

Are Landlords Overcharging Housing Voucher Holders?

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The structure of rental markets coupled with the design of the Housing Choice Voucher Program (HCVP), the largest federal housing subsidy for low-income families in the United States, provides the opportunity to overcharge voucher holders. Applying hedonic regression models to a unique data set of Milwaukee renters combined with administrative records, we find that vouchered households are charged between \$51 and \$68 more in monthly rent than unassisted renters in comparable units and neighborhoods. Overcharging voucher holders costs taxpayers an estimated \$3.8 million each year in Milwaukee alone, the equivalent of supplying 620 additional families in that city with housing assistance. These findings suggest that the HCVP could be made more cost-effective—and therefore more expansive—if overcharging were prevented.

INTRODUCTION

The Housing Choice Voucher Program (HCVP) is the largest federal housing subsidy for low-income families in the United States. Serving over 2.1 million families with an annual budget of almost \$20 billion, the program helps families secure affordable housing units that meet quality standards in the private rental market. Generally, voucher holders contribute 30 percent of their income to rent with the voucher covering the remaining costs up to the “payment standard,” a limit set by the local Housing Authority administering the benefit. Rents may exceed the payment standard provided that voucher holders are willing to pay the difference while spending no more than 40 percent of their income on housing costs. The program reserves three in four available vouchers for households with incomes below 30 percent of the area median income or the poverty line (whichever is higher); the remaining quarter may be distributed to households with incomes up to 80 percent of the area median.

Housing vouchers improve the lives of low-income families in multiple ways. They substantially reduce housing cost burden, homelessness, residential instability, and crowding (Wood et al. 2008). Using the Supplemental Poverty Measure, rental assistance programs lifted 2.8 million people above the poverty line in 2012; vouchers were responsible for the lion’s share of this effect (Fischer 2014). Studies have found that by reducing housing costs, vouchers allow low-income families to better invest in their children and

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devote more of their resources to food, health care, and transportation (Abt Associates Inc. et al. 2006; Joint Center for Housing Studies 2013). Compared to public housing residents, voucher holders live in neighborhoods with lower levels of concentrated poverty (Newman and Schnare 1997); and compared to similar unassisted families, they live in areas with lower crime rates (Lens et al. 2011).

Yet the majority of poor renting families do not benefit from rental vouchers or any other kind of housing assistance. According to the American Housing Survey, in 2013, 1 percent of poor renting households lived in rent-controlled units, 15 percent lived in public housing, and 17 percent received a government subsidy, mainly in the form of a rent-reducing voucher. The remaining 67 percent received nothing.¹ This shortfall in federal assistance, coupled with rising rent and utility costs alongside stagnant incomes, has caused housing cost burden among low-income families to rise. Today, the majority of renting families below the poverty line spend at least half of their income on housing costs, with almost a quarter spending over 70 percent (Desmond 2015).

Rent-burdened families often face eviction, which has been linked to a wide array of negative outcomes, from homelessness and residential instability to material hardship and depression (Crane and Warnes 2000; Desmond 2012; Desmond and Kimbro 2015). Families involuntarily displaced from their homes relocate to neighborhoods with higher poverty and crime rates and are more likely to live in substandard housing (Desmond et al. 2015; Desmond and Shollenberger 2015). Besides increasing the risk of eviction, unaffordable housing itself aggravates families' economic insecurity and has debilitating effects on children's well-being (Harkness and Newman 2005; Newman and Holupka 2014).

Despite rising need, the federal government has not issued a significant number of new housing vouchers in over a decade. In recent years, vouchers typically become available only through turnover, when families leave the program. In 2013, Congress administered budget sequestration cuts that resulted in the loss of approximately 100,000 housing vouchers nationwide. Lawmakers have yet to restore funding for the majority of lost vouchers. If a significantly expanded housing assistance budget will not soon be forthcoming, can we find ways of serving more low-income families with currently available resources? When it comes to providing low-income families with safe and decent housing, vouchers have proven to be much more cost efficient than project-based assistance (Currie 2008; Olsen 2003). But can the HCVP itself be made even more cost-effective, freeing up funds that potentially would provide thousands of additional families with affordable housing?

We aim to address this question by investigating if landlords charge voucher holders higher rents than similar unassisted tenants living in comparable housing units and neighborhoods. Combining a unique data set of a representative sample of Milwaukee renters with administrative records containing information about property characteristics, neighborhood quality, and school performance, our primary model finds that the average Milwaukee renter in possession of a housing voucher was charged an additional \$58 in rent each month, compared to the average unassisted renter, controlling for unit, neighborhood, and tenant characteristics. This finding is robust to multiple sensitivity tests that account for amenities, housing problems, and neighborhood perks. We estimate that overcharging voucher holders costs taxpayers an additional \$3.8 million each year in Milwaukee alone, the equivalent of supplying roughly 620 families with housing assistance. These findings suggest that the HCVP could be made much more efficient

and cost-effective—and therefore more expansive—if the program took steps to prevent overcharging voucher holders.

This study advances urban sociology in at least three ways. First, in providing empirical evidence of a “voucher premium,” it highlights inefficiencies created by public–private partnerships, often championed precisely for their efficiency (Squires 1991). Second, in focusing on variation in urban rents, this study contributes to elevating landlords and other market actors in theories of urban development and city politics, conceptualizing neighborhoods as markets. Third, it provides insight into the unique ways the state supports and legitimizes the housing market.

THE ORIGINS OF HOUSING VOUCHERS

A “rent certificate program” was first proposed in the 1930s by the National Association of Real Estate Boards (Orlebeke 2000). As for public housing in the sense of government-built and managed buildings, real estate interests fought it tooth and nail.² When Congress was debating the Taft-Ellender-Wagner Bill, which would eventually become the Housing Act of 1949, the president of the National Association of Real Estate Boards called public housing “the cutting edge of the Communist front.” The Association was dogged—it funded radio appeals, canned editorials, and rallied its members to call their Congressperson—and might have won if the construction industry and its union, eager to pour concrete, had not launched an equally dogged campaign in support of public housing (Vale 2009, pp. 238–41; Winnick 1995). The Housing Act passed by five votes.

To landlords and realtors, a large supply of public housing at cut-rate rents was a direct threat to their legitimacy and bottom line. After the Housing Act of 1949 was passed, real estate interests continued to lobby for vouchers and would be joined by numerous other groups of various political persuasions, including open housing advocates who believed vouchers would advance racial integration (Tegeler, Hanley, & Liben 1995). Eventually they would have their day. High-rise housing projects erected in the 1950s and 1960s to replace slums fell into disrepair after severe funding cuts and bureaucratic mismanagement. Across the United States, the wrecking ball and dynamite stick were put to the walls of housing projects whose names had become synonymous with urban blight and policy failure. Chicago’s Robert Taylor Homes, St. Louis’s Pruitt-Igoe Homes, Atlanta’s McDaniel-Glenn Homes, and other towers were destroyed. As a result, public housing inventory has fallen by roughly 20 percent since 1991 (Marcuse and Keating 2006).

Out of the rubble of the destroyed housing projects, the housing voucher program was reborn. In 1965, Congress created the first tenant-based assistance program in the United States (Section 23), which allowed families eligible for public housing to lease private units. Nine years later, Congress replaced Section 23 with the Section 8 Existing Housing Program. In 1983, it introduced the Section 8 Voucher Program. The two programs were consolidated in 1998 as the HCVP, which quickly grew into the nation’s largest rental assistance program (Olsen 2003).

OPPORTUNITY TO OVERCHARGE

Under the HCVP, beneficiaries select a private market rental unit that meets basic quality standards and rents at or below the “Fair Market Rent” (FMR): rent ceilings, set

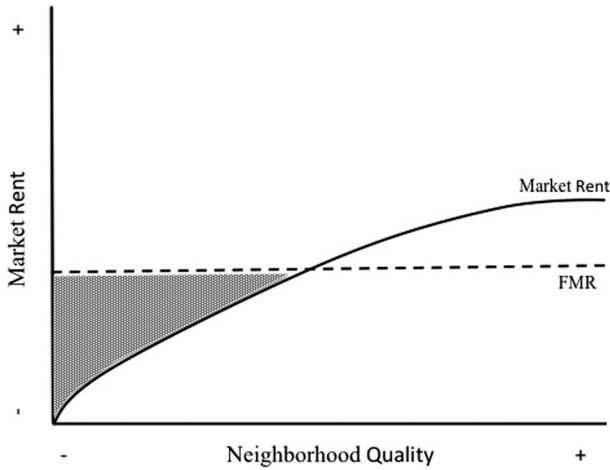


FIG. 1. The opportunity to overcharge voucher holders presents itself in neighborhoods below a certain quality—represented by the shaded area—where the Fair Market Rent (FMR) exceeds market rent.

annually by the U.S. Department of Housing and Urban Development (HUD), that reflect the 40th percentile of a metropolitan area’s median rent, adjusted for bedroom size.³ Because almost everywhere FMRs are calculated at the metropolitan level, the best and worst neighborhoods are incorporated into the equation. New York City’s FMR calculation, for example, includes the Upper East Side of Manhattan and the South Bronx. This is by design because it allows voucher holders to find decent housing in safe and prosperous areas across the city.

In practice, however, the HCVP has brought about only modest gains in neighborhood quality. The weight of the evidence finds that voucher holders do live in neighborhoods with lower levels of poverty and crime than their unassisted peers and public housing residents, but they continue to cluster in areas with relatively high crime rates and moderate to high levels of poverty (Devine 2003; Galster 2013).

Because market rent is a function of neighborhood quality—housing costs are higher in areas with lower levels of crime and poverty—the metropolitan-wide FMR will be higher than market rents in neighborhoods below a certain quality. As shown in Figure 1, when voucher holders live in neighborhoods where the market rent falls below the FMR, landlords are provided the opportunity to overcharge. What voucher holders pay is by and large a function of their income, not the asking rent; as such, overcharging would not affect most voucher holders, who have little incentive to shop around for lower priced units. They have limited opportunity to do so as well, owing to the 60-day window they are given to locate housing upon receipt of a voucher. Voucher holders searching for housing not only are prevented from moving into more affluent neighborhoods by landlords who refuse to participate in the HCVP, either because they stigmatize assisted families or have little financial incentive to participate (DeLuca et al. 2013; Freeman 2012), they also are actively recruited into disadvantaged neighborhoods by landlords who specialize in renting to voucher holders (Rosen 2014). Tight rental markets in more advantaged neighborhoods as well as the pull of social networks in low-income areas also help explain

why families in possession of housing vouchers tend not to live in better neighborhoods even when they can afford to do so (Boyd 2008; Lens 2013).

Overcharging would be minimal if (1) landlords did not respond to changes in the FMR and (2) few properties in disadvantaged neighborhoods (where the FMR exceeds market rent) met quality standards of the HCVP. Neither condition, however, is supported by previous research. First, rents appear responsive to the FMR. A recent paper found that a \$1 increase in countywide rent ceilings raised rents by 13–20 cents, adjusting for quality and using same-address changes in voucher rents to account for price discrimination (Collinson and Ganong 2014). It appears that when landlords are allowed to charge voucher holders more, they do. Second, disadvantaged neighborhoods contain ample housing that meets program standards. The work of Olsen and colleagues consistently has shown that in most metropolitan areas, the FMR exceeds the minimum amount necessary to meet quality requirements mandated by the HCVP. Studies have placed the median difference between the FMR and the minimum rent to meet program standards around 60 percent (Cutts and Olsen 2002; Olsen and Reeder 1983).

From the late 1970s to the early 1990s, researchers published several policy evaluations appraising the cost effectiveness of housing voucher programs. The results were mixed: Some studies found that voucher holders were paying a rent premium (Leger and Kennedy 1990); others found no difference in rents between subsidized and unsubsidized units, at least after accounting for the cost of administering the program (Mayo et al. 1980). Not only did these studies leave the question of overcharging unresolved, they are now quite dated. In the years since their publication, rent and utility costs have soared across the United States (Desmond 2015), a situation that should direct renewed attention to the cost-effectiveness of housing vouchers. Perhaps most important, previous studies, mostly conducted or contracted by government agencies, did not compare rents and housing characteristics of subsidized and unsubsidized units in the private market using individual-level data, owing to data limitations.⁴ This, however, is precisely what the Milwaukee Area Renters Study (MARS) offers: an opportunity to compare subsidized and unsubsidized dwellings that are similar along several critical dimensions.

DATA

This paper draws on multiple sources of data. The first is MARS, an original survey of 1,086 tenants in Milwaukee's private housing sector. The MARS sample was limited to people who were living in private rental housing, including voucher holders. To bolster response rate and data quality, surveys were administered in-person in English and Spanish by professional interviewers at tenants' place of residence. For each household, interviewers surveyed an adult leaseholder or, should a leaseholder be unavailable, an adult knowledgeable about household financial matters. According to the most conservative calculation (AAPOR Rate 1), MARS has a response rate of 83.4 percent.

Interviews were conducted from 2009 to 2011. Households were selected through multistage stratified sampling. Drawing on census data, Milwaukee block groups were sorted into three strata based on racial composition. Block groups were classified as white, black, or Hispanic if at least two thirds of their residents were identified as such. Then, each of these strata was subdivided into high- and moderate-poverty census block groups based on the overall income distribution of each racial or ethnic group in the city. Blocks were

randomly selected from each of these six strata. When a block was selected into the sample, interviewers visited every renter-occupied household in the selected block, saturating the target areas. This sampling strategy resulted in renting households from across the city being included in the study, including those in low-poverty and racially integrated blocks. The MARS study drew from 168 of 591 unique block groups, representing 28 percent of Milwaukee neighborhoods.

After data collection, custom design weights were calculated to reflect the inverse of selection probability, facilitated by a Lahiri (1951) procedure, based on the demographic characteristics of Milwaukee's rental population and adjusted to MARS' sample size. The Lahiri procedure allows the sampler to select probability samples (with a probability proportional to size) and to compute the selection probabilities for the resulting sample. Selection probabilities are then used to calculate the design weights for the overall sample. We use these custom weights when presenting descriptive statistics to facilitate estimates generalizable to Milwaukee's rental population.

Through over 250 unique items, MARS collected data on tenant and housing characteristics. To obtain even more detailed data about property characteristics, however, we merged the MARS data set with City of Milwaukee Master Property Files. We matched each MARS-sampled unit (by address) to the building code data corresponding to the year the MARS interview took place (matched addresses = 98.6 percent). We used multiple imputation to impute missing values for the 1.4 percent of addresses we could not match to the Master Property Files.

Last, we merged in neighborhood-level data. All MARS-sampled households were geocoded and assigned to a block group, our neighborhood metric. Ecological-level data describing neighborhood disadvantage, characteristics of the housing market, and school quality come from the U.S. Census (2010), City of Milwaukee Department of Neighborhood Services, ESRI Business Analyst (2010), and the Wisconsin Department of Public Instruction.

The characteristics of Milwaukee's residents and rental market are comparable to those of many American cities. Just over half of Milwaukee's housing units (52 percent) are occupied by renters, similar to the proportions of Chicago, Houston, Dallas, San Diego, Columbus, and Baltimore (National Multifamily Housing Council 2009). In terms of median rent, Milwaukee County falls in the most expensive third of the country, ranking 1,420th of 4,763 counties in the United States and Puerto Rico (U.S. Department of Housing and Urban Development 2010a). According to the U.S. Department of Housing and Urban Development (2010b), approximately 4 percent of Milwaukee County renters were assisted by a voucher in 2010, similar to the rates in Cook County (Chicago) and King County (Seattle). That year, Milwaukee voucher households contributed \$324 toward monthly rent, on average, and the Housing Authority contributed \$558. The numbers were similar in other cities—for example, Portland, Oregon; Gary, Indiana—with the comparable national figures being \$326 and \$700 (U.S. Department of Housing and Urban Development 2010b). There is nothing exceptional about Milwaukee from the perspective of a study investigating the relationship between housing vouchers and rent. That said, future research is needed to evaluate the extent to which these findings are generalizable to other cities.⁵

METHODS

This study employs hedonic regression models (Rosen 1974) to examine whether landlords charge tenants who receive rental assistance more in monthly rent than unassisted renters, net of an expansive set of unit, neighborhood, and tenant characteristics. Our dependent variable is monthly rent. This variable comes from the following question in MARS: “Excluding any assistance you, or someone living with you, might receive, how much is the total rent each [time period: e.g., month, week]?” This item captured contract rent, excluding utility costs not paid to landlords and rent discounts after assistance. The average monthly rent in Milwaukee at the time of the survey was \$660.⁶ Although voucher holders pay a reduced amount, they are generally aware of the contract rent, this being among the first questions asked of a landlord and listed on the Request for Tenancy Approval, which voucher holders sign. Voucher holders in MARS report an average monthly contract rent of \$765, compared to HUD’s 2010 calculation of \$882, which includes both contract rent and utilities, for voucher units in Milwaukee (U.S. Department of Housing and Urban Development 2010b). This suggests that voucher holders have an accurate sense of the full contract rent for their units.

Our primary explanatory variable measures whether the household received government rent assistance. This information was collected through the following MARS question: “Is the federal, state, or local government helping to pay your rent, for example, through the rent assistance program?” Project-based public housing units were excluded from the sampling frame, meaning that all assisted renters in our sample resided in the private rental market. To identify households assisted specifically by vouchers, we obtained a list of addresses of housing in Milwaukee County financed with HUD-Assisted Multi-Family subsidies, the Low-Income Housing Tax Credit program, and tax-exempt bonds—matching each MARS address against this list to isolate units assisted by a voucher. We considered the four respondents whose addresses matched addresses receiving subsidies through these programs as unassisted by vouchers.⁷ Roughly 5.5 percent of the weighted MARS sample possessed a housing voucher, accurately reflecting the distribution of vouchers across Milwaukee. According to the City of Milwaukee, there were 5,455 Housing Choice Vouchers in Milwaukee in an average month in 2010, accounting for 5.2 percent of all renter households in the city.⁸

UNIT CHARACTERISTICS

Before approving a Housing Assistance Payment contract for a voucher, housing agencies must confirm that the asking contract rent is reasonable. “Rent reasonableness” is based on a uniform set of criteria comprising several factors, including the location, quality, and size of the unit. Our analyses account for many of these factors.

Because rent is a function of housing quality and size, we draw on the City of Milwaukee’s Master Property File to control for a set of physical characteristics of each unit. Two fundamental characteristics that determine rent are unit size and building age (Jaurequi and Hite, 2010; Kopits et al. 2012; Malpezzi 2003). We account for the size of the unit, measured in square feet, as well as building age, measured in years, expecting that newer and larger units will command higher rent. We include a variable for the square of building age, as newer and historic units may be more costly than middle-age buildings.

We also include a variable measuring the assessed value of the building per square foot. This variable should reflect recent renovations—which HUD observes when calculating rent reasonableness—that would increase the assessed value of a property and its market rent. Because rent is also a function of structure type (Malpezzi 2003; Turner 1997)—with single-family homes being more desirable than townhouses or apartments—we indicate whether the unit is a duplex/townhouse or apartment (treating single-family homes as our reference group).

We included three additional attributes assessing unit quality drawn from the MARS survey. The first is the number of bedrooms in the unit (Boarnet and Chalermpong 2001), included as a series of dummy variables for studio (zero bedrooms—reference group), one bedroom, two bedrooms, three bedrooms, and four or more bedrooms. We expect the number of bedrooms to be positively associated with rent. Second, we control for housing problems (De Borger 1986; Olsen and Barton 1983) with a variable indicating whether renters had experienced any of the following problems in the year prior to being interviewed: (1) a broken stove or other appliance, (2) a broken window, (3) a broken exterior door or lock, (4) mice, rats, or other pests, (5) exposed wires or other electrical problems, and (6) no hot water *for at least three days* as well as (7) no heat, (8) no running water, or (9) stopped up plumbing *for at least 24 hours*. This list captures everything from physical dilapidation to vermin infestation and broken appliances, representing an omnibus measure of housing problems. Our measure observes the number of reported housing problems. Third, we include an indicator for whether water and/or gas utility costs are included in rent. To the extent that units rented with a voucher are systematically more or less likely to include utilities in the rent, this variable captures that difference.

Finally, we observe whether a unit has a fireplace or air conditioning, since previous hedonic models have found these amenities to predict higher rents (Jauregui and Hite 2010; Malpezzi 2003). These measures come from the City of Milwaukee Master Property File. Because the City of Milwaukee only recorded the presence of air conditioning in single-family, duplex, and townhouse building types, this indicator is only available for a subset of households. To retain the largest sample size possible, we include this measure, along with one indicating if a unit has a fireplace, only in supplementary models.

NEIGHBORHOOD CHARACTERISTICS

The location of housing units also contributes to their value on the rental market. Following previous research, we include a series of neighborhood-level variables. First, we account for neighborhood socioeconomic, demographic, and structural characteristics (Jauregui and Hite 2010; Malpezzi 2003). We create an index of neighborhood disadvantage using principal components factor analysis, combining a block group's poverty rate, percentage of the population that is black, and housing vacancy rate (drawn from the U.S. Census) as well as its ratio of housing code violations to housing units (drawn from the City of Milwaukee Department of Neighborhood Services). These four characteristics load positively onto one factor with a scale reliability coefficient of 0.62 and factor loadings between 0.66 and 0.80.

In addition, drawing on the ESRI Business Analyst 2010 data set, we controlled for neighborhood median home value and the number of retail stores in a block group, as

a measure of amenities in the neighborhood (Buchel and Hoesli 1995). Because rent responds not only to the number of amenities in a surrounding neighborhood but also to a housing unit's *specific distance* from certain amenities, we observed the number of meters between each address in our sample and the nearest (1) park, (2) bus stop, and (3) grocery store (Buchel and Hoesli 1995; Malpezzi 2003).

Hedonic models predicting housing value often account for the quality of neighborhood schools (Boarnet and Chalermpong 2001; Jauregui and Hite 2010). Using data obtained from the Wisconsin Department of Public Instruction, we construct a measure of school quality, which we expect to be positively related to rent. Our measure of school quality focuses on elementary schools and averages two statistics: the percentage of students proficient/above proficient on the math section and the percentage of students proficient/above proficient on the reading section of the Wisconsin Knowledge and Concepts Examination (2010–2011). We assign each address in our sample the average score for the elementary school district in which it is located.

TENANT CHARACTERISTICS

Few studies predicting housing prices and rents control for tenant and household characteristics in addition to unit and neighborhood controls (see De Borger 1986). However, given the richness of the MARS instrument, we were able to account for a number of possibly relevant tenant and household characteristics in addition to unit and neighborhood characteristics. We control for tenants' age, gender, race, educational attainment, and criminal record, attributes that could be related to price discrimination. Previous research has documented evidence of family discrimination, including landlords asking more rent from households with children or large families (Desmond et al. 2013; Oliveri 2008). Accordingly, we control for the number of children in the household. We also account for household income (monthly, in 1,000s) as well as how many months a tenant has lived in a unit, since long-term tenants likely pay lower rent, all else equal. (Descriptive statistics are displayed in Table 1.)

ANALYTICAL STRATEGY

The general equation $R = p(h)$ describes the relationship between rent and the characteristics of housing, where R is rent and $p(h)$ is the price of various attributes. Our full model is represented by equation (1):

$$R = \alpha + \beta_1 \text{voucher} + \beta_2 \text{reslength} + \beta_3 \text{year} + \mathbf{U}'\delta + \mathbf{N}'\gamma + \mathbf{H}'\theta + \varepsilon. \quad (1)$$

Here, *voucher* is an indicator for whether the tenant has government rental assistance, *reslength* is the number of months the tenant has lived in the unit, and *year* is the interview year, which accounts for general price trends. Housing unit characteristics are represented by the vector \mathbf{U}' ; \mathbf{N}' is a vector of neighborhood characteristics; and \mathbf{H}' represents a vector of tenant and household characteristics. We cluster standard errors by neighborhood (block group) in all of our models.

We use multiple imputation to account for missing data. Most of our variables have missing values for fewer than 5 percent of observations; however, household income is

CITY & COMMUNITY

TABLE 1. Weighted Descriptive Statistics: Full Sample and Stratified by Voucher Assistance

	Full Sample		Assisted by Voucher		Not Assisted	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Month rent	660.53	274.87	764.58**	152.52	655.01	281.57
Using voucher	0.055		1		0	
Unit Characteristics						
Number of bedrooms						
Zero	0.004		0**		0.004	
1 bedroom	0.15		0.16*		0.15	
2 bedrooms	0.50		0.18*		0.52	
3 bedrooms	0.30		0.58*		0.29	
4+ bedrooms	0.04		0.08**		0.04	
Number of long housing problems	0.811	1.15	1.33**	1.14	0.78	1.15
Square feet	980.99	269.4	934.7	260	977	263.93
Building age (years)	69.69	23.67	67.85	19.62	69.56	23.85
Building age squared (years)	5,416.90	3,679.34	4,981.17	2,854.56	5,406.81	3,711.46
Assessed value per square foot	70.5	22.48	70.64	23.14	70.86	22.43
Building type						
Single family	0.25		0.68**		0.23	
Duplex/townhouse	0.49		0.1***		0.51	
Apartment	0.26		0.22		0.26	
Utilities included in rent	0.76		0.44+		0.77	
Fireplace	0.038		0.01		0.04	
Air conditioning	0.353		0.15+		0.47	
Neighborhood Characteristics						
Poverty rate	0.124	0.156	0.15	0.14	0.12	0.15
Percent black	0.254	0.324	0.55***	0.28	0.24	0.32
Vacancy rate	0.076	0.065	0.09	0.06	0.07	0.07
Index of concentrated disadvantage	-0.554	0.823	-0.14***	0.68	-0.59	0.83
Distance to park	481.26	257.41	378.2+	240	481.06	240.24
Distance to bus stop	146.32	115.74	144.31	116.78	147.62	116.07
Distance to grocery store	574.36	379.2	405.94**	266.88	587.28	382.79
Median home value (1000s)	120.51	79.91	85.76**	27.92	123.41	81.84
Retail density	2.88	3.77	1.64*	2.84	2.92	3.83
School quality	0.606	0.16	0.45***	0.13	0.62	0.16
Tenant Characteristics						
Length of residence (months)	46.11	70.65	56.24	45.03	45.66	72.29
Number of kids in household	0.912	1.33	0.97	1.77	0.91	1.31
Race/ethnicity						
Black	0.34		0.89***		0.31	
Hispanic	0.14		0.02*		0.15	
Other race	0.062		0.02		0.06	
White	0.458		0.07**		0.47	
Age	38.83	14.64	43.77**	10.07	38.46	14.84
Female	0.623		0.91**		0.6	
Household income (1000s)	2.587	1.943	1.109***	0.660	2.680	1.969
Criminal record	0.148		0.13		0.14	
Educational attainment						
Less than high school	0.132		0.17		0.13	
High school diploma	0.416		0.63		0.41	
Some college	0.292		0.19		0.29	
Bachelor's degree or more	0.16		0.01**		0.17	

Note: Asterisks indicate significant difference between voucher-assisted units and unassisted units. + $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

missing for 9 percent of observations, and structure type and building age are missing for 11 percent of observations. Using the MI package in Stata 13, we imputed using chained equations and created 20 imputed data sets, each with 10 iterations of regression. To avoid model misspecification, our dependent variable, monthly rent, was included in the imputation model, but we did not use imputed values of the dependent variable in any analysis (White et al. 2011). Monthly rent, our dependent variable, is missing for 41 observations.⁹ This reduced our sample size from 1,086 to 1,045. The imputation model included all variables in our models as well as auxiliary variables that were theoretically related to our analysis or might be predictive of missing data. The chained equations procedure in Stata models each variable separately, allowing us to specify the type of model and the set of predictors for each variable with missing observations. We used logistic models for binary variables, multinomial logistic regression for multinomial variables, ordinal logit models for ordered categorical variables, and predictive mean matching for continuous variables. Following the imputation procedure, we use the “mi estimate” command to predict monthly rent in a series of ordinary least squares regression models. We present results from regressions run on imputed data; all models, however, are robust to complete case analysis.

RESULTS

How do the housing, neighborhood, and tenant characteristics of voucher holders compare to unassisted renters in Milwaukee? Table 1 presents means and standard deviations (weighted to represent Milwaukee’s renter population) for the entire sample and separately by whether respondents possess a housing voucher. Unassisted households have monthly incomes of \$2,680, on average, compared to \$1,109 for assisted households. Yet, the average contract rent for voucher holders is \$765 a month, while the average unassisted renter pays \$655, a 16.6 percent difference ($p < 0.01$). Our multivariate analyses will assess whether this difference can be explained by housing, neighborhood, or tenant characteristics, but it is important to recognize that the average contract rent for the (largely poor) minority of assisted renters is substantially higher than that of unassisted renters, who are comparatively much better off.

With respect to housing quality, voucher holders on average experience more housing problems, yet live in slightly newer buildings. Over two thirds of the voucher holders in Milwaukee live in single-family homes, while less than one quarter of unassisted renters do. A greater share of unassisted renters has the amenities of a fireplace and air conditioning, compared to voucher holders.

Comparing the neighborhoods of voucher holders and unassisted renters in the city, voucher holders live in neighborhoods with a greater share of black residents and a higher overall level of disadvantage. On average, voucher holders live slightly closer to parks and grocery stores, if also in neighborhoods with fewer retail establishments, lower median home values, and comparatively worse performing schools.

In terms of tenant characteristics, voucher holders exhibit lower rates of residential mobility, having lived in their current residence approximately 1 year longer than unassisted renters. A significantly greater proportion of voucher holders are black and female. On average, voucher holders are also older and have lower levels of education than unassisted renters.

HEDONIC REGRESSION MODELS

Table 2 presents two hedonic regression models estimating rent by voucher-assisted and unassisted households. In Model 1, we use receipt of a voucher to predict monthly rent, controlling for unit and neighborhood characteristics. The coefficient for our voucher variable is \$51.31 and statistically significant ($p < 0.01$), suggesting that renters who use a voucher to subsidize their rent are charged over \$50 more a month, controlling for unit and neighborhood characteristics. Controlling for these characteristics reduces the rent difference between assisted and unassisted renters from \$110 (as displayed in Table 1) to \$51 but does not explain away the rent premium charged to voucher holders.

Many of our control variables were significantly associated with monthly rent. Units with more bedrooms and higher assessed values per square foot commanded higher rents. Intriguingly, key components of housing quality—namely, the number of housing problems as well as building type—were not significantly related to rent, net of other controls. With respect to neighborhood characteristics, neighborhood disadvantage was negatively associated with rent, but we found no significant relationship between school quality and rent, all else equal. Units closer to parks but farther away from bus stops also commanded higher rents.

Model 2 adds tenant and household characteristics. Even with these additional controls, use of a voucher is associated with being charged \$58 more each month in rent ($p < 0.01$). The coefficients for housing unit and neighborhood characteristics were consistent across models.

Some tenant and household characteristics are significantly associated with rent. Each additional child under 18 living in the household is associated with approximately \$11 more in rent each month ($p < 0.1$). This suggests that landlords may be charging families a “child premium” (Desmond et al. 2013). Being Hispanic (compared to white) is marginally associated with a \$57 lower rent payment; and having a criminal record is marginally associated with a \$27 lower rent payment. Finally, monthly household income is positively associated with rent ($p < 0.05$), suggesting that renters who can afford to pay more do.

In Figure 2, we show the predicted monthly rents for two types of Milwaukee tenants, one with and one without a housing voucher. The first graph shows that the predicted monthly rent for a household headed by a black woman with no children would be \$592 if she was unassisted and \$650 if she was in possession of a housing voucher, holding all other covariates at the mean among black respondents. The second graph presents an equivalent exercise for a household headed by a white woman with two children under the age of 18, with all other covariates held at the mean among white respondents. This tenant is predicted to be charged \$761 in rent, but \$820 if she was vouchered.

To examine if the voucher premium is specific to disadvantaged neighborhoods, as our theoretical model would predict, we replicated Model 2 but added a term that interacted neighborhood disadvantage with the indicator for voucher use. For ease of interpretation, we divided our continuous index of neighborhood disadvantage into quartiles, with higher values representing more disadvantage.¹⁰ Figure 3 displays the results. We did not observe a significant voucher premium in low-disadvantage neighborhoods: those within the bottom two quartiles (and thus, below the median amount of disadvantage). In fact, the coefficient for voucher use in the least disadvantaged neighborhoods is negative, though not precisely estimated. However, we did observe a significant voucher premium

TABLE 2. Hedonic Regression Models Predicting Monthly Rent

	Model 1 Monthly Rent	Model 2 Monthly Rent
Using voucher	51.31** [13.36, 89.27]	58.30** [20.45, 96.15]
Unit Characteristics		
Number of bedrooms		
Zero (reference)		
1 bedroom	105.43* [22.55, 188.31]	114.37** [36.40, 192.33]
2 bedrooms	183.72*** [93.39, 274.05]	187.55*** [100.41, 274.69]
3 bedrooms	248.49*** [157.14, 339.85]	245.08*** [155.17, 335.00]
4+ bedrooms	289.88*** [192.57, 387.18]	272.10*** [173.82, 370.39]
Number of housing problems	-1.96 [-8.08, 4.15]	-2.71 [-9.51, 4.10]
Area of unit (square feet)	0.04+ [-0.006, 0.086]	0.04 [-0.01, 0.08]
Building age (years)	-3.83** [-6.47, -1.19]	-3.31** [-5.78, -0.84]
Building age squared (years)	0.02* [0.002, 0.04]	0.02* [0.001, 0.03]
Assessed value per square foot	1.91*** [0.94, 2.88]	1.62** [0.66, 2.58]
Building type		
Single family (reference)		
Duplex/townhouse	-33.19 [-78.97, 12.58]	-33.95 [-79.85, 11.95]
Apartment	-18.40 [-70.86, 34.05]	-12.84 [-64.59, 38.91]
Utilities included in rent	-20.54 [-56.96, 15.89]	-26.39 [-58.89, 6.10]
Neighborhood Characteristics		
Index of neighborhood disadvantage	-24.22* [-47.04, -1.40]	-20.41* [-40.44, -0.37]
Distance to closest park (m)	-0.05* [-0.11, -0.001]	-0.06* [-0.10, -0.01]
Distance to closest bus stop (m)	0.10* [0.001, 0.20]	0.11* [0.01, 0.21]
Distance to closest grocery store (m)	0.04 [-0.01, 0.10]	0.03 [-0.02, 0.07]
Median home value (1000s)	-0.47+ [-0.98, 0.04]	-0.49* [-0.91, -0.07]
Number of retail stores	3.09 [-1.58, 7.76]	2.72 [-1.82, 7.25]
School quality: Average of reading & math—percent proficient or above	-31.03 [-187.53, 125.46]	-6.66 [-157.16, 143.83]
Household Characteristics		
Length of residence in current unit (months)	-0.40*** [-0.57, -0.23]	-0.41*** [-0.57, -0.25]
Interview year	15.03+ [-2.17, 32.24]	11.67 [-4.44, 27.79]

(Continued)

TABLE 2. Continued

	Model 1 Monthly Rent	Model 2 Monthly Rent
Number of children under 18 in household		10.74 ⁺ [-1.02, 22.51]
Respondent is female (yes = 1)		3.48 [-42.24, 49.19]
Race/ethnicity of respondent		
White (reference)		
Black (yes = 1)		-23.69 [-69.25, 21.86]
Hispanic (yes = 1)		-57.07 ⁺ [-122.15, 8.02]
Other Race (yes = 1)		-28.75 [-102.20, 44.71]
Respondent age		0.32 [-0.70, 1.33]
Respondent education		
Less than high school		-2.73 [-35.12, 29.66]
High school (reference)		
Some college		19.85 [-21.82, 61.51]
Bachelor's degree or more		26.44 [-43.77, 96.65]
Respondent has criminal record (yes = 1)		-26.99 ⁺ [-57.28, 3.31]
Monthly household income (1000s)		11.78* [1.58, 21.98]
Constant	-29,675.97 [-64,282.82, 4,930.88]	-22,959.11 [-55,363.42, 9,445.20]
Observations	1045	1045

Note: 95 percent confidence intervals in brackets. We cluster standard errors by block group.
⁺ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

in high-disadvantage neighborhoods. There, landlords are charging voucher holders an estimated \$77 to \$83 more a month. These findings support our hypothesis that lower quality neighborhoods present the opportunity to overcharge voucher holders.

ROBUSTNESS CHECKS

We ran a number of robustness checks with different combinations of covariates to assess our results. Coefficients of the *Using Voucher* variable from multiple sensitivity tests are presented in Table 3. For comparison purposes, the first two rows of the table provide the coefficients from Models 1 and 2 of Table 2. The third and fourth rows show results that add variables controlling for extra amenities—whether the unit has a fireplace or air conditioning—in a subsample of units consisting of single-family, duplex, and townhouse building types (for which this information is known). The addition of these variables does not change our substantive conclusions, as the coefficient for voucher use remains

TABLE 3. Voucher Coefficients from Models Testing Robustness of Findings

Model	Voucher Coefficient	Voucher CI	Unit Characteristics	Neighborhood Characteristics	Tenant Characteristics	Amenities: AC and Fireplace	Appliance Problems	Interviewer-Identified Housing Quality
1 Model 1	51.31**	[13.36, 89.27]	Yes	Yes				
2 Model 2	58.30**	[20.45, 96.15]	Yes	Yes	Yes			
3 Model 1 plus amenities	68.07*	[14.19, 121.96]	Yes	Yes	Yes	Yes		
4 Model 2 plus amenities	65.27*	[10.65, 119.88]	Yes	Yes	Yes	Yes		
5 Model 1: appliance problems	51.10**	[13.21, 88.99]	Yes	Yes			Yes	
6 Model 2: appliance problems	57.97**	[20.15, 95.79]	Yes	Yes	Yes		Yes	
7 Model 1: interviewer-identified quality	56.15**	[16.61, 95.70]	Yes	Yes	Yes			Yes
8 Model 2: interviewer-identified quality	62.88**	[24.86, 100.91]	Yes	Yes	Yes			Yes

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

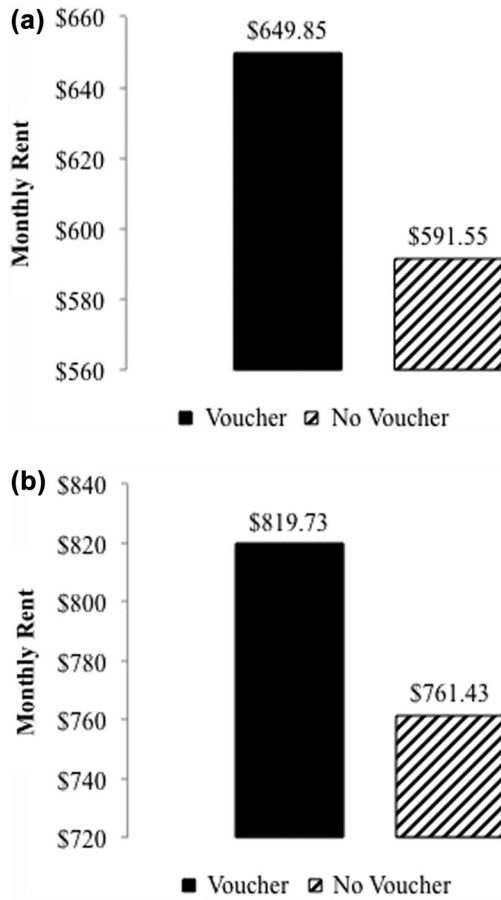


FIG. 2. Predicted contract rent for (a) a black woman with no children and (b) a white woman with two children—for assisted renter households (solid bars) and unassisted renter households (striped bars).

significant and large (between \$65 and \$68) when these amenities are included in our models.

We also investigated the possibility that landlords increase the *quality* of appliances in vouchered units, as ethnographic studies have recorded (Rosen 2014). In the models presented in rows 5 and 6 of Table 3, we substitute appliance problems (lasting more than 3 days) for the broader *Number of Housing Problems* variable included in Table 2. The narrower variable serves as a proxy for high quality appliances, as tenants should not report problems with newer or nicer machines. Again, our main conclusions remain unchanged.

In rows 7 and 8 of Table 3, we include interviewer-observed housing problems in our models. MARS interviewers indicated whether they observed (1) chipping paint, (2) roaches or mice, (3) broken windows, (4) holes in the walls or ceiling bigger than a fist, or (5) other housing problems in the interior or exterior of the respondent's residence. In these models, we include the number of interior and exterior housing problems

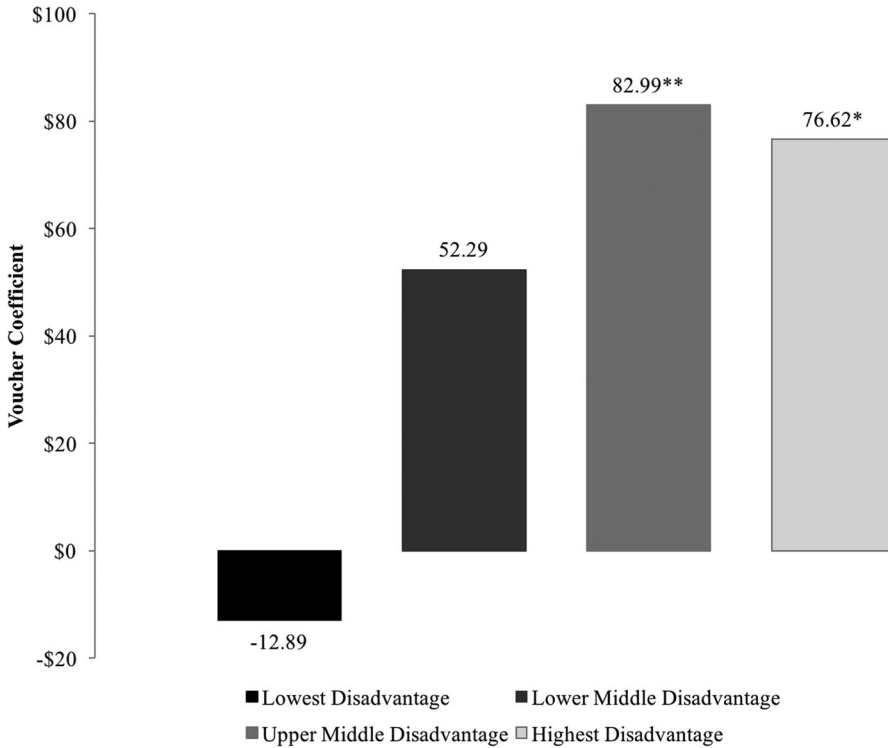


FIG. 3. Estimated voucher premium by neighborhood disadvantage.

Note: These coefficients were calculated from a model interacting the indicator for voucher use with a four-category neighborhood disadvantage variable, controlling for the same covariates as in Model 2. Asterisks indicate the coefficients are significantly different from zero. * $p < 0.05$; ** $p < 0.01$

identified by the interviewer. We also include an indicator measuring whether interviewers observed any abandoned buildings on the block and a categorical variable for how much litter interviewers observed in the streets, sidewalks, or empty lots on the block. We restrict these two models to the 787 observations for which the interview took place in the respondent's unit, allowing the interviewer to observe both interior and exterior conditions. We found that across all models, regardless of different measures for housing and neighborhood quality, voucher holders were charged higher rent.¹¹

As a final robustness check, we use propensity score and nearest neighbor matching to estimate the difference between rent charged to assisted and unassisted renters. We use a set of tenant, household, housing search, and neighborhood characteristics to predict each respondent's propensity of voucher use. We include in the matching algorithm the following tenant characteristics: race, age, gender, marital status, and education, as well as indicators for whether the tenant has a criminal record and has ever been evicted. We also observe if tenants' income comes from full- or part-time work, if they have ever been laid off, and if they receive any public income assistance, as these factors are likely related to receiving housing assistance. The MARS data set offers the opportunity to include in the matching algorithm social network and housing search variables that

TABLE 4. Matching Estimates

	Model	Average Treatment Effect	95 Percent Confidence Interval
1	Propensity score matching	59.09***	[57.66, 60.52]
2	Nearest neighbor matching	40.32*	[8.38, 72.26]

** $p < 0.01$; *** $p < 0.001$.

previous research demonstrates are relevant to the use of a voucher (Boyd 2008), including a continuous variable measuring the number of strong ties respondents report and indicators for whether respondents found their current unit by themselves or with the help of their network. We also match on household income and the number of children in the household. Finally, we use our index of neighborhood disadvantage and median home value to account for neighborhood conditions in the matching model.

We match treatment and control cases based on propensity scores and estimate the difference in mean rent between the two groups. The result, shown in Table 4, is that voucher holders pay an estimated \$59 premium in rent, compared to unassisted renters. Our second matching technique is nearest neighbor matching, which matches respondents who use a voucher with unassisted respondents based on a weighted function of each respondent's covariates. We matched respondents using the same variables included in Model 2 of Table 2. The nearest neighbor average treatment effect estimate is a \$40.32 rent premium for voucher holders. These estimates are statistically significant and similar in magnitude to the results produced from our multivariate models.

SUMMARY & LIMITATIONS

According to the U.S. Department of Housing and Urban Development (2015, p. 2), “worst case needs”—unassisted, very low-income renters, paying half of their income to rent, living in substandard conditions, or both—“have expanded dramatically during the past decade.” In 2013, an estimated 7.7 million renting families lived under these conditions. A high housing cost burden among low-income families aggravates their poverty, leaves little money left over for meeting basic needs, thwarts the possibility of saving or investing in children, and leads to residential instability and eviction (Desmond 2012; Newman and Holupka 2014). As poor families have watched their rent and utility bills rise, federal housing assistance has not been extended to meet growing need. Today, two thirds of poor renting households receive no housing assistance whatsoever.

Federal housing programs have come to function like a lottery, with the minority of poor families receiving a large subsidy and the majority left out in the cold (Currie 2008). Expanding housing assistance to many more low-income families would be a powerful antipoverty measure, preventing forced displacement from housing, decreasing homelessness, and promoting residential, school, and financial stability. Yet HUD's reduced budget authority requires that most of its resources be dedicated to renewing existing subsidies, not expanding aid to new households (Schwartz 2014). However, if federal housing programs could be made more efficient, more families could benefit from them without budget increases.

To that end, this paper has compared the rents of voucher holders with similar unassisted renters living in equivalent housing and neighborhoods. The design of the HCVP provides landlords the opportunity to overcharge tenants living in neighborhoods in which the market rent is lower than the metropolitan-wide FMR rent ceiling. Applying multivariate hedonic regression models to a unique data set that combined an original survey of renters in Milwaukee with administrative data providing detailed information about property attributes and neighborhood characteristics, we found that voucher holders were charged significantly more rent, net of a number of relevant characteristics. Milwaukee renting households who use a housing voucher but otherwise have similar personal and household characteristics and live in similar units in comparable neighborhoods are charged (depending on model specification) between \$51 and \$68 more each month in rent, compared to unassisted renters. These results were robust to multiple sensitivity tests.

The Milwaukee Area Renters Survey provides estimates generalizable to the city's rental population. In 2010, 5,455 households in Milwaukee subsidized their housing costs with a rent-reducing voucher. Taking the results of our primary model (Model 2 of Table 2), which finds a \$58 monthly rent premium for voucher holders, we estimate that the HCVP costs an additional \$3.8 million each year in Milwaukee alone ($\$58 \times 12 \text{ months} \times 5,455 \text{ vouchers}$)—the equivalent of supplying roughly 620 more families with housing assistance.¹² If landlords in other cities charge voucher holders a rent premium similar to Milwaukee's additional \$58 a month, then the HCVP may cost not millions but billions of dollars more than it should, resulting in the unnecessary denial of help to thousands of families.

We stress, however, that this study's findings are confined to Milwaukee.¹³ Future research is needed to extend the findings of our analyses to other metropolitan areas.

Another limitation of this study is that there could be some unobserved difference in housing quality influencing variation in rents across assisted and unassisted units. Our models account for an extensive set of unit characteristics—from square footage, building age, and amenities to nine kinds of housing problems reported by tenants and housing conditions recorded by interviewers—but we were not able to account for cosmetic upgrades (e.g., new paint) or all the amenities HUD observes while calculating rent reasonableness: for example, garbage disposal, carpeting. All MARS respondents were asked why they moved into their neighborhood. Twenty-nine percent of voucher holders responded to this question by referencing housing quality, with size being the most common feature. Only three vouchered respondents listed particular amenities (patio, yard, and washer/dryer) that attracted them to their apartment. While neither a direct nor exhaustive assessment of housing quality, this pattern does suggest that most voucher holders in our sample did not select housing based on added amenities. With respect to housing quality, what mattered most to them was size, a feature for which we account.

DISCUSSION & POLICY IMPLICATIONS

At first blush, economic theory might predict that landlords would flood the market with vouchered units if they knew they could net a significant premium on rents, thereby driving down the premium over time. This does not seem to be occurring. Although ethnographic reports indicate that some landlords specialize in renting to voucher

holders (Rosen 2014), many landlords refuse to accept assisted renters (Freeman 2012). Two considerations help clarify these points. First, our theoretical model suggests that the opportunity to overcharge voucher holders presents itself only in neighborhoods below a certain quality. Regardless of rents commanded in those neighborhoods, many landlords will choose not to operate in distressed areas of the city. Second, rental premiums and rental profits are distinct. The former speaks to inefficiency in the HCVP; the latter speaks to a landlord's bottom line. There are several business models available to landlords operating in poor neighborhoods, some of which might net higher profit margins than benefiting from a voucher premium. For example, compared to landlords who rent to voucher holders, those who provide substandard housing at lower rents might reap higher profits, owing to lesser maintenance expenses and mortgage payments (Desmond 2016). Although we believe profit seeking motivates overcharging voucher holders, we make no claims that this practice is the most profitable for landlords operating in poor neighborhoods.

Some might interpret the voucher premium we have identified as "the cost of doing business" tolerated by HUD to compensate landlords for added administrative burden and maintaining higher quality standards required by the HCVP (e.g., Mayo et al., 1980). This line of thinking assumes (1) that the burden of renting to assisted families is significantly higher (owing to HCVP requirements and paperwork) than the burden of renting to unassisted families and (2) that the HCVP's housing quality standards are onerous. Neither assumption is well supported.

First, HUD requires only a modest amount of paperwork from landlords participating in the HCVP. They must submit a Request for Tenancy Approval (a two-page form recording basic information) and a Housing Assistance Payments Contract (another two-page form with 10 additional pages of instruction). Moreover, the HCVP provides landlords with free advertising and, most important, with a virtually guaranteed rental income stream. It could be said that HUD more than compensates landlords for its once-a-year administrative requirements by saving them from the ongoing burden of collecting rents from poor unassisted tenants, and carrying out evictions.

Second, and with respect to housing quality standards, research has shown that there are significantly more housing options renting below the FMR that meet the HCVP's requirements (Cutts and Olsen 2002). In other words, a voucher rent premium is not needed to bring many low-cost housing options up to code. Landlords who participate in the HCVP must submit to a housing inspection, but this is not unique to those renting to voucher holders. In most cities, unassisted renters may at any time report housing problems and summon a building inspector to their property, and several cities (e.g., Seattle, Washington, D.C.) have implemented proactive inspections mandating that every rental property in the city undergo scrutiny. Even if quality standards of the HCVP exceed those required by citywide building codes that apply to all properties, we found no evidence that assisted renters live in significantly better housing than unassisted renters. This finding calls into question the notion that voucher holders are charged more because they are benefiting from improved living conditions.

Given these considerations, there is little reason to believe that the voucher rent premium is necessary to deliver the HCVP. Why, then, is the voucher premium generated? This question invites further research on the precise ways landlords set rents and detailed investigations into the negotiations between inspectors, property owners, and Housing Authorities. Landlords may actively recruit voucher holders, including by supplying their

units with amenities to command higher rents (Rosen 2014), or they may simply apply a surcharge to prospective vouchered tenants. This study has provided empirical evidence that a significant voucher premium exists. Future research is needed to uncover the mechanisms behind the premium.

Public-private partnerships that involve cooperation between state agencies and market actors have been extolled for their efficiency (Squires 1991). And previous studies have shown that the HCVP, in particular, is a relatively efficient program, delivering housing of equal quality for a lower cost than project-based assistance (Currie 2008; Olsen 2003). However, this study found evidence of cost-inefficiency within the HCVP, raising important questions about the challenges inherent to delivering government aid through market actors operating a business. Why do private entities choose to enter into public-private partnerships? How might their ends, and those of state actors, align or conflict in ways that shape how services are delivered?

This line of inquiry raises a more general implication for the sociology of the city: the need to elevate landlords and other market actors in our theories of urban development. Landlords literally own poor communities and are major players in the city, deciding who gets to live where and which families to evict and which to spare. It is difficult to think of a topic related to urban sociology—from neighborhood selection and gentrification to racial segregation and even crime—in which landlords do not play pivotal roles. And yet, much urban sociology overlooks landlords, specifically, and the inner workings of housing markets, more generally—extending the Chicago School’s tendency to treat urban neighborhoods as “moral regions” or sites of residential attainment (Park 1925; Logan and Alba 1993), as if no one owned those neighborhoods (Logan and Molotch 1987).

For urban sociologists, this study also holds implications, not only for inefficiencies that may result from public-private partnerships, but also for the unique role the state plays in supporting the housing market. The value of housing is simultaneously the foundation of the city—providing in property taxes its revenue; steering its segregation; driving its mobility and population flows—and an unmoored and uncertain thing, resting on “an economically meaningful consensus about assets” (de Soto 2000: 157). The state is a crucial partner in creating and affirming that consensus, as when it judges rent as “reasonable,” and landlords regularly call on the state not only to conduct action—to file deeds, adjudicate disputes, evict tenants—but also to condone action as “their right.” The urban housing market is unlike any other and is particularly reliant on the state for legitimacy. Understanding the historical origins of this relationship and the present-day dynamics of mutual dependence and struggle between state and market actors could reveal new insights into the political economy of the city.

Policymakers could work to eliminate overcharging within the voucher program and use the recouped savings to expand housing assistance to more low-income families. The necessary first step may be to gather more information about how landlords set rents and to determine when, exactly, the voucher premium takes hold. Audit studies employing paired testers could assess the degree to which landlords adjust their rents by voucher status. If it is determined that voucher premiums are enacted at the point of first contact with a landlord, protections could be established that prevent opportunistic rent increases.

HUD recently announced that it will begin developing FMRs calculated at smaller geographic catchments (e.g., zip codes), nationwide. Preliminary evidence suggests that doing so improves voucher holders’ chosen neighborhood quality (Collinson and Ganong

2014), but more research is needed to see if smaller FMR zones also reduce overcharging. Our theoretical model would predict they would. FMRs could alternatively be kept at the metropolitan level but lowered. This would effectively shrink the size of the benefit but potentially expand its reach. In fact, Olsen (2003) has argued that the HCVP could be turned into an entitlement program serving the poorest families *without* additional spending if the housing voucher subsidy was reduced to bring FMRs closer to the minimum rent required to meet minimum program standards.¹⁴

Any initiative aimed at reducing inefficient overcharging within the HCVP should consider its potential effects on landlord participation. Most states do not have source-of-income protection laws barring landlords from discriminating on the basis of voucher status, and enforcement of those laws in jurisdictions that do have such protections is weak (Freeman 2012; Freeman and Li 2014). Efforts to outlaw discriminating against voucher holders at the federal level coupled with initiatives to prevent overcharging could simultaneously expand the housing options *and* benefits to low-income families facing a severe shortage of affordable housing. These proposed changes likely would be resisted not only by landlords, who have a financial interest in high FMRs, but also by local Housing Authorities, who prefer high FMRs because they improve success rates and, therefore, reduce workload (Kennedy and Finkel 1996). However, expanding and enforcing laws barring discrimination by source of income would most likely boost success rates without overcharging voucher holders and, by extension, the American taxpayer.

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Notes

¹American Housing Survey, 2013, Table C-17-RO. These estimates exclude households classified as “other income verification” (3 percent of renter households below the poverty level) and “subsidy not reported” (1 percent of renter households below the poverty level) because it was unclear whether these households received assistance.

²When real estate developers in the mid-20th century backed public housing efforts to release coveted urban land for private enterprise, they were more the exception than the rule. Developers did not support public housing per se but viewed it as a necessary vehicle through which to execute slum clearance and land grabs (Hirsch 1983: 104–34).

³In some large metropolitan areas, FMRs are calculated at the 50th percentile rent to expand housing opportunities. The “Milwaukee-Waukesha-West Allis” metropolitan area is one of them.

⁴The same is true for the U.S. Department of Housing and Urban Development’s *Quality Control for Rental Assistance Subsidy Determinations*, an annually published report focused on “rental error.”

⁵At present, no nationally representative data set contains all of the features of the unique Milwaukee-based data set assembled for this study. The Panel Study of Income Dynamics, for example, does not include detailed information on housing or neighborhood quality. And although the American Housing Survey contains

a rich suite of housing quality variables, those data do not provide the distance to amenities and school quality measures we have constructed for Milwaukee.

⁶We obtained the same results using the natural log of rent as our dependent variable.

⁷Excluding these four units from the analyses had virtually no effect on our main results. Merging MARS addresses with those of federally assisted buildings ensured that no additional subsidized units (including those that are privately owned) were accidentally included in our sampling frame and counted among the unassisted.

⁸These figures were supplied by Debra LaRosa, Section 8 Voucher Program Director, City of Milwaukee, April 17, 2015.

⁹Monthly rent is missing for cases where the respondent reported that they did not know the monthly rent or refused to answer this question. It is also missing for respondents who did not pay monthly or weekly rent but had some other arrangement (e.g., working for the landlord).

¹⁰The least advantaged neighborhoods have a factor value of less than -0.88 ; the most disadvantaged neighborhoods have a factor value of above 0.58.

¹¹MARS is ill suited for neighborhood fixed effects because there are an average of only 6.4 observations per neighborhood. Nonetheless, in supplementary models, we employed neighborhood fixed effects, comparing assisted and unassisted units in the same neighborhood (block group). The coefficients from these models are similar in magnitude to our other point estimates ($\$51.93$ and $\$59.80$ for Models 1 and 2, respectively) yet, unsurprisingly, are not statistically significant at conventional levels, given the loss of power resulting from the small sample size in each neighborhood. However, that the fixed effects models produce estimates of similar magnitude to those produced in our other models gives us confidence in our finding.

¹²According to the City of Milwaukee, the average per-unit cost for a voucher-assisted household was $\$511$ per month in 2010, or $\$6,126$ a year. Dividing $\$3.8$ million by $\$6,126$ comes to roughly 620 additional families.

¹³As noted above, Milwaukee's rental market is similar to many other cities located around the country, but it is difficult to surmise if Milwaukee's rent premium for voucher holders is comparatively low or high. Of the 11 cities for which Cutts and Olsen (2002) estimated the gap between the FMR and the minimum subsidy needed to locate a two-bedroom apartment that met quality standards, the largest gaps—and thus the more expansive overcharging opportunities—were found in Detroit, Phoenix, San Francisco, and Tampa; the smallest in Philadelphia, Fort Worth, and Dallas. There is no recognizable pattern in these groupings, since the housing markets in some of the big-gap and small-gap cities are quite different (i.e., Detroit versus San Francisco; Philadelphia versus Fort Worth), just as some of the housing markets in big-gap cities are similar to those in small-gap cities (i.e., Phoenix and Dallas).

¹⁴Research evaluating the expansion of the Housing Choice Voucher Program in the early 2000s did not find that increasing the number of vouchers available had any effect on the overall price of rental housing (Eriksen and Ross 2014).

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