plausibly less price sensitive. Voucher tenants typically pay 30% of their income toward rent and the housing authority pays the landlord the rest, up to a payment standard. Below the standard—which is generally benchmarked to the Fair Market Rent (FMR) set by HUD—an increase in the rent does not affect the tenant's out-of-pocket rent expenses. Furthermore, voucher tenants face several frictions in

their housing search such that they may search and negotiate less than market-rate tenants do.

To test for markups, I use variation in how binding the payment standard is. Because the tenant pays any rent above the standard out of pocket, the room a landlord has to raise the rent before the tenant bears any of it varies across neighborhoods, across units, and over time. The same standard is more likely to bind in high-rent neighborhoods, in high-rent units, and as market rents drift away from a nominal standard that is fixed within the year.

I find that the voucher rent premium is larger when the payment standard is most generous relative to market rates, such that the voucher tenant is least price sensitive. Across ZIP codes within the same housing authority, the premium is 8.1% in the low-rent tercile compared to 3.0% in the high-rent tercile. Across units within the same ZIP code, the premium is attenuated for units whose previous rent exceeds the payment standard. Over time, the premium is largest right after the FMR is reset and declines over the payment standard year. Payment standards reset once a year while market rents generally rise continuously, so the real value of the subsidy erodes over the year. Because long waitlists leave voucher holders little control over when they receive a voucher and search, this within-year drift generates plausibly random variation in tenant price sensitivity.

Next, I test whether voucher tenancies cost more to serve, so that the premium reflects cost differences rather than markups. Such costs come in two forms. The first is the administrative cost of a voucher tenancy: landlords must pass an inspection, contract with the housing authority, and recertify the tenancy each year. The second is the cost of the tenant: voucher tenants may turn over more often, leave units vacant longer, require more repairs, or pose a greater risk of nonpayment or lease violations. Costs could also run the other way. The housing authority's share of the rent is paid directly to the landlord and guaranteed, so a voucher tenancy provides a form of rent insurance that may make voucher tenants cheaper to serve.

Leveraging variation in landlords' familiarity with the HCV program, I show that administrative costs are unlikely to explain the rent premium. These costs should be most salient when a landlord first works with the program and fade with experience and expertise. I find the opposite pattern. Premia are smaller when a unit, building, or landlord first hosts an HCV tenant, which is when these costs are likely highest, and they rise with landlords' experience serving voucher tenants and with the share of voucher tenants in their portfolios.

I also do not find evidence that voucher tenants are more costly to serve along several direct measures of cost. Voucher tenants do not turn over more often or result in longer

vacancies before or after their tenancy. Rent grows similarly under voucher and market-rate tenancies. Voucher tenants are also not more likely to be evicted for cause, suggesting that tenant quality is unlikely to drive large differences in costs.

Together, the evidence points to third-degree price discrimination against voucher tenants. Landlords charge more for the same unit to voucher tenants because they are less price-sensitive, not because they cost more to serve.

A back-of-the-envelope calculation implies that landlords capture 7% to 9% of the total voucher subsidy through the voucher rent premia alone. Because the housing authority pays the full premium when the rent is below the payment standard, the burden of extra rent payments does not fall primarily on the incumbent voucher tenants. Rather, the incidence is on the taxpayers funding the program and ultimately, eligible tenants on the HCV waitlist who could have been served absent the additional payments. If premia of this magnitude applied nationally, the same budget would serve roughly 150,000 to 240,000 more households each year without them.

Related Literature. This paper contributes to several strands of literature in public and urban economics. First, I contribute to the large literature on the incidence of social safety net programs. Private insurers and vendors capture part of government transfers in Medicaid prescription drug purchasing (Duggan and Morton 2006), Medicare Advantage (Cabral et al. 2018), and the Supplemental Nutrition Program for Women, Infants, and Children (WIC) (Meckel 2020). In housing, Collinson and Ganong (2018) show that increases in the voucher rent ceiling pass through to rents with little improvement in quality.[1] Most of these studies infer subsidy incidence from how prices respond to changes in program generosity or from regulatory changes. I show direct evidence that private providers capture part of the transfer through a markup on the subsidized buyer and that the markup is largest where program rules make the buyer least sensitive to price.

Second, I contribute to research on discrimination in rental markets. Most of what is known concerns the search stage. Correspondence studies document differential treatment of minority renters (Christensen and Timmins 2022; Christensen and Timmins 2023), and landlords frequently refuse voucher holders outright, contributing to low take-up (Aliprantis et al. 2022; Blanco and Song 2024; Cunningham et al. 2018; Ellen et al. 2024; Phillips

[1] A related literature studies whether housing subsidies raise rents in the broader market. Susin (2002) finds that vouchers raised rents in the low-income segment of U.S. metropolitan housing markets, while Eriksen and Ross (2015) find little effect on average rents but larger increases for units with rents near the voucher rent ceiling. Eerola et al. (2026) find almost no pass-through of a large increase in Finnish housing allowances, which are paid to tenants and, unlike HCV, are not easily observed by landlords.

2017) and concentrating voucher tenants in low-rent neighborhoods (Rosen 2014; Garboden et al. 2018). Landlords are central to the policy response. An intervention that paired search assistance with direct landlord recruitment raised the share of families moving to high-opportunity areas from 15% to 53% (Bergman et al. 2024). Reforms that raise the payment standard in high-rent neighborhoods move voucher holders toward them (Ellen et al. 2025), and source-of-income laws prohibit refusing voucher holders (Ellen et al. 2023). These studies ask whether a landlord rents to a voucher holder, and where. Much less is known about what happens once the landlord does. I show that, conditional on acceptance, landlords charge voucher tenants more than market-rate tenants for the same unit.

Third, I contribute to the literature on price differentials in housing markets. Different groups pay different prices for homes (Bayer et al. 2017; Ihlanfeldt and Mayock 2009; Myers 2004) and mortgages (Bartlett et al. 2022; Bhutta and Hizmo 2021), earn different housing returns (Kermani and Wong 2026), and, in older evidence, pay different rents (Kain and Quigley 1975; King and Mieszkowski 1973). Whether such gaps are price discrimination has been hard to establish, because the product and the cost of serving the buyer are typically unobserved. The same challenges have limited the evidence on voucher rents. Studies comparing voucher rents with those of hedonically similar unsubsidized units reach divergent conclusions (Wallace et al. 1981; Leger and Kennedy 1990; ORC/Macro 2001; Desmond and Perkins 2016; see Olsen 2019 for a review). In concurrent work, Blanco and Song (2026) link HUD contract records to online listings at the address level and show that voucher rents move toward the payment standard between listing and contracting. Using rent registry data, I directly compare the contract rents of voucher and market-rate tenants in the same unit and show evidence consistent with third-degree price discrimination. Using variation across landlords and direct measures of cost, I do not find evidence of cost-based pricing.[2]

The remainder of the paper proceeds as follows. Section 2 provides institutional background on the HCV program. Section 3 describes the data. Section 4 presents the repeat-rent and movers designs and the main estimates. Section 5 tests the markup and cost channels. Section 6 discusses incidence and program design. Section 7 concludes.

[2] Price discrimination requires that sellers have some market power and that buyer types are observable. Landlords observe voucher status through the housing assistance payment contract, and leases cannot be resold. The rent premia documented here therefore imply that landlords face downward-sloping residual demand (Watson and Ziv forthcoming), consistent with evidence on the pass-through of idiosyncratic costs to rents (Baker 2024; Hughes 2022; Lee 2024).

2. Background

This section describes institutional details about the HCV program.

2.1. *Background on the HCV Program*

The HCV program, formerly known as Section 8, is the largest tenant-based rental assistance program in the United States. The program serves approximately 2.3 million low-income households and is administered by over 2,000 public housing authorities (PHAs) using federal funding from the HUD. Eligible households receive a subsidy that covers the difference between a locally determined payment standard and 30% of the household's adjusted income. Voucher recipients are responsible for finding a rental unit in the private market, and landlords are required to comply with program rules including passing annual housing quality inspections.

The main goal of the HCV program is to provide recipients with the ability to move into neighborhoods with better employment prospects, lower crime rates, and higher-performing schools. Yet, a persistent challenge has been the limited success of voucher holders in leasing in high-opportunity areas, with many concentrated in segregated and high-poverty neighborhoods (Collinson and Ganong 2018). Recent literature has highlighted the role of systematic barriers in explaining this pattern such as search costs, landlord participation, and discriminatory tenant screening practices (Aliprantis et al. 2022; Bergman et al. 2024; Blanco and Song 2024; Cunningham et al. 2018; Garboden et al. 2018; Garboden et al. 2024; Moore 2017; Phillips 2017).

2.2. *How Rents and Subsidies are Set for HCV Units*

The maximum voucher subsidy is determined by the local public housing authority's payment standard, which is typically set between 90 and 110% of the Fair Market Rent (FMR) for the area. FMR is determined by HUD and is intended to approximate the 40th percentile of rents. HUD publishes a new FMR schedule once a year, and the housing authority's payment standard is fixed from the date it adopts the new schedule until the next adoption. I refer to this period as the FMR window. Because market rents move continuously while the payment standard is fixed within the window, the generosity of the subsidy relative to market rents declines over the window. Up to the payment standard, voucher tenants generally contribute about 30% of their adjusted income toward rent, and the housing authority pays the difference between the contract rent and the tenant contribution directly to the landlord.

If the contract rent exceeds the payment standard, tenants cover the difference out of pocket.

The traditional FMR framework applies a single rent benchmark for each unit size across the local public housing authority's entire jurisdiction. This uniform standard has raised concerns that it fails to capture within-metro variation in housing costs, making it difficult for voucher holders to lease units in high-opportunity neighborhoods where rents are typically higher. In response, HUD introduced Small Area Fair Market Rents (SAFMR), which set rent benchmarks at the more granular ZIP code level. SAFMRs allow for higher payment standards in more expensive neighborhoods and lower ones in less expensive areas, aligning subsidy levels more closely with local rent distributions.

The city studied in this paper was not designated for mandatory SAFMR implementation. Its housing authority set payment standards using the traditional metropolitan FMR for most of the sample period and voluntarily adopted SAFMR-based payment standards in 2025, the final year of the sample.

Another requirement under the HCV program is that contract rent set by private landlords must pass a "rent reasonableness" test. This rule requires that the rent be comparable to similar unassisted units in the local market. This rule explicitly prohibits landlords from charging voucher tenants different prices from what they would charge market-rate tenants for the same unit. The rent reasonableness requirement applies under both FMR and SAFMR regimes. In practice, enforcement relies on housing authorities' own comparisons with unassisted units, which are often based on limited data on market rents, and recent investigations suggest that the requirement does not always prevent landlords from charging voucher tenants more than market-rate tenants (Thompson 2024).

2.3. *Anti-Discrimination Laws*

Federal fair housing law does not explicitly prohibit discrimination based on prospective tenants' source of income. That is, landlords can refuse to rent to prospective tenant upon learning that they will pay rent using a voucher. Due to concerns that landlord discrimination limits the efficacy of the HCV program, state and local governments have enacted anti-discrimination laws—commonly known as source of income protections—that bar landlords from explicitly rejecting applicants who intend to pay with a voucher or from using exclusionary languages in rental advertisements (e.g., "No Section 8"). As of 2022, these protections are estimated cover approximately 57% of voucher households nationwide (Knudsen 2024).

The city studied in this paper prohibits source of income discrimination throughout the

sample period, so landlords cannot refuse to rent to voucher holders outright. Exclusion may instead operate through other less explicit margins, such as quoting rents or deposits that voucher holders cannot afford, which can itself be reported as a violation of the law. Yet, enforcement mechanisms vary and are incomplete.[3]

3. Data

This section describes the rent registry data, variable construction, and summary statistics.

3.1. *Administrative Rent Registry Panel*

I draw on administrative unit-level panel data obtained from a rent registry program in one of the twenty largest cities in the United States. Each year, the city's housing department collects unit-level information directly from the landlords. The city uses the data to monitor and support rental market regulation, including compliance with rent control ordinances. The rent registry data is not publicly accessible. While tenants may access information about their own unit to check its accuracy, there is no public database of unit-level information. The data were obtained through direct collaboration with the city under the agreement that it will be used for research purposes only and kept confidential.

The dataset covers the period from 2018 onward, with 2025 the most recent complete year, and includes all units in multifamily apartments that are subject to the city's rent stabilization ordinance. The ordinance caps annual rent increases for continuing tenants at 5%, while allowing rents to reset at tenant turnover. Importantly for this paper, the same rules apply to voucher and market-rate tenancies in the same unit: both are subject to the same cap within a tenancy and the same reset at turnover. Differences between the rents paid by the two types of tenants for the same unit therefore cannot reflect differences in the regulatory regime, which helps isolate the voucher premium. Each observation corresponds to a unique housing unit in a given year. For each unit, the registry records the contract rent and security deposit, the owner and manager, whether the current tenant holds a voucher, and the exact

[3] Some laws allow voucher recipients and local public housing authorities to sue for damages. Others rely on complaint-based systems with limited oversight (Greene et al. 2020). In jurisdictions without source of income protections, landlords can legally refuse to accept vouchers, contributing to high denial rates and potentially reinforcing patterns of segregation. Even in areas with source of income laws, certain landlord tactics such as setting unattainable income or credit score requirements make enforcement challenging. And so, recent high-profile audits and lawsuits alleging violation of local source of income laws have highlighted ongoing discrimination despite formal legal protections (Khouri 2024).

dates of and landlord-reported reasons for tenancy changes; Section 3.2 lists the variables.

The rent registry data offer three advantages over the data used in prior studies of voucher rents, and each is central to the empirical analysis. First, the registry is a unit-level panel that covers *both* voucher and market-rate tenancies. Studies of voucher rents have relied on HUD administrative records, which cover only subsidized tenancies, or on cross-sectional surveys. They therefore compare voucher units with *different* unsubsidized units that are similar in observed characteristics, using hedonic regressions or appraisals. Because rents vary substantially across units that look identical in the data—adjacent units in the same building with the same number of bedrooms can differ in rent because of layout or unit condition—this comparison confounds the voucher premium with unobserved differences in unit quality (Olsen 2019). In the registry, 2,835 units are observed under both a voucher and a market-rate tenancy during the sample period. These units allow me to compare rents paid by the two types of tenants for the *same* unit, holding fixed all time-invariant unit characteristics.

Second, the registry records *contract* rents—the rents tenants actually pay—rather than listing rents. Listing rents are asking prices that may differ from the rents at which leases are signed, and the difference can itself depend on the tenant: voucher rents in particular are adjusted toward the payment standard between listing and contracting. Contract rents for both types of tenants are therefore what a comparison of transacted prices requires. Similar administrative data have been used in recent housing studies, such as Baker (2024) and Baker and Wroblewski (2025), who analyze rent registry data from Berkeley, California.

Third, the registry identifies the owner and manager of each unit and records the exact dates of tenancy changes and the landlord-reported reason for each move-out. Data on landlords are rarely available in housing markets, particularly for small-scale landlords. These features allow me to follow landlords' experience with the voucher program over time and to measure the costs of serving voucher tenants directly, which are the basis for the mechanism tests in Section 5.

3.2. *Variables*

Key variables used in the analysis are as follows.

- Contract Rent. The monthly rent reported by the landlord for each occupied unit. This value reflects the contract rent charged to the tenant and is updated whenever there is a rent increase or new tenancy.

- Rent Effective Date. The date contract rent took effect.
- Rent Increase. Value amount of a rent increase.
- Rent Increase Date. The specific date on which a rent increase took effect.
- Security Deposit. The amount required as a security deposit for each tenancy.
- Tenancy Change Date. The date on which a change in occupancy occurred, such as when a new tenant moves in or an existing tenant vacates.
- Reason for Tenancy Change. A categorical variable describing the landlord-reported reason for turnover. There are 15 categories, including voluntary move-out, eviction, owner move-in, and breach of lease due to criminal activity.
- Voucher Status. A binary indicator for whether the unit is occupied by a tenant using an HCV.

3.3. *Descriptive Statistics*

Table 1 reports the descriptive statistics. The dataset covers 37,855 unique units between 2018 and 2025. From a total of 213,331 unit-level registrations, 12,687 are voucher tenancies. This corresponds to a voucher share of 5.9%, consistent with national estimates: approximately 2.3 million households participate in the HCV program nationwide, representing roughly 5% of all renter households.

Voucher units are concentrated among a subset of landlords and properties. Out of 3,195 unique landlords in the dataset, 1,167 (37%) have housed voucher tenants during the sample period. Similarly, only 1,411 of 4,125 buildings (34%) and 3,732 of 37,855 (10%) have ever had a voucher tenant.

4. Empirical Research Design and Results

This section presents the empirical strategies that I use to estimate the rent and deposit differentials between voucher and non-voucher tenants and reports the results. I leverage the panel structure of the rent registry data which allows for within-unit and within-building comparisons over time. I implement two complementary approaches. First, I compare the same unit over time, under voucher and non-voucher tenancies. Second, I leverage rent changes at the point when a new tenant moves in, comparing outcomes for voucher and market-rate tenants entering the same unit. Together, these designs provide evidence on

whether landlords charge higher rents or deposits to voucher tenants compared to market-rate tenants for the same unit.

4.1. *Repeat Rent Design*

Empirical Approach. This subsection estimates the rent premium paid by voucher tenants using a repeat-rent design. The key advantage of this approach is that I can compare the same housing unit over time as it hosts voucher and non-voucher tenants. By controlling for unit fixed effects, the analysis holds constant all time-invariant characteristics of the unit such as size, location, and unobserved qualities that may affect rents.

The estimating equation takes the following form.

$$\ln(y_{it}) = \beta Voucher_{it} + \alpha_i + \delta_{b(i)\times\tau(t)} + X_{it}'\gamma + \varepsilon_{it} \tag{1}$$

$\ln(y_{it})$ is the log of the monthly contract rent or the security deposit for unit i at registration date t, depending on the specification. $Voucher_{it}$ is an indicator for whether the unit is occupied by a voucher tenant, α_i denotes unit fixed effects, and $\delta_{b(i)\times\tau(t)}$ are building-by-time fixed effects, where $\tau(t)$ maps date t to its year, quarter, or month, depending on the specification. The vector X_{it} includes time-varying covariates such as indicator variables for tenancy type—new or incumbent—and the number of bedrooms to control for rare cases where the same unit is renovated to add or remove bedrooms. Standard errors are clustered at the building level.

The identification assumption underlying this design is that, after accounting for unit fixed effects, building-by-time fixed effects, and observed characteristics, whether a unit is rented to a voucher tenant is not systematically related to other unobserved factors that affect rent. In other words, for the same unit in the same building and time period, differences in rent between voucher and non-voucher tenants are assumed to reflect tenant type rather than unobserved differences in quality or trends.

Results. Table 2 reports the repeat-rent estimates for contract rents and security deposits. Panel A presents results for rents, and Panel B presents the corresponding estimates for security deposits.

Column (1) of Panel A is the baseline specification, which compares the same unit over time while controlling for building-by-year fixed effects. The estimate implies that voucher tenants pay about 5.8% higher rents than non-voucher tenants. Columns (2) and (3), which replace building-by-year fixed effects with building-by-quarter and building-by-month fixed

effects, yield similar estimates of 5.8% and 5.9%, respectively, indicating that the result is not sensitive to the choice of time controls.

Columns (4) and (5) illustrate the importance of controlling for unit fixed effects. Column (4), which includes unit fixed effects but omits building-time controls, produces a somewhat larger, but similar estimate of 7.6% to the baseline specification. In contrast, Column (5), which omits unit fixed effects and instead controls only for building-by-year variation, yields a much larger estimate of 11.7%. This comparison indicates that voucher tenants are more likely to occupy higher-rent units on average, and that failing to compare the same unit over time substantially overstates the rent premium. Conditioning on unit fixed effects therefore plays a central role in isolating rent differences associated with tenant type rather than selection into more expensive units.

The fact that voucher tenants occupy higher-rent units within the same building may appear surprising at first. However, several institutional details about the HCV program help explain this pattern. First, the rent registry data used in this study covers only rent-controlled properties, which are typically older and lower-rent than non-rent-controlled properties. In this context, voucher tenants may disproportionately occupy newer or better-maintained units relative to other rent-controlled units, even within the same building. This is potentially due to regular quality inspections for voucher units, which may lead landlords to allocate better-maintained or more recently upgraded units to voucher tenants. Second, existing research has documented that voucher usage is geographically concentrated in lower-income neighborhoods. Within such contexts, voucher-eligible units may be of relatively higher quality than the surrounding rental stock.

Panel B applies the repeat-rent design to security deposits. Column (1), the baseline specification which includes unit and building-by-year fixed effects, shows that voucher tenants pay about 7.5% higher deposits than non-voucher tenants in the same unit. Columns (2) and (3), which instead use building-by-quarter and building-by-month fixed effects, yield similar estimates of 7.2%. The magnitude of the voucher deposit premium is similar to that of the voucher rent premium.

Together, Table 2 shows that voucher tenants pay higher contract rents and security deposits relative to market-rate tenants for the same unit.

Remaining Threats to Identification. While the repeat-rent design provides strong controls for unit-level heterogeneity, several threats to identification remain. First, there may be time-varying unit characteristics that may be correlated with voucher tenancy that also affects rents and deposits. For example, units may be in a better shape during voucher

tenancy due to maintenance or upgrades required to comply with annual inspections. Second, if voucher tenants experience higher turnover and landlords repeatedly lease particular units to voucher households, landlords may update rents more frequently for those units. This is particularly salient in this paper's setting where the rent control ordinance restricts rent increases absent tenant turnovers. Both mechanisms could bias the estimated voucher premium upward.

To address these concerns, the next subsection implements a complementary movers design that compares newly signed leases and their contract rents and deposits to terms from the previous tenancy. By focusing on rent and deposit changes at the point of tenant turnover within the same property and time period, this approach mitigates concerns about time-varying unit qualities or differential rent updating and provides a robustness check on the repeat-rent estimates.

4.2. *Movers Design*

Empirical Approach. This subsection presents an alternative research design that compares rent and deposit increases at the point of tenant turnover. I refer to this as the movers design. The key idea is to measure how much more landlords raise rents when the incoming tenant is a voucher recipient rather than a market-rate tenant entering the same unit. This approach focuses directly on rent-setting behavior at lease initiation and helps mitigate concerns about within-tenure quality changes or administrative frictions that may affect rent updates mid-lease.

The estimating equation is as follows.

$$y_{it} = \beta Voucher_{it} + \alpha_i + \delta_{b(i)\times\tau(t)} + \varepsilon_{it}, \tag{2}$$

where y_{it} denotes the change in rent or deposit for unit i at time t, measured as the difference between the new lease and the previous lease in the same unit. $Voucher_{it}$ is an indicator for whether the incoming tenant is a voucher holder. α_i denotes unit fixed effects, and $\delta_{b(i)\times\tau(t)}$ are building-by-time fixed effects that flexibly control for local market conditions and landlord-level pricing trends. Because the outcome is a within-unit change measured at turnover, time-invariant unit characteristics such as the number of bedrooms difference out, so the specification does not include additional covariates. Standard errors are clustered at the building level.

This specification restricts the sample to units that experience a tenancy change and for

which both the previous and current rents or deposits are observed. The identification assumption is that, conditional on unit and building-by-time fixed effects, the identity of the incoming tenant is not systematically related to unobserved changes in unit quality or desirability that would independently affect rent setting.

To address the possibility that larger rent increases reflect renovations or unit preparation prior to leasing, I also incorporate measures of vacancy duration. Days vacant proxy for the time available for repairs, upgrades, or other adjustments between tenants. If higher premia for voucher tenants were driven primarily by renovation activity, controlling for vacancy duration would attenuate the estimates.

Results. Table 3 reports estimates from the movers design. Panel A presents results for rent increases at turnover, and Panel B presents the corresponding estimates for deposit increases.

Column (1) of Panel A compares rent changes within the same unit while controlling for building-by-year fixed effects. The estimate implies that landlords raise rents by about $66 more when the incoming tenant is a voucher holder than when the incoming renter is a market-rate tenant entering the same unit. Columns (2) and (3) instead include building-by-quarter and building-by-month fixed effects, which compare turnovers in the same building within narrower windows of time, and yield somewhat larger estimates of about $78 and $80, respectively. Column (4) incorporates controls for vacancy duration by interacting voucher status with number of days vacant and retains building-by-year fixed effects. The estimated premium remains sizable at $59, and the interaction with days vacant is small (about $0.21 per day) and only marginally significant. This suggests that the higher rent increases for voucher tenants are not primarily driven by longer vacancy spells or renovation efforts prior to lease-up. The estimates are statistically significant across all specifications, with standard errors clustered at the building level.

Panel B reports analogous estimates for deposit increases. Across specifications, the point estimates are positive but less precise than in the rent premia analyses. This partly reflects more limited and noisier information on deposits in the turnover sample, which reduces statistical power.

Taken together, the movers results show that landlords raise rents more at the point of lease initiation when the incoming tenant is a voucher recipient, even within the same unit and controlling for local market conditions. This design complements the repeat-rent analysis by focusing directly on pricing behavior at turnover.

5. Mechanisms

This section discusses mechanisms that can rationalize the rent and deposit premia charged to voucher tenants relative to market-rate tenants for the same unit.

Price differentials between voucher and market-rate tenants for the same unit can arise through two broad channels: markups and cost-based pricing. First, landlords may charge higher markups to voucher tenants if they face less elastic residual demand from them. This may occur because program rules make voucher tenants less sensitive to rents than market-rate tenants, or because discrimination against voucher holders constrains their housing choices and weakens their outside options. Second, rents may differ because the cost of supplying a unit to a voucher tenant differs from that of supplying it to a market-rate tenant, and landlords pass these cost differences through to rents. *Ex ante*, cost differences could go in either direction. Annual inspections, administrative requirements, and coordination with the housing authority may make voucher tenancies costlier to serve, and nonpayment is a first-order risk for landlords in rental markets (Humphries et al. 2025). At the same time, the housing authority's share of the rent is paid directly to the landlord and guaranteed, so the voucher acts as a form of rent insurance (Abramson and Nieuwerburgh 2026; Bézy et al. 2024) that may make voucher tenancies *cheaper* to serve.

In this section, I evaluate the empirical relevance of these two channels. Section 5.1 formalizes them in a simple framework that yields testable predictions. Section 5.2 tests the markup channel using variation in voucher tenants' price sensitivity generated by program design. Sections 5.3 and 5.4 test the cost-based channel, first indirectly using landlords' experience with the program and then directly using measures of the cost of serving voucher tenants. The evidence is consistent with markup-based pricing and not with cost differences.

5.1. *Conceptual Framework*

To formalize these channels, consider a landlord who rents a given unit and can observe whether a prospective tenant holds a voucher. Because voucher status is observable and leases cannot be resold, the landlord can in principle set different rents for the two types of tenants. Let r_V and r_M denote the rents charged to voucher and market-rate tenants, c_V and c_M the costs of serving each type of tenant, and $D_V(r_V)$ and $D_M(r_M)$ the residual demand the landlord faces from each type, with elasticities η_V and η_M.

Program rules limit the landlord's ability to charge voucher tenants more. The rent reasonableness requirement prohibits charging voucher tenants more than market-rate tenants

for the same unit, and a rent found to be unreasonable may be rejected or renegotiated by the housing authority. I capture this regulatory risk with an expected penalty that increases with the amount by which the voucher rent exceeds the market-rate rent. The landlord chooses r_V and r_M to maximize the following profit function:

$$\pi \;=\; (r_V - c_V)\, D_V(r_V) \;+\; (r_M - c_M)\, D_M(r_M) \;-\; \frac{\phi}{2}\left[\,\max\{r_V - r_M,\, 0\}\right]^2, \tag{3}$$

$\phi \geq 0$ measures the stringency of enforcement as perceived by the landlord. The penalty is one-sided because rent reasonableness is a ceiling: charging a voucher tenant less than the market rate violates no rule. It applies to the rent the landlord quotes, whether or not a voucher tenant leases the unit. Source of income protections in the city studied here prohibit refusing voucher holders, including by quoting rents they cannot afford, so pricing them out is not a costless way to avoid the rule. Enforcement is imperfect in practice (Section 2), so I take ϕ to be finite by assumption. When the landlord charges voucher tenants more ($r_V > r_M$), the first-order conditions are

$$\frac{r_V - c_V}{r_V} \;=\; \frac{1}{\eta_V} \;-\; \frac{\phi\,(r_V - r_M)}{r_V\, D_V(r_V)\, \eta_V}, \tag{4}$$

$$\frac{r_M - c_M}{r_M} \;=\; \frac{1}{\eta_M} \;+\; \frac{\phi\,(r_V - r_M)}{r_M\, D_M(r_M)\, \eta_M}. \tag{5}$$

When $r_V \leq r_M$, the penalty term vanishes and each rent follows the standard markup rule. Without enforcement ($\phi = 0$), the same is true for any pair of rents, and the voucher premium reflects only differences in the elasticities and costs of the two segments. As enforcement becomes infinitely stringent ($\phi \to \infty$), the landlord cannot charge voucher tenants more than market-rate tenants, but remains free to charge them less. For intermediate values, the penalty lowers the voucher rent and slightly raises the market-rate rent relative to unconstrained price discrimination. Because the penalty is convex and has zero marginal cost at $r_V = r_M$, any finite level of enforcement leaves a positive premium whenever the landlord would otherwise want to charge voucher tenants more. The framework yields two predictions, one for each channel.

Prediction 1: The premium is larger where voucher tenants are less sensitive to rent. Program rules determine η_V. For a unit whose rent lies below the payment standard, the voucher tenant's contribution is fixed at a share of income, so the tenant does not pay the marginal dollar of rent and residual demand is less elastic the more room there is between the unit's market rent and the standard. Voucher tenants are not perfectly inelastic even below

the standard, because they can choose among landlords who accept vouchers and among units of different quality. If the markup channel matters, the premium should be larger where the gap between the payment standard and the market rent is larger. Section 5.2 tests this prediction using three sources of variation in this gap.

Prediction 2: If costs drive the premium, the premium should be larger where voucher tenants are costlier to serve. If voucher tenancies are costlier to serve because of inspections, administrative requirements, or tenant-related risks, then $c_V > c_M$ and part of the premium reflects cost differences. These costs need not be monetary. As in Becker (1957), c_V may also include a purely taste-based distaste for hosting voucher tenants, which raises the voucher rent in the same way. Under this channel, the premium should be larger where $c_V - c_M$ is larger, and voucher tenancies should be measurably costlier along margins such as turnover, vacancy, and tenant risk. Sections 5.3 and 5.4 test this prediction, first using variation in the administrative costs of participation across landlords and then using direct measures of the cost of serving each type of tenant.

5.2. *Markups: Price Insensitivity of Voucher Tenants*

Background. Figure 2 illustrates the logic of the tests in this subsection. The gap between the payment standard and the unit's market rent is the room a landlord has to raise the voucher rent before the tenant bears any of it, and Prediction 1 implies that the premium should be larger where this room is larger. Program design generates three sources of variation in the room. Across neighborhoods, a single payment standard applies throughout the housing authority, so the same standard is more generous where market rents are lower. Across units within a neighborhood, a unit whose rent already exceeds the standard leaves no room at all: an incoming voucher tenant pays any increase out of pocket. Over time, the nominal standard is fixed within the FMR year while market rents rise, so the room shrinks over the year; because long waitlists give voucher holders little control over when they receive a voucher and search, where in the year a tenant searches is plausibly unrelated to the tenant or the unit. A second feature of the program works in the same direction as the payment standard. Landlords' refusal of voucher holders constrains their choice sets and weakens their outside options, which reduces search intensity and bargaining over rents.

Empirical Approach and Results. I test Prediction 1 using the three sources of variation in turn. First, I estimate the baseline repeat-rent specification, Equation (1), separately for low-, middle-, and high-rent ZIP codes within the same city, where ZIP codes are split into

terciles by median market rent. Columns (1)–(3) of Panel A of Table 4 show the predicted gradient. Voucher premia are largest in low-rent ZIP codes (8.1%), remain sizable in middle-rent markets (4.7%), and are substantially smaller in high-rent areas (3.0%). Moving from low- to high-rent markets therefore corresponds to a decline of more than 5 percentage points in the estimated premium across the three subsamples. This pattern is consistent with qualitative evidence that landlords in low-rent neighborhoods actively recruit voucher tenants because the payment standard compares favorably with local market rents (Rosen 2014).

The second and third tests augment the baseline specification with an interaction between voucher status and a moderator Z_{it} that shifts the room below the payment standard:

$$\ln(Rent_{it}) = \beta\, Voucher_{it} + \lambda\, Z_{it} + \theta\big(Voucher_{it} \times Z_{it}\big) + \alpha_i + \delta_{b(i)\times s(t)} + X_{it}'\gamma + \varepsilon_{it}, \quad (6)$$

where θ measures how the premium changes with Z_{it}, and $s(t)$ is a time grouping chosen to match the source of variation: the calendar period $\tau(t)$ of the baseline specification in the second test, and the FMR window $\omega(t)$ in the third. Prediction 1 implies $\theta < 0$ when larger Z_{it} means less room.

Second, I examine whether the premium is smaller for units whose rent already exceeds the payment standard, where an incoming voucher tenant has no room before paying out of pocket. Here Z_{it} is an indicator that the unit's *previous* rent exceeded the payment standard in effect when that rent was set, so that Z_{it} is determined before the current tenancy, and $s(t) = \tau(t)$ is the registration year. Column (1) of Panel B of Table 4 reports the estimate. The interaction coefficient of -0.021, against a premium of 0.063 for units below the standard, implies the premium falls by one-third where rents already exceed the payment standard.[4]

Lastly, I exploit the erosion of the subsidy's real generosity over the FMR year. Figure 3 shows the variation. Panel A shows the dates of FMR updates and the windows over which the payment standard is fixed. Panel B shows a steady decline in the residualized ratio of

[4] Column (2) reports, for comparison, an interaction based on whether the *current* rent exceeds the payment standard. This indicator is defined by the outcome: a tenancy is classified as above the payment standard because its realized rent is high. The resulting comparison reflects which tenancies end up in each group rather than how landlords price. In particular, program rules limit how far voucher rents can exceed the payment standard (tenants pay any excess out of pocket, and at lease-up their share cannot exceed 40% of adjusted income), whereas market-rate rents are unconstrained. Above the threshold, voucher rents are therefore concentrated just above the payment standard while market-rate rents extend into the upper tail, which makes voucher rents appear lower even if landlords charge both tenant types the same rent for the same unit. Column (1) avoids this problem by classifying units based on the *previous* rent and the payment standard in effect when that rent was set, both of which are determined before the current tenancy.

the payment standard to contract rent over each window. The premium should be largest for leases signed early in the window and decline as the window progresses. Here Z_{it} is time since the FMR reset, measured as the number of days since the start of the window divided by the length of the window, so that it runs from 0 at the reset to 1 at the end of the window. The time grouping is the FMR window, $s(t) = \omega(t)$, so the building-by-window fixed effects compare leases signed in the same building within the same window, early against late. I restrict the sample to new tenants. A continuing tenant's rent is renegotiated at a time the tenant and landlord choose, and the registered rent may have been set years before the current window, so only fresh leases are priced within the window in which they are registered.

Discussion. Taken together, these results provide evidence that voucher tenants' price sensitivity plays a key role in explaining observed rent differentials. Overcharging is attenuated in segments where payment standards are likely to bind, smaller in higher-rent markets where vouchers are less generous relative to prevailing rents, and declines over the FMR cycle as the real value of the subsidy erodes. Importantly, this condition allows landlord-side mechanisms to translate into higher observed prices: when tenants' effective demand is inelastic, landlords can charge a markup in the form of rent premia. The importance of tenants' price sensitivity is also consistent with evidence from a setting where it is largely absent. Eerola et al. (2026) find almost no rent pass-through of a large increase in Finnish housing allowances, which are paid to tenants, are not easily observed by landlords, and leave recipients facing the marginal price of housing. The HCV program differs on each of these dimensions.

5.3. *Cost-Based Pricing: Landlord Experience*

Background. This subsection and the next test Prediction 2. If voucher rent premia reflect higher costs of serving voucher tenants rather than markups, the premia should be larger where those costs are higher. Each voucher tenancy imposes administrative costs on the landlord: passing an inspection, executing the housing assistance payment contract, recertifying the tenancy, and coordinating with the housing authority. These costs are incurred with every tenancy, but they are likely highest when a landlord, building, or unit first enters the program and fall as the landlord learns the process. Under Prediction 2, if these costs drive the premia, premia should be largest at first exposure and decline with experience.

Empirical Approach and Results. Table 5 evaluates this mechanism using two complementary approaches. Panel A examines whether the voucher rent premia are higher when a unit, building, or landlord hosts a voucher tenant for the first time. Panel B studies how the premia vary with accumulated experience hosting voucher tenants and with the share of voucher tenants in a landlord's portfolio.

Column (1) of Panel A shows that when a unit hosts a voucher tenant for the first time, the estimated premium is about 2.5 percentage points *smaller* relative to the baseline. A similar attenuation appears for buildings hosting their first voucher tenant (about 1.9 percentage points; Column 2) and for landlords' first exposure (about 1.5 percentage points; Column 3), both statistically significant. If the administrative costs of hosting voucher tenants were the primary driver of premia, one would expect the opposite pattern—larger premia at first exposure that decline with experience. Instead, premia appear smaller when a unit, building, or landlord hosts voucher tenants for the first time.

Panel B shows that premia tend to increase, rather than decrease, with experience. Accumulated building-level and landlord-level experience hosting voucher tenants is associated with larger voucher premia (Columns 2 and 3), and landlords with a higher portfolio share of voucher tenants charge substantially higher rents to voucher tenants overall (Column 4). The coefficient on landlord voucher share implies that moving from no voucher exposure to a fully voucher-oriented portfolio is associated with roughly a 9 percentage point larger premium. Unit-level experience shows little systematic relationship with premia (Column 1), suggesting that the experience effects operate primarily at the building or landlord level.

Discussion. Taken together, these results are difficult to reconcile with a cost-based explanation for the voucher rent premia. The premium is not largest when landlords first enter the voucher market and the administrative costs of a tenancy are highest; it is smaller. Similarly, the premium does not decline with expertise in the HCV program and instead increases with building- and landlord-level experience and with the landlord's specialization in the voucher market. This finding is consistent with landlords learning how to price voucher units more effectively over time or developing pricing strategies for the voucher segment. The same patterns also argue against a taste-based cost of hosting voucher tenants, which the direct cost measures in Section 5.4 cannot detect. Landlords with the strongest distaste for voucher tenants should be the least likely to serve them, so a taste-based premium should be *smallest* among landlords who serve many voucher tenants, and it should decline if distaste fades with exposure. Instead, premia are largest among the most experienced and specialized landlords. Taste-based costs are also unlikely to vary over the course

of a single FMR year, whereas premia decline as the real value of the payment standard erodes (Section 5.2).

5.4. *Cost-Based Pricing: Direct Tests of Cost Differences*

Background. The experience results infer costs indirectly. I complement them with direct tests of whether voucher tenants are costlier for landlords to serve, using four measures available in the registry: tenant turnover, vacancy duration around tenant transitions, rent growth within a tenancy, and the landlord-reported reason for move-out. If administrative burdens or tenant-related risks were a first-order cost of hosting voucher tenants, voucher tenancies should differ from market-rate tenancies in the same unit along at least one of these margins.

Empirical Approach and Results. Each test compares voucher and market-rate tenancies for the same unit, using the same unit fixed effects as the main specifications. The results are reported in Appendix Tables A.1–A.4.

Turnover. If voucher tenancies were costlier to maintain, for example because of annual recertification, landlords might expect them to end more often or last for shorter periods, raising the turnover costs of search, cleaning, and repairs. Voucher tenancies are no more likely to end than market-rate tenancies for the same unit, and conditional on ending, they do not last for shorter durations (Table A.1; Figure A.1).

Vacancy duration. If serving a voucher tenant required additional repairs before releasing, or upfront approval and inspection before move-in, units would sit vacant longer around voucher tenancies, and landlords would forgo rent during those periods. Vacancy duration is statistically indistinguishable whether the outgoing or the incoming tenant holds a voucher (Table A.2; Figure A.2).

Rent growth within a tenancy. If landlords recovered the costs of voucher tenancies through rent increases over the course of the tenancy rather than at its start, within-tenancy rent growth would differ by voucher status. It does not, either unconditionally or controlling for the length of the tenancy (Table A.3).

Tenant risk. If voucher tenants posed greater risk of nonpayment or lease violations, landlords would report evicting them for cause more often. Conditional on a reported move-out reason, voucher tenants are not more likely to be evicted for cause than market-rate tenants in the same unit (Table A.4).

Discussion. Across all four measures, voucher tenancies are not costlier for landlords to serve than market-rate tenancies in the same unit. Together with the experience results, this evidence is inconsistent with the view that voucher rent premia compensate landlords for higher costs. If anything, the guaranteed payment from the housing authority may make voucher tenancies *less* costly to serve. In that case, the observed rent premia understate the markup landlords charge voucher tenants and should be interpreted as a lower bound.

5.5. *Summary*

The evidence in this section points to voucher rent premia arising from voucher tenants' relatively inelastic demand and landlords' pricing behavior rather than from higher costs of serving voucher tenants. Premia are largest where vouchers are most generous and tenants are least price sensitive, and they attenuate where payment standards bind more tightly. Landlords with greater experience in the voucher market and larger voucher exposure appear better able to extract these premia, and voucher tenancies are not costlier to serve along any of the margins I can measure. A related possibility is that the premia reflect mechanical pricing at the payment standard. While some voucher rents bunch just below the payment standard, the entire distribution of voucher rents is shifted upward relative to that of market-rate rents, so bunching explains little of the premium (Appendix B). Overall, the results are most consistent with landlords price discriminating on tenants' voucher status.

6. Discussion and Policy Implications

This section discusses the policy implications of the voucher rent premia.

6.1. *Is Price Discrimination Against Voucher Tenants Legal?*

Charging different rents based on voucher status violates program rules. The HCV program requires that rents for voucher tenants be comparable to those charged to market-rate tenants for similar units, and recent concerns about overcharging have prompted investigation by regulators and local public housing authorities (Thompson 2024). The evidence in this paper suggests that such practices may be more widespread than previously documented and may occur predominantly among landlords most familiar with the HCV program.

6.2. *The Cost of Voucher Rent Premia*

The voucher rent premia imply that part of the subsidy is captured by private landlords through higher rents rather than benefiting voucher tenants.

A simple back-of-the-envelope calculation illustrates the magnitude. The repeat-rent estimates imply that voucher tenants pay between 5.8% and 7.6% more than market-rate tenants for the same unit (Panel A of Table 2, Columns 1 and 4). On average, 77% of the contract rent of a voucher unit is paid by the housing authority. These estimates imply that landlords capture about 7% to 9% of the total voucher subsidy through rent premia alone.[5] In dollar terms, at a representative monthly market rent of about $1,900, the premium corresponds to roughly $110 to $145 per month, or about $1,320 to $1,730 per voucher household per year.

Scaling this calculation to the national level suggests sizable aggregate fiscal effects. The HCV program serves between two and 2.4 million households. If premia of the magnitude documented here applied to the national voucher caseload, they would increase annual program expenditures by roughly $2.6 to $4.2 billion. Equivalently, because the program's budget is fixed, the same appropriation would serve about 7.6% to 10.1% more households absent the premium, or roughly 150,000 to 240,000 additional households on a caseload of two to 2.4 million.[6] This extrapolation should be interpreted with caution. The estimates come from a single city in which rental units are subject to rent stabilization, and they depend on assumptions about average rents and the share of rent paid by housing authorities. Nonetheless, they suggest that voucher rent premia may have meaningful budgetary consequences for the program.

6.3. *Who Bears the Cost of Voucher Rent Premia?*

Because voucher tenants' out-of-pocket contributions are tied to their income rather than to contract rent for rents below the payment standard, higher rents translate almost one-for-one into higher subsidy payments from housing authorities. The incidence of the premia

[5] Let R denote the market rent of a unit, p the voucher premium, and s the share of the contract rent paid by the housing authority. The voucher contract rent is $(1+p)R$, so the subsidy paid is $s(1+p)R$. Because the tenant's contribution does not depend on contract rent below the payment standard, the premium pR is paid by the housing authority. The share of the subsidy captured through the premium is therefore $p/[s(1+p)]$, which equals 7.1% for $p = 0.058$ and 9.2% for $p = 0.076$ at $s = 0.77$. The upper end of the range corresponds to the specification without building-by-time fixed effects.

[6] If the premium absorbs a share f of the subsidy, removing it lowers the cost per household by f, so a fixed budget serves $1/(1-f)$ times as many households: 7.6% more for $f = 0.071$ and 10.1% more for $f = 0.092$.

therefore falls largely not on current voucher tenants, few of whom pay the premium out of pocket, but on taxpayers and on the voucher-eligible households who could have been served. Because the program is not an entitlement and its budget is fixed, a higher cost per household means fewer households assisted: the same pool of subsidy supports fewer units and tenants, without any improvement in housing quality or neighborhood access for current recipients.

6.4. *Implications for Program Design*

Stricter enforcement of rent reasonableness would reduce the fiscal cost of the premia documented here, but enforcement is itself costly, can delay lease-up, and may reduce landlord participation (Blanco and Song 2026). The trade-off parallels the one documented by Meckel (2020) for WIC, where a reform that eliminated vendors' price discrimination against program participants led vendors to exit the program and reduced take-up. The results in this paper suggest that enforcement would be most valuable where premia are largest: in lower-rent neighborhoods where the payment standard is generous relative to market rents, and among landlords with extensive experience in the program. More broadly, these findings suggest that the design of the subsidy itself shapes landlords' ability to price discriminate, and alternative designs that pay assistance directly to tenants may limit landlords' ability to condition rents on subsidy receipt.

7. Conclusion

This paper studies how landlords price the units they rent to tenants who receive housing vouchers. Using administrative rent registry data that track the same units under both voucher and market-rate tenancies, I show that voucher tenants pay about 6% higher rents and 7% higher security deposits than market-rate tenants for the same unit, and that landlords raise rents by about $80 more at turnover when the incoming tenant holds a voucher.

The evidence points to third-degree price discrimination rather than cost-based pricing. Voucher premia are largest where program rules make voucher tenants least sensitive to price: in lower-rent neighborhoods where the payment standard is generous relative to market rents, in units whose rents are below the payment standard, and early in the year before the real value of the payment standard erodes. Premia increase with landlords' experience and specialization in the program, and voucher tenancies are not costlier to serve along any of the margins I measure. Because the guaranteed payment from the housing authority may make voucher tenancies cheaper to serve, these premia are, if anything, a lower bound on

landlords' markups.

These findings imply that part of the HCV subsidy is captured by private landlords. A back-of-the-envelope calculation suggests that landlords capture about 7% to 9% of the voucher subsidy through rent premia alone. Because voucher tenants' contributions are tied to their income, the cost falls largely not on current voucher tenants but on taxpayers and on eligible households who remain on waitlists for a program with a fixed budget.

References

Abramson, Boaz and Stijn Van Nieuwerburgh (2026) "Rent Guarantee Insurance," *Journal of Political Economy*, 134 (9). [15]

Aliprantis, Dionissi, Hal Martin, and David Phillips (2022) "Landlords and Access to Opportunity," *Journal of Urban Economics*, 129, 103420. [4 and 6]

Baker, Sarah (2024) "Property Tax Pass-Through to Renters: A Quasi-Experimental Approach." [5 and 9]

Baker, Sarah and Caleb Wroblewski (2025) "Five Facts About (Rental) Prices: Landlord Heterogeneity and the Dynamics of Shelter Inflation," Working Paper. [9]

Bartlett, Robert, Adair Morse, Richard Stanton, and Nancy Wallace (2022) "Consumer-Lending Discrimination in the FinTech Era," *Journal of Financial Economics*, 143 (1), 30–56. [5]

Bayer, Patrick, Marcus Casey, Fernando Ferreira, and Robert McMillan (2017) "Racial and Ethnic Price Differentials in the Housing Market," *Journal of Urban Economics*, 102, 91–105. [5]

Becker, Gary S. (1957) *The Economics of Discrimination*, Chicago: University of Chicago Press. [17]

Bergman, Peter, Raj Chetty, Stefanie DeLuca, Nathaniel Hendren, Lawrence F. Katz, and Christopher Palmer (2024) "Creating Moves to Opportunity: Experimental Evidence on Barriers to Neighborhood Choice," *American Economic Review*, 114 (5), 1281–1337. [1, 5, and 6]

Bhutta, Neil and Aurel Hizmo (2021) "Do Minorities Pay More for Mortgages?" *Review of Financial Studies*, 34 (2), 763–789. [5]

Blanco, Hector and Jaehee Song (2024) "Discrimination Against Housing Vouchers: Evidence from Online Rental Listings," Working Paper. [4 and 6]

——— (2026) "How In-Kind Transfer Design Shapes Supply Incentives: Evidence from U.S. Housing Vouchers," Working Paper. [5 and 24]

Bézy, Thomas, Antoine Levy, and Tim McQuade (2024) "Insuring Landlords." [15]

Cabral, Marika, Michael Geruso, and Neale Mahoney (2018) "Do Larger Health Insurance Subsidies Benefit Patients or Producers? Evidence from Medicare Advantage," *American Economic Review*, 108 (8), 2048–2087. [4]

Christensen, Peter and Christopher Timmins (2022) "Sorting or Steering: The Effects of

Housing Discrimination on Location Choice," *Journal of Political Economy*, 130 (8), 2110–2163. [4]

——— (2023) "The Damages and Distortions from Discrimination in the Rental Housing Market," *Quarterly Journal of Economics*, 138 (4), 2505–2557. [4]

Collinson, Robert and Peter Ganong (2018) "How Do Changes in Housing Voucher Design Affect Rent and Neighborhood Quality?" *American Economic Journal: Economic Policy*, 10 (2), 62–89. [4 and 6]

Cunningham, Mary, Martha Galvez, Claudia L. Aranda, Rob Santos, Doug Wissoker, Alyse Oneto, Rob Pitingolo, and James Crawford (2018) "A Pilot Study of Landlord Acceptance of Housing Choice Vouchers," report, U.S. Department of Housing and Urban Development, Washington, DC. [4 and 6]

Desmond, Matthew and Kristin L. Perkins (2016) "Are Landlords Overcharging Housing Voucher Holders?" *City and Community*, 15 (2), 137–162. [5]

Duggan, Mark and Fiona M. Scott Morton (2006) "The Distortionary Effects of Government Procurement: Evidence from Medicaid Prescription Drug Purchasing," *Quarterly Journal of Economics*, 121 (1), 1–30. [4]

Eerola, Essi, Teemu Lyytikäinen, Tuukka Saarimaa, and Tuuli Vanhapelto (2026) "The Incidence of Rent Subsidies: Evidence on Rents, Housing Choices and Supply," *Journal of Public Economics*, 261, 105718. [4 and 19]

Ellen, Ingrid Gould, Katherine M. O'Regan, and Katharine W. H. Harwood (2023) "Advancing Choice in the Housing Choice Voucher Program: Source of Income Protections and Locational Outcomes," *Housing Policy Debate*, 33 (4), 941–962. [5]

Ellen, Ingrid Gould, Katherine O'Regan, and Sarah Strochak (2025) "Pricing for Opportunity: The Impact of Spatially Varying Rent Subsidies on Housing Voucher Neighborhoods and Take-Up," *Journal of Public Economics*, 250, 105465. [1 and 5]

Ellen, Ingrid Gould, Katherine O'Regan, and Sarah Strochak (2024) "Race, Space, and Take Up: Explaining Housing Voucher Lease-Up Rates," *Journal of Housing Economics*, 63, 101980. [4]

Eriksen, Michael D. and Amanda Ross (2015) "Housing Vouchers and the Price of Rental Housing," *American Economic Journal: Economic Policy*, 7 (3), 154–176. [4]

Garboden, Philip M. E., Eva Rosen, Stefanie DeLuca, and Kathryn Edin (2018) "Taking Stock: What Drives Landlord Participation in the Housing Choice Voucher Program," *Housing Policy Debate*, 28 (6), 979–1003. [5 and 6]

Garboden, Philip M. E., Eva Rosen, and Isaiah Fleming-Klink (2024) "Landlords and Housing Vouchers: 50 Years of Feedback," *Cityscape: A Journal of Policy Development and Research*, 26 (2), 107–122. [6]

Greene, Solomon, Patrick Spauster, Martha Galvez, and Daniel Teles (2020) "State and Local Voucher Protection Laws," note, Urban Institute, Washington, DC. [8]

Hughes, Sam (2022) "How Mortgage Financing Costs Affect Rental Housing: Pass-Through & Pricing." [5]

Humphries, John Eric, Scott Nelson, Dam Linh Nguyen, Winnie van Dijk, and Daniel

Waldinger (2025) "Nonpayment and Eviction in the Rental Housing Market," Working Paper. [15]

Ihlanfeldt, Keith and Tom Mayock (2009) "Price Discrimination in the Housing Market," *Journal of Urban Economics*, 66 (2), 125–140. [5]

Kain, John F. and John M. Quigley (1975) "Racial Discrimination in Urban Housing Markets," in *Housing Markets and Racial Discrimination: A Microeconomic Analysis*, Chap. 3, 56–91, New York: National Bureau of Economic Research. [5]

Kermani, Amir and Francis Wong (2026) "Racial Disparities in Housing Returns," *American Economic Review*, 116 (1), 287–331. [5]

Khouri, Andrew (2024) "Housing Nonprofit Alleges Widespread Discrimination Against Section 8 Tenants in California," *Los Angeles Times*. [8]

King, A. Thomas and Peter Mieszkowski (1973) "Racial Discrimination, Segregation, and the Price of Housing," *Journal of Political Economy*, 81 (3), 590–606. [5]

Knudsen, Brian (2024) "Expanded Protections for Families with Housing Choice Vouchers," policy brief, Poverty & Race Research Action Council, Washington, DC. [7]

Lee, Jaeyeon (2024) "Asymmetric Pass-Through of Interest Rates to Rental Prices." [5]

Leger, Mireille L. and Stephen D. Kennedy (1990) "Recipient Housing in the Housing Voucher and Certificate Programs," report, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Washington, DC. [5]

Meckel, Katherine (2020) "Is the Cure Worse than the Disease? Unintended Effects of Payment Reform in a Quantity-Based Transfer Program," *American Economic Review*, 110 (6), 1821–1865. [1, 4, and 24]

Moore, Mary F. (2017) "Rental Market Discrimination in the Housing Choice Voucher Program," Working Paper. [6]

Myers, Caitlin Knowles (2004) "Discrimination and Neighborhood Effects: Understanding Racial Differentials in U.S. Housing Prices," *Journal of Urban Economics*, 56 (2), 279–302. [5]

Olsen, Edgar O. (2019) "Does HUD Overpay for Voucher Units, and Will SAFMRs Reduce the Overpayment?" *Cityscape: A Journal of Policy Development and Research*, 21 (3), 89–102. [1, 5, and 9]

ORC/Macro (2001) "Quality Control for Rental Assistance Subsidies Determination," report, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Washington, DC. [5]

Phillips, David C. (2017) "Landlords Avoid Tenants Who Pay with Vouchers," *Economics Letters*, 151, 48–52. [4 and 6]

Rosen, Eva (2014) "Rigging the Rules of the Game: How Landlords Geographically Sort Low-Income Renters," *City and Community*, 13 (4), 310–340. [5 and 18]

Susin, Scott (2002) "Rent Vouchers and the Price of Low-Income Housing," *Journal of Public Economics*, 83 (1), 109–152. [4]

Thompson, Steve (2024) "HUD Investigates Whether D.C. Landlords Overcharge for

Voucher Units," *Washington Post*. [7 and 22]

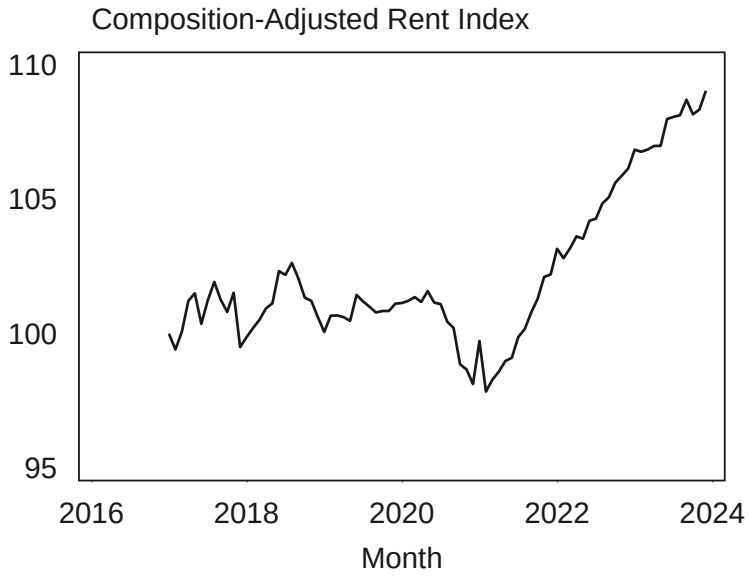
U.S. House of Representatives, Committee on Appropriations (2026) "Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2027," H.R. 9170, 119th Congress, 2nd Session, Washington, DC, Reported with H. Rept. 119–686. [1]

Wallace, James E., Susan Philipson Bloom, William L. Holshouser, Shirley Mansfield, and Daniel H. Weinberg (1981) "Participation and Benefits in the Urban Section 8 Program: New Construction and Existing Housing," report, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Washington, DC. [5]

Watson, Luke C. and Oren Ziv (forthcoming) "A Test for Pricing Power in Urban Housing Markets," *Review of Economics and Statistics*. [5]

Figures

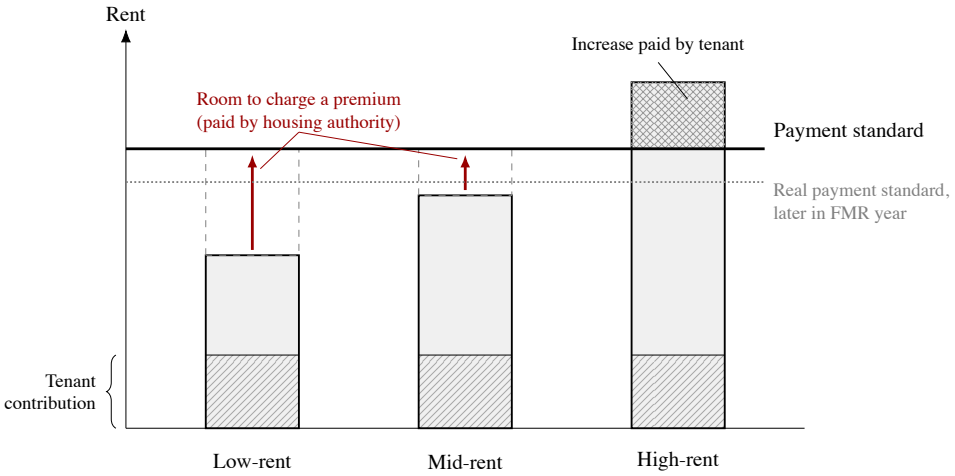
Figure 1. Composition-Adjusted Rent Index Over Time



Notes. This figure plots a composition-adjusted monthly rent index constructed from administrative unit-level rent registry data. The outcome is the log of contract rent. The series is residualized using unit fixed effects and controls for tenant status and number of bedrooms, then averaged by month based on the effective date of the new rent. The index is normalized to 100 in the first month of the sample period.

Return to Section 3.

Figure 2. Payment Standards and Landlords' Room to Charge Voucher Premia

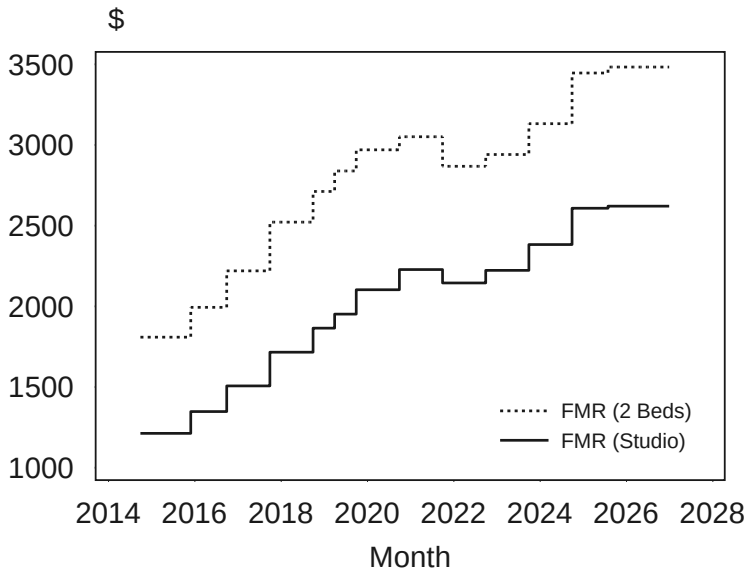


Notes. This figure illustrates how the HCV payment rule shapes voucher tenants' price sensitivity. Each bar is the market rent of a unit, and the hatched area is the voucher tenant's contribution, which is a fixed share of income regardless of the contract rent. For units whose market rent lies below the payment standard (low- and mid-rent), the contract rent can rise up to the payment standard with the increase paid entirely by the housing authority; the arrow marks this room to charge a premium. For units whose rent exceeds the payment standard (high-rent), any further increase is paid by the tenant out of pocket. Because the nominal payment standard is fixed for a year while market rents rise, the real payment standard falls over the year (dotted line), narrowing the room to charge a premium. The figure is schematic and not drawn to scale.

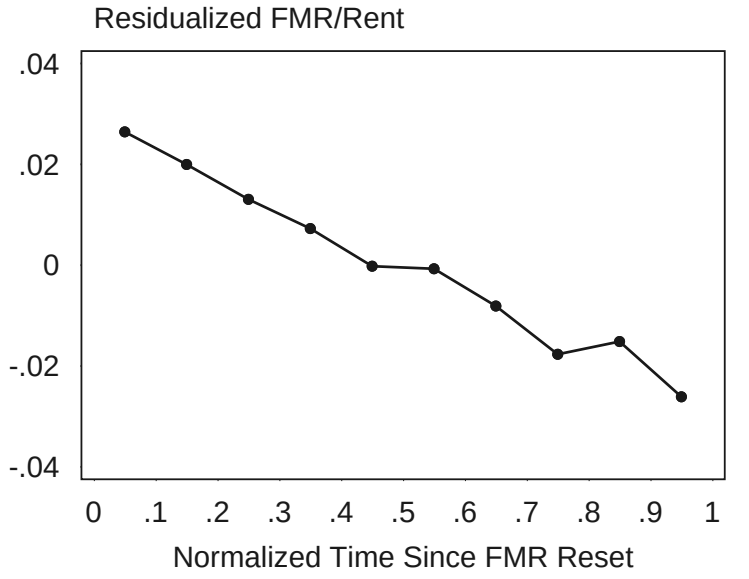
Return to Section 5.2.

Figure 3. Fair Market Rent (FMR) Effective Windows

A. FMR Effective Windows Over Time



B. Real FMR Generosity Decline Within the FMR Window



Notes. Panel A illustrates the effective windows during which the Fair Market Rent (FMR) remains fixed before the next update. Panel B plots the evolution of relative voucher generosity within the FMR cycle using the ratio of FMR to contract rent, residualized with unit and calendar-month fixed effects. The horizontal axis measures months since the start of the FMR window, and each point is the mean residualized FMR-to-rent ratio within a month. A downward drift reflects declining real voucher generosity over the cycle as contract rents adjust while the FMR remains fixed.

Return to Section 5.

Tables

Table 1. Summary Statistics

	N	Mean	p50	S.D.	Min	Max
Num. Observations	213,331					
w/ Voucher Occupancy	12,687					
Num. Unique Buildings	4,125					
w/ Voucher Occupancy	1,411					
Num. Unique Units	37,855					
w/ Voucher Occupancy	3,732					
Num. Unique Landlords	3,195					
w/ Voucher Occupancy	1,167					
Rent ($)	213,331	2,002	1,978	485	501	7,000
Deposit ($)	196,444	1,095	1,000	827	0	10,000
Number of Bedrooms	213,331	1.46	1.00	0.71	0	6
New Tenant Share	213,331	0.19	0.00	0.39	0.00	1.00
Rent Increase at Turnover ($)	38,324	97	75	276	-1,950	2,000

Notes. This table reports descriptive statistics for the administrative unit-level rent registry records. The data cover rental registrations from 2018 through 2025 and include information on contract rents, security deposits, unit characteristics, landlord identifiers, and voucher status. Voucher Occupancy indicates whether the tenant uses a housing voucher. Rent and Deposit are measured in U.S. dollars at the time of registration. New Tenant Share indicates observations associated with tenancy turnover. Rent Increase at Turnover is defined as the change in contract rent when a new tenant moves into the unit.

Return to Section 3.

Table 2. Estimates of Premia Charged to Voucher Tenants

A. Rent Premia

	Dependent Variable: Log Rent				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	0.0581***	0.0576***	0.0589***	0.0759***	0.117***
	(0.00880)	(0.00892)	(0.00973)	(0.00780)	(0.0255)
Unit F.E.	×	×	×	×	
Building-Year F.E.	×				×
Building-Quarter F.E.		×			
Building-Month F.E.			×		
N	212,094	210,046	208,051	212,675	212,776
R-squared	0.958	0.960	0.960	0.916	0.814

B. Deposit Premia

	Dependent Variable: Log Deposit				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	0.0746***	0.0715***	0.0716***	0.102***	0.0443*
	(0.0249)	(0.0252)	(0.0260)	(0.0246)	(0.0264)
Unit F.E.	×	×	×	×	
Building-Year F.E.	×				×
Building-Quarter F.E.		×			
Building-Month F.E.			×		
N	172,534	170,436	168,639	174,187	174,167
R-squared	0.858	0.859	0.860	0.830	0.502

Notes. This table reports estimates of rent and deposit premia charged to voucher tenants from unit-level repeat-rent specifications. The dependent variable is the log of contract rent in Panel A and the log of the security deposit in Panel B.

$$\ln(y_{it}) = \beta\, Voucher_{it} + \alpha_i + \delta_{b(i)\times\tau(t)} + X_{it}'\gamma + \varepsilon_{it}$$

y_{it} denotes the outcome (rent or deposit) for unit i at time t, $Voucher_{it}$ is an indicator for a voucher tenant, α_i are unit fixed effects, and $\delta_{b(i)\times\tau(t)}$ are building-by-time fixed effects. Additional controls X_{it} include tenant status and number of bedrooms. Standard errors are clustered at the building level and reported in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Return to Section 4.

Table 3. Estimates of Additional Rent and Deposit Increases for New Voucher Tenants

A. New Rent Relative to Previous Rent

	Dependent Variable: Rent Increase			
	(1)	(2)	(3)	(4)
Voucher Tenant	66.10**	78.08***	79.83***	58.50**
	(25.65)	(23.95)	(24.78)	(25.82)
× Days Vacant				0.213*
				(0.123)
Unit F.E.	×	×	×	×
Building-Year F.E.	×			×
Building-Quarter F.E.		×		
Building-Month F.E.			×	
N	14,667	14,012	13,813	14,663
R-squared	0.610	0.668	0.670	0.611

B. New Deposit Relative to Previous Deposit

	Dependent Variable: Deposit Increase			
	(1)	(2)	(3)	(4)
Voucher Tenant	381.7**	317.4*	301.0*	335.6*
	(185.2)	(175.6)	(180.8)	(183.7)
× Days Vacant				1.074**
				(0.464)
Unit F.E.	×	×	×	×
Building-Year F.E.	×			×
Building-Quarter F.E.		×		
Building-Month F.E.			×	
N	10,501	9,955	9,808	10,497
R-squared	0.543	0.584	0.588	0.544

Notes. This table reports estimates of rent and deposit premia charged to voucher tenants at tenancy turnover. The dependent variable is the rent increase in Panel A and the deposit increase in Panel B.

$$y_{it} = \beta \, Voucher_{it} + \alpha_i + \delta_{b(i)\times\tau(t)} + \varepsilon_{it}$$

y_{it} denotes the outcome (rent increase or deposit increase) for unit i at time t, $Voucher_{it}$ is an indicator for a voucher tenant, α_i are unit fixed effects, and $\delta_{b(i)\times\tau(t)}$ are building-by-time fixed effects. Because the outcome is a within-unit change measured at turnover, time-invariant unit characteristics such as the number of bedrooms difference out and no additional covariates are included. Standard errors are clustered at the building level and reported in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Return to Section 4.

Table 4. Mechanism: Tenant Price Sensitivity

A. Voucher Premia Across Rent Markets

	Dependent Variable: Log Rent		
	(1)	(2)	(3)
Voucher Tenant	0.0808***	0.0465***	0.0301***
	(0.0181)	(0.00637)	(0.0108)
Subsampling	Low-Rent ZIP	Mid-Rent ZIP	High-Rent ZIP
Unit F.E.	×	×	×
Building-Year F.E.	×	×	×
N	74,415	95,658	49,065
R-squared	0.962	0.954	0.933

B. Interactions: Above-FMR Status and Time Since Reset

	Dependent Variable: Log Rent		
	(1)	(2)	(3)
Voucher Tenant	0.0630***	0.0616***	0.0428***
	(0.0118)	(0.00888)	(0.00721)
× Unit Above FMR (Predetermined)	-0.0206**		
	(0.00863)		
× Unit Above FMR (Endogenous)		-0.0898***	
		(0.0146)	
× Time Since Reset			-0.0501***
			(0.0146)
Subsampling			New Tenant
Unit F.E.	×	×	×
Building-Year F.E.	×	×	
Building-FMR F.E.			×
N	168,268	212,094	24,402
R-squared	0.971	0.958	0.949

(continued on next page)

Mechanism: Tenant Price Sensitivity (cont'd)

Notes. This table reports evidence on tenant price sensitivity in the determination of voucher rent premia. The dependent variable is the log of contract rent. Panel A estimates the baseline repeat-rent specification, Equation (1), separately by ZIP-code rent tercile. Columns (1)–(3) restrict the estimation sample to low-, middle-, and high-rent ZIP codes, where ZIP codes are split into terciles by median market rent. All columns include unit fixed effects, building-by-registration-year fixed effects, and controls for tenant status and number of bedrooms. Panel B estimates the interaction specification, Equation (6), in which voucher status is interacted with a moderator Z_{it} and the time grouping $s(t)$ of the building-by-time fixed effects is chosen to match the source of variation. In Column (1), Z_{it} is a predetermined indicator for whether the unit's *previous* rent exceeded the FMR in effect when that rent was set, and $s(t)$ is the registration year. Column (2) reports, for comparison, the same interaction using an indicator based on the *current* rent. Because this indicator is defined by the outcome, it classifies tenancies as above the FMR because their realized rent is high, and the resulting comparison reflects differences in the voucher and market-rate rent distributions around the threshold rather than landlord pricing (see footnote 4). It is shown only to motivate the predetermined measure in Column (1). In Column (3), Z_{it} is time since the FMR reset, measured as the number of days since the start of the FMR window divided by the length of the window so that it runs from 0 at the reset to 1 at the end of the window, anchored on the registration date of the lease. The time grouping $s(t)$ is the FMR window $\omega(t)$, so the fixed effects are building-by-FMR-window, and the estimation sample is restricted to new tenants. This variable captures within-year variation in the real generosity of the voucher as illustrated in Panel B of Figure 3. All specifications include the main effect of Z_{it} in addition to the interaction term; coefficients on the main effects are omitted from the table for brevity. Standard errors are clustered at the building level and reported in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Return to Section 5.

Table 5. Mechanism: Landlord Costs and Experience

A. Unit, Building, or Landlord's First Time Hosting HCV

	Dependent Variable: Log Rent		
	(1)	(2)	(3)
Voucher Tenant	0.0631***	0.0615***	0.0602***
	(0.0113)	(0.00948)	(0.00924)
× First Unit HCV	-0.0245***		
	(0.00853)		
× First Building HCV		-0.0191***	
		(0.00559)	
× First Landlord HCV			-0.0154***
			(0.00539)
Unit F.E.	×	×	×
Building-Year F.E.	×	×	×
N	212,094	212,094	212,094
R-squared	0.958	0.958	0.958

B. Unit, Building, or Landlord's Experience Hosting HCV

	Dependent Variable: Log Rent			
	(1)	(2)	(3)	(4)
Voucher Tenant	0.0593***	0.0471***	0.0466***	0.0267***
	(0.00647)	(0.00675)	(0.00644)	(0.00758)
× Unit HCV Experience	-0.00361			
	(0.00489)			
× Building HCV Experience		0.000474***		
		(0.0000479)		
× Landlord HCV Experience			0.000283***	
			(0.0000564)	
× Landlord HCV Share				0.0925***
				(0.0160)
Unit F.E.	×	×	×	×
Building-Year F.E.	×	×	×	×
N	212,094	212,094	212,094	212,094
R-squared	0.958	0.959	0.959	0.958

(continued on next page)

Mechanism: Landlord Costs and Experience (cont'd)

Notes. This table reports evidence on the role of landlord costs and experience in the determination of voucher rent premia. The dependent variable is the log of contract rent. Panel A estimates specifications with indicators for first-time participation in the voucher program, and Panel B estimates specifications interacting voucher status with measures of accumulated voucher experience.

$$\ln(Rent_{it}) = \beta\, Voucher_{it} + \lambda\, Z_{it} + \theta\big(Voucher_{it} \times Z_{it}\big) + \alpha_i + \delta_{b(i)\times\tau(t)} + X_{it}'\gamma + \varepsilon_{it}$$

$Voucher_{it}$ is an indicator for a voucher tenant, Z_{it} denotes the landlord mechanism variable, α_i are unit fixed effects, and $\delta_{b(i)\times\tau(t)}$ are building-by-time fixed effects. Additional controls X_{it} include tenant status and number of bedrooms. In Panel A, Z_{it} captures first-time participation at the unit, building, or landlord level, testing whether premia differ when landlords initially enter the voucher market and face higher administrative or informational costs. In Panel B, Z_{it} measures accumulated voucher experience at the unit, building, and landlord levels, as well as the landlord's portfolio share of voucher tenants, testing whether premia evolve with operational experience and scale. Standard errors are clustered at the building level and reported in parentheses. All specifications include the main effect of Z_{it} in addition to the interaction term; coefficients on the main effects are omitted from the table for brevity. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Return to Section 5.

APPENDIX TO
PRICE DISCRIMINATION AGAINST VOUCHER TENANTS

Konhee Chang*

October 2026
Link to the latest version

Preliminary and incomplete.

Table of Contents

A Direct Tests of Cost-Side Explanations **A.1**

B Strategic Bunching at the Payment Standard **A.3**

C Additional Figures **A.4**

D Additional Tables **A.7**

* Federal Reserve Board of Governors (e-mail: konhee.chang@frb.gov). The analysis and conclusions contained in this paper are those of the author and do not necessarily reflect the views of the Board of Governors of the Federal Reserve System, its members, or its staff.

A. Direct Tests of Cost-Side Explanations

This appendix reports the direct tests of cost-side explanations summarized in Section 5.4. They complement the indirect evidence in Section 5.3, which infers landlord costs from how voucher rent premia vary with first-time program exposure and accumulated experience. I test whether voucher tenants are costlier for landlords to serve using four measures: tenant turnover and retention, vacancy timing around tenant transitions, within-tenancy rent growth, and the landlord-reported reason for move-out. All four measures are statistically indistinguishable from zero once unit fixed effects are included.

Turnover and Retention. If voucher tenants were costlier to retain—for example due to higher administrative burden associated with annual re-certification—landlords might expect voucher tenancies to turn over more often or last for shorter durations. Table A.1 tests this directly. Panel A reports estimates of whether a tenancy ends (moves out) as a function of voucher status, and Panel B reports estimates of tenancy duration in months, restricted to spells with an observed end. In both panels, the voucher coefficient is small and statistically insignificant once unit fixed effects are included (Columns 3–5), indicating no evidence that voucher tenancies are less stable than market-rate tenancies for the same unit. Figure A.1 plots the raw (unconditional) tenancy survival function underlying this test, by voucher status.

Vacancy Timing. Two further tests speak to whether voucher participation slows down leasing. First, if serving a voucher tenant requires additional repairs or a Housing Quality Standards inspection before the unit can be re-leased, units vacated by an outgoing voucher tenant should sit vacant longer before the next tenant moves in. Panel A of Table A.2 tests this using the outgoing tenant's voucher status. Second, if certifying a new voucher tenant requires upfront housing-authority approval, units about to be leased to an incoming voucher tenant should show a longer vacancy *before* that tenant moves in. Panel B tests this using the incoming tenant's own voucher status. Figure A.2 plots the raw distribution of vacancy length underlying both tests. Across specifications, neither measure shows a statistically significant relationship with voucher status once unit fixed effects are included.

Within-Tenancy Rent Growth. If rent-control rules limit how often landlords may raise rents within a tenancy, and voucher tenants have systematically different tenure lengths, within-tenancy rent growth could differ by voucher status even absent any direct cost channel. Table A.3 tests for a raw within-tenancy rent-growth gap (Panel A) and for whether

such a gap survives controlling for tenancy length directly (Panel B). The voucher coefficient is small and statistically insignificant once unit fixed effects are included in both panels, indicating no meaningful within-tenancy rent-growth gap to explain.

Move-out Reason. Finally, if voucher tenants pose greater tenant-related risk, landlords might report evicting voucher tenants for cause (e.g., nonpayment, lease violations) at a higher rate than market-rate tenants. The landlord-reported move-out reason is populated for only a minority of ended tenancies, and—importantly—coverage itself differs by voucher status: Panel A of Table A.4 shows that a move-out reason is systematically more likely to be missing for voucher tenancies than for market-rate tenancies, and this gap survives unit and building- or landlord-time fixed effects (Columns 4–5). This matters for interpreting the two results that follow: because the voucher and market-rate samples with a non-missing reason are not equally selected, any comparison conditional on non-missing status should be read with that caveat in mind. With that caveat noted, Panel B shows that, conditional on a non-missing reason, voucher tenants are not more likely to be evicted for cause than market-rate tenants once unit fixed effects are included, and Panel C shows the same result holds under a conservative lower-bound coding that treats missing reasons as not-for-cause rather than dropping them.

B. Strategic Bunching at the Payment Standard

Background. A natural explanation for the voucher rent premia consistent with both tenants' price insensitivity and landlords' strategic pricing is mechanical pricing at the maximum voucher subsidy. As described in Section 5.2 of the main text, rents charged to voucher tenants are subject to a maximum allowable level, which is largely determined by FMRs. Upon learning that a prospective tenant uses a voucher, landlords may therefore have an incentive to raise rents up to the allowable ceiling.

Empirical Approach and Results. If such pricing behavior is prevalent, voucher rents should bunch just below the payment standard. I therefore examine whether the distribution of voucher rents displays a sharp concentration near the cap.

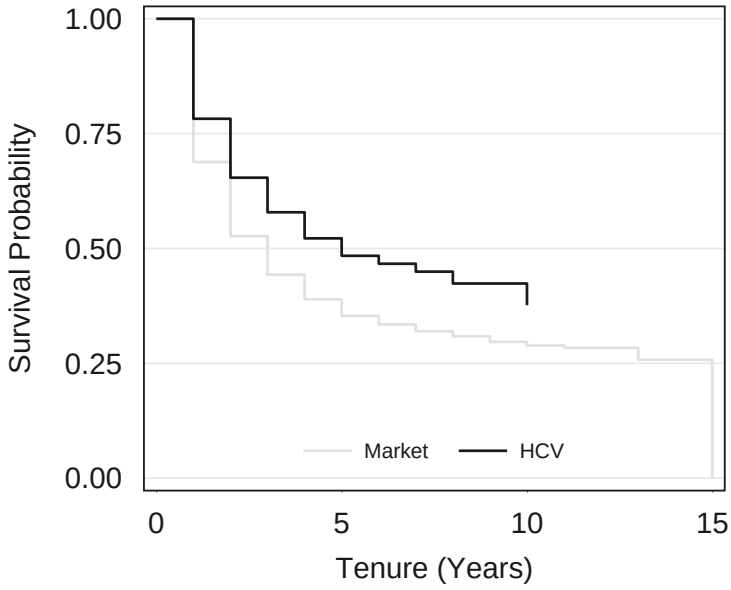
Panel A of Figure A.3 presents the distribution of rents relative to the payment standard for voucher and market-rate tenants within a narrow window around FMR. Voucher rents display some excess mass just below the cap, consistent with a degree of strategic pricing at the payment standard. However, the distribution does not exhibit a pronounced spike at the threshold. Instead, rents remain dispersed within the window rather than clustered at the ceiling.

Panel B shows the full distribution of contract rents. The entire distribution for voucher tenants is shifted to the right relative to that of market-rate tenants, indicating higher rents across the support rather than only at the cap.

Taken together, these patterns suggest that while some landlords price at or near the payment standard, bunching alone fails to explain voucher rent premia. Instead, the premium appears throughout the distribution, consistent with broader pricing differences rather than a purely mechanical response to the cap.

C. Additional Figures

Figure A.1. Tenancy Survival by Voucher Status

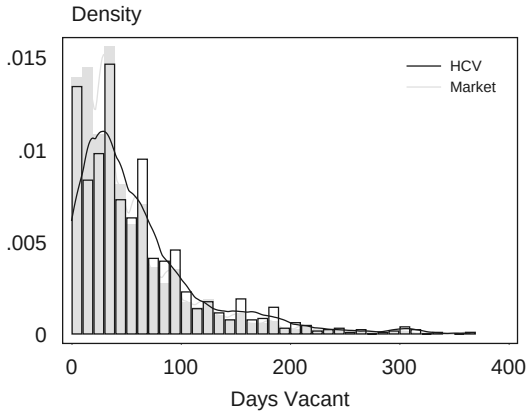


Notes. This figure plots the raw (unconditional) Kaplan-Meier survival function for tenancy duration by voucher status. Tenure is measured in registration years. See also Table A.1.

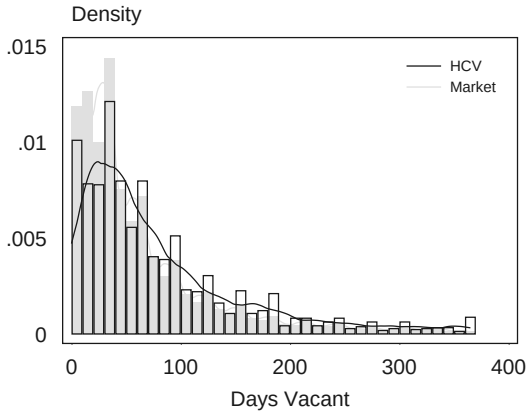
Return to Section 5.

Figure A.2. Distribution of Vacancy Length by Voucher Status

A. By Outgoing Tenant's Voucher Status



B. By Incoming Tenant's Voucher Status

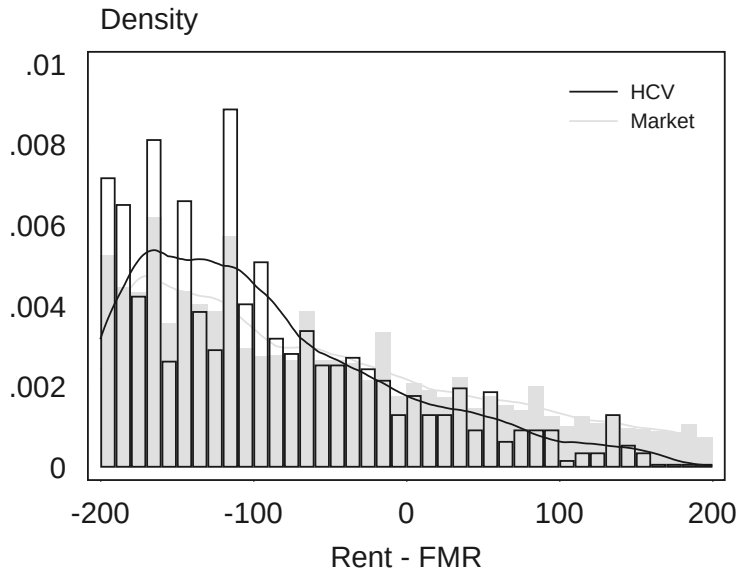


Notes. This figure plots the raw (unconditional) distribution of days a unit sat vacant before the next tenant moved in, for market-rate and voucher-occupied observations. Panel A shows the distribution of a unit's vacancy duration depending on the outgoing tenant's voucher status. Panel B shows the distribution of a unit's vacancy duration depending on the incoming tenant's own voucher status. Both panels are restricted to vacancy spells of 365 days or fewer. See also Table A.2.

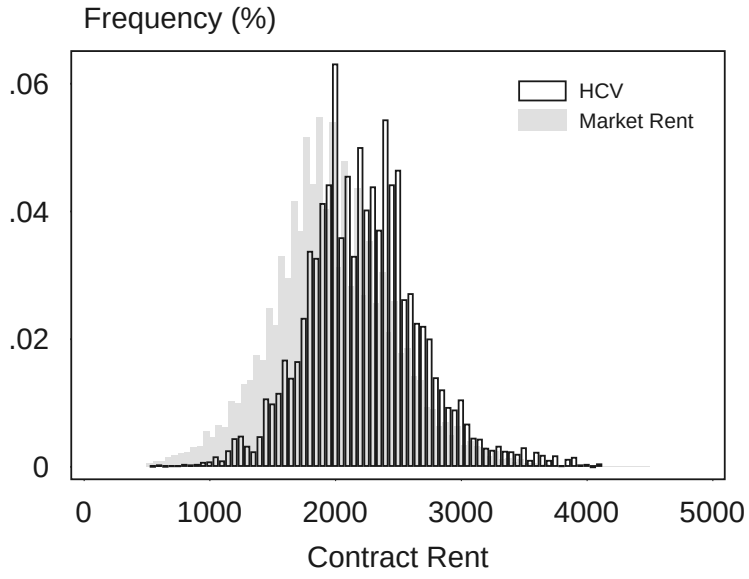
Return to Section 5.

Figure A.3. Distributions of Rents and Gaps to FMR: Voucher vs. Market Tenants

A. Rent Minus FMR (Within ±$200)



B. Distribution of Rent



Notes. This figure compares the distribution of contract rents and gaps to the Fair Market Rent (FMR) between voucher and non-voucher tenants. Panel A shows the distribution of rent minus the FMR within a ±$200 window around the threshold. Panel B plots the distribution of contract rents. Each panel overlays a histogram and kernel density estimate for voucher tenants and market-rate tenants.

Return to Appendix B.

D. Additional Tables

Table A.1. Direct Test: Tenant Turnover and Retention

A. Moved Out

	Dependent Variable: Moved Out				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	-0.125***	-0.00234	-0.0711**	-0.00725	-0.00592
	(0.0128)	(0.00273)	(0.0288)	(0.00750)	(0.00863)
Unit F.E.			×	×	×
Building-Year F.E.		×		×	
Landlord-Year F.E.					×
N	78,666	74,200	63,777	57,195	59,310
R-squared	0.003	0.955	0.246	0.966	0.964

B. Tenancy Duration (Months)

	Dependent Variable: Tenancy Duration (Months)				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	3.250***	-0.0900	-0.103	0.0627	0.0890
	(0.545)	(0.426)	(0.375)	(0.502)	(0.609)
Unit F.E.			×	×	×
Building-Year F.E.		×		×	
Landlord-Year F.E.					×
N	44,111	39,646	32,135	27,016	28,713
R-squared	0.002	0.731	0.764	0.846	0.826

Notes. This table reports estimates of the association between voucher status and tenant turnover. The dependent variable is an indicator for whether the tenancy ends in Panel A and tenancy duration in months (restricted to spells with an observed end) in Panel B. Standard errors are clustered at the building level in Columns (1)–(4) and at the landlord level in Column (5), and are reported in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Return to Section 5.

Table A.2. Direct Test: Vacancy Timing

A. Outgoing Tenant's Voucher Status

	Dependent Variable: Days Vacant				
	(1)	(2)	(3)	(4)	(5)
Outgoing Tenant Voucher	-4.487	-5.818	-7.036	-9.258	-6.666
	(4.310)	(4.533)	(5.548)	(7.369)	(8.852)
Unit F.E.			×	×	×
Building-Year F.E.		×		×	
Landlord-Year F.E.					×
N	29,575	25,572	18,939	15,124	16,381
R-squared	0.000	0.437	0.457	0.691	0.652

B. Incoming Tenant's Own Voucher Status

	Dependent Variable: Days Vacant				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	25.29***	-4.708	1.512	-8.163	-8.359
	(9.094)	(6.509)	(7.548)	(7.964)	(9.348)
Unit F.E.			×	×	×
Building-Year F.E.		×		×	
Landlord-Year F.E.					×
N	39,473	35,064	28,163	23,342	24,955
R-squared	0.001	0.524	0.469	0.715	0.653

Notes. This table reports estimates of the association between voucher status and the number of days a unit sits vacant before a new tenant moves in. The dependent variable is days vacant in both panels. The estimation sample is restricted to vacancy spells of 3,650 days or fewer to screen registry data-entry noise. Panel A keys the vacancy to the outgoing tenant's voucher status. Panel B keys it to the incoming tenant's own voucher status. Standard errors are clustered at the building level in Columns (1)–(4) and at the landlord level in Column (5), and are reported in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Return to Section 5.

Table A.3. Direct Test: Within-Tenancy Rent Growth

A. Raw

	Dependent Variable: Rent Increase				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	14.20***	12.04***	-0.272	0.668	1.101
	(2.955)	(4.602)	(8.153)	(6.354)	(7.529)
Unit F.E.			×	×	×
Building-Year F.E.		×		×	
Landlord-Year F.E.					×
N	137,537	136,533	134,221	133,069	133,416
R-squared	0.002	0.422	0.282	0.570	0.540

B. With Tenancy-Length Control

	Dependent Variable: Rent Increase				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	13.91***	12.14***	-0.0957	0.415	0.792
	(2.910)	(4.615)	(8.113)	(6.368)	(7.548)
Tenancy Length (Months)	0.137***	0.169***	-0.112*	0.305***	0.336***
	(0.0175)	(0.0135)	(0.0655)	(0.0438)	(0.0618)
Unit F.E.			×	×	×
Building-Year F.E.		×		×	
Landlord-Year F.E.					×
N	137,537	136,533	134,221	133,069	133,416
R-squared	0.004	0.424	0.282	0.571	0.541

Notes. This table reports estimates of the association between voucher status and within-tenancy rent growth (i.e., rent changes at re-registrations where the tenant does not turn over). The dependent variable is the rent increase in both panels. Panel B additionally controls for tenancy length in months. Standard errors are clustered at the building level in Columns (1)–(4) and at the landlord level in Column (5), and are reported in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Return to Section 5.

Table A.4. Direct Test: Move-out Reason

A. Move-out Reason Missing

	Dependent Variable: Move-out Reason Missing				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	0.0518***	0.0448***	0.0307***	0.0196**	0.0159*
	(0.0142)	(0.00632)	(0.00692)	(0.00839)	(0.00937)
Unit F.E.			×	×	×
Building-Year F.E.		×		×	
Landlord-Year F.E.					×
N	44,111	39,646	32,135	27,016	28,713
R-squared	0.001	0.874	0.927	0.949	0.943

B. Evicted for Cause (Conditional on Non-Missing Reason)

	Dependent Variable: Evicted for Cause				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	0.0496***	0.000860	0.00263	-0.0341	-0.00148
	(0.0166)	(0.0109)	(0.0252)	(0.0288)	(0.0385)
Unit F.E.			×	×	×
Building-Year F.E.		×		×	
Landlord-Year F.E.					×
N	12,325	9,525	5,849	3,849	4,491
R-squared	0.003	0.477	0.659	0.782	0.752

(continued on next page)

Direct Test: Move-out Reason (cont'd)

C. Evicted for Cause (Missing Coded as 0)

	Dependent Variable: Evicted for Cause (Missing=0)				
	(1)	(2)	(3)	(4)	(5)
Voucher Tenant	0.0100**	-0.00408	-0.00638	-0.00231	-0.00376
	(0.00395)	(0.00434)	(0.00627)	(0.00873)	(0.0106)
Unit F.E.			×	×	×
Building-Year F.E.		×		×	
Landlord-Year F.E.					×
N	44,111	39,646	32,135	27,016	28,713
R-squared	0.001	0.319	0.496	0.650	0.622

Notes. This table reports estimates of the association between voucher status and the landlord-reported reason for move-out, restricted to tenancies with an observed end. Panel A tests whether the move-out reason is itself more likely to be missing for voucher tenancies. Panel B reports the association with an indicator for eviction for cause, conditional on a non-missing reason. Panel C reports the same outcome with missing reasons coded as 0 (not evicted for cause) rather than dropped, as a conservative lower bound to the estimates in Panel A. Standard errors are clustered at the building level in Columns (1)–(4) and at the landlord level in Column (5), and are reported in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Return to Section 5.