Supporting Work and Simplifying the Rules in the Housing Voucher Program:

Final Results from the Rent Reform Demonstration

U.S. Department of Housing and Urban Development | Office of Policy Development and Research

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Prepared for

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Office of Policy Development and Research

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DISCLAIMER

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

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Foreword

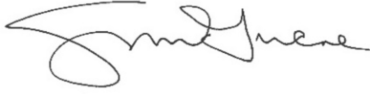
This report is the culmination of a demonstration that began almost a decade ago. Launched in 2015, the Rent Reform Demonstration tested whether an alternative rent-setting policy for the Housing Choice Voucher (HCV) program could incentivize employment and income growth for work-eligible tenants and reduce the complexity and administrative burden for public housing agencies (PHAs) while avoiding unnecessary hardship on assisted families. More than 6,600 work-eligible HCV families at four PHAs participated in the demonstration.

As families were enrolled in the study, they were randomly assigned either to a group subject to the new rent policy or to a control group that continued with the existing rent policy. Under the existing HCV rent calculations, most work-eligible households (excluding older adults and persons with disabilities) are required to report their income to the PHA at least annually, with increases in income translating to the household paying a higher share of the rent. The new rent policy calculated rents based on families' prior-year income rather than anticipated income, eliminated deductions from income; slightly lowered the percentage of income that would be paid toward rent; introduced or increased the minimum dollar amount families were required to pay toward their rent and utilities; and, most notably, did not require families to report increases in income for 3 years (triennial recertifications), compared with annually under regular rent rules.

The final evaluation of the demonstration showed that the new rent model did not cause tenants to increase their earnings or employment after over 6 years. However, voucher families and PHA staff preferred the alternative rent model, and PHAs reported a reduction in administrative burden. Many families interviewed said the new rent policy reduced stress and gave them a little more money each month. For PHAs, the new rent policy reduced certain time-consuming HCV administrative activities, including regular recertifications and the need for and frequency of actions related to interim changes in families' income. Treatment group families also remained on housing assistance somewhat longer than members of the control group; however, the new policy did not increase program costs over the long term. Other studies have documented the positive benefits of receiving housing assistance (including extra years of assistance) on housing stability and other positive outcomes for extremely low-income households.

This study makes an important contribution to housing policy research, showing that rent policy alone does not impact assisted tenants' employment and providing descriptive information about the choices and experiences of a large sample of HCV work-eligible families. The study shows that most HCV families who can work do work, although their employment is unstable and their income is low. Changes to the rent structure may not be enough to overcome the significant barriers that families face to increasing their employment and earnings—most commonly health issues and caring for family members—but the triennial recertification policy tested reduced the

administrative burden of PHAs while increasing housing stability for assisted households, thus offering support for a policy change that could be more widely applied.



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Executive Summary

The Rent Reform Demonstration, sponsored by the U.S. Department of Housing and Urban Development (HUD), sought to test an alternative rent policy for families living in privately owned housing units and receiving "tenant-based" Housing Choice Vouchers (HCVs), which are portable subsidies that are not restricted to any particular rental buildings or apartment units. This report is the fifth and final report on a comprehensive evaluation of that policy. It covers findings on the operation, effects, and costs of the new policy over a 6.5-year followup period.

Renting decent, safe, affordable homes in the private rental market is one of the most difficult economic challenges families with very low incomes face. Many families need deep government subsidies to do so. The HCV program is the main federal program providing such subsidies. Through that program, HUD funds over 2,200 public housing agencies (PHAs) to provide approximately 2.2 million low-income households with rental vouchers. However, only about a quarter of those eligible receive assistance due primarily to limited funding.[1]

The rules governing the way PHAs set and adjust subsidy amounts over time for voucher holders have posed a challenging policy issue for many years. Under traditional HUD rules, the amount of subsidy provided to voucher holders depends on a family's income—the lower the income, the higher the subsidy. This ensures that families with the least ability to pay will get the most assistance. However, linking subsidy amounts to income levels also means that when tenants' earnings increase, so does their contribution to their housing costs. Some observers fear that this coupling creates a disincentive to work.[2] Some also believe the rent system imposes too heavy an administrative burden on PHAs, in part because that system requires PHAs to adjust subsidies, up or down, as families' incomes fall or rise, and to apply complicated rules in determining eligibility and subsidy levels.

HUD launched the Rent Reform Demonstration to try an alternative approach and study how well it worked. Through the demonstration, HUD has sought to learn whether a new rent policy could simultaneously achieve the important but potentially competing goals of increasing tenants' employment and earnings, reducing the administrative burden on PHAs, and protecting families from greater financial hardship—without substantially increasing the costs of the voucher program.[3]

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[1] A recent HUD study reports that, in 2021, 26.6 percent of very low-income renter households received government housing assistance. HUD defines these households as ones that have an income at or below 50 percent of the median income of the area where they live (Alvarez and Steffen, 2023).
[2] See Abt Associates, Inc., the Urban Institute, and Applied Real Estate Analysis, Inc. (2010); Government Accountability Office (2012); and Public Housing Authorities Directors Association (2005).
[3] See Riccio, Deitch, and Verma (2017) and Riccio (2020) for a discussion of goals and tradeoffs considered in designing the Rent Reform Demonstration.

Scope of the Demonstration

The new policy under the Rent Reform Demonstration changed how families' rent contributions and subsidies were calculated and adjusted. It based those calculations on families' prior-year income rather than the income that they currently have and that is anticipated for the coming year; it eliminated deductions from income but slightly lowered the percent of income that would be paid toward rent (from 30 percent to 28 percent); it introduced or increased the minimum dollar amount families were required to pay toward their rent and utilities (typically referred to collectively as "minimum rent"); it extended the regular interval for reviewing families' incomes and redetermining their eligibility for the HCV program and adjusting their subsidies from 1 year to 3 years; it required no income reporting to the PHA and imposed no reductions in families' housing subsidies during those 3-year intervals if families' incomes grew; and it included several safeguards to protect families from excessive rent burden, such as when their incomes declined.

Four PHAs implemented the new policy on a trial basis: Lexington-Fayette Urban County Housing Authority (generally referred to as the Lexington Housing Authority or LHA) in Lexington, Kentucky; Louisville Metropolitan Housing Authority (LMHA) in Louisville, Kentucky; San Antonio Housing Authority (SAHA) in San Antonio, Texas; and District of Columbia Housing Authority (DCHA) in Washington, D.C. These housing agencies are a subset of 39 PHAs that are part of HUD's original Moving to Work (MTW) Demonstration, which allows selected PHAs broad administrative flexibility in operating their housing assistance programs, including authorization to reform their rent policies.

HUD selected MDRC and its partners to lead the Rent Reform Demonstration.[4] The MDRC team worked closely with the four PHAs and HUD to help design the new rent policy and evaluate it using a randomized controlled trial. HUD and the PHAs made all final decisions on the policy design, and although MDRC provided technical assistance to the PHAs on the new policy, MDRC had no direct role in operating the policy.

The PHAs began enrolling voucher holders into the demonstration in 2015. All but Washington, D.C., continued operating the new rent policy for at least 6 years, until late 2021 or early 2022. DCHA chose not to remain in the demonstration past the project's original September 2019 end-date due to a need to devote staff resources to other agency priorities. Therefore, this final report, which focuses on longer-term results, does not include findings from that PHA. (However, all prior reports include results from Washington, D.C.)

As families were enrolled in the study, they were randomly assigned either to a group subject to the new rent policy or to a control group that continued with the existing rent policy. The evaluation compared the experiences of these two groups over the subsequent 6.5 years.[5] As will

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[4] MDRC's design partners included the Urban Institute, the Bronner Group, Quadel Consulting & Training, Ingrid Gould Ellen (New York University), and John Goering (City University of New York).
[5] In this report, "control group" and "existing rules group" are used interchangeably.

be seen, although some PHAs saw some improvement early on in employment or earnings for the new rules group relative to the control group, those effects were not sustained. On the other hand, the new policy led families to remain in the voucher program longer on average than they would have under existing rules, which may have modestly increased their net disposable income. Although PHA staff found some features of the new policy burdensome to implement, overall, it appears that a slight reduction in staff administrative burden and administrative costs was achieved. The average cost of operating the voucher program (combining administrative costs and subsidy payments) was greater per family in the new rules group than the control group because of longer stays in the HCV program. However, from the perspective of average cost *per voucher*, which considers the cost of serving new families with vouchers freed up by families in the research sample who left the HCV program, the new policy was on a path toward achieving budget neutrality in the longer term, or close to it. Most household heads subject to the new policy preferred it to HUD's traditional policy; they especially appreciated not having to report income gains to the PHA for 3 years at a time.

HUD's Traditional Rent Policy

Families receiving HCVs are usually expected to contribute 30 percent of their "adjusted income" toward rent and utilities under HUD's traditional rent policy (or 10 percent of their gross income if that amount is greater).[6] This contribution is known as the *total tenant payment* (TTP). Adjusted income is determined by applying several allowable deductions from the family's pre-tax gross income (such as a deduction for some childcare costs for working parents).[7] The calculation looks forward in time, basing the adjusted income estimate on the amount of income a family currently receives and anticipates receiving during the coming year ("current/anticipated" income in this report). The PHA pays the difference between the family's TTP and the maximum combined amount for rent and basic utilities that the PHA will allow for privately owned rental units for families of given sizes, called a "payment standard." (Families are allowed to rent units exceeding the payment standard, covering the extra amount themselves, but not ones that would cost them more than 40 percent of their adjusted incomes for rent and basic utilities in the first year they lease a unit.) PHAs are currently permitted to establish a minimum TTP or "minimum rent" of up to $50 per month, although not all have done so. PHAs must conduct income reviews at least annually, and (with some exceptions) make interim adjustments in TTPs and subsidies amounts as a family's income changes between those reviews.

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[6] Throughout this report, HUD's "traditional" rent policy for voucher holders refers to the national rent policy in effect for non-Moving to Work PHAs *before* the passage of the Housing Opportunity Through Modernization Act of 2016 (HOTMA). In this report, "existing" rules refer to those in place at each of the Rent Reform Demonstration's PHAs at the time the demonstration began, which vary somewhat from HUD's traditional policies.

[7] "Gross income" refers to a family's total pre-tax income minus certain types of excluded income. For further information on the calculation of adjusted income, including deductions for childcare costs, see HUD (2001).

This traditional "percentage-of-adjusted-income" approach builds a strong safety-net feature into the rent subsidy system: At any time, if a family's income falls, the PHA reduces the family's TTP and increases its subsidy. However, this approach also includes a potential work disincentive. It implicitly "taxes" tenants for increasing their earnings because 30 percent of that increase is added to the family's TTP.

The New Rent Policy

The new rent policy developed for the Rent Reform Demonstration substantially altered the traditional rent subsidy approach for voucher holders. It did so in ways that sought to reduce the implicit tax on increased earnings, protect families from greater hardship, and simplify the administration of the program. The model included the following core features:

- **A 3-year schedule rather than an annual schedule for recertifying families' continued eligibility for the voucher program and determining its TTP and housing subsidy.**
  - Under the triennial recertification schedule, if a family increases its income during the 3 years, it does not report that increase to the PHA until recertification is required at the end of the 3-year period. Consequently, the TTP will not be raised, and their housing subsidy will not be reduced during that 3-year period. A new TTP is then set for the fourth year and capped until the next triennial recertification.

- **A new formula for calculating a family's TTP and subsidy, including a minimum TTP.**
  - Eliminates all deductions from pre-tax income so that gross income (full income before taxes), rather than adjusted income, is the basis for calculating a family's TTP.
  - Sets a family's TTP at 28 percent of gross income over the prior 12 months (referred to as "retrospective income"), rather than 30 percent of current/ anticipated adjusted income.
  - Ignores a family's income from assets when their assets' total value is less than $25,000 (and does not require documentation of those assets).
  - Simplifies the policy for determining utility allowances, basing the allowance on a streamlined standard schedule pegged mostly to unit size (rather than certain characteristics of the unit and utilities), with some adjustments for more expensive utilities.
  - Establishes a minimum TTP of not less than $50 per month (versus, traditionally, the minimum TTP of *no more* than $50 per month) and requires families to pay at least the specified minimum TTP directly to their landlords.

- **Safeguards for families**
  - At the start of the 3-year period, allows for a 6-month "grace-period" TTP, set at a lower amount, if a family's current or anticipated gross income is lower than its retrospective gross income by more than 10 percent.
  - Allows one interim recertification per year if a family's retrospective income falls by more than 10 percent before the next required triennial recertification.
  - Specifies a generally standard set of hardship conditions and remedies (TTP reductions) to protect families from excessive rent burdens.

Of all the new rent policy's features, the 3-year recertification is the one that was most expected to improve labor market outcomes because it eliminated, at least during that period, the implicit tax on increased earnings by not raising the family's rent contribution when its earnings grew. The introduction of a minimum TTP, or the increase in an existing one, might also increase work effort because some tenants may need to increase their earnings to have enough income to meet the new minimum. The minimum TTP was also viewed as a way to ensure that nearly all residents would share in the responsibility of paying at least some (or more) of their housing costs.

The PHAs participating in the demonstration helped develop this common framework. They also saw a need to adapt the model in response to local conditions. In addition, the demonstration had to accommodate some policy changes that the PHAs had already implemented under their pre-existing MTW authorization. For example, the PHAs set their minimum TTPs for the new rent policy at different levels, ranging from $50 to $150 per month. The Louisville and Washington, D.C., PHAs introduced a minimum TTP for the first time ($50 and $75, respectively); San Antonio, which had already implemented a minimum TTP, doubled it for the demonstration from $50 to $100. Lexington had already introduced a $150 minimum TTP before the demonstration began, and it continued that policy for both the new rules group and the control group. The general conditions that defined economic hardship under the new rent policy and the types of reductions in families' rent contributions allowed under those conditions were the same across the PHAs, although some of the procedures for reviewing and granting hardship requests differed. Finally, each of the other PHAs adopted a new and simplified utilities policy that Washington, D.C., had already instituted, with some local modifications.

Evaluation Design and Research Sample

To build a research sample, the PHAs and MDRC identified existing voucher holders who, when the study was launched, would soon be scheduled for an annual recertification to calculate their new TTPs and rent subsidies. Families deemed eligible for the Rent Reform Demonstration were then randomly assigned to either a new rent rules group that would be subject to the new rent policy for the duration of the demonstration or to a control group that would continue to be

subject to the existing rent rules.[8] According to criteria set by HUD, certain types of families, including those defined as senior or disabled, were excluded from the demonstration.

In Louisville, a rent policy opt-out option was offered to families assigned to the new rules group—they could choose to continue having their TTP calculated according to the existing rent policy. By the end of the enrollment period, about 22 percent of the eligible families in Louisville's new rent rules group chose to opt out of the new policy. However, they did not opt out of the evaluation. The evaluation treats the opt-out families as members of the new rent rules group (rather than the control group) to avoid biasing the research, even though they were subject to the existing rent rules. Thus, the main impact estimates compare the outcomes of the entire new rules group with those of the entire control group. These estimates are referred to as "intent-to-treat" (ITT) impacts because they are the estimated effects for all families that the new policy was intended to reach. However, because some families in the new rent rules group in Louisville were not exposed to the new policy, the ITT impact estimates are somewhat diluted.

It is also the case in Louisville that any effects of that new policy can be attributable entirely to those families who *were* exposed to it—that is, families who did *not* opt out. Consequently, in addition to estimating the average ITT impacts for the full new rules group in Louisville, the evaluation includes—for selected outcome measures—the average impacts on only those families subject to the new policy (the "non-opt-outs"). These estimates are referred to "treatment-on-treated" (TOT) impacts. The TOT results are not fully generalizable to the entire Louisville new rules group, because the opt-outs were a self-selected (and more disadvantaged) segment of that group. However, the TOT impacts provide a clearer picture of the effects of the policy on those who experienced it.

In that sense, the Louisville TOT estimates may be more comparable to the impact estimates for the other two PHAs, where everyone in the new rules group was exposed to the new rent policy.[9] For that reason, although this report focuses on the ITT results for the "pooled" analysis (i.e., the combined results for Lexington, Louisville, and San Antonio), it also includes pooled TOT estimates on key outcome measures. As it turns out, the pooled ITT and TOT impact estimates differed little and did not affect this study's conclusions.

The impact analysis is based on a total of 4,756 families for Lexington, Louisville, and San Antonio combined. Nearly all (95 percent) heads of households were women, most of whom were single parents.[10] In Lexington and Louisville, over 80 percent of household heads were

[8] Except in Louisville, enrollment in the demonstration was mandatory, and families could not opt out of their assigned rent policy group. In Louisville, families were allowed to opt out of the new rent policy within the first 30 days after the initial recertification meeting. In all sites, families could decline to share their individually identified data with the researchers. Very few chose to opt out of the research, even in Louisville.

[9] In Lexington and San Antonio, where opting out was not permitted, the ITT results = TOT results.

[10] The household head is the main person in the household responsible for the subsidy agreement with the PHA. When a household had more than one adult, the family designated the household head.

Black; in San Antonio, the majority (75 percent) were Hispanic/Latino. About 57 percent of all families in the study had some earned income at the time they entered the study.

This report used several types of administrative data: PHA records; unemployment insurance (UI) wage records obtained through the National Directory of New Hires (NDNH), which capture employer-reported employment and earnings; benefit records on the receipt of Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP); and information from the Homelessness Management Information System (HMIS) in each locality on stays in shelters and use of other housing and services for people experiencing homelessness. The report also drew on findings from a survey of heads of households administered at about 4 years after they enrolled in the study (previously reported in MDRC's 42-month report); qualitative data from in-depth interviews with selected PHAs staff and families pertaining to their experiences with and views of the new policy; and fiscal records and staff-time use information pertaining to voucher program administrative and subsidy costs.

The evaluation used three measures as its primary or "confirmatory" outcomes, with results pooled across the PHAs: cumulative earnings during the followup period, cumulative housing subsidy payments, and a summary hardship index. These are the most important variables for judging the intervention's effectiveness. Results using the hardship index are based on the survey of household heads. Findings on that index and other survey-based measures are presented in MDRC's 42-month report (Riccio et al., 2021).

The followup period is defined as the period that begins after a family's new TTP took effect, which started roughly from the third quarter after families were randomly assigned through the following 6.5 years (78 months). It encompasses the period when families in the new rules group would have completed a triennial recertification with new TTPs set to begin in Year 4 (if they were still enrolled in the voucher program) and the 3 years following that recertification. The families remaining in the voucher program for the full period would have been subject to the new rent policy for approximately 6 years. Those in the control group would have completed six annual recertifications if they continued receiving vouchers for the full study period.

Household Heads' Employment, Earnings, and Income

In examining the new policy's effects on tenants' earnings, the study focused primarily on the household heads. Most non-heads of households at the time the families entered the study were young adult children of the household heads, many of whom were no longer on the lease during the followup period, thus limiting their exposure to the new or existing rent policies.[11]

[11] When they entered the study, 32 percent of families included at least one other adult in the household. Impact findings on the labor market outcomes of these other adults are included in the report's appendix B and show a generally similar pattern of effects compared with the results for household heads.

- **The results for all three PHAs combined show that the new rent policy did not produce sustained, statistically significant increases in household heads' employment or earnings in UI-covered jobs.**

Data on UI-covered jobs, which account for most jobs across the country, reflect employment in the formal labor market. Results using the three-PHA pooled sample indicate that more than 86 percent of household heads in the control group ever worked in a UI-covered job during the 6.5-year followup period. During an average followup quarter, a majority (60 percent) of this group worked. Both of these findings point to a substantial rate of participation in the formal labor market (see exhibit ES.1). These rates differed little across the two research groups. Each group's estimated average cumulative earnings (one of the study's confirmatory outcome measures) also differed little. Average cumulative earnings for both groups totaled over $79,000 over the entire followup period. Average earnings grew somewhat over time, but they were generally under $14,000 per year. (These estimates are not just for household heads who worked; those who did not work were included in the average with zero earnings. Most of those who worked earned less than $20,000 per year.)

According to the survey of household heads, as shown in a prior MDRC report, the new rent policy modestly increased self-reported employment, which includes jobs not covered by the UI system.[12] That survey also showed that health and family care responsibilities were among the most common reasons why household heads in each research group who were not in the labor force were not looking for work.

- **Early on, the new rent policy produced some positive impacts on employment or earnings in UI-covered jobs in Lexington and San Antonio, but these did not persist. It produced negative effects in Louisville, although these dissipated after Year 4.**

In Lexington, household heads in the new rent rules group were more likely to work in UI-covered jobs in Year 3 than the control group by a small but statistically significant margin, and they had higher earnings in two quarters. However, over the full followup period, neither the impact on employment rates nor on average cumulative earnings was statistically significant (exhibit ES.1). In San Antonio, the new rent policy produced statistically significant increases in earnings in the first two followup years, but these diminished in Year 3.

Surprisingly, in Louisville, employment and earnings in UI-covered jobs were *lower* for the new rules group than the control group. This pattern first emerged during the second followup year

[12] When interviewed for the survey of household heads at about 4 years after study enrollment, a higher proportion of respondents in the new rules group than the control group said they were currently working—61.2 percent versus 57.2 percent, respectively, a statistically significant 4-percentage point impact. Overall, these results suggest that the new rent policy may have led to somewhat greater work effort among household heads than is reflected in the analysis of UI-covered jobs. Data on average earnings over time are not available from the survey. See Riccio et al. (2021).

and grew stronger in the third. Over time, the earnings trends were positive for each research group; they were just less positive for the new rules group. The estimated negative impact on

Exhibit ES.1. Impacts on Employment and Earnings Within 78 Months of Followup: Heads of Households in Lexington, Louisville, and San Antonio Combined and by Public Housing Agency:

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Lexington, Louisville, San Antonio					
Ever employed (%)	86.2	86.5	-0.3		0.759
Average quarterly employment[a] (%)	59.9	59.7	0.3		0.723
Average total earnings ($)	79,205	79,302	-97		0.956
Sample size (total = 4,756)	2,368	2,388			
Lexington					
Ever employed (%)	89.9	86.7	3.2	*	0.082
Average quarterly employment[a] (%)	64.4	63.1	1.3		0.472
Average total earnings ($)	82,494	81,447	1,046		0.777
Sample size (total = 979)	486	493			
Louisville					
Ever employed (%)	84.8	86.8	-2.1		0.158
Average quarterly employment[a] (%)	59.5	60.4	-0.9		0.498
Average total earnings ($)	80,983	85,560	-4,577		0.114
Sample size (total = 1,908)	947	961			
San Antonio					
Ever employed (%)	86.1	85.9	0.2		0.869
Average quarterly employment[a] (%)	58.2	56.9	1.3		0.354
Average total earnings ($)	75,441	71,926	3,515		0.210
Sample size (total = 1,869)	935	934			

[a] Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.

Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and

differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values. The variation across the four PHAs in estimated impacts on total earnings and average quarterly employment in the full period is not statistically significant based on an H-statistic test. The variation across the three PHAs in estimated impacts on total earnings in the full period is statistically significant at .054 percent level based on an H-statistic test. Confirmatory outcomes were tested for multiple hypothesis testing using the Benjamini-Hochberg procedure. The adjusted p-value = .970 for the impact on total full period earnings for all four PHAs combined. The adjusted p-value = .994 for the impact on total full period earnings for all PHAs combined.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

earnings for the new rules group began to decline in Year 4 and was no longer statistically significant from Year 5 onward.

The negative impacts in Louisville, which were concentrated in the subgroup of household heads who were not already employed at baseline, are not easy to explain. The full report explores some possible reasons for these results, but an important lesson is that a rent policy designed to promote work may have the opposite effect for some types of families in some contexts.

- **Overall, with little substantial positive impact on earnings, the new rent policy did not reduce receipt of SNAP or TANF benefits.**

In Lexington, Louisville, and San Antonio combined, only a small portion of families (approximately 7 percent) in each research group received TANF benefits at any time during the 6.5-year followup period. In contrast, over 90 percent received SNAP benefits, although the rate fell over time to roughly 45 percent in the last quarter of the followup period. These trends did not appreciably differ between the new rules group and the control group, nor did the benefit amount they received.

Impacts on Outcomes Related to Housing Subsidies

The new rent policy had important consequences for families' receipt of housing subsidies and their engagement with PHA staff.

- **The new rent rules increased the length of time that families spent in the voucher program during the study period.**

As exhibit ES.2 shows, with Lexington, Louisville, and San Antonio combined, 58 percent of the new rent rules group was still in the voucher program and "leased up" (that is, they were using their rental subsidies) at the end of the 6.5-year followup period (in Month 78), compared with 50.9 percent of the existing rules group—a statistically significant increase of 7.1 percentage points above the control group rate. They received a subsidy for almost 5 months more than the control group during that period. An important consequence of this effect is that, with a fixed

Exhibit ES.2. Impacts on Families' Subsidy Receipt and Housing Costs Within First 78 Months of Followup for Lexington, Louisville, and San Antonio Combined and by Public Housing Agency

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Lexington, Louisville, San Antonio					
Currently enrolled in HCV program and leased up	58.0	50.9	7.1	***	0.000
Total housing subsidy ($)	39,841	36,362	3,480	***	0.000
Sample size (total = 4,756)	2,368	2,388			
Lexington					
Currently enrolled in HCV program and leased up	55.3	52.4	2.8		0.370
Total housing subsidy ($)	36,189	33,695	2,494	*	0.066
Sample size (total = 979)	486	493			
Louisville					
Currently enrolled in HCV program and leased up	60.9	49.8	11.1	***	0.000
Total housing subsidy ($)	41,103	37,208	3,895	***	0.000
Sample size (total = 1,908)	947	961			
San Antonio					
Currently enrolled in HCV program and leased up	56.3	51.2	5.1	**	0.026
Total housing subsidy ($)	40,575	36,785	3,790	***	0.000
Sample size (total = 1,869)	935	934			

Notes: HCV=Housing Choice Voucher. PHA=Public housing agency. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values. The variation across the PHAs in estimated impacts on total housing subsidy in the full period is not statistically significant based on an H-statistic test. Confirmatory outcomes were tested for multiple hypothesis testing using the Benjamini-Hochberg procedure. The adjusted p-value = .000 for the impact on the total full period housing subsidy for all three PHAs combined.
Source: MDRC calculations using public housing agency data

number of vouchers, families on the waiting list would have to wait somewhat longer to secure a voucher. Thus, what represents a benefit to some families would be a loss to others.

Although precise evidence is not available, several factors may have contributed to staying longer on average in the HCV program. First, families in the new rules group who increased their earnings did not have to report that change to the PHA during the 3 years leading up to their triennial recertification; consequently, even if they began earning at a level that would normally have ended their qualification for a housing subsidy, they would not have lost the subsidy before the 3-year period was up. In contrast, had they been in the control group, they would have to report those earnings gains sooner and, hence, would have to leave the voucher program sooner. It is also possible that some control group families, when approaching an annual recertification, anticipated receiving a smaller subsidy, if any, and chose to leave the program voluntarily (possibly without notification), deciding that it was not worth the extra burden of continuing to engage with the PHA. Families in the new rules group would not face that decision until they approached a triennial recertification. In effect, the new rent policy made it easier for families in the new rules group, compared with the control group, to remain in the voucher program while their earnings were increasing, at least during the 3 years between recertifications. In addition, it is possible that because they did not have annual reviews, they were less likely to have their subsidies terminated due to administrative reasons, such as missed appointments, not turning in required paperwork, or errors on the part of the PHA staff.

An additional analysis examined how families fared after leaving the voucher program. It found that, regardless of the research group, most leavers were employed before exiting the program, and their employment rates remained about the same for the first few years after leaving as before they exited. However, their post-exit earnings, although still low, grew somewhat. The analysis also compared leavers with families who remained in the voucher program. Findings from a set of survey-based material hardship measures were comparable between those who had left the HCV program and those who were still in the program at the time of the 4-year survey. Overall, these two sets of analyses reveal little evidence that living conditions grew substantially worse or better once families left the voucher program. It is possible, of course, that how well leavers fared after exiting the program may have depended on the reasons they exited, but this issue could not be determined in the current study.

- **On average, families in the new rent rules group received a greater cumulative amount of housing subsidy by the end of the followup period than the existing rules group, primarily due to their staying longer in the voucher program. This increased their disposable income while receiving vouchers.**

The new rent policy was intended to support tenants' work efforts by adjusting the rent rules to help "make work pay." The new rules allowed families to keep all their rental subsidies during the 3 years between recertifications, even if they had increased their earnings during that time. The designers of the new rent policy expected that if the policy led to families' large and sustained earnings gains, it would eventually lead to reductions in

the average subsidy expended per family. This reduction would occur once those higher earnings were accounted for during each triennial recertification when staff reset families' TTPs and subsidy amounts and determine their continued eligibility for the voucher program. As it turned out, in the absence of substantial longer-term positive impacts on earnings, the new policy led the new rules group to stay longer in the voucher program than the control group, which in turn, caused them to receive more in total housing subsidies—an effect that was still evident, although smaller, at the end of the followup period. As exhibit ES.2 shows, for Lexington, Louisville, and San Antonio combined, the new rules group on average received an estimated $3,480 more in housing subsidy than the control group mean ($39,841 versus $36,362, respectively), representing an increase of nearly 10 percent.[13] As previously mentioned, this extra expenditure in the form of a longer period of subsidy for the new rules group meant that, overall, fewer waiting list families received vouchers during the study period.

- **Most families paid above the required minimum TTP ("minimum rent").**

As previously mentioned, for the Rent Reform Demonstration, Louisville introduced a minimum TTP ($50) for the first time, San Antonio doubled its existing minimum rent (from $50 to $100), and Lexington continued its existing $150 minimum rent for both the treatment and control groups. With all three PHAs combined, about 91 percent of families paid above the minimum TTP set by their PHA at some point during the followup period. Only a small proportion (about 12 percent) had ever paid a TTP less than the minimum. These families likely received a hardship exemption in response to a drop in their income.

- **The new rent policy's safeguards, including its hardship remedies, were essential for protecting families from excessive rent burden. Taken as a whole, the new rent policy appears not to have caused an increase in families' material hardship.**

Families whose TTPs exceeded 40 percent of their current/anticipated gross incomes were considered to have an excessive rent burden and were generally eligible to request a hardship remedy. These remedies included setting the TTP at the minimum rent level or at 28 percent of current income for up to 6 months at a time. Families in Lexington were only eligible for a hardship remedy if they were paying a TTP that exceeded that PHA's $150 minimum and still met the 40-percent threshold; with rare exceptions, their TTPs could only be reduced to the $150 minimum. Although the minimum TTP was much higher in Lexington than in the other two PHAs, estimated average hardship outcomes reported on the survey were not greater.

Hardship remedies could be issued to qualifying families at any time (and could be renewed, if necessary), but families had to request them. Among families in the three-PHA pooled sample, almost 28 percent of families received a hardship remedy by the end of the followup period. The rate ranged from roughly 20 percent in San Antonio and Lexington to over 41 percent in Louisville.[14] Many families also made use of the policy's other safeguards (grace period rents

[13] This impact estimate remains statistically significant after adjustment for multiple outcomes.
[14] The rate for Louisville only counts families who did not opt out of the new rent policy.

after recertification and the once-per-year interim recertifications). The substantial rates of reliance on these provisions testify to their importance in minimizing excessive rent burden among many families.

The findings from the evaluation's 4-year survey of household heads suggest that the new rent policy (including its minimum rent feature) had not increased the extent to which families experienced material hardships by the time of their survey interview. On average, the policy had little effect (positive or negative) on families' economic well-being as measured by the survey.[15]

- **The new rent policy reduced certain time-consuming efforts required of PHA staff. In particular, it reduced the number of regular recertifications and the need for and frequency of actions related to interim changes in families' income.**

One goal of the new rent policy was to reduce the PHAs' administrative burden in operating the voucher program, which it partly achieved by reducing the number of actions that staff had to take for families as their circumstances changed, particularly families who required a moderate or high number of actions to be taken. For example, with Lexington, Louisville, and San Antonio combined, the new rent policy reduced the likelihood of 5 or more actions by about 27 percentage points among those who were still receiving vouchers at the end of the followup period. It reduced the likelihood of 10 or more actions by about 25 percentage points. The frequency of actions was most reduced for three types of PHA actions: (1) regularly scheduled recertifications, (2) interim recertifications for reductions in income, and (3) interim recertifications for income increases. These three actions were generally the most time-consuming actions for staff because they required reviewing household income to enable the PHA's software system to recalculate TTPs and subsidies.

Findings from the Cost Analysis

- **For a given allotment of vouchers, operating the new rent policy on an ongoing basis may cost the PHAs a little more in the long run than operating the existing policy.**

An important question about the new rent policy was whether it would cost the government more—or less—to operate than the traditional rent rules, taking into account both administrative costs and housing assistance payments. In assessing this question, it was important to consider two important analytical perspectives: (1) the overall net cost *per family* in the evaluation's core sample who were randomly assigned to the new rules group, and (2) the overall net cost *per voucher slot* tied to the new rent rules. The second perspective recognized that each time a family leaves the HCV program, the PHA transfers its voucher to another family who enters the HCV program from the waiting list. The cost analysis thus assumed that under the new rent policy (if it were to become the standard policy), the "replacement families" would be subject to

[15] These findings are discussed in detail in MDRC's 42-month impact report (Riccio et al., 2021).

the same new rent rules as the families they replaced. For the control group, the analysis assumed that replacement families would be subject to the existing rent rules.

Net cost per family. From the first perspective, when only the results for the core evaluation sample (i.e., the families randomly assigned to either of the two research groups) were considered, the new rent policy increased the overall average cost of the HCV program for the new rules group (compared with the costs for the existing rules group). PHAs may have seen some small reductions in administrative expenditures, but these savings were well exceeded by a substantial increase in the average subsidy payment per individual family, due primarily to the new rules group's longer stay in the voucher program. The average total extra, or "net," cost per family in the new rules group (including both administrative costs and subsidy payments) was estimated at $4,026 (in 2022 dollars), or about 9.3 percent higher than the control group average during the study period.[16]

Net cost per voucher. A quite different picture emerged when the analysis examined PHAs' cost per voucher slot. When families in the evaluation sample left the voucher program, they freed up vouchers that were then allocated to new families from the waiting list. Factoring in the observation that families newly entering the voucher program usually require higher subsidies and generate higher administrative costs compared with longer-term voucher recipients, the analysis found that the three PHAs, on average, would spend an additional $758 (including administrative plus subsidy costs) per voucher under the new rules by the end of the study period, representing an increase of just over 1 percent compared to the cost under the existing rules. Importantly, the analysis found that the small administrative cost savings became more substantial over the course of the followup period, and that the large subsidy cost became much smaller. When these two effects are combined, the best estimate of the overall budgetary effect of the new rules on per-voucher costs, although subject to uncertainty, points to a net cost for the first four years and a modest saving thereafter. In sum, while substituting the new rent rules for the existing rules would be more expensive for the government on average for an individual family, the available evidence suggests that this change would probably approach cost neutrality, and may even produce cost savings in the long term, when viewed from the perspective of expenditures for an average voucher slot, which multiple families will occupy over time. At the same time, it is important to note that during this study's followup period, about 8.5 percent fewer families had access to vouchers under the new rent policy compared with the existing

[16] It is important to note that certain HOTMA reforms, such as the requirement to base TTPs on retrospective income and the changes to families' income-reporting requirements between recertifications, are similar in some ways to features of the Rent Reform Demonstration's new rent policy. It is thus possible that had the control group been subject to HOTMA rules, the difference in administrative costs between the new rent policy and the existing policy may have been somewhat less than estimated here and should be kept in mind when reviewing this study's cost estimates.

policy, which is due to longer stays in the HCV program under the new policy among families who already had vouchers.

Tenants' Understanding and Perceptions of the New Rent Policy

- **Families in the new rules group were more likely to be aware of some features of the new rent policy than other features. Most understood the switch to triennial recertifications.**

Findings from the qualitative interviews as well as from the 4-year survey of household heads suggest that most families in the new rules group were familiar with the rent policy's triennial recertification. However, some still reported their earnings increases to the PHA between triennials, either because they did not remember they did not have to, or "just to be safe," although no action was taken in response. Many did not fully understand the safeguards available to them, allowing for reductions in TTPs if incomes fell. Of course, some families may not have known or remembered certain policy features because they did not need to make use of them. Nonetheless, these findings point to the importance of continuing to educate tenants on critical features of the new rent policy, such as the changes that could affect their decisions about work and safeguards available to them if their incomes fall.

- **TTP increases after the triennial recertification were higher than some families expected (even though their earnings had grown), and many of those affected expressed difficulty paying the higher TTPs.**

At the time of the triennial recertification, about 26 percent of families in the new rules group who were still receiving vouchers had their monthly TTPs reduced because of falling incomes, and about 12 percent saw their TTPs remain the same, but a majority of families (62 percent) had their TTPs increased—in some cases substantially, reflecting growth in their income. For example, 34 percent saw their TTPs jump by more than $150 per month, and 18 percent experienced an increase of over $300 per month. Although the new rules group on average received more in total rent subsidies over time than the control group, and although many control group families also faced TTP increases—and more quickly (for example, after interim or annual recertifications)—qualitative interviews conducted with a subset of household heads in the new rules group suggest that some had not planned for large increases at the triennial recertification. The new rent policy's grace-period TTP and hardship remedies helped to ensure that any jump in TTPs did not cause an excessive burden on families. Still, perhaps some advance notification from the PHAs in the few months leading up to the triennial recertification reminding families about possible changes in their TTPs might have helped families who experienced an increase prepare for the change.

- **Most families in the new rent rules group preferred the new rent rules over HUD's traditional rent policy.**

Many families complained about the extra burden of documenting their retrospective income, especially if they had had multiple jobs in the past year, or multiple family members had worked. This was not a universal problem, however, because the majority of families did not have such complicated circumstances. Overall, 77 percent of respondents in the household head survey said that the documentation requirements for the new rent rules were about the same or easier than they were for the existing rules. Only about 5 percent said they were "much harder." Moreover, most viewed the new policy positively: about 71 percent of respondents said they favored the new rent policy, with the triennial recertification feature being especially popular. Only about 13 percent of respondents said they preferred the traditional rent rules, and the remainder did not express a preference. (Riccio et al., 2021).

Conclusion

Lessons learned from the Rent Reform Demonstration helped answer questions about what may or may not be achieved by changing the HCV rent rules to try to promote work while safeguarding tenants from extra hardships, reducing PHA administrative burden, and containing voucher program costs. The evaluation findings may also foster insights suggesting ways to improve such policies. In addition, the experiences of the PHAs in the demonstration may be relevant to HUD and other PHAs as they implement some provisions of the federal Housing Opportunity Through Modernization Act of 2016 (including those relevant to retrospective income, interim recertifications, and hardship policies).

The demonstration was the first national effort of its kind to test an alternative rent policy with a large-scale randomized trial—but it is not the last. HUD is currently sponsoring a new random assignment demonstration called the Stepped and Tiered Rent Demonstration (STRD) to test two other alternative rent policies. One (the" tiered rent" policy) includes certain features of the current demonstration, such as relying primarily on gross retrospective income rather than current/anticipated income for setting TTPs and subsidy amounts, and switching from annual to triennial recertifications; it differs by relying on income bands, or "tiers," to help simplify the rent-setting process (all families within a given income tier pay the same TTP). The second alternative policy (the "stepped rent" policy) includes modest annual increases in families' rent obligations regardless of changes in their income (but with several income-based hardship provisions). The new demonstration is now underway in a total of 10 new MTW PHAs, and it includes public housing residents as well as voucher holders.[17] Building on the Rent Reform Demonstration, the findings from that demonstration will greatly enhance the evidence based on the operation, impacts, and costs of alternative ways of redesigning rent policies for working-age/non-disabled families receiving government housing subsidies.

[17] For background on this demonstration, see https://www.huduser.gov/portal/mtw/cohort2.html. MDRC is conducting the STRD evaluation.

CHAPTER 1

Introduction: Policy Overview and Evaluation Design

An important public policy question for several decades has been whether reforming the federal government's traditional way of subsidizing rental costs for very-low-income families could accomplish multiple goals: Would allowing tenants to keep more of their earned income (a stronger work incentive) lead them to work and earn more? Could a minimum rent be introduced without causing them more economic hardship? Could a new subsidy policy that supports work and protects against hardship also be made simpler overall and less costly for public housing agencies (PHAs) to operate? The Rent Reform Demonstration sponsored by the U.S. Department of Housing and Urban Development (HUD) includes one major effort to answer these important questions.[18] This report is the final in a series of evaluation reports on the design, operation, effects, and costs of that effort.[19]

The demonstration focused on families living in privately owned rental housing units and receiving tenant-based housing subsidies through the federal Housing Choice Voucher (HCV) program (commonly known as Section 8).[20] (This report uses the terms "families" and "households" interchangeably to refer to people living together and receiving a voucher as a unit when they enrolled in the study.) The centerpiece of the evaluation was a randomized controlled trial, which involved comparing the outcomes of families who were subject to a new rent policy with the outcomes of those who were subject to the existing rent policy. With a few exceptions,

[18] Another important attempt includes the more recent Stepped and Tiered Rent Demonstration, which is testing two other alternative rent policies (see https://www.huduser.gov/portal/mtw/cohort2.html). In addition, HUD has begun exploring providing direct rental assistance to tenants (rather than paying subsidies to landlords on behalf of tenants) as another attempt at voucher simplification (see https://www.huduser.gov/portal/pdredge/pdr-edge-frm-asst-sec-090523.html).

[19] MDRC prepared an initial or "baseline" report on the Rent Reform Demonstration, published by HUD in 2017, which describes the origins of the demonstration, the policy debate surrounding the traditional HCV rent policy, the features of the new policy, the rationale behind each of its main elements, how the policy was to be evaluated, characteristics of the sample, and initial findings on rent calculations and subsidies for the two research groups (Riccio, Deitch, and Verma, 2017). Subsequent reports describe staff and families' experiences with and perspectives on the new policy; the policy's early and interim effects on outcomes related to their employment, earnings, housing subsidy receipt, public assistance receipt, and use of homelessness services; and preliminary cost estimates. (Riccio and Deitch, 2019; Riccio, Verma, and Deitch, 2019; and Riccio et al., 2021.) The 2021 report examines the policy's effects on a broad range of outcomes for household heads and their families, including poverty, material hardship, family economic and social well-being, and other outcomes, based on a one-time, large-scale survey of families conducted roughly 4 years after the new policy took effect. MDRC also produced a summary of the technical assistance that it and its partners provided to assist the participating PHAs in implementing the new policy (Olejniczak and Azurdia, 2023).

[20] Tenant-based HCVs are portable, meaning that families can use the vouchers with private landlords of their own choosing if the housing unit meets the PHA's quality standards, and they can take the vouchers with them to a new landlord if they choose to move. These vouchers differ from Project-Based Section 8 assistance, which attaches a subsidy to a particular housing unit through a contract between PHA and a private landlord.

the existing policy reflects HUD's standard rent rules and procedures that apply to families in the HCV program nationwide.

PHAs enrolled families in the study in 2015-2016. The operational phase of the demonstration continued through the summer or fall of 2022 (the exact dates varied by PHA). This report updates earlier findings by examining the new rent policy's impacts on labor market outcomes and the receipt of housing subsidies and other government benefits over 6.5 years (or 78 months) from the time of sample enrollment, and by analyzing new cost data and qualitative information from in-depth interviews with PHA staff and families. It covers the study's full followup period, which lasted until September 2022 and included several years before the COVID-19 pandemic struck, continuing through the pandemic's peak period and decline.

Background and Rationale

Most PHAs follow a common set of federal rules in determining how much tenants must contribute of their own income toward their rent and utilities, and how much of a housing subsidy they will receive. Many observers believe that the traditional way that such subsidies have been calculated creates a potential disincentive to work while also imposing costly administrative burden on PHAs.[21] That system required families to report changes in income at least annually and for the PHAs to adjust the subsidies up or down as families' incomes fell or rose. PHAs also had the discretion to require families to report income increases between annual reviews, and to raise their TTPs in response. (More recent regulations from HUD modifies that guidance.)[22] Although this system provides a strong safety net for families by giving more rental assistance to those whose needs are greater because of lower or falling incomes, it also imposes an implicit marginal "tax" as their earnings grow. Tenants may increase their family income by earning more, but, if they do, they do not get to keep all of their extra earnings because they pay more (approximately 30 percent of the increase) toward their rent and utilities. This implicit tax is on top of possible reductions in other means-tested benefits families might be receiving, such as Temporary Aid for Needy Families (TANF) or Supplemental Nutrition Assistance Program (SNAP) benefits (formerly food stamps). With these benefit reductions, their combined marginal tax on increased earnings can well exceed 30 percent, thus further reducing tenants' "take-home" pay and possibly discouraging increased work effort.

HUD launched the Rent Reform Demonstration to design and carefully evaluate an alternative rent-subsidy policy for recipients of tenant-based HCVs. In setting guidelines for the demonstration, HUD sought a policy that would simplify the rent system to reduce PHAs'

[21] These and other criticisms are described in Abt Associates, Inc., the Urban Institute, and Applied Real Estate Analysis, Inc. (2010), Government Accountability Office (2012), and Public Housing Authorities Directors Association (2005). See also Riccio, Deitch, and Verma (2017) for a summary of these perspectives and relevant prior evidence on how housing assistances may affect labor force participation.

[22] HUD's final regulations for implementing HOTMA require PHAs to conduct an interim reexamination if a family's non-earned income increased by 10 percent or more. No reexamination is required for income increases due to earnings prior to the annual income review (HUD, 2023).

administrative burden and administrative costs, create a stronger financial incentive for families to increase their earned income, continue to provide a safety net for families who cannot readily increase their earnings, and not increase or at least minimize any increases in PHAs' average housing subsidy expenditures per family over time.[23]

Participating PHAs

HUD selected MDRC and its partners to coordinate the design process, working closely with HUD and the four PHAs that joined the demonstration. HUD and the PHAs had the final say over the policy design.[24] The MDRC team, as the overall manager and evaluator of the demonstration, also helped specify the processes required to implement the new policy but had no direct operational role in administering the new rent rules.[25] The four PHAs are:

- Lexington-Fayette Urban County Housing Authority in Lexington, Kentucky (generally referred to as the Lexington Housing Authority, or LHA)
- Louisville Metropolitan Housing Authority (LMHA) in Louisville, Kentucky
- San Antonio Housing Authority (SAHA) in San Antonio, Texas
- District of Columbia Housing Authority (DCHA) in Washington, D.C.

These four PHAs implemented the new rent policy alongside a more traditional rent policy to help determine its effects. They are a subset of 39 PHAs in the original cohort of agencies in HUD's Moving to Work (MTW) demonstration. PHAs with MTW status have more flexibility to change housing policies, provided they notify the public and receive approval from HUD and from their boards of directors. They are permitted to change certain policies that would otherwise require changes in legislation or regulations; this administrative flexibility extends to rent rules.[26]

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[23] For a discussion of the rationale for the specific reforms incorporated into the new rent policy, see Riccio (2020) and Riccio, Deitch, and Verma (2017).
[24] The study team includes the Urban Institute, the Bronner Group, Quadel Consulting & Training, and professors Ingrid Gould Ellen (New York University), John Goering (City University of New York), and research consultant Barbara Fink.
[25] For more information on the demonstration design process and MDRC's role, see Riccio, Deitch, and Verma (2017) and Riccio (2020).
[26] According to the Moving to Work Agreement, Moving to Work agencies have the authority to adopt and implement any reasonable policies to calculate tenants' contributions toward their rents that differ from the program requirements as mandated in the 1937 Act and its current implementing regulations. MTW allows PHAs to use their Section 8(o) (i.e., HCV and PBV) and Section 9 (Public Housing Capital Fund and Operating subsidy) money as completely fungible. MTW allows PHAs exemptions from any provision of the United States Housing Act of 1937 except for Sections 18, 12, and 3(b)(2). MTW also allows for local, nontraditional (LNT) uses of funds for housing and services that fall outside traditional activities allowed under sections 8 and 9 of the 1937 Act.
MTW PHAs must comply with five statutory requirements: (1) HQS standards applied under MTW must be established or approved by the Secretary; (2) 75 percent of families served must be very low income; (3) agencies must establish a reasonable rent policy designed to encourage work and self-sufficiency; (4) agencies must continue to assist substantially the same number of families as they would have if not designated MTW; and (5) agencies must maintain a comparable mix of families by family size than if not designated MTW. The four PHAs in the Rent

Three of the four PHAs decided to extend their participation in the Rent Reform Demonstration beyond 2019—the end-date to which they had originally committed. The housing agency in Washington, D.C., decided not to do so. This decision was primarily driven by the agency's need to devote staff to other priorities, which would be more difficult while operating a special, parallel rent policy for some voucher holders as part of the demonstration. The evaluation results for all four PHAs, including Washington, D.C., are presented in all prior reports on the Rent Reform Demonstration. This report focuses exclusively on the Lexington, Louisville, and San Antonio PHAs, all of which continued operating the alternative policy until the summer or fall of 2022. (The exact end-date varied by PHA.)

The Final Report

The current report covers the demonstration's entire followup period, from before the COVID-19 pandemic, through the pandemic's peak, and during the period of its decline. Once the pandemic struck, the PHAs in this study, like those across the country, had to make dramatic changes in how they operated, such as moving online many interactions between staff members and tenants that were traditionally conducted in person. By requesting and being granted waivers of certain HUD regulations, the PHAs took advantage of increased administrative flexibility that HUD temporarily offered to all PHAs across the country. Later chapters in this report consider how the pandemic changed PHAs' administration of the new rent rules and the existing rent rules, the implications for the policy's effects on families' labor market outcomes, the use of the voucher program, and receipt of other government benefits.

The results of Lexington, Louisville, and San Antonio combined show that the new rent policy did not produce large, statistically significant improvements in household heads' cumulative earnings over the 6.5-year followup period, as measured using unemployment insurance wage records. The results vary across the PHAs, however. Lexington and San Antonio produced some positive estimated effects on some labor market outcomes during the first two or three years, which did not grow or persist, and Louisville generated negative effects, which generally faded by the end of the followup period. It should also be noted that the MDRC's 2021 report, using a survey administered to household heads at about 4 years into the followup period, found that the new policy in all three PHAs had a small but statistically significant positive effect on self-reported employment, possibly indicating some increase in employment not covered by unemployment (UI) records (Riccio et al., 2021). It also showed that there were few statistically significant effects on outcomes related to family financial security, material hardship, moves, evictions, or other measures of family well-being at around the four-year mark.

Reform Demonstration were still largely following HUD's traditional rent policy at the start of the demonstration, with some exceptions (discussed later in this chapter). In more recent years, HUD has expanded the MTW Demonstration to include 100 new PHAs testing a variety of new housing policies, including (in 10 PHAs) additional approaches to rent reform that MDRC is evaluating through new randomized controlled trials. See https://www.hud.gov/program_offices/public_indian_housing/programs/ph/mtw/expansion.

The evaluation found larger and more consistent effects on outcomes related to housing subsidies. Across the agencies, the new policy, on average, delayed families' exits from the voucher program, likely because the triennial recertifications delayed the time for reporting increased income, which could make families ineligible to continue receiving subsidies, and because less engagement with PHA staff before the triennial recertification may have reduced how quickly issues related to compliance with PHA rules and procedures emerged or came to light. Slower exits meant that the new rules group received more in total housing subsidies during the study's followup period. The policy slightly lessened PHAs' administrative costs. When expenditures of subsidies were also taken into account, the policy moved closer to achieving cost neutrality from the perspective of PHAs' costs *per voucher*, which considers the costs of serving new families who used the vouchers freed up by families in the evaluation sample when they exited the HCV program during the followup period. Overall, the new policy did not increase families' material hardship (a concern raised by the imposition of a "minimum rent" to be paid by tenants). Most families preferred the new policy to the existing rules.

HUD's Traditional Rent Policy

Nationally, HUD funds over 2,200 PHAs to provide approximately 2.2 million low-income households across the country with HCVs. Under traditional HUD rules,[27] a typical family receiving an HCV is expected to contribute 30 percent of its "adjusted income" toward its rent and utilities, or 10 percent of its gross income (or the minimum rent, if the PHA imposes one), whichever is greater.[28] This contribution is known as the "total tenant payment." The rules for calculating a family's total tenant payment (TTP) under the 30 percent rule exclude certain types of income and allow several deductions from pre-tax income, including a deduction for some childcare costs for working parents. The resulting figure is an estimate of adjusted income. The calculation also looks forward in time, basing the adjusted income estimate on the amount of income a family *currently receives* and *anticipates receiving* in a typical month during the coming year (which this report refers to as "current/anticipated" income). The PHA provides a subsidy for the difference between the rent charged by the landlord (referred to as the "contract rent") and basic utilities (if not included in the rent) and the maximum allowable subsidy, called a "payment standard," which takes account of local fair-market rents. All PHAs are permitted to establish a minimum TTP, commonly referred to as a "minimum rent," of up to $50 per month, although not all have done so.[29] (MTW agencies have more flexibility to establish higher minimum TTPs and make other adjustments in rent policy.)

[27] Throughout this report, HUD's "current" or "traditional" rent policy for voucher holders refers to the national rent policy in effect for non-MTW PHAs before the implementation of HOTMA, which did not take effect until January 1, 2024. "Existing" rules refer to the rent rules in place at each of the Rent Reform Demonstration's PHAs when the demonstration was launched, which, in some cases, varied somewhat from HUD's traditional policies.
[28] Gross income refers to a family's total pre-tax income minus certain types of excluded income.
[29] For a full explanation of HUD's existing rent rules, see HUD (2001).

This existing "percentage-of-adjusted-income" approach builds a strong safety-net feature into the rent subsidy system: If a family's income falls, the family pays less toward its housing costs. This approach also implicitly "taxes" tenants for increasing their earnings (which some experts contend discourages work) because it requires families to pay 30 percent of that increase toward their rent. Traditionally, the policy also required PHAs to make regular and administratively burdensome readjustments in TTPs and housing subsidies as a family's income changes. Critics of the existing policy considered the complex rules governing the calculation of adjusted income, rent, and utility allowances to be administratively burdensome and prone to errors that could lead to improper payments. The new rent policy attempted to address these problems.

In 2016, Congress passed the Housing Opportunity Through Modernization Act (HOTMA), which included changes to many HUD programs, including the HCV program. Some reforms in that legislation are similar to elements of the Rent Reform Demonstration's alternative rent policy, including the requirement to use retrospective income in setting TTPs and provisions for limiting interim recertifications. However, certain core features of the HUD's traditional policy, including its 30-percent-of-adjusted-income rule for determining tenants' rent contributions, and the requirement for families to recertify their eligibility for the voucher program and have their rent contributions and subsidies recalculated annually, were not altered. Because HUD only issued its final regulations for implementing the legislation in February 2023, HOTMA has had little bearing on the existing rules experienced by this evaluation's control group.[30]

Overview of the New Rent Policy

The new rent policy applied only to working-age, nondisabled eligible voucher recipients whose vouchers were administered by the four MTW PHAs.[31] The policy includes the core features, which are also summarized in exhibit 1.1.[32]

Changes in rules for recertifying families' continued eligibility for the voucher program and recomputing their TTPs

- Replacing the annual recertification schedule with a triennial schedule means that a family is only required to review its income with the PHA

[30] For more information on changes under HOTMA, see HUD's final regulations for implementing the legislation (HUD, 2023), specifically "Housing Opportunity Through Modernization Act of 2016: Implementation of Section 102, 103, and 104 final rule" published in Federal Register Notice 88 FR 9600 on February 14, 2023.

[31] All Section 8 Project-Based Vouchers, Enhanced Vouchers, and Special Purpose Vouchers, such as HUD-Veterans Affairs Supportive Housing (HUD-VASH), Moderate Rehabilitation, and Shelter Plus Care, were excluded from the study. Additionally, the study did not include households defined as seniors or disabled (according to HUD's definitions), and households headed by people older than 56 (who would become seniors during the long-term study). If a family becomes designated a disabled household (based on HUD's definition), PHA would immediately recalculate its TTP based on its current or anticipated gross income without waiting for the next triennial recertification. Households' participating in Family Self-Sufficiency and homeownership programs before sample enrollment began were also excluded from the study, as were families who held vouchers but were not receiving housing subsidy.

[32] See Riccio, Deitch, and Verma (2017) for further details.

every 3 years. Thus, if a family increases its earnings during that period, it does not need to report the increase to the PHA, and its TTP will not be raised until the end of the 3-year period.

Changes in the formula for calculating a family's TTP and subsidy

- Simplifying the calculation by eliminating all deductions from income and making gross income, rather than adjusted income, the basis for calculating a family's TTP.[33]

- Calculating TTP at 28 percent of gross income, rather than the normal 30 percent of adjusted income, as a way to help offset the elimination of income deductions.

- Using a family's gross income over the previous 12 months ("retrospective income") in setting its TTP and housing subsidy, rather than the traditional practice of using the family's adjusted current income and its expected income in the coming year.

- Ignoring a family's income from assets when the total value of its assets is less than $25,000, and not requiring documentation of those assets.

- Simplifying the policy for determining utility allowances to a streamlined standard schedule based primarily on unit size (number of bedrooms), with some adjustments, rather than on various unit characteristics that can affect utility costs.

- Establishing a minimum TTP of at least $50 per month and requiring families to pay at least the specified minimum TTP directly to their landlords. Thus, all tenants have rent-paying relationships with their landlords—just as they would in the unsubsidized rental market.[34]

Safeguards for families (in addition to interim recertifications)

[33] The new policy used the same types of income in TTP calculations that applied under HUD's traditional rules.

[34] Although most voucher holders pay some rent directly to their landlords, in some cases the housing agency, under traditional rules, pays the entire amount to the landlord. Requiring all families in the new rent rules group to pay at least some amount to their landlords was perceived by some HUD officials as a way of helping to prepare those families for the arrangement they would face if they increased their incomes and received lower housing subsidies or moved and were no longer receiving housing subsidies. Families whose TTPs were set below the minimum rent due to hardship could be reimbursed by the PHA for the extra amount up to the minimum through the utility allowance mechanism.

- At the start of the 3-year period, providing a 6-month "grace-period" TTP based on current/anticipated gross income if that income is more than 10 percent less than that family's average monthly retrospective income.
- Allowing one interim recertification per year (a "restricted interim recertification") if a family's retrospective income falls by more than 10 percent before the next required triennial review. This change is intended to limit the volume of TTP adjustments the PHA makes while still protecting families when their incomes drop substantially. (The new policy does not restrict interim recertifications required for other reasons, such as a change in household composition or a move to a new unit.)
- A hardship policy that covers a standard set of conditions (particularly when a family's TTP exceeds 40 percent of its current income) and includes a standard set of remedies that permit TTP reductions at any time during the 3-year period to protect households from excessive rent burdens.

PHAs' participating in the demonstration helped to develop and support this common framework. However, they also saw a need to adapt the model in some ways in response to local considerations. In addition, the demonstration had to accommodate some earlier policy changes the PHAs had already implemented. (See appendix exhibit A.1 for a summary of the existing rent policies across the three PHAs; these policies applied to the control groups in the demonstration.)[35] Among the most important local variations concerned minimum TTP levels, which varied for the new rules and existing rules groups. They were set at $50 per month in Louisville (compared with no minimum TTP for the existing rules group); $100 per month in San Antonio (up from $50 per month for the existing rules group); and $150 per month in Lexington for both research groups. Lexington had already introduced its $150 minimum TTP before the demonstration began, and it continued that policy for both the new rules group and the existing rules group.[36] The process for determining hardship remedies also varied across the PHAs, although the general conditions defining hardship and the remedies themselves were not altered.[37] Each of the three PHAs adopted a simplified utilities policy, adapting a version of a policy that Washington, D.C., had already instituted prior to the demonstration.

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[35] For information on distinctive features of the new rent policy in the fourth original study site, Washington, D.C. see Riccio et al. (2021).
[36] Lexington generally does not permit reductions in TTPs below the minimum in its application of the demonstration's hardship policy unless the household becomes classified as disabled.
[37] In Louisville and San Antonio, a hardship waiver to pay less than the minimum rent did not exempt families who claimed zero non-excluded income (and had a zero TTP) from the regular reporting requirements PHAs established for all zero-income households. Such households still had to provide a detailed accounting of the funds used to cover their basic costs of living (for food, personal or family care necessities, and so on) every 90 to 180 days, depending on PHA's policy.

Of all the new rent policy features, the 3-year recertification is the main one intended to improve labor market outcomes because it eliminates the implicit "tax" on earnings during the 3-year period.

Exhibit 1.1. Comparison of Traditional and New Rent Policies for the Housing Choice Voucher Program

Component	Traditional HUD Policy	New Rent Policy
Total tenant payment (TTP)	30 percent of adjusted monthly income (that is, total countable anticipated income, minus deductions) or 10 percent of gross income, whichever is higher.	28 percent of gross monthly retrospective income (that is, gross monthly income over the previous 12 months), with no deductions or allowances. Countable income estimate for setting a family's TTP and housing subsidy is based on 12-month retrospective income.
Minimum TTP	Up to $50 per month, at public housing agency (PHA) discretion.	$50 to $150 per month, depending on the PHA. All families pay a minimum amount of rent directly to their landlords to mirror the landlord-tenant relationship in the unsubsidized rental market.
Assets	Family income from assets is counted in determining a family's TTP.	Family income from assets is ignored when total asset value is less than $25,000, and families do not need to document those assets.
Recertification period	Annual recertifications.	Triennial recertifications.
Interim recertifications when income changes	At an agency's discretion, families report any income increases when they occur before the next scheduled recertification. Families may request interim recertifications whenever their incomes fall by any amount.	Earnings gains do not increase TTP for 3 years (that is, until the next triennial recertification). Interim recertifications to account for income reductions are limited to a maximum of one per year (referred to as "restricted interim recertification"), and only when a family's average gross income over the most recent 12 months drops by more than 10 percent from the retrospective estimate that was used to establish the TTP currently in effect.
Utilities	Where the contract rent does not include utilities, a utility allowance is provided based on a detailed schedule that takes into consideration voucher size (the number of bedrooms covered by a family's voucher) and various other aspects of the type of housing unit.	A simplified utilities policy that is tailored to a standard base rate for utility costs that varies only according to the size of the voucher (the number of bedrooms covered by a family's voucher), with additional payments available to families paying higher costs related to the type of heating (for example, electric or oil heat) and water and sewer charges.

Component	Traditional HUD Policy	New Rent Policy
Hardship policy	If the PHA has a minimum TTP, it must suspend that minimum TTP for families who are unable to pay it because of specified financial hardships. Short-term hardships (lasting 90 days or less) require the suspended minimum to be reinstated after the hardship period ends and to be repaid according to a reasonable payment plan.	Families qualify for consideration of a hardship-based remedy if— • The family's monthly TTP exceeds 40 percent of its current or anticipated monthly gross income. • The hardship cannot be remedied by the one interim recertification permitted each year. • The family faces eviction for not paying rent or utilities. • The family meets other criteria determined by the PHA. Hardship remedy options include the following standardized list: • Allowing an additional restricted interim recertification beyond the normal one per year. • Setting the family's TTP at the minimum level for up to 180 days. (This remedy can be renewed at the end of that period if the hardship persists.) • Setting the family's TTP at 28 percent of its current gross income (which may be less than the minimum TTP), for up to 180 days (except in Lexington). (This remedy can be renewed at the end of that period if the hardship persists.) • Offering a "transfer voucher" to support a move to a more affordable unit.
Grace period	Not applicable. TTP is always based on current income.	At the triennial recertification, if a family's current gross income is more than 10 percent lower than its average gross retrospective income over the last 12 months, the family will have its TTP calculated at that time based on current income rather than retrospective income, and this TTP will remain in effect for 6 months. During this grace period, families can still qualify for a hardship-based remedy.

Notes: The traditional HUD policy column shows the national policy in existence for the non-Moving to Work tenant-based Housing Choice Voucher program population before implementation of the Housing Opportunity Through Modernization Act of 2016, "Housing Opportunity Through Modernization Act of 2016: Implementation of Section 102, 103, and 104 final rule," published in Federal Register Notice 88 FR 9600 on February 14, 2023. Details on the existing policy at each of the four demonstration PHAs and how it varies from the traditional HUD policy are available in appendix exhibit A.1.

Evaluation Overview

The Rent Reform Demonstration is based on a two-group randomized controlled trial. This research design is powerful because, in general, random assignment with an adequate sample size ensures that the intervention and control groups will be similar in their distributions of observed and unobserved characteristics when a study begins. Thus, differences between the two groups that emerge later (for example, on employment, earnings, subsidy receipt, and other outcomes) can, with a greater degree of confidence, be attributed to the intervention than to preexisting differences in families' characteristics. In Lexington, Louisville, and San Antonio combined, approximately one-half of the 4,756 families who enrolled in the study were randomly assigned to the group that was subject to the new rent policy. The other one-half were assigned to a control group that remained subject to the existing policy.

The next few sections describe the research sample, data sources, and followup period. Further information on analysis issues concerning the unit of analysis, regression adjustment of the impact estimates, and adjustments for multiple outcomes can be found in appendix A. A fuller account of the overall evaluation design, sample enrollment process, and study sample's characteristics can be found in the demonstration's baseline and previous impact reports (Riccio, Deitch, and Verma, 2017; Riccio and Deitch, 2019; Riccio et al., 2021).

The Eligible Sample

Because an important goal of the evaluation is to test whether the new rent policy improves tenants' employment and earnings, families had to be existing HCV holders and generally considered to be of working age and non-disabled. More specifically—[38]

- A family could not participate in the study if it were classified as an elderly household according to HUD's definition or would become an elderly household during the period of the study. More specifically, the head of household, spouse, and co-head had to be 56 years of age or younger at the time of study enrollment so that a followup period of several years would not extend into the time when many adults begin to retire.
- A family could not be defined, according to HUD guidelines, as a *disabled household* (one in which the head, co-head, or spouse is a person with a disability).

[38] The study did not include new voucher holders because it was expected that a substantial number would not successfully "lease up"—that is, find appropriate housing for which they could use the voucher within the time that PHAs allotted. Because such families would forfeit their vouchers, they could not be subject to either the new or existing rent rules and, consequently, would not contribute to the goals of the evaluation.

With these and a few additional exceptions, all eligible families in the HCV program who were scheduled for recertification during the study's enrollment period for each PHA were enrolled in the study.[39]

Enrolling the Sample

The procedures for enrolling families into the study were incorporated into the regular income recertification process—the process that each of the PHAs uses to review whether families are continuing to meet the voucher program's income and other requirements and calculate their total tenant payments (TTPs) and housing subsidies. Once the study's eligibility criteria were set, the PHAs and MDRC identified qualifying families who were being scheduled for upcoming recertifications. Random assignment procedures were then used to assign those families either to the new rent rules group that would be subject to the new policy for the duration of the demonstration or to the existing rent rules group that would continue to be subject to the traditional rent rules for voucher holders. The latter group would be the study's control group.

With the exception of Louisville, enrollment in the demonstration was mandatory.[40] Families had their TTPs for rent and utilities and their housing subsidy amounts calculated according to the rules of their assigned rent policy group and remained subject to all the rent rules applicable to their group for the demonstration duration. Although families could not opt out of their assigned rent policy group (except in Louisville), they could refuse to allow their individually identified data to be shared with the researchers. Only 14 families (0.2 percent of those randomly assigned) across the four PHAs chose to do so. In sum, while the evaluation tested a mandated alternative rent policy in Lexington and San Antonio, it tested the offer of such a policy in Louisville.

Characteristics of Enrolled Families at Baseline

Data on the families' background characteristics come from PHA administrative records (based on HUD's 50058 form) and a special background information survey administered to families by

[39] The study also excluded several other types of voucher holders. For example, some families were not eligible because they held special vouchers governed by regulations that did not apply to the vast majority of regular voucher holders. Families who were already participating in HUD's Family Self-Sufficiency and Homeownership programs were also excluded because the new rent rules would change some of the terms that those families had agreed to when they enrolled in those programs. Also, the demonstration excluded families who were currently receiving childcare deductions so that those families would not be forced to give up deductions they had come to rely on. (The new policy did not offer these deductions.)

[40] Recertified voucher holders were not asked to select a rent policy because the study wanted to simulate what would happen if the new policy were to be adopted by HUD. The new rent policy included safeguards to minimize the risk of harm while also creating opportunities for substantial benefits for those subject to it; this was among the reasons why MDRC's Institutional Review Board deemed that this random assignment design met recognized ethical guidelines for human-subject research. These protections were also why HUD deemed the rent policy to be compliant with the MTW statute, which gives MTW agencies statutory flexibility to implement new initiatives with the proper public notice and PHA board approval. In Louisville, however, community concerns led to an agreement with PHA that families assigned to the new rent rules group would be allowed to opt out and have their rent calculated using existing rules. For more on this issue and for a complete list of reasons for exclusion, see Riccio, Deitch, and Verma (2017).

PHA housing specialists at the time of the initial recertification. The evaluation's baseline report (Riccio, Deitch, and Verma, 2017) provides a full discussion of these characteristics. Appendix A of the current report reproduces tables from earlier reports showing sample members' characteristics based on PHA data in Lexington, Louisville, and San Antonio.

With the samples of all three PHAs combined, the average household size was just over three family members (see appendix exhibit A.2.). In addition, just over one-third of families (31.9 percent) had more than one adult living in the household, and nearly one-fifth (17.7 percent) had no children under the age of 18. Nearly all (95.2 percent) of household heads in the study sample were female, and, on average, household heads were about 37 years old when they entered the study (shown in appendix exhibit A.3). Over half (57.6 percent) were Black. Almost one-third (30.3 percent) of household heads were Hispanic/Latino (of any race). In Lexington and Louisville, most heads of households were Black, while most (74.9 percent) in San Antonio were Hispanic/Latino.

Most of the other adults in the study households were apparently the young adult children of household heads (appendix exhibit A.4). About 80 percent of the adults who were not household heads were 18 to 24 years of age, and about 12 percent were 25 to 34 years of age. A very small proportion (10 percent) were spouses or co-heads of households—a consistent pattern across all four PHAs. About 47 percent of the adult non-heads of households were female, with their race and ethnicity closely paralleling household heads (not shown in appendix exhibit A.4).

Economically, the study sample was substantially disadvantaged at the time of random assignment. According to PHA data, more than one-half of the study families (56.7 percent) had no earned income at that time (including household members, not just household heads), ranging from 53 percent of families in San Antonio to 62 percent in Louisville (appendix exhibit A.2). Even among families who had earned income, earnings were quite low: Average annual earnings at the time of sample enrollment (among families with earnings) ranged from about $13,000 in San Antonio to almost $17,000 in Lexington and Louisville. According to PHA data, 23 percent of families had income from Social Security, the Supplemental Security Income (SSI) program, or pensions. In most cases, SSI income was received on behalf of children or other adults living in the household, not the household head. (In households receiving SSI, that income was evident for only 3 percent of household heads.)[41] Fewer than 5 percent of the families received cash welfare payments (that is, income from TANF and state general assistance programs). Supplemental data collected through a brief survey of families at the time of study enrollment showed that only a small percentage of families had a total annual income of $20,000 or more (8.5 percent in Louisville, 12.4 percent in Lexington, and 10.8 percent in San Antonio), and in each PHA, over half of the families had an income of less than $10,000. To put these numbers in

[41] Although families with disabled heads or co-heads of households were ineligible for the study, some households became disabled during the time between being selected for the study and when the rent rules took effect.

context, area median family income at the time of random assignment ranged from $62,100 in San Antonio to $66,100 in Lexington.[42]

Louisville Opt-Outs

As previously mentioned, families in Louisville who were randomly assigned to the new rent policy group were permitted to opt out of that group and continue to be subject to the existing rent rules. Families were shown what their new TTPs would be under the new policy versus the existing rules, and many chose to stick with the existing policy because their TTPs would be somewhat lower (although that was not the only reason). Overall, about 22 percent chose to opt out. (However, very few families who opted out of the new rent policy chose not to participate in the evaluation.) Those who chose to opt out of the new policy differed in important ways from those who did not. For example, at the time of their initial recertifications, they were less likely to have any earned income.[43]

To avoid introducing selection bias into the impact analysis—in other words, to ensure that the same types of families are included in each research group when the outcomes of these groups are compared—the evaluation still treated the opt-out families as members of the new rent rules group even though they were subject to the existing rent rules. This decision ensured that the evaluation's estimated impacts would be unbiased, which was essential for determining whether the new rules had a causal impact on the outcomes of interest. These estimates are referred to as "intent-to-treat" (ITT) impact estimates (because they are the effects for everyone the policy was intended to reach). However, this decision also meant that the magnitude of the estimated effects of the new rent policy could be somewhat diluted because not all members of the new rent rules group were exposed to the new policy.

Given the substantial opt-out rate in Louisville and recognizing that any effects on outcomes can be attributed solely to families who did *not* opt out, this study included a set of supplementary estimates (presented in appendix B) that adjusted the impact estimates—on selected outcome measures—to account for the fact that some members of the new rent rules group were not exposed to the new rent rules. These estimates were derived from what is commonly referred to as a "treatment-on-treated," or TOT, analysis. For a specified outcome measure, the TOT impact was computed by dividing the estimated impact by the proportion of families assigned to the new rent rules group who chose to remain with the new policy. A rationale for including TOT impacts is that they provide a clearer picture of the effects of the policy on those who experienced it, rather than diluting the impact estimates by averaging the results across those who did and those who did not experience it. On the other hand, the TOT results are not fully generalizable to the entire Louisville research sample, because the opt-outs are a self-selected

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[42] See Riccio, Deitch, and Verma (2017) for information on this survey and a fuller discussion of baseline findings.
[43] See appendix B of Riccio, Deitch, and Verma (2017) for a detailed analysis comparing families in Louisville who opted out of the new rent policy with those who did not opt out.

(and more disadvantaged) segment of the target population in that PHA.[44] Nonetheless, although this report focuses mainly on the ITT impacts for Louisville, it is important to consider the TOT impacts as well. Similarly, when the results for Lexington, Louisville, and San Antonio are combined (or "pooled"), the report focuses on the ITT results, but it also presents pooled TOT estimates on key outcome measures (see appendix exhibit B.3).[45] As it turns out, the impact ITT and TOT impact estimates do not differ appreciably and do not affect the conclusions drawn from the analyses.

Confirmatory Outcomes

The most important measures for assessing the effectiveness of an intervention are commonly referred to in the evaluation literature as "confirmatory" outcomes. For the Rent Reform Demonstration, the evaluation team, in consultation with HUD, designated three outcomes—with results combined, or "pooled," across the PHAs—as confirmatory: (1) household heads' average cumulative earnings over the full followup period, (2) families' cumulative housing subsidies (that is, housing assistance payments, or HAP), and (3) a measure of material hardship for the household head and family. These confirmatory outcomes reflect the most important variables for judging the intervention's effectiveness. Increasing tenants' earnings was one of the most important goals that HUD set for the new rent policy, given its focus on promoting progress toward self-sufficiency; thus, earnings was selected as a primary outcome. At the same time, it was deemed important to improve earnings without making the voucher program much costlier than it would be with the traditional rent policy. Because HAP expenditures are the most important contributor to program costs, and because housing subsidies are so important to tenants' well-being, cumulative housing subsidies was selected as a second confirmatory outcome.[46] Because another major goal of the new policy was to promote increased work without causing increase hardships for families, a composite measure of "material hardship" was designated as the study's third confirmatory outcome measure. This outcome was based on the survey of household heads and is only discussed in the 42-month impact report, where the survey findings are presented. (See Riccio et al., 2021.) The material hardship scale measured both the presence and frequency of hardship using a broad set of indicators, including the ability to pay monthly rent, utility, and phone bills on time; access to sufficient food; and access to preventive healthcare and prescription medication.

Given their primacy, statistically significant impact findings on the confirmatory measures are subjected to further statistical adjustments that hold them to a higher standard of evidence. These adjustments account for the likelihood that in a study using many outcome variables, some

[44] For a comparison of families who opted out with those who did not opt out, see Riccio, Deitch, and Verma (2017).
[45] In Lexington and San Antonio, where opting out was not permitted, the ITT results = TOT results. Thus, across the three PHAs, the pooled TOT estimates reflect the effects for all families who were required to receive the intervention, whereas pooled ITT results include a mix of families who were required to receive the intervention (the majority) and some (from Louisville) who were not required to receive it.
[46] For two randomized controlled trials testing the impacts of housing vouchers on family well-being, see Gubits et al. (2016) and Mills et al. (2006).

impact estimates may emerge as statistically significant by chance and do not reflect true intervention effects. One can have more confidence in any confirmatory impact estimates that remain statistically significant after adjusting for the total number of confirmatory outcome measures.[47]

The pooled impact estimates provide insight into the average effects of a similar policy when operated in a range of settings where local conditions and participant characteristics vary. At the same time, PHA-specific estimates are also important and are included in this report. They allow the analysis to assess whether the effects of the intervention vary in important ways across localities. However, important differences in control group policies and some local adaptations in the new rent policy across PHAs mean that the PHA-specific tests are not all equivalent. It is important to keep these site differences in mind when comparing the results across locations and interpreting the pooled findings.

Data Sources and Followup Period

The current report uses unemployment insurance wage records obtained through the National Directory of New Hires (NDNH), which captures employer-reported employment and earnings on adults in the sample; PHA administrative records (data collected in the normal course of administering PHA programs), which capture families' receipt of housing benefits and other information while families are receiving vouchers; administrative records data on families' receipt of TANF and Supplemental Nutrition Assistance Program (SNAP) benefits obtained from state agencies; and families' use of housing and services for families experiencing homelessness entered into the Homeless Management Information System (HMIS) obtained from the local Continuum of Care.[48] Appendix exhibit A.5 summarizes these data sources in greater detail.

Across the three PHAs, the dates when study families' revised TTPs took effect spanned a 10-month period from June 2015 through March 2016 (appendix exhibit A.6). Accordingly, the impact study's 78 months of followup (the focus for many of the outcome measures for this report) ended in December 2021 for the earliest enrolled families and in September 2022 for the last families enrolled.

Exhibit 1.2 highlights several key stages in the evaluation timeline, reflected in *relative* time—that is, relative to the time when each family was randomly assigned. (Actual calendar dates for

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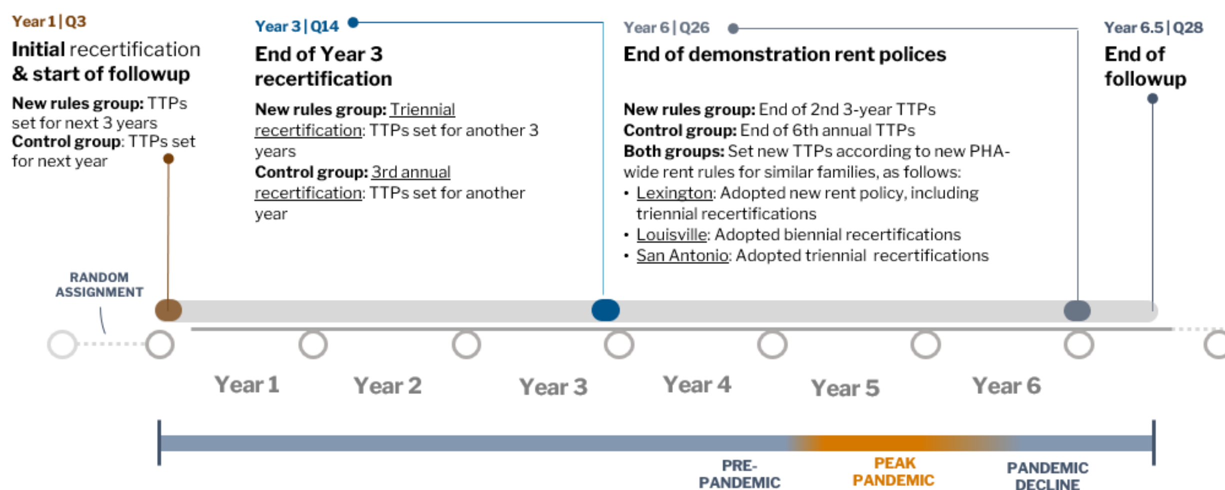
[47] The evaluation team adopted the Benjamini-Hochberg method applied to p-values (Benjamini and Hochberg, 1995). For more information on the considerations guiding the selection of confirmatory outcomes and the method of adjusting for multiple outcomes, see appendix 1 of the current report and, for full account, see appendix B of the first impact report (Riccio and Deitch, 2019).

[48] A followup survey of household heads was fielded to collect information about sample members that was not available from administrative records. This includes information on educational attainment, job characteristics and work behavior, material hardship and wellbeing, moving, evictions, and experiences with the new rent rules. The 30-minute survey was administered from May 1 through November 27, 2019 (Riccio et al., 2021).

the depicted stages differ for different families and across PHAs, depending on the calendar date of each family's random assignment.) Initial TTPs, which were set according to the new rent

Exhibit 1.2. Rent Reform Demonstration Evaluation Timeline



Notes: Study enrollment took place between February and November 2015, and data collection ended in September 2022.

Source: MDRC.

rules or, for the control group, the existing rent rules, took effect by approximately the third quarter of the first year after random assignment. Thus, the evaluation's followup period began at about that time. Recertifications took place annually for the control group and at the end of Year 3 for the new rules group. Thus, families in the new rules group had their TTPs set according to the new rent policy twice during the evaluation period: once at the beginning of the followup period (when initial TTPs took effect for each group, several months after random assignment), and again three years later, when the new TTP took effect at the start of Year 4 and ended at the end of Year 6, the year the demonstration ended. Thus, when both groups were up for recertification in Year 7 and beyond (if they were still receiving housing vouchers), their TTPs would be set according to PHAs' current rent policies.

Exhibit 1.2 depicts how the followup period roughly overlaps with the COVID-19 pandemic, with the pandemic assumed to be in full force around March 2020. Thus, as the first four years of the followup period corresponds with the "pre-pandemic" phase, the study's findings were unaffected by the pandemic. The Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law in March 2020, and the peak of the pandemic occurred (approximately) between April 2020 and March 2021. This roughly corresponds with Year 5 of the evaluation followup period.

The pandemic period was a tumultuous one for PHAs. Offices closed, and work that typically required families to interact with housing specialists in person was now handled online or via the mail. The collection and processing of documents related to recertifications, and other issues slowed, the move to new homes by families with vouchers was delayed, and other new procedures had to be established. Exploiting the flexibility allowed by the CARES Act, HUD waived a number of its rules related to the administration of the HCV program, which affected

control group members in ways that somewhat lessened the difference, for a time, between the existing and new rent policies. For example, HUD allowed all PHAs to delay annual recertifications and relied on self-certification by families, rather than on typical income verification requirements, in resetting families' TTPs.

As vaccination rates grew rapidly throughout 2021, the prevalence and severity of the pandemic declined substantially, and the economy began to reopen. HUD waivers under the CARES Act ended in December 2021. Thus, the period that roughly corresponds to relative Year 6 and the first six months of Year 7 (between 2021 and the end of 2022 when data collection ended) may be considered a period of "pandemic decline" when the labor market was beginning to return to normal. It is helpful to keep these different stages of the pandemic in mind when reviewing the longer-term results of this evaluation.

At the conclusion of the operational phase of the demonstration, the PHAs differed in the rent policies to which families would be subject going forward. Most notably, Lexington continued the new rent policy largely according to how it had been operated during the demonstration and expanded it to all working-age/nondisabled voucher families. Louisville reverted back to the existing rent policy but subsequently adopted a biennial recertification schedule. San Antonio, which had been operating a biennial recertification policy alongside the two policies for the study sample (for the new rules group and the existing rules group), began applying its biennial policy to those in the study sample who were still receiving vouchers after the operational period of the demonstration concluded.

The Scope of This Report

This report provides longer-term findings from the evaluation's impact analysis, updating analyses presented in MDRC's three prior impact reports. Chapter 2 presents the findings on employment and earnings outcomes. Chapter 3 presents the findings on tenants' housing costs, subsidies, and other outcomes related to their subsidy receipt, including staff actions to administer their subsidies and families' reasons for exiting the voucher program. Chapter 4 discusses families' receipt of TANF, SNAP, and homelessness services. It also examines patterns of employment, benefits received, material hardship, and financial well-being among household heads who exited the voucher program. Chapter 5 examines the experiences with and views of the new rent policy from the perspective of staff who administered the policy and families who were subject to it. Chapter 6 presents information on the costs of operating the new rent policy relative to the existing policy. These observations drew on qualitative data collected from a new round of in-depth interviews, as well as previously collected qualitative and survey data. Chapter 7 concludes the report by highlighting key findings and lessons from the demonstration. The appendices include supplementary materials related to the analytical strategy, some PHA-specific findings, and other information.

Chapter 2
Impacts on Employment-Related Outcomes

This chapter examines the effects of the new rent policy on employment and other patterns of labor market engagement over time. The analysis focuses primarily on outcomes for residents who were heads of households at the time of enrollment at three of the four PHAs that participated in the study – Lexington, Kentucky; Louisville, Kentucky; and San Antonio, Texas. A fourth PHA in Washington, D.C. discontinued its participation in the study in September 2019 (see chapter 1).[49]

The analysis examines unemployment insurance (UI) wage records for all sample members for the 6.5 years (78 months) after the newly calculated total tenant payment (TTP) took effect for families after they enrolled in the study.

The onset of the COVID-19 pandemic in the United States during the fifth year of followup and the ensuing policy responses by federal, state, and local actors introduced an additional layer of complexity to interpreting results for the final two years of the followup period. (See exhibit 1.2.) To address this, the analysis pays some extra attention to the results from Year 4. Occurring after the first triennial recertification for families in the new rent rules group, the fourth year of followup provides an opportunity to examine employment and earnings outcomes during a period in which the new rent rules policy remained in a steady state preceding the disruption caused by the pandemic.

As shown, the new rent policy had few statistically significant employment or earnings impacts for heads of household in the new rent rules group relative to those in the control group through 6.5 years of followup in the pooled three-PHA sample. As discussed in earlier reports, some positive and statistically significant PHA-level impacts on employment and earnings were observed in Lexington and San Antonio during the first three years of followup, but these results were sporadic and not sustained beyond the initial years of the study. Statistically significant negative employment and earnings impacts witnessed in Louisville during the early years of the followup period also dissipated over time.

Data Sources and Methods

The analysis is based on quarterly wage records derived from the National Directory of New Hires (NDNH). NDNH records contain employment and earnings data for all work covered by unemployment insurance. The study design uses random assignment to create the new rent rules and the existing rent rules groups. Impacts of the new rent policy can be calculated as the

[49] Results for Washington, D.C., covering a shorter followup period are available in MDRC's prior evaluation reports for the Rent Reform Demonstration.

difference in average outcomes between research groups. When estimated differences are statistically significant (indicated by asterisks in the exhibits), one can have more confidence that the outcomes for the two research groups truly differed, and that the differences were not likely the result of statistical chance. Box 2.1 includes an explanation of how to read the impact tables in this report.

It should be noted that the NDNH database does not include records for earnings from self-employment (including "gig economy" work, such as Uber or Lyft driving) or informal employment (that is, jobs considered "off the books, for which earnings are not taxed and contributions are not made to the unemployment insurance system). Prior research suggests that administrative wage records may have missed a greater amount of employment among low-income populations because those groups are more likely to have informal employment.[50] This limitation of the data should be kept in mind when evaluating outcomes pertaining to UI-covered jobs among voucher holders, the majority of whom have low or very low incomes.

The Rent Reform Demonstration also included a survey of household heads at approximately 4 years after random assignment. The results from that survey are reported in MDRC's interim impact report (see Riccio et al., 2021.) Some findings pertaining to employment are summarized in Box 2.2.

[50] Abraham et al., 2009.

Box 2.1. How to Read the Impact Exhibits in This Report

In a randomized controlled trial, an “impact” indicates how much an intervention changed the outcomes of the individuals and families who were subject to it—relative to what their outcomes would have been otherwise (under “business as usual” conditions). In the case of this evaluation, an impact represents the difference in outcomes for the new rent rules group *compared with what those outcomes would have been* had the families in that group been subject to the existing rent policy. An impact estimate is thus derived by comparing a measured outcome for the new rules group with the outcome for the control group. For example, the top row in the excerpted table below shows that an average of 61.4 percent of household heads in the new rent rules group were working in an average quarter in Year 1 of the followup period, compared with 59.9 percent of household heads in the existing rent rules (or control) group. The “Difference” column shows the difference between the two research groups on that outcome, which reflects the effect, or impact, of the intervention. Thus, the estimated impact of the new rent policy on the average Year 1 quarterly employment rate can be seen by subtracting 59.9 percent from 61.4 percent, yielding a difference of 1.6 percentage points. In other words, in an average quarter in Year 1, the employment rate for the heads of households in the new rules group was 1.6 percentage points higher than it would have been had they been subject to the existing rent rules.
Because impact results are statistical estimates, it is possible that the true effect is greater or less than the estimate, and it might even be zero. The p-value shows the probability that the true effect does not differ from zero—i.e., that the estimate reflects statistical chance not the true effect. When the p-value is low, one can have more confidence that a difference between the two research groups truly did exist (i.e., more confidence that the likelihood that the true effect was zero can be ruled out). In the table excerpt below, the probability that, despite the positive estimate, a difference in the quarterly employment rate did *not* truly exist in the Year is only 9.3 percent. In contrast, the estimated impact on the quarterly employment rates in Year 2 (0.6 percentage points) has a 58.9 percent probability of having arisen by chance; thus, one cannot have confidence that the outcomes for the two research groups were truly different (i.e., the possibility that the true difference was actually zero cannot confidently be ruled out). For this evaluation, only differences that have a 10 percent probability or less of arising by chance are considered “statistically significant,” and thus offer a reasonable level of certainty that the two research groups truly differ on the outcome measure. This 10 percent statistical significance level is a common standard in evaluations. However, one can be even more confident that a true difference exists when the p-value is lower, indicating greater statistical significance. The number of asterisks indicates whether the impact is statistically significant at the 1 percent (***), 5 percent (**), or 10 percent (*) level, meaning that there is only a 1 percent, 5 percent, or 10 percent probability, respectively, that the estimated impact arose by chance.

Outcomes for Household Heads	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Lexington, Louisville, and San Antonio Combined					
Average quarterly employment (%)					
Year 1 (quarters 3-6)	61.4	59.9	1.6	*	0.093
Year 2 (quarters 7-10)	61.2	60.7	0.6		0.589

Box 2.2. Selected Findings on Self-Reported Employment from the 4-Year Survey

According to the survey of household heads, the new rent policy modestly increased self-reported employment, which includes jobs not covered by the UI system.

Among household heads in Lexington, Louisville, and San Antonio combined who were interviewed for the 4-year survey, 61.2 percent in the new rules group compared with 57.2 percent in the control group said they were currently working, a 4-percentage point (statistically significant) impact. It is possible that a somewhat higher proportion of household heads in the new rules group worked in types of jobs that are not covered by the states' UI records, such as freelance jobs in the "gig economy," other self-employment contract jobs, or informal jobs. Overall, these results suggest that the new rent policy may have caused somewhat greater work effort among household heads than is reflected in the analysis of UI-covered jobs.

The new rent policy did not increase the likelihood that household heads would work in better jobs than the jobs they would have gotten had they been in the control group. For example, among employed household heads in either research group who responded to the survey, only about 17 percent held a current or recent job paying $15 or more per hour. About one-third received paid sick days.

Health and family care responsibilities were among the most common reasons why household heads in each research group who were not in the labor force were not looking for work.

Among survey respondents in Lexington, Louisville, and San Antonio combined, about 23 percent in the new rent rules group (and a similar proportion in the control group) were not active in the labor market at the time they were interviewed; they said they were not working *and* were not looking for work. Their reasons varied, but health-related factors, such as their own health problems or need to care for a child with health problems or a disability, accounted for why almost 60 percent of these household heads were not looking for work. These types of work impediments are not directly addressed by policies that only increase financial incentives to work.

Source: James A. Riccio et al. 2021. *The Rent Reform Demonstration: Impacts on Work, Housing, and Well-Being After 42 Months.* New York: MDRC.

Employment and Earnings for the Pooled Sample

Exhibit 2.1 presents estimated employment and earnings outcomes over the full 6.5-year followup period for the pooled three-PHA sample, including the confirmatory measure of cumulative average total earnings. As discussed in chapter 1, new TTPs calculated under both the new and existing rent rules did not take effect for several months. Consequently, the followup period for this analysis begins in quarter 3 (rather than at the time of random assignment) and it extends through quarter 28.

The exhibit indicates that the estimated differences in employment rates for household heads during the followup period were not statistically significant. The top panel shows that 86 percent of household heads in both groups were ever employed (that is, had at least one quarter over earnings, according to UI records) during the followup period. The average quarterly employment rate, defined as the proportion of quarters where a tenant held employment covered by the UI system, was also nearly equal for both groups.

Employment remained remarkably steady for both groups in the four years preceding the onset of COVID-19. For each of the first 4 years of followup, about 70 percent of the heads of household in both groups were employed for at least one quarter. At no point during this period was the difference between the groups statistically significant. Employment fell slightly in Year 5 with the onset of the pandemic, but the decline was approximately the same for both groups and the differences remained not statistically significant. Average quarterly employment was consistently just over 60 percent for both groups during the first four years of followup before dipping slightly in Year 5 and falling further still in Year 6. There was a positive and statistically significant impact on average quarterly employment in Year 1, but this impact was not sustained through the subsequent years of followup.

Estimated cumulative average total earnings for the full followup period were just over $79,000 for both the new rent rules and existing rent rules groups, and the difference was not statistically significant. During each year of followup the difference in earnings between the two groups never exceeded $311, and none of the differences were statistically significant. The estimated cumulative average total earnings were also nearly identical for both groups over the final two quarters of followup.[51]

[51] See appendix exhibit B.1 for confidence intervals of the estimated cumulative earnings impacts.

Exhibit 2.1. Impacts on Employment and Earnings Within 78 Months of Followup: Heads of Households

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Lexington, Louisville, and San Antonio Combined					
Ever employed (%)					
Year 1 (quarters 3-6)	72.7	71.4	1.2		0.232
Year 2 (quarters 7-10)	71.5	71.8	-0.3		0.775
Year 3 (quarters 11-14)	72.0	72.3	-0.3		0.781
Year 4 (quarters 15-18)	72.1	72.4	-0.3		0.786
Year 5 (quarters 19-22)	70.3	70.3	0.0		0.995
Year 6 (quarters 23-26)	66.2	65.8	0.4		0.771
Quarters 27-28	64.0	62.4	1.5		0.238
Full period (quarters 3-28)	86.2	86.5	-0.3		0.759
Average quarterly employment[a] (%)					
Year 1 (quarters 3-6)	61.4	59.9	1.6	*	0.093
Year 2 (quarters 7-10)	61.2	60.7	0.6		0.589
Year 3 (quarters 11-14)	61.7	62.3	-0.6		0.571
Year 4 (quarters 15-18)	62.5	63.2	-0.7		0.508
Year 5 (quarters 19-22)	59.8	59.1	0.7		0.522
Year 6 (quarters 23-26)	54.9	54.9	0.1		0.967
Full period (quarters 3-28)	59.9	59.7	0.3		0.723
Total earnings ($)					
Year 1 (quarters 3-6)	10,047	9,737	311		0.160
Year 2 (quarters 7-10)	11,145	10,862	283		0.310
Year 3 (quarters 11-14)	12,019	12,300	-280		0.367
Year 4 (quarters 15-18)	13,166	13,448	-282		0.420
Year 5 (quarters 19-22)	13,106	13,147	-41		0.913
Year 6 (quarters 23-26)	13,099	13,381	-282		0.492
Quarters 27-28	7,745	7,933	-188		0.428
Full period (quarters 3-28)	79,205	79,302	-97		0.956
Sample size (total = 4,756)	2,368	2,388			

[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.
Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit 2.2 graphically depicts the employment and earnings trends for each research group on a quarter-by-quarter basis. The differences between the lines in the graphs represent the impacts of the new rent policy. When the difference in any quarter is statistically significant, the exhibit

includes one, two, or three asterisks (representing statistical significance levels of 10 percent, 5 percent, and 1 percent, respectively) under the relevant quarter.

The first four years of followup occurred during an extended period of economic growth and recovery following the 2008 financial crisis. The national unemployment rate fell steadily reaching 3.5 percent in 2019, the lowest rate since 1969.[52] For Black Americans, the rate fell to 5.6 percent. During this period, long-term unemployment also decreased.[53] However, in the metropolitan areas in which the PHAs are located, overall unemployment rates were relatively stable or dipped only slightly during this period.[54]

For both the new rent rules group and the existing rules group, the quarterly employment rate was relatively stable through the first four years of followup—a pattern generally consistent with the trends in the PHAs' metropolitan areas. As the top panel of exhibit 2.2 shows, the trend line for each group is largely flat, with just over 60 percent of household heads in each group employed in any followup quarter during those years.[55] However, at the beginning Year 5, which roughly coincides with the approximate start of COVID-19, the proportion of household heads in each group who were employed drops sharply. The rate rebounds substantially in Year 6, although not quite to the pre-pandemic level.

The bottom panel of exhibit 2.2 illustrates the trends in household heads' earnings. For both research groups, those earnings grew sharply—by almost 50 percent in the four years prior to the onset of COVID-19. This upward trend follows the general direction of change nationally.[56] Although employment rates fell for both groups with the onset of COVID-19, average total earnings for both groups in Year 5 and Year 6 were about equal to that of Year 4, likely reflecting wage increases. Differences between the two research groups in quarterly earnings are statistically significant during a few of the early quarters of followup, but these impacts were sporadic and not sustained over time.

[52] See U.S. Bureau of Labor Statistics. (2020). Employment expansion continued in 2019, but growth slowed in several industries. Monthly Labor Review. Retrieved from https://www.bls.gov/opub/mlr/2020/article/employment-expansion-continued-in-2019-but-growth-slowed-in-several-industries.htm, and Bureau of Labor Statistics (2020). Job market remained tight in 2019 as the unemployment rate fell to its lowest level since 1969. Retrieved from https://www.bls.gov/opub/mlr/2020/article/job-market-remains-tight-in-2019-as-the-unemployment-rate-falls-to-its-lowest-level-since-1969.htm.

[53] Bureau of Labor Statistics (2020). Job market remained tight in 2019 as the unemployment rate fell to its lowest level since 1969. Retrieved from https://www.bls.gov/opub/mlr/2020/article/job-market-remains-tight-in-2019-as-the-unemployment-rate-falls-to-its-lowest-level-since-1969.htm.

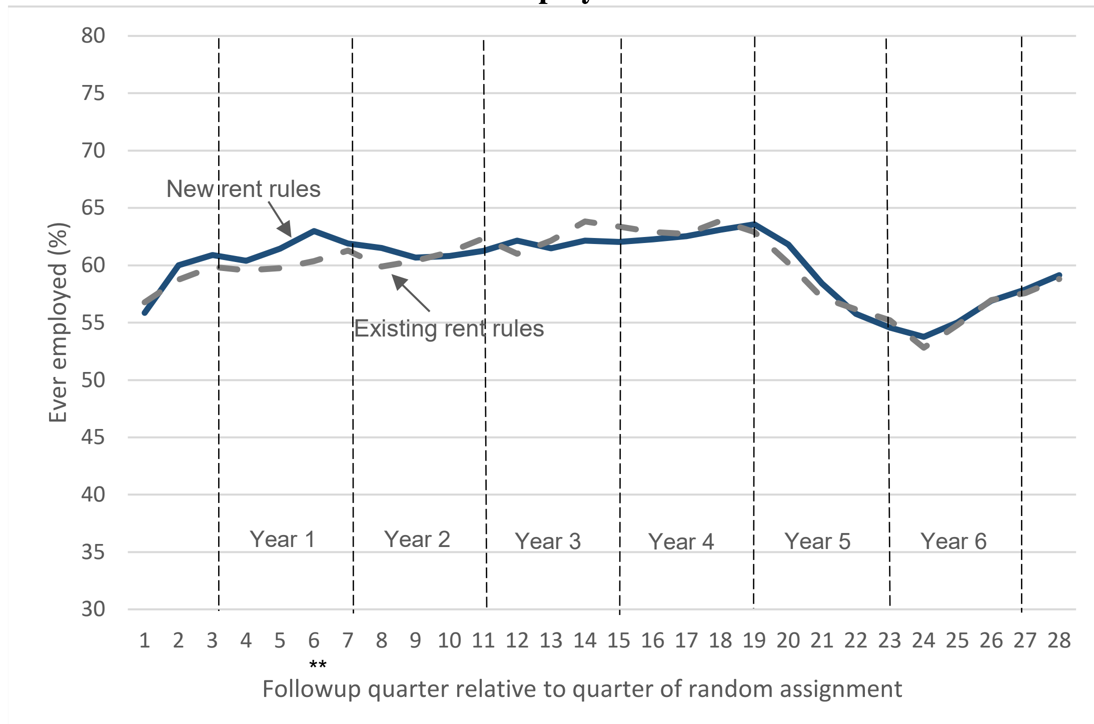
[54] From February 2015 through November 2019 unemployment rates in the metropolitan areas where the PHAs are located ranged from 4.1 to 3.4 percent in Lexington-Fayette, 4.8 to 3.7 percent Louisville/Jefferson County, and 3.9 to 3.0 percent San Antonio-New Braunfels. National unemployment fell from 5.5 percent to 3.5 percent during this same period, falling quarter on quarter, with the exception of quarter 1 of 2019.

[55] For both groups average quarterly employment increased by 1 percentage point from Year 1 to Year 4.

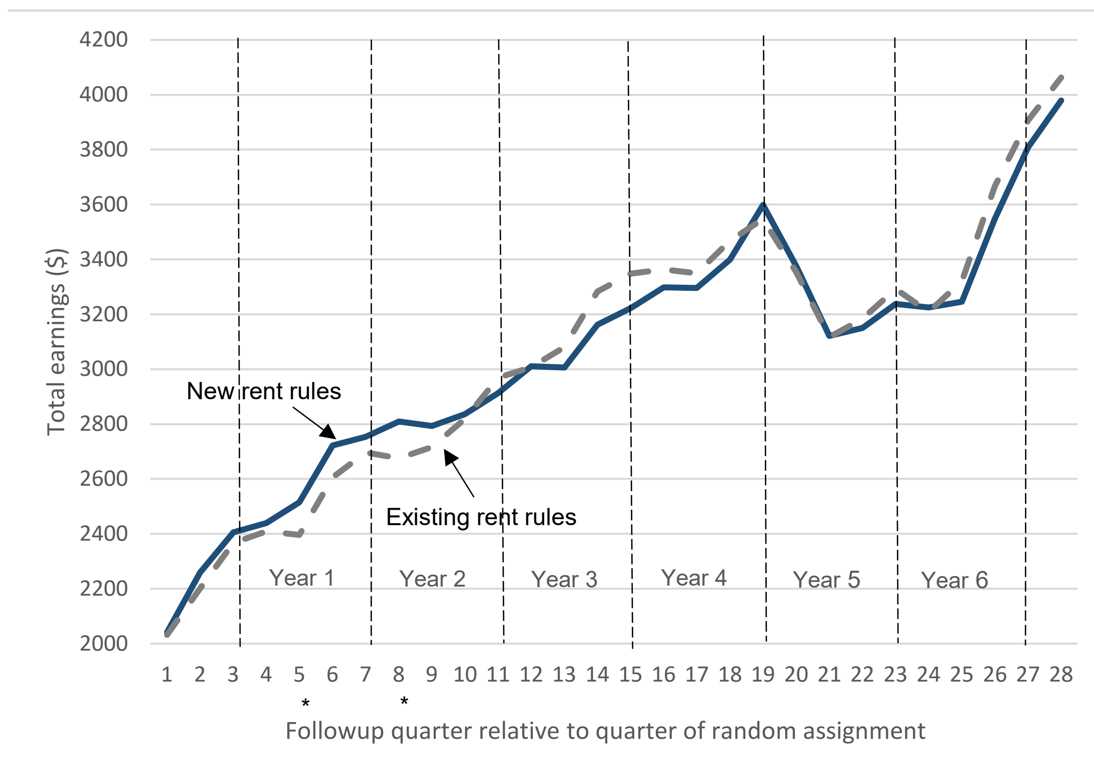
[56] https://www.bls.gov/news.release/wkyeng.t01.htm

Exhibit 2.2. Quarterly Impacts on Employment and Earnings Within First 78 Months of Followup: Lexington, Louisville, and San Antonio Combined, Heads of Households

A. Employment



B. Earnings



(continued)

Notes: Quarter 1 is the quarter of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Impacts on Employment and Earnings for the Pooled Sample in the Year Prior to COVID-19

In early 2020, the COVID-19 pandemic began to spread across the United States, imposing extensive hardship on households and communities. By the beginning of the second quarter of 2020, steps had already been taken by state and local governments in both Kentucky and Texas to curb the spread of the pandemic. In Kentucky, schools closed in mid-March soon followed by an executive order from the governor to close non-essential public-facing businesses that were unable to comply with Centers for Disease Control guidelines.[57] In Texas, an executive order closing schools was issued in mid-March followed by a subsequent order at the beginning of April requiring Texans to stay at home for all but essential business.[58] It is difficult to know to what extent study households were affected by the challenges of the pandemic. However, the unique circumstances of this period make it more difficult to evaluate potential effects of the new rent policy on labor market outcomes. Health concerns, school and business closures, among other factors, likely limited the ability of some household heads in the study to pursue or maintain employment. While it is true that both research groups would face these challenges, the new rent policy was designed to encourage tenants to increase their earnings. The economic disruption introduced by the pandemic may have reduced the ability of the new rent policy to encourage employment.

As seen in chapter 1, regardless of a family's quarter of random assignment, the onset of COVID-19 at the start of quarter 2 of 2020 occurred sometime during the fifth year of followup.[59] Therefore, followup Year 4 offers a final look at the program in a steady state prior to the tumult that accompanied the pandemic.

During Year 4 (following the triennial recertification and prior to the pandemic), household heads in the new rent rules group that remained in the voucher program encountered rent-based incentives designed to increase their employment or earnings. However, as exhibit 2.3 shows, estimated employment-related outcomes were nearly identical between the new rent rules group and the existing rules group during this period. Approximately 72 percent of household heads in both groups

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[57] https://www.kentucky.gov/Pages/Activity-stream.aspx?n=GovernorBeshear&prId=95; https://www.wdrb.com/in-depth/public-school-districts-across-kentucky-closed-for-at-least-two-weeks-amid-coronavirus-pandemic/article_0b796c14-6531-11ea-8c34-57abc0d37640.html
[58] https://gov.texas.gov/news/post/governor-abbott-releases-video-message-to-texans-as-latest-executive-order-goes-into-effect; https://gov.texas.gov/news/post/governor-abbott-issues-executive-orders-to-mitigate-spread-of-covid-19-in-texas
[59] Random assignment began in February of 2015 and ended in November of that year. The onset of COVID-19 occurred in the final quarter of the fifth year of followup for those randomly assigned in quarter 1 of 2015 and in the first quarter of the fifth year of followup for those randomly assigned during quarter 4.

were employed at least one quarter in Year 4 and the average quarterly employment rate for both groups was about 63 percent. Moreover, the difference between the groups in the distribution of the number of quarters employed was not statistically significant.

Employment patterns varied widely within each research group. For example, while many household heads (approximately 51 percent) worked in all four quarters, a sizeable group (about 28 percent) were not employed at all.

Estimated earnings outcomes for both groups were also very similar during Year 4. Average total earnings for both the new rules group and the existing rules group were just over $13,000, and the difference was not statistically significant. Average quarterly earnings among household heads who were employed were nearly identical, with less than a $30 difference between the means of the two groups. A slightly greater proportion of household heads in the existing rent rules group had annual earnings exceeding $40,000. Although that difference was statistically significant, a relatively small proportion of households in either group (less than 6 percent) had earnings at this level.

Overall, evidence from the last full year of followup preceding the pandemic shows almost no statistically significant differences between the two research groups in employment and earnings outcomes. While the exact nature of the influence of the pandemic on those outcomes in Years 5 and 6 is unclear, the results from Year 4 provide little reason to believe that there would have been substantive impacts in the absence of the pandemic.

Exhibit 2.3. Employment and Earnings in the Year Prior to Onset of COVID-19 (Year 4): Lexington, Louisville, and San Antonio Combined, Heads of Households

Outcome	New Rent Rules	Existing Rent rules	Difference (Impact)		P-Value
Ever employed (%)	72.1	72.4	-0.3		0.786
Average quarterly employment (%)	62.5	63.2	-0.7		0.508
Total quarters employed (%)					0.604
None	27.9	27.6	-0.3		
One	5.1	5.2	0.1		
Two	7.1	5.8	1.3		
Three	9.0	9.5	-0.5		
Four	50.9	51.8	-0.9		
Average earnings ($)	13,166	13,448	-282		0.420
Earned more than (%)					
$20,000	29.1	29.2	0.0		0.974
$30,000	13.0	13.4	-0.4		0.631
$40,000	4.3	5.4	-1.2	**	0.048
Average earnings per quarter employed	*4,890*	*4,920*			
Sample size (total =4,756)	2,368	2,388			

[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.

Notes: Year 4 refers to quarters 15–18 and ends by June 2019-March 2020, depending on random assignment date. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. A chi-square test for categorical variables was run to determine whether a difference exists in the distribution of related outcomes by research group. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values. Results displayed in italics are nonexperimental. No tests of statistical significance were performed on differences between research groups on nonexperimental outcomes.

Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Impacts on Employment and Earnings by PHA

PHA-level results for the full followup period as well as the final two quarters of followup generally mirror those of the pooled sample. As seen in exhibit 2.4, the estimated impact on cumulative average total earnings was not statistically significant at any of the three sites for the full followup period. Exhibit 2.5 illustrates the trends in employment and earnings graphically.

Lexington

In Lexington, the new rent rules produced a positive and statistically significant estimated impact of 3.2 percentage points on the proportion of household heads who were ever employed at some point during the full followup period, with the largest effect occurring during Year 3. While the effects on this measure for Year 3 and for the full followup period are noteworthy, the absence of statistically significant impacts on employment rates during the final 3.5 years of followup suggest that any difference between the groups was neither consistent nor long-lasting. Nor is there conclusive evidence that the new rent policy improved average earnings in Lexington.

San Antonio

In San Antonio, the estimated impacts on average earnings were statistically significant during the initial years of followup, but those effects did not endure for the duration of the study period. Moreover, employment rates for the new rent rules group and the existing rent rules group were similar throughout the followup period. By contrast, average total earnings for the new rent rules group were greater than those of the existing rent rules group in both Year 1 and Year 2 and the difference was statistically significant. However, near the end of the second year of followup the difference dissipated and did not appear again for the remainder of the followup period.

The average quarterly earnings of the two groups began to converge in San Antonio in the latter part of Year 2 (exhibit 2.5). Theoretically, this could have occurred had some household heads in the new rent rules group sought to reduce their earnings well in advance of their triennial recertification slated to occur at the end of Year 3, in an effort to lower the retrospective income amount that would be used to recalculate their TTPs for the subsequent three years. As it turned out, however, average earnings for the new rules group continued to climb quarter on quarter throughout the third year of followup leading up to the triennial recertification, and employment rates did not drop. These patterns would be unlikely to occur if household heads were attempting to lower their earnings in the year prior to their triennial recertification.[60]

Another reason that positive impacts on earnings dissipated in San Antonio might be because the differences in work incentives built into the new rent policy became more diluted as more households in the control group left the voucher program over time. By the end of the third year of followup, nearly a third of households in the control group were no longer active in the Housing

[60] The use of retrospective income rather than current income to calculate total tenant payment under the new rent policy is intended to discourage households from intentionally forgoing income to lock in lower TTP at the triennial certification, knowing that it would not increase for the next three years. Control group tenants may have also had an incentive to reduce their earnings prior to their recertification, but this would have been a much weaker incentive than the new rules group faced because the control group had to report their income at least annually, and, consequently, could not lock in a lower TTP for more than one year at a time.

Choice Voucher (HCV) program.[61] Consequently, these household heads no longer faced the implicit "rent tax" on increased earnings that applied to voucher holders while in the HCV program. After exiting, their rent obligations were detached from changes in earnings—just as they were, temporarily, for the new rules group during the 3-year period before and the 3-year period after their triennial recertification. Thus, the reduced disincentive that the new rules group enjoyed relative to the control group diminished over time as control group families exited the voucher program, perhaps leading to diminished differences in employment and earnings outcomes over time as well. Adding to this was the fact that the control group, on average, exited the voucher program *more quickly* than the new rules group, which as explained in chapter 3 was a direct consequence of the new rent rules. Thus, the new rules group's rent-based "incentives advantage" relative to the control group dissipated even more quickly as a result.

Louisville

Unlike Lexington and San Antonio, Louisville exhibited a distinctive pattern of statistically significant negative impacts on both employment and earnings in the early years of followup. Although negative employment impacts only appeared in Year 3 and did not appear again thereafter, the negative impacts on earnings emerged in Year 2 and persisted through Year 4, the final year of followup preceding the onset of COVID19.[62] Interestingly, the average total earnings for household heads in the Louisville new rent rules group increased steadily from the beginning of followup through the end of Year 4, but the rate of growth was outpaced by household heads in the existing rent rules group.[63]

Just over 22 percent of families in the new rent rules group in Louisville opted out of the new rent policy.[64] Impact estimates shown in exhibit 2.4 are calculated for all heads of households in the Louisville sample, including those of families who opted out. Because effects on outcomes can be attributed solely to families who did not opt out, separate impact estimates, called "treatment-on-treated" (TOT) estimates were calculated to adjust for the fact that some families in the new rent rules group were not subject to the new rent rules. (See chapter 1.) Estimates for the TOT impacts are displayed in appendix exhibit B.2. The impact per participant derived from the TOT analysis is slightly larger for both employment and earnings outcomes than for the original "intent-to-treat" (ITT) impact estimates.[65] TOT estimates do not alter the level of statistical significance. Because the

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[61] By the end of the first year of followup, 19 percent of control group families had exited the HCV program in San Antonio. This percentage grew to 26 percent by the end of Year 2, and to 33 percent by the end of Year 3. The impact on earnings was positive and statistically significant in Year 1 and Year 2, but not Year 3. (See chapter 3 for further discussion of housing subsidy receipt patterns. Across all three PHAs, the new rules group had a longer average length of stay in the HCV program than the control group over the full followup period.)

[62] The -$4,557 impact on average total earnings in Louisville for the full followup period falls just short of statistical significance at the 90 percent level (p=.114). The 90 percent confidence interval for average total earnings suggests that the true underlying value for the full followup period likely falls between -$9,334 and $181 (appendix exhibit B.1).

[63] Average total earnings for household heads in the new rent rules group increased by 43 percent by the end of Year 4—from $2,434 to $3,472. By comparison, earnings for household heads in the existing rent rules group increased by 56 percent—from $2,379 to $3,723.

[64] See appendix B of Riccio, Deitch, and Verma (2017) for a detailed analysis comparing families in Louisville who opted out of the new rent policy with those who did not opt out.

[65] An ITT analysis captures the average impact on the entire group intended to receive the intervention, whether or not every group member actually received it.

ITT impact estimates for Louisville are not statistically significant, the TOT impact estimates are also not statistically significant.

TOT estimates were also calculated for the pooled sample, with Lexington, Louisville, and San Antonio combined and differed little from the ITT estimates. For example, the pooled estimates of the new rent policy's impacts on household heads' likelihood of ever being employed in a UI-covered job during the full followup period and on their average quarterly employment rate were the same using the ITT and the TOT approaches. And although the two methods produced slightly different estimated impacts on total cumulative earnings, in each case the estimate was small (representing a reduction of less than 1 percent of the control group's total earnings) and not statistically significant.

The negative effects observed for Louisville were concentrated in the subgroup of household heads who were not employed at the time they entered the study. The next section discusses this pattern and some possible reasons for it.

Exhibit 2.4. Impacts on Employment and Earnings Within First 78 Months of Followup, by Public Housing Agency: Head of Households

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value	
Lexington						
Ever employed (%)						
Year 1 (quarters 3-6)	78.3	76.1	2.2		0.296	
Year 2 (quarters 7-10)	75.4	73.0	2.4		0.302	
Year 3 (quarters 11-14)	78.4	73.4	5.0	**	0.035	††
Year 4 (quarters 15-18)	76.9	74.1	2.7		0.260	
Year 5 (quarters 19-22)	74.0	75.2	-1.2		0.632	
Year 6 (quarters 23-26)	71.3	69.1	2.2		0.407	
Quarters 27-28	71.3	69.2	2.1		0.431	
Full period (quarters 3-28)	89.9	86.7	3.2	*	0.082	†
Average quarterly employment[a] (%)						
Year 1 (quarters 1-2)						
Year 1 (quarters 3-6)	65.5	64.2	1.3		0.505	
Year 2 (quarters 7-10)	64.8	61.8	3.1		0.167	
Year 3 (quarters 11-14)	67.0	63.7	3.3		0.150	††
Year 4 (quarters 15-18)	68.5	65.8	2.7		0.255	
Year 5 (quarters 19-22)	62.6	63.0	-0.4		0.852	
Year 6 (quarters 23-26)	58.8	59.3	-0.6		0.828	
Full period (quarters 3-28)	64.4	63.1	1.3		0.472	
Total earnings ($)						
Year 1 (quarters 3-6)	10,204	10,102	102		0.827	
Year 2 (quarters 7-10)	11,346	10,489	857		0.145	††
Year 3 (quarters 11-14)	12,637	11,848	788		0.243	††
Year 4 (quarters 15-18)	13,541	13,591	-51		0.945	
Year 5 (quarters 19-22)	13,377	13,234	143		0.858	
Year 6 (quarters 23-26)	13,771	14,117	-346		0.687	
Quarters 27-28	8,553	8,413	140		0.781	
Full period (quarters 3-28)	82,494	81,447	1,046		0.777	
Sample size (total = 979)	486	493				

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value	
Louisville						
Ever employed (%)						
Year 1 (quarters 3-6)	71.9	72.1	-0.2		0.903	
Year 2 (quarters 7-10)	71.9	73.4	-1.6		0.377	
Year 3 (quarters 11-14)	71.4	74.9	-3.5	**	0.048	††
Year 4 (quarters 15-18)	71.8	72.8	-0.9		0.608	
Year 5 (quarters 19-22)	71.0	71.9	-0.8		0.658	
Year 6 (quarters 23-26)	66.4	67.0	-0.6		0.766	
Quarters 27-28	62.6	62.1	0.5		0.811	
Full period (quarters 3-28)	84.8	86.8	-2.1		0.158	†
Average quarterly employment[a] (%)						
Year 1 (quarters 3-6)	60.9	59.6	1.2		0.412	
Year 2 (quarters 7-10)	60.7	62.3	-1.7		0.303	
Year 3 (quarters 11-14)	61.7	65.2	-3.5	**	0.039	††
Year 4 (quarters 15-18)	61.8	63.4	-1.7		0.344	
Year 5 (quarters 19-22)	60.4	60.2	0.2		0.921	
Year 6 (quarters 23-26)	53.6	54.3	-0.6		0.740	
Full period (quarters 3-28)	59.5	60.4	-0.9		0.498	
Total earnings ($)						
Year 1 (quarters 3-6)	10,164	10,029	135		0.716	
Year 2 (quarters 7-10)	11,236	12,027	-791	*	0.088	††
Year 3 (quarters 11-14)	12,323	13,641	-1,318	***	0.009	††
Year 4 (quarters 15-18)	13,472	14,489	-1,018	*	0.078	
Year 5 (quarters 19-22)	13,582	14,351	-768		0.211	
Year 6 (quarters 23-26)	13,042	13,899	-857		0.199	
Quarters 27-28	7,860	8,402	-541		0.168	
Full period (quarters 3-28)	80,983	85,560	-4,577		0.114	
Sample size (total = 1,908)	947	961				

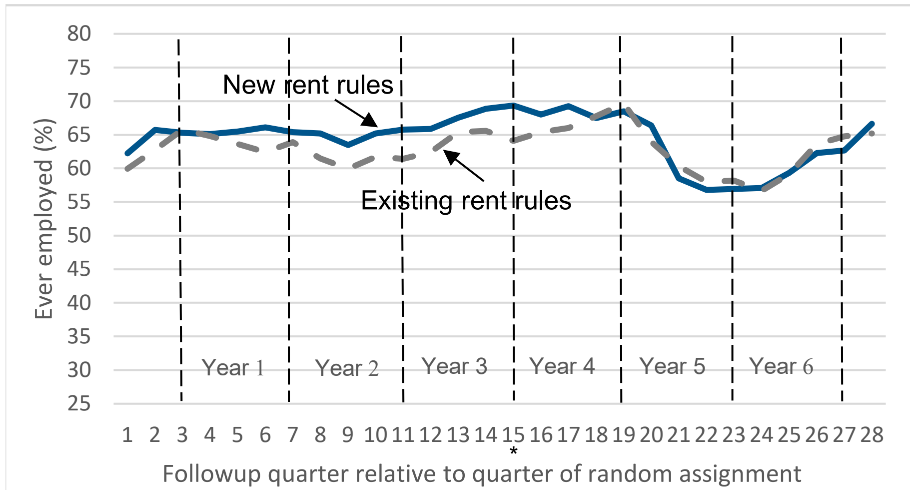
Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value	
San Antonio						
Ever employed (%)						
Year 1 (quarters 3-6)	70.7	68.2	2.5		0.139	
Year 2 (quarters 7-10)	69.3	69.4	-0.1		0.953	
Year 3 (quarters 11-14)	69.6	68.7	0.9		0.635	††
Year 4 (quarters 15-18)	70.6	70.4	0.1		0.947	
Year 5 (quarters 19-22)	67.7	66.0	1.7		0.385	
Year 6 (quarters 23-26)	63.6	62.8	0.8		0.707	
Quarters 27-28	61.8	59.0	2.8		0.197	
Full period (quarters 3-28)	86.1	85.9	0.2		0.869	†
Average quarterly employment[a] (%)						
Year 1 (quarters 3-6)	60.0	57.8	2.2		0.145	
Year 2 (quarters 7-10)	59.8	58.4	1.4		0.408	
Year 3 (quarters 11-14)	59.1	58.5	0.6		0.723	††
Year 4 (quarters 15-18)	60.5	61.0	-0.5		0.782	
Year 5 (quarters 19-22)	57.7	55.9	1.9		0.326	
Year 6 (quarters 23-26)	54.3	53.1	1.2		0.539	
Full period (quarters 3-28)	58.2	56.9	1.3		0.354	
Total earnings ($)						
Year 1 (quarters 3-6)	9,849	9,240	609	*	0.084	
Year 2 (quarters 7-10)	10,908	9,900	1,008	**	0.024	††
Year 3 (quarters 11-14)	11,346	11,196	150		0.764	††
Year 4 (quarters 15-18)	12,718	12,242	476		0.402	
Year 5 (quarters 19-22)	12,404	11,936	469		0.436	
Year 6 (quarters 23-26)	12,738	12,526	213		0.751	
Quarters 27-28	7,167	7,236	-69		0.856	
Full period (quarters 3-28)	75,441	71,926	3,515		0.210	
Sample size (total = 1,869)	935	934				

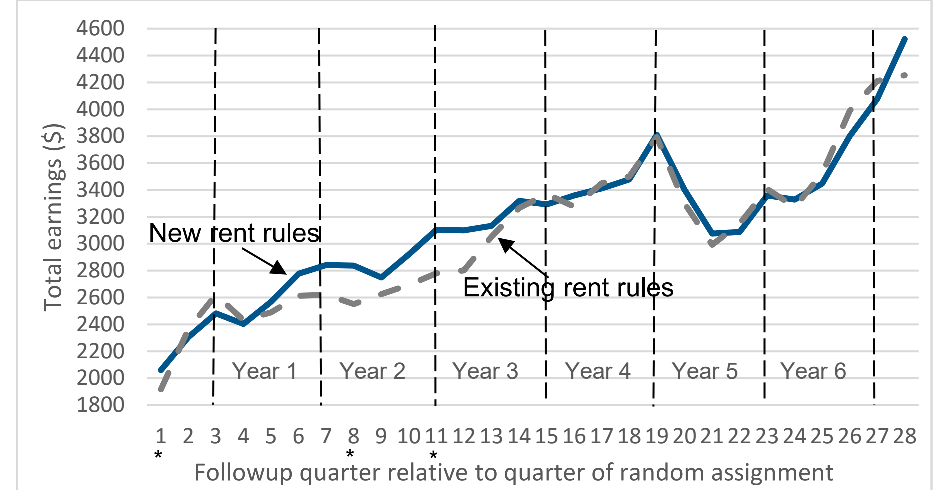
[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.
Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit 2.5. Quarterly Impacts on Employment and Earnings Within First 78 Months of Followup, by Public Housing Agency: Heads of Households

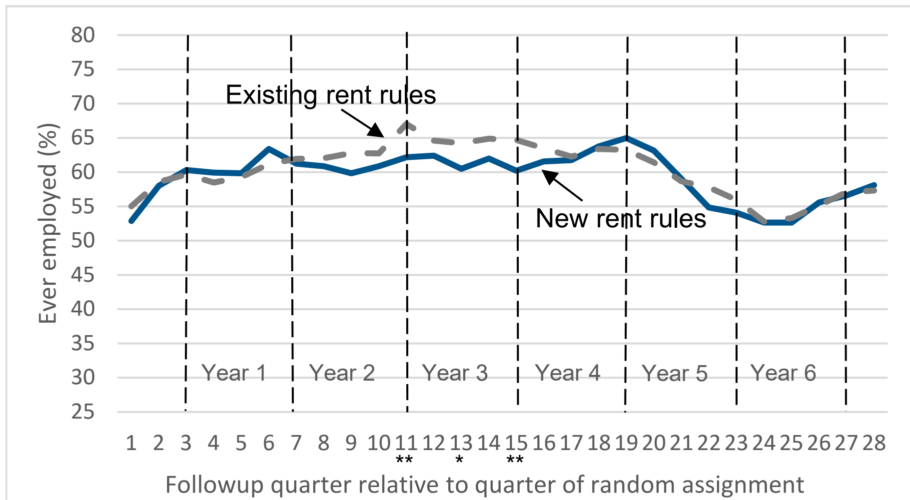
Employment **Earnings**

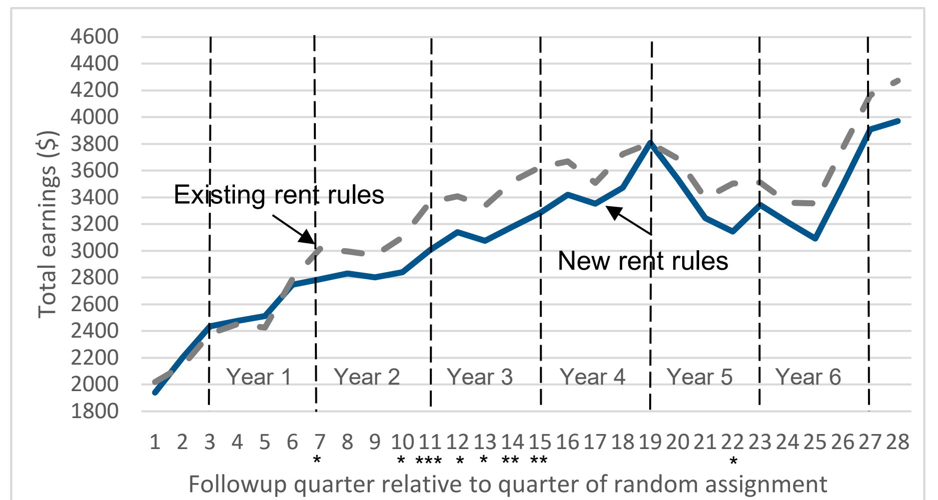
A. Lexington





B. Louisville



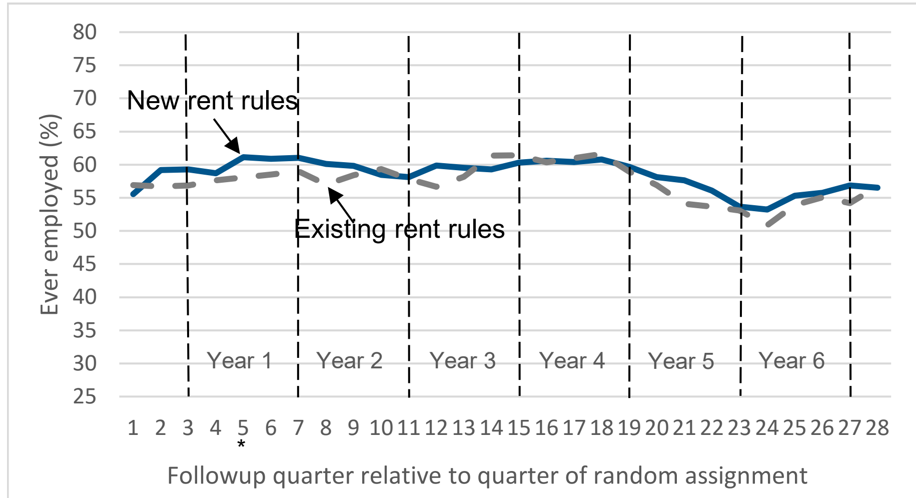


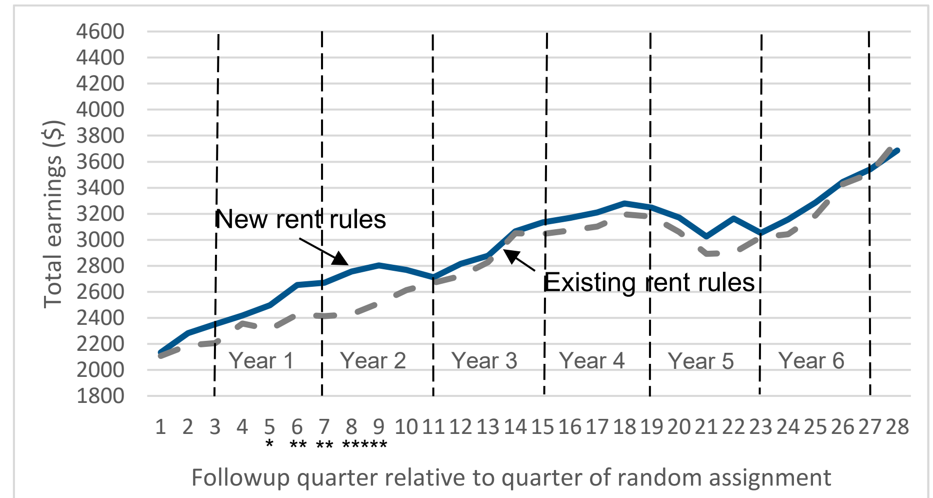
(continued)

Exhibit 2.5 (continued)

Employment **Earnings**

C. San Antonio





Notes: Average quarterly employment rate is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage. Quarter 1 is the quarter of random assignment. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Impacts on Employment and Earnings for Selected Subgroups

Households in the new rent rules group may respond differently to the new rent rules based on their characteristics at the time of study enrollment. For example, household heads with health issues, unreliable transportation, or young children in the household may find additional employment opportunities to be limited regardless of the additional financial incentives in place. Others may be more likely to seek chances to increase their earnings with or without the added inducement of a more favorable rent policy. Still others who might have been discouraged from working or earning more by concerns that their rent would increase may respond positively to a rent policy that lets them keep more of their earnings. The impact analysis thus examines responses to the new rent policy for a range of subgroups among household heads. Of particular interest are subgroups defined by their employment status in the quarter prior to random assignment, and by the age of the youngest child in the household at the time of random assignment.[66,67]

Some studies of workforce interventions for voucher holders, including the Family Self-Sufficiency program, have found that, regardless of research group, individuals who were not employed at the time of study enrollment have much worse labor market outcomes in the future than enrollees who were already working (Freedman et al., 2023). Given their different starting points, an important question is whether workforce interventions produce different effects for those subgroups. Some studies have found that it may be easier for workforce interventions to help people who are not working to find jobs than to help people already employed, especially in low-wage jobs, to advance in their careers, which may require more skills-building and take longer to accomplish (Hendra et al., 2011; Nuñez, Verma, and Yang, 2015; and Michalopoulos, 2005). In the Rent Reform Demonstration sample, 44 percent of household heads were not employed in a UI-covered job in the quarter prior to enrollment.

The presence of children in a household may affect the prospects of parents to obtain employment or increase their earnings. For example, low-income parents of young children may have difficulty obtaining affordable childcare.[68] As a result, the responsibility of caring for their children may preclude working full time or perhaps working at all. Parents with school-age children and teenagers who have limited access to or cannot afford before- or after-school programs or supervision, and who may spend time transporting their children to and from school, may also find it difficult to work full time or find a suitable part-time job. School closures during the summer months and school vacations that do not align with parents' work schedules may add to these difficulties. In the Rent Reform Demonstration sample, about 77 percent of household

[66] Employment subgroup membership was determined based on whether the head of household had an employment record in the NDNH data in the quarter prior to random assignment. The number of children in the household subgroup was differentiated using PHA data from the most recent certification prior to random assignment.
[67] MDRC's analysis plan prespecified the prior employment subgroup as a confirmatory subgroup and the age-of-youngest-child subgroup as an exploratory subgroup (MDRC, 2016). Results for other subgroups were also explored, including subgroups defined in terms of the number of children and the combination of single parenthood and employment status at baseline. Among the pooled sample, the subgroup analysis showed no statistically significant differences in impacts by number of children or single parenthood and employment status at random assignment. In general, the subgroup impacts for each of the sites also did not show significant differences.
[68] One estimate pegs national childcare costs at $11,582 per child in 2023. See Child Care Aware of America (2024).

heads had children who were under the age of 18 at the time of enrollment, and 28 percent had a child aged 5 years or younger.

Impacts by Employment Status at Enrollment

Exhibit 2.6 shows employment and earnings impacts for household heads in the three-PHA pooled sample by employment status in the quarter prior to random assignment. A comparison of control group outcomes reveals stark differences between the two employment-based subgroups.

Exhibit 2.6. Impacts on Employment and Earnings Within First 78 Months of Followup, by Employment Status at Random Assignment: Lexington, Louisville, and San Antonio Combined, Heads of Households

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Not employed					
Full period (quarters 3-28)					
Ever employed (%)	71.2	70.6	0.6		0.737
Average quarterly employment[a] (%)	36.7	37.2	-0.5		0.704
Total earnings ($)	38,445	40,603	-2,158		0.351
Last quarter (quarter 28)					
Ever employed (%)	40.4	40.7	-0.3		0.872
Total earnings ($)	2,166	2,368	-203		0.215
Sample size (total = 2,086)	1,032	1,054			
Employed					
Full period (quarters 3-28)					
Ever employed (%)	98.2	99.1	-0.9	*	0.050
Average quarterly employment[a] (%)	78.3	77.4	0.9		0.350
Total earnings ($)	111,347	109,965	1,382		0.584
Last quarter (quarter 28)					
Ever employed (%)	73.8	73.2	0.6		0.725
Total earnings ($)	5,395	5,402	-8		0.968
Sample size (total = 2,666)	1,335	1,331			

[a] Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.

Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. The differences in impacts across subgroup categories were not statistically significant. Sample sizes for specific outcomes may vary because of missing values.

Source: MDRC calculations using quarterly wage data from the National Directory of New Hires and public housing agency data

Nearly all (99 percent) household heads in the existing rent rules group who were employed before study enrollment held a UI-covered job for at least one quarter during the full followup period. The average quarterly employment rate for this group approached 80 percent. By comparison, 70 percent of household heads that were not employed in the quarter prior to random assignment were employed for at least one quarter during the followup period, and their average quarterly employment rate was only 37 percent. In addition, the already-employed subgroup earned an average of nearly $110,000 over the full followup period—more than two-and-a-half times greater than that of the non-employed subgroup ($40,603). Together, these results show that household heads in the control group who were not already employed were considerably less likely to work during the full followup period; they also worked more sporadically and earned substantially less than those in the already-employed subgroup.

Despite these dramatic differences in labor market outcomes within the control group, the impact analysis does not provide any evidence that the new rent policy produced substantially better outcomes for the new rules group—for either subgroup. For example, in both subgroups, the proportion employed at least one quarter during followup, the average quarterly employment rate, and average cumulative earnings were nearly equal for the two research groups during the followup period. Cross-subgroup variation of impacts for these measures was also not statistically significant.[69]

Appendix exhibit B.4 presents results for the two employment subgroups by PHA. The most important of those findings pertain to Louisville. For example, for the non-employed subgroup in that PHA, the estimated impact on total cumulative earnings is negative (-$5,854) and nearly statistically significant, while the impact is negative (-$494) and is statistically significant in the last quarter of followup. Moreover, the non-employed subgroup experienced a statistically significant negative impact on average total earnings during each of the first four years of followup (not shown in exhibits). After Year 4 in Louisville, the estimated impacts on average total earnings and average quarterly employment remained negative, but they clearly diminished and were no longer statistically significant. (Perhaps they faded as both research groups increasingly exited the voucher program, even though the new rules group exited more slowly.)

The results differed for household heads in the already-employed subgroup, as that group experienced no statistically significant negative impacts on either employment or earnings outcomes at any point during the followup period. In sum, the negative impacts estimated for the full Louisville sample through the fourth year of followup appear to be largely traceable to the negative effects on the non-employed subgroup.

These negative effects remain difficult to explain. Even if the incentives built into the new rent policy were insufficient to elicit better labor market outcomes for household heads, there are no

[69] The H-statistic, which was used to determine whether the variation in estimated impacts across subgroups is statistically significant, was .301 for the confirmatory measure of total earnings during the full followup period.

incentives inherent to the rent policy that should produce a negative and statistically significant difference in outcomes.

One speculation pertains to the opt-out option in Louisville. As previously mentioned, 22 percent of families randomly assigned to the new rules group in Louisville opted out of the new rent policy (but remained in that research group for analysis purposes). These "opt-outs" were disproportionately concentrated in the non-employed subgroup (30 percent) relative to the employed subgroup (17 percent). Families who opted out were subject to the same existing rent policy as the control group. It is reasonable to expect that any potential effects produced by the incentives of the new rent rules would be diluted because nearly a third of the subgroup had opted out of the policy. However, while this might explain an *absence* of positive impacts, it does not explain why impacts would be *negative*. The negative impacts are more likely to be due to how families who did not opt out of the new rent rules responded to the new policy rather than to the fact that the research group included some families who opted out of the new policy.

Another speculation involves alternative sources of income reported in the 4-year survey of household heads.[70] For example, families who opted out of the new rent policy paid the same TTPs as they would have paid if they had been randomly assigned to the control group. However, those who did not opt out may have paid somewhat lower TTPs, on average, than they would have paid during the next 3 years had they opted out, leaving them with somewhat larger housing subsidies.[71] Although the difference in the average subsidy amount in any given month was likely to be small,[72] for some opt-in families the small extra subsidy may have given the household some additional disposable income, which may have contributed to what economists refer to as an negative income effect—that is, some people may opt to work less after achieving a given level of income rather than seek to increase their income further by working more.[73]

Here it is relevant to consider the previously mentioned finding that, across the PHAs, many household heads who did not work and were not looking for work, or who were working part-time and not looking for full-time work, said they had made that decision because of their own health problems or because of their responsibilities to care for other household members who were ill or had a disability. Thus, it seems plausible that some household heads in the Louisville non-employed subgroup who opted into the new rules group, who might otherwise have worked or increased their work hours (had they been in the control group), chose not to do so because of health problems or family care-related responsibilities. The new rent rules may have made it easier for them to do so.

Possibly reinforcing this decision and contributing to the growth in negative earnings effects into the third followup year was the new rent policy's effect on the non-employed subgroup's self-reported Supplemental Nutrition Assistance Program (SNAP) receipt and receipt of Supplemental Security Income (SSI) or Social Security Disability Income (SSDI) benefits. In Louisville's non-employed subgroup, families in the new rules group who responded to the 4-year survey were more likely by an estimated 7.2 percentage points than families in the control group to receive SSI or SSDI (36 percent versus 28.8 percent, respectively). They were also

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[70] See MDRC's 42-month impact report for a fuller exploration of possible reasons for the negative impacts in Louisville (Riccio et al., 2021).
[71] See Riccio et al. (2021).
[72] Precise estimates are not available for the opt-ins versus the opt-outs by employment subgroup.
[73] For a general discussion of income effects, see Borjas and Van Ours (2010).

more likely by an estimated 6.2 percentage points to report receiving SNAP benefits (65.2 percent versus 58.9 percent). Both of these impact estimates are statistically significant. In sum, the possible extra housing subsidy receipt early on, combined with an increase in transfer income (a possible product of initial earnings reductions in year 2), might have made it easier for some household heads in this subgroup who had work impediments to work and earn less than they would have under the existing rent policy.

Although these ideas are speculative, they suggest some possible ways in which the new rent policy, designed to promote work, might have the opposite effect for some families in some circumstances. It is also possible that some families in other PHAs had similar experiences and responded in similar ways, but on less of a scale than in Louisville.

Impacts by Age of Youngest Child in the Household at Enrollment

The analysis of the effects of the new rent rules on heads of household with children in the home at the time of random assignment divided the sample into four subgroups:

- Households with no children under the age of 18
- Households where the youngest child was age 5 or younger
- Households where the youngest child was 6-12 years of age
- Households where the youngest child was 13-17 years of age

One hypothesis is that the financial incentives of the new rent policy may have less effect on household heads with young children, who may face more significant challenges related to childcare.

This turned out not to be the case. Exhibit 2.7 presents results for each of the defined youngest-child subgroups for household heads in the three-PHA sample. Within the control group, it can be seen that employment and earnings varied only modestly based on the age of the youngest child in the family at the time of study enrollment. For example, across the three subgroups where a child was present (regardless of the youngest child's age), the average quarterly employment rate over the full followup period ranged from about 59 percent to 63 percent. The rate was only slightly lower (about 56 percent) for household heads with no children under age 18 at the time of study enrollment. Total average earnings varied somewhat more, but not dramatically. They were somewhat lower for household heads with children aged 0-5 than for those with older children, and lower still for those who did not have any children under age 18.

Overall, the subgroup analysis did not reveal any statistically significant impacts for any of the four subgroups, nor any statistically significant variation on impacts across subgroups.[74]

[74] The H-statistic for variation in outcomes across subgroups was .392 for ever employed, .581 for average quarterly employment, and .735 for average total earnings.

Exhibit 2.7. Impacts on Employment and Earnings Within First 78 Months of Followup, by Age of Youngest Child in the Household at Random Assignment: Lexington, Louisville, and San Antonio Combined, Heads of Households

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
No children under age 18 years				
Full period (quarters 3-28)				
Ever employed (%)	80.2	79.5	0.7	0.787
Average quarterly employment[a] (%)	55.7	56.2	-0.5	0.802
Total earnings ($)	67,495	70,654	-3,158	0.405
Last quarter (quarter 28)				
Ever employed (%)	48.6	50.5	-1.9	0.547
Total earnings ($)	2,897	3,269	-373	0.148
Sample size (total = 843)	415	428		
Children ages 0-5 years				
Full period (quarters 3-28)				
Ever employed (%)	88.6	90.0	-1.4	0.370
Average quarterly employment[a] (%)	58.8	59.8	-1.0	0.498
Total earnings ($)	73,094	75,011	-1,918	0.543
Last quarter (quarter 28)				
Ever employed (%)	60.1	60.0	0.1	0.956
Total earnings ($)	3,887	4,030	-144	0.542
Sample size (total = 1,429)	696	733		
Children ages 6-12 years				
Full period (quarters 3-28)				
Ever employed (%)	88.1	87.2	0.9	0.515
Average quarterly employment[a] (%)	62.8	61.1	1.7	0.223
Total earnings ($)	86,686	85,147	1,539	0.617
Last quarter (quarter 28)				
Ever employed (%)	63.7	61.0	2.7	0.211
Total earnings ($)	4,484	4,465	18	0.935
Sample size (total = 1,713)	859	854		

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
Children ages 13-17 years				
Full period (quarters 3-28)				
Ever employed (%)	83.7	87.0	-3.3	0.156
Average quarterly employment[a] (%)	60.2	60.3	-0.1	0.952
Total earnings ($)	85,804	84,614	1,190	0.790
Last quarter (quarter 28)				
Ever employed (%)	58.8	60.8	-2.0	0.534
Total earnings ($)	4,188	4,109	79	0.796
Sample size (total = 771)	398	373		

[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.
Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Impacts on Employment and Earnings for Other Adults in the Household

About 32 percent of households in the study included adults who were not the head of household at the time of study enrollment. The sample of 1,895 other adults in the household comprised predominantly of adult children of the head of household; about 22 percent were no longer on the household's lease within two years of the initial certification.

Appendix exhibit B.5 presents employment and earnings impacts for these other adults for all three PHAs combined. For the existing rent rules group, 89.5 percent were employed in a UI-covered job for at least one quarter during followup and the average quarterly employment rate during this period was 60 percent. There were no statistically significant impacts on employment and earnings outcomes for adults who were not the head of household over the full followup period. There also was no statistically significant difference in average total earnings during the final quarter of followup.

Appendix exhibit B.6 presents the results for other adults by PHA. Most noteworthy are the statistically significant negative impacts on quarterly employment rates and average cumulative

earnings for these adults in Louisville. But as is true for the full Louisville sample, these negative effects dissipate by the end of the followup period. (For impact results for all heads of households and other adults together, see appendix exhibit B.7 for all three PHAs combined, and appendix exhibit B.8 for each PHA separately.)

Conclusion

Impact estimates of the employment and earnings data on UI-covered jobs derived from the National Directory of New Hires (NDNH) offer little evidence that the new rent policy improved labor market outcomes for household heads over the full study period. While positive impacts were observed in Lexington and San Antonio on a limited number of outcomes in the first few years of followup, these did not persist. Negative impacts were more persistent in Louisville and did not dissipate entirely until after Year 4—the final year of followup preceding the pandemic. While it is difficult to know the extent to which COVID-19 and the subsequent policy responses intended to curb the spread of the pandemic may have affected results over the final two years of followup, results from Year 4 offer no evidence that positive effects were just over the horizon.

The dearth of statistically significant impacts over the final years of followup both for the pooled sample and at the PHA level may not be entirely surprising. As chapter 3 shows, a substantial number of families in both research groups had exited the voucher program by the end of Year 3, and the exit rate was higher among those in the control group. Families who exited the HCV program were no longer subject to the possibility of increased rents accompanying any potential increase in earnings. This produced a gradual weakening over time of the work incentive advantage that the new rules group experienced relative to the control group during the 3-year periods before and after the triennial recertification, and it may help explain why impacts observed in Lexington and San Antonio did not endure.[75] It may also help explain why the negative effects in Louisville began to lessen after Year 4.

Although the analysis did not provide strong evidence of long-term statistically significant program impacts, there were some noteworthy findings. The increase in earnings for both the new and existing rent rules group over the four years prior to the onset of COVID-19 is impressive, even in the context of a period of prolonged period of labor market expansion. While earnings for both groups fell during Year 5 amid the economic, social, and psychological disruptions of the pandemic, they rebounded sharply in Year 6 and surpassed the level of earnings seen in Year 4. Differences amongst subgroups also revealed interesting findings. The non-employed subgroup naturally included heads of household with long-term detachment from the labor market and/or substantial barriers to employment, as well as those with more recent work histories. Over the full followup period, the average quarterly employment rate for the non-employed subgroup was less than half of the rate of the already-employed subgroup, and their total average earnings were only about one-third as much as the already-employed subgroup's earnings. These stark differences reveal the challenges

[75] It may also partially explain why negative impacts in Louisville were longer lasting, as there is no reason to believe that these impacts would be mitigated because an increasing number of control group households left HCV. While control group households exiting HCV should not lead to negative impacts by itself, it may have exacerbated negative impacts that were occurring for other reasons.

that PHAs and policy makers confront to improve outcomes for households with significant barriers to labor market participation.

Also notable was the general lack of differences between subgroups based on the age of the youngest child in the household at the time of study enrollment. Many households with young children may confront greater obstacles related to childcare that limit or preclude labor market participation than those with older children (although the need for before- or after-school childcare can also be an impediment for parents of older children). Nonetheless, the average total earnings and average quarterly employment rate of this subgroup roughly approximated those outcomes for households with older children.

Chapter 3
Impacts on Housing-Subsidy Outcomes

The Rent Reform Demonstration tested an alternative policy for determining the amount of money that families receiving federal Housing Choice Vouchers (HCVs) contributed toward their rent and utilities (called their "total tenant payments," or TTPs) and the amount of subsidy they received.[76] The new policy eliminated deductions to income and used prior-year (retrospective) income in calculating TTPs, included a minimum TTP; held TTPs constant for 3 years at a time in the face of increases in income; modified in other ways how TTPs were adjusted in response to changes in families' incomes and circumstances; and included a variety of safeguards to minimize the rent burden some families could experience from the minimum TTP or income losses.

The 3-year cap on TTPs for the new rules group, the policy's main financial work incentive, was a design feature to help "make work pay" for the new rules group: If their earnings grew, their subsidies would not be reduced until the triennial recertification, rather than annually or more frequently, as was the case for the control group. Thus, it was expected that the new rules group would receive more in subsidy than the control group prior to the triennial, even if its earnings grew more than the control group's earnings grew. After the triennial, however, higher earnings for the new rules group relative to the control group could lead to lower subsidy payments than the control group—possibly yielding overall savings in subsidy payments in the long run. But as chapter 2 showed, while earnings grew over time for both research groups, they did not grow more for the new rules group than the control group. Consequently, as this chapter shows, the new policy did not eventually lead to savings in subsidies PHAs paid for the new rules group by the end of the followup period.

Using public housing agency (PHA) data covering a 6.5-year (or 78-month) followup period, this chapter examines the effects of the new rent policy on a variety of outcomes related to families' participation in the voucher program and subsidy receipt. The analysis shows that, relative to the outcomes of the existing rent rules (control) group, the new rent rules group was less likely to exit the voucher program during the followup period, even after the triennial recertification. Primarily because of their longer duration in the voucher program, the new rules group, on average, received more in cumulative housing subsidies than families in the control group. This was true even after the triennial recertification, despite the increase at that time (relative to the year prior) in the new rules group's monthly TTP and a reduction in their monthly subsidy. The new rent rules reduced the frequency of formal actions that PHA staff had to take in

[76] See chapter 1 for a full summary of the new rent policy and exhibit 1.1 for a side-by-side comparison of the features of the new and traditional rent policies.

administering the voucher program, particularly those that tend to be more time-consuming, such as regular and interim recertifications that required a new review of a family's income.

Calculating Families' Contributions to Their Housing Costs

Under HUD's traditional rent rules, the recertification process entails reassessing—at least annually—a family's continued eligibility for the voucher program, recalculating its expected contribution to its rent and utilities, and redetermining its housing subsidy. This process typically begins several months before the 1-year anniversary of the family's soon-to-be-expiring certification of continued eligibility. The annual recertification assesses the families' continued eligibility and makes any necessary changes to the TTP based on changes in income, etc. PHA housing specialists collect and verify the information that families submit on their current income and the income they anticipate having in the upcoming year, and on changes in household composition or other pertinent circumstances. The housing specialists enter the data into the rent-calculation software system, have the system estimate the TTP, and notify families 30 days before their new rent "effective dates"—that is, the dates when their new TTP goes into effect.[77] During the demonstration, these recertification activities took different amounts of time at different PHAs, often 90 days and sometimes much longer.

Under the new rent policy, families assigned to the new rules group were required to document their income from jobs or other sources during a defined 12-month period leading up to their initial recertification meetings after random assignment. This information was used to calculate the families' retrospective incomes to determine their TTPs. The retrospective or 12-month look-back period ended the month before the family's recertification date. For example, if a family was scheduled for a recertification meeting on February 21, 2015, the 12-month period used to determine retrospective income was February 1, 2014, through January 31, 2015.[78]

The Rent Reform Demonstration did not change the rules about the types of income counted in calculating TTPs and rent subsidies.[79] Families were required to make a good-faith effort to provide proof of countable income for the requested period. When families were unable to provide appropriate income documentation, or when the PHAs were unable to verify past income using their standard methods,[80] the PHAs followed agreed-upon procedures to impute gaps in reported household income.[81]

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[77] For the initial recertification under the study, the PHA in Louisville included an additional 30-day period to allow families in the new rules group the option of opting out of the new rent policy.
[78] For a fuller discussion of estimating retrospective incomes, see Riccio, Deitch, and Verma (2017).
[79] Nonwage income that was set to expire by the end of the look-back period, such as Temporary Assistance for Needy Families or unemployment insurance benefits, was not counted when calculating base income, however, because a family would not be able to count on such income going forward.
[80] Retrospective income was verified using the HUD Verification Hierarchy and the guidance provided in HUD Notice PIH 2010-19 (HA).
[81] The MDRC study team and the PHAs anticipated scenarios where families would struggle to obtain the required income documents—for example, pay stubs from early in the retrospective period or from multiple employers—and developed rules and guidance for staff members to use in such situations.

Under traditional HUD rules, the PHA pays the difference between a family's TTP and its "gross rent," and this did not change for the Rent Reform Demonstration. The gross rent is the amount of rent charged by the landlord for the unit (referred to as the "contract rent") plus an allowance for basic utilities if they are not included in the contract rent. The subsidy amount cannot exceed the PHA's payment standard (or maximum subsidy) for the local area, which is based on Fair Market Rents in the area. The subsidy is referred to as the housing assistance payment (HAP). If the landlord charges a rent that exceeds the payment standard, the family is responsible for that extra amount in addition to its TTP.[82] The TTP plus that extra amount make up the family's total housing cost, which HUD calls the "family share" of rent and utilities. Box 3.1 offers a simple illustration of these concepts in the case of Paige, a fictional voucher holder.

Impacts on Families' Receipt of Housing Subsidies

The new rent policy had important effects on families' duration in the voucher program and the total amount of subsidies they received during the followup period. Although the magnitude of these effects varied across PHAs, the general pattern was the same: The policy reduced the proportion of families exiting the voucher program, increased their average duration in the voucher program, and increased the cumulative amount of subsidy they received during the 6.5 years of followup.

Housing Choice Voucher Program Exit Rates

The top panel of exhibit 3.1 summarizes the effects on these two outcomes for all three PHAs combined.[83] This time frame covers the period beginning with the first month, after the month when a family's newly recalculated TTP was expected to take effect (the "effective date") after entering the study, until 78 months later.[84] As the exhibit shows, by the end of the followup period, 38.5 percent of the new rent rules group had officially exited the voucher program, compared with 44.3 percent of the existing rules group—a reduction of 5.8 percentage points.[85] Primarily as a result of their lower exit rate, the new rules group, on average, received more in

[82] Voucher holders are allowed to rent units for which the contract rent exceeds the payment standard as long as those units do not require them to pay more than 40 percent of their incomes toward rent and utilities when they sign the lease. Under HUD's traditional rent rules, 40 percent means 40 percent of their current/anticipated *adjusted* incomes. Under the new rent rules, it is 40 percent of their current/anticipated *gross* incomes.
[83] For guidance on how to read exhibits presenting impact findings, see box 2.1 in chapter 2.
[84] This report defines "Year 1" for the analysis of PHA data as the 12-month period beginning in the first month after the initial "effective date," with each subsequent year following suit. Depending on a family's initial expected TTP effective date (which occurred sometime between June 2015 and March 2016), the 78th month ended between December 2021 and September 2022. The "first year of followup" is *not* defined as beginning at the time of random assignment, as would normally be expected, because for the TTP to be recalculated (under the new or existing rent rules) and to take effect, 4 to 5 months were usually needed after a family's random assignment date. Families did not know right away which rent policy would apply to them or what their new TTP would be, and they would not begin paying the new TTP until the designated "effective date." Before that date, both research groups were still subject to the regulations and guidelines of the existing rent policy.
[85] To help put the pooled exit rates in context, one study found that nationally about 14 percent of families participating in the HCV program exit the program each year, and families who exited the HCV program in 2015 had stayed an average of 6.6 years. See McClure (2017).

total subsidies than the control group over the 6.5-year followup period ($39,841 versus $36,362—an increase of almost $3,480 per family).

Box 3.1. Total Tenant Payment and Family Share

Total tenant payment (TTP) is the amount a family must contribute toward its rent and utilities. TTP is based on 28 percent of gross income for families in the new rent rules group of the Rent Reform Demonstration.

Housing assistance payment (HAP) is the housing subsidy (for rent and utilities) paid by the housing agency.

Family share includes the TTP and any extra housing costs above the payment standard paid by the family.

Payment standard is the maximum combined rent and utilities subsidy that public housing agencies (PHA) will pay for families of given sizes, specific to each area and its fair-market rent. If a landlord charges a rent that exceeds the payment standard, the family is responsible for that extra amount in addition to its TTP.

> *Example:* Paige is renting a housing unit that has a $1,150 contract rent. The payment standard for her housing subsidy is $1,100. She is responsible for paying a total of $200 (the family share), which includes her TTP of $150 (based on 28 percent of her income of $536 per month) and an additional $50, the amount by which the contract rent exceeds the payment standard. Thus, her rent is subsidized by $950 ($1,150 contract rent minus $200 family share).

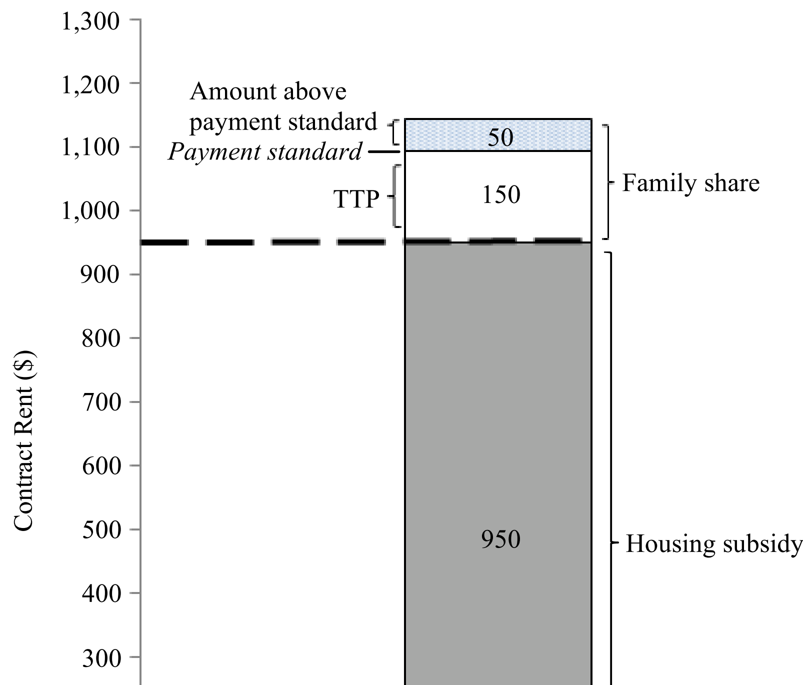

Exhibit 3.1. Impacts on Families' Exits from the Housing Choice Voucher Program and Amount of Housing Subsidies Received Within First 78 Months of Followup: Heads of Household

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Lexington, Louisville, and San Antonio Combined					
Exited HCV program	38.5	44.3	-5.8	***	0.000
Total housing subsidy in full period ($)	39,841	36,362	3,480	***	0.000
Sample size (total = 4,756)	2,368	2,388			
Lexington					
Exited HCV program	39.6	41.7	-2.1		0.495
Total housing subsidy in full period ($)	36,189	33,695	2,494	*	0.066
Sample size (total = 979)	486	493			
Louisville					
Exited HCV program	37.0	46.2	-9.3	***	0.000
Total housing subsidy in full period ($)	41,103	37,208	3,895	***	0.000
Sample size (total = 1,908)	947	961			
San Antonio					
Exited HCV program	39.6	43.5	-3.9	*	0.088
Total housing subsidy in full period ($)	40,575	36,785	3,790	***	0.000
Sample size (total = 1,869)	935	934			

Notes: HCV=Housing Choice Voucher. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using public housing agency data

The analysis also examined a more comprehensive set of outcomes related to housing subsidy receipt. Exhibit 3.2 distinguishes four dispositions: (1) currently enrolled in the voucher program and leased up (family is renting a unit and using the voucher); (2) currently enrolled in the voucher program but not leased up (not currently renting a unit); (3) officially exited the voucher program; and (4) ported out (transferred to) another PHA while retaining a voucher. The exhibit

shows that, for Lexington, Louisville, and San Antonio combined, 58 percent of families in the new rent rules group were still in the voucher program and leased up at the end of the 6.5-year followup period for this report compared with 50.9 percent of the existing rules group—an increase of 7.1 percentage points. And, as previously indicated, the new rules group was 5.8 percentage points less likely to exit the voucher program by the end of the followup period. (A very small proportion of families in either research group had a voucher but were not leased up or had ported out.[86]) In addition, the new policy increased the average number of months families received a subsidy by a statistically significant 4.9 percentage points.

Exhibit 3.2 shows that families in the new rent rules group were living in housing units where the gross rent (the contract rent paid to the landlord plus basic utilities not included in the lease) averaged $1,114 near the end of the followup period, before their year 6 recertification (if they were still in the voucher program), which was nearly the same as the control group's gross rent. In both groups, nearly all families in each of the three PHAs combined were renting units costing less than $1,500 per month.[87] (For PHA-specific findings, see appendix exhibit C.1.)

[86] Roughly 70 percent of households classified as "active and not leased up" were families who, although enrolled in the HCV program at the end of the followup period, were actively seeking a unit and not receiving a subsidy at that time. The remaining households had no subsidy information recorded in the data, but they also did not have an exit recorded.
[87] The exhibit does not present impact estimates on these measures because the estimates do not include families who exited the voucher program. Because the families in each research group who remained on the voucher program could differ in important ways, impact estimates for these measures, if they were calculated, might be biased.

Exhibit 3.2. Impacts on Families' Housing Costs and Subsidies Within First 78 Months of Followup: Lexington, Louisville, and San Antonio Combined

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
Enrollment status in month 78 (%)				
Currently enrolled in HCV program and leased up	58.0	50.9	7.1***	0.000
Currently enrolled in HCV program, not leased up	0.7	1.3	-0.6**	0.034
Exited HCV program	38.5	44.3	-5.8***	0.000
Ported out to another housing agency[a]	2.8	3.5	-0.7	0.146
Gross Rent				
Gross rent in month before year 6 recertification, if enrolled in HCV in that month[b] (%)				
Less than $1,000	*33.0*	*34.9*		
$1,000 - $1,499	*60.8*	*59.3*		
$1,500 or more	*6.2*	*5.8*		
Average gross rent in month before year 6 recertification, if enrolled in HCV in that month ($)	*1,114*	*1,101*		
Total Tenant Payment (TTP)				
Average monthly TTP in months received HCV[c] ($)	*307*	*319*		
Average TTP in month preceding year 6 recertification, if enrolled in HCV in that month ($)	*315*	*302*		
TTP in month preceding year 6 recertification, if enrolled in HCV in that month[c] (%)				
$0	*4.0*	*7.1*		
$1 - $50	*4.0*	*10.6*		
$51 - $75	*1.1*	*3.6*		
$76 - $100	*8.0*	*2.6*		
$101 - $150	*12.0*	*11.0*		
$151 - $300	*26.4*	*27.0*		
$301 - $500	*24.7*	*17.1*		
$501 - $700	*13.5*	*12.5*		
$701 or more	*6.4*	*8.6*		
Family Share				
Average monthly family share in months received HCV ($)	*367*	*366*		
Average family share in month preceding year 6 recertification, if enrolled in HCV in that month ($)	*396*	*375*		

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
Family share in month preceding year 6 recertification, if enrolled in HCV in that month (%)				
$0	*2.9*	*3.7*		
$1 - $50	*2.6*	*6.3*		
$51 - $75	*1.2*	*3.1*		
$76 - $100	*4.0*	*2.9*		
$101 - $150	*7.4*	*7.4*		
$151 - $300	*23.3*	*25.3*		
$301 - $500	*27.2*	*22.3*		
$501 - $700	*18.9*	*14.5*		
$701 or more	*12.6*	*14.6*		
Paid above the payment standard in month before year 6 recertification, if enrolled in HCV in that month (%)	*61.9*	*55.4*		
Housing Subsidy				
Average number of months received housing subsidy[d]	58.6	53.8	4.9***	0.000
Average monthly housing subsidy in months received HCV[d] ($)	*677*	*676*		
Average housing subsidy in month preceding year 6 recertification, if enrolled in HCV in that month[d] ($)	*717*	*726*		
Total housing subsidy[d] ($)				
Year 1	7,505	7,185	320***	0.000
Year 2	7,145	6,398	747***	0.000
Year 3	6,640	5,794	847***	0.000
Year 4	5,569	5,232	337***	0.007
Year 5	5,375	4,883	492***	0.000
Year 6	5,252	4,663	589***	0.000
Last 6 months	2,355	2,207	148**	0.036
Full period	39,841	36,362	3,480***	0.000
Sample size (total = 4,756)	2,368	2,388		

[a]Some households that ported out may have subsequently exited the HCV program.
[b]Gross rent is the contract rent plus the utility allowance of the unit.
[c] Total tenant payment is the amount a family must contribute toward rent and utilities regardless of the unit selected. Under the new rent rules, TTP is 28 percent of prior-year gross income, and under existing rent rules, TTP is 30 percent of adjusted income.
[d] Housing subsidy is the full subsidy amount paid by the housing agency and includes any utility allowance payments made to the tenant in addition to rent paid to the owner by the housing agency.
Notes: HCV=Housing Choice Voucher. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. Differences between the new rent rules group and the existing rent rules group were assessed using a two-tailed t-test for continuous variables and selected outcomes expressed as proportions. For

categorical variables, a chi-square test was used to determine whether there is a difference in the distribution of related outcomes for the new rent rules group compared with the existing rent rules group. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. When categorical variables are part of a distribution, the statistical significance levels, which apply to the distribution, are shown above the distribution. Sample sizes for specific outcomes may vary because of missing values. Outcomes shown in italics are nonexperimental. Statistical significance tests are not conducted on nonexperimental outcomes. Non-experimental measures exclude the Louisville sample members who declined to participate in the study (or opt-outs). Non-experimental measures looking at the month preceding the year 6 recertification include households that had an identifiable year 6 recertification within the followup period and that received HCV in that month. Confirmatory outcomes were tested for multiple hypothesis testing using the Benjamini-Hochberg procedure (Benjamini and Hochberg, 1995). The adjusted p-value = .000 for the impact on the total full period housing subsidy for all three PHAs combined.
Source: MDRC calculations using public housing agency data

Housing Coupon Voucher Program Exit Reasons

Box 3.2 presents some of the main reasons why families exited the voucher program, according to respondents' own self-reports. These data are based on findings from the 4-year followup survey of household heads and were presented in MDRC's 42-month report (Riccio et al., 2021; exhibit 5.11). A small subsample of respondents who exited were asked the main reason they did so. For both research groups, the most common reason reported (by 42 percent of respondents) was that their family income grew to the point that they did not (or thought they would not) qualify to continue receiving vouchers. It is also possible (although not known for certain) that some families anticipated that their subsidies would drop to levels that they judged would be too low to make the burden of engaging with the PHA not worth it.) For the new rules group, however, increased income would not typically affect their voucher eligibility until the triennial recertification. In contrast, for control group families, annual and interim income reviews that showed increased income could lead to exits from the voucher program sooner than would occur for the new rules group with similar income increases. In general, the new rent rules made it easier for families in the new rules group, compared with those in the control group, to remain in the voucher program while their earnings were increasing, at least during the three years leading up to a triennial recertification.[88]

[88] Several types of evidence are consistent with this interpretation. For example, according to unemployment insurance (UI) wage records, household heads in the new rules group who were still enrolled in the voucher program at about the time of the first triennial recertification were substantially more likely than those in the control group who were still enrolled at that time (about when their third annual recertification occurred) to have been employed and to have had more earnings during the prior three years.

Another analysis examined voucher exit rates among household heads according to their employment status at baseline. As chapter 2 showed, on average, household heads who were already working at baseline had consistently higher earnings in UI-covered jobs throughout the followup period than those who were not already working—a pattern that held for both the new rules group and the control group. Other data (not shown) indicate that the reduction in exit rates caused by the new rent rules (the policy's impact) was concentrated almost entirely in that higher-earning subgroup. (The estimated exit-rate impact was a statistically significant -7.2 percentage points

Other factors may also have played a role in the new rules groups' longer duration in the voucher program. A majority of families in each research group who left the voucher program reported that they did so for a variety of reasons other than income increases. It is possible that because the new rules group had fewer required income reviews and interim recertifications, they may have been less likely to run afoul of the kinds of administrative requirements that are normally required of voucher families to maintain their eligibility, or to have been subject to possible agency administrative errors concerning notices and appointments or other issues. For example, they may have had fewer chances of missing required appointments with PHA housing specialists or not meeting paperwork requirements, leading to voucher loss—at least during the 3-year periods before and after the triennial recertification. This may be another reason why exit rates were lower for the new rules group during the followup period for this study. Data are not available to test this hypothesis, but it is worth considering.

Additional insight into the new rent policy's effects on exits from the voucher program are drawn from reasons that families gave and were recorded by the PHA staff at the time they left the program. With PHA staff assistance, the exit reasons were classified into three main categories: "moved to self-sufficiency," "program violation," and "other."[89] Note that PHA exit reasons that were entered into the systems were mutually exclusive, so PHA staff were forced to enter one reason per exit, which could result in the exclusion of exit reasons of interest. Additionally, PHA staff could only determine exit reasons based on the information available to them; they did not always have complete information especially when families stopped contacting them. This may mean that, in some cases, an improvement in financial circumstances that might reflect "self-sufficiency" was not known to the staff. For example, if a household head got a job, moved in with a partner, or possibly moved away and did not inform the PHA, especially if the household is at the end of its lease, then the PHA staff member may record the

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for the already-working subgroup compared with a non-statistically significant -0.8 percentage points in the not-already-working subgroup.) In other words, using that baseline subgroup status as a rough proxy for earnings levels over the full followup period, it appears that higher-earning household heads in the new rules group exited the voucher program more slowly than their higher-earning counterparts in the control group, likely due to the triennial recertification provision of the new rent rules.

An analysis of PHA administrative records shows that, on average, the last recorded housing subsidy for families in the control group who left the voucher program was lower than that for families in the new rules group who left the program. This implies that the PHAs more likely knew about the control group leavers' higher income (due to that group's more frequent reporting requirements) than they knew about the new rules group's higher earnings (which families did not have to report as quickly), which may have contributed to the control group's quicker exits.

All these findings support the conclusion that it was easier to remain in the voucher program with higher earnings for a longer period of time under the new rent rules than under the existing rules—an outcome consistent with the new rent policy's goal of supporting work.

[89] Examples of the types of reasons used by PHAs for each of the three categories (which are mutually exclusive) include the following: *Moved to Self-Sufficiency*, income exceeded eligibility, no longer needs assistance, zero HAP for 6 months, purchased a home. *Program Violation*: moved without notice, failed to attend appointment/information, failed to provide information, family obligation, failed inspection, evicted from unit. *Other*: death or illness, voucher/lease expired, moved with relatives, miscellaneous, missing reason.

reason for exit as a "program violation" or "other." The extent to which this may have occurred is unknown.[90]

Box 3.2. Reasons for Leaving the Voucher Program

Among families in both groups who did exit the voucher program during the followup period, the reasons for exiting varied and were heavily, but not entirely, related to income. Respondents to the 4-year survey of household heads who had left the voucher program by the time of the interview ("leavers") were asked why they stopped receiving vouchers. Among families in Lexington, Louisville, and San Antonio combined, about 42 percent of "leavers" in the new rules group said the main reason was that their incomes had increased. The rate was nearly the same (about 43 percent) among control group leavers.

For both research groups, though, the majority of families who exited the voucher program cited reasons other than income increases, such as "problems with the housing authority" or an "issue with the landlord." A small proportion of each group said they could no longer afford their rent or utilities or cited the minimum TTPs in the new rules group as a reason.

Other data from Lexington, Louisville, and San Antonio combined suggest that families in the new rules group who were still in the voucher program ("stayers") were more likely than "stayers" in the control group to have had wage income in the month prior to the survey interview. For example, about 70 percent of stayers in the new rules group said their households had income from their own or other household members' earnings in that month, compared with 59 percent of stayers in the control group. This finding suggests that it was "easier" to remain in the voucher program with earnings under the new rent rules (at least until the third-year recertification) than under the existing rules—an outcome consistent with the new rent policy's goal of supporting work.

Source: Riccio et al. (2021)

With this caveat in mind, it is noteworthy that the new rent rules group was less likely than the existing rules group, by a statistically significant 3 percentage points, to exit due to PHA-determined "self-sufficiency" reasons during the followup period for this study (not shown in exhibits). This is consistent with the expectation that the new rent policy made it easier for families with increased earnings to remain in the voucher program for a longer period of time

[90] PHAs in the study were not required to report exit reasons, which resulted in differences on how PHA's categorized exit reasons. As of this writing, HUD is in the process of modernizing the Office of Public and Indian Housing (PIH) Inventory Management System/Public and Indian Housing Information Center (IMS/PIC) to provide a better user experience for PHAs and to significantly enhance the collection, use, and analysis of both building and unit and household data through newer technology. As a result, all PHAs will be required to report standard end-of-participation reasons on the 50058. For more information, see https://www.hud.gov/sites/dfiles/PIH/documents/HIPTRG102522.pdf.

(due to the triennial recertification policy). The impact on leaving the voucher program due to PHA-determined “program violation” reasons was small and not statistically significant.

Impacts on the Amount of Housing Subsidy Received

As previously mentioned, the new rules group received about $3,480 more in rental subsidies over the 6.5 years than the control group (see exhibits 3.1 and 3.2)—or nearly 10 percent more than the control group average (a statistically significant increase).[91] Moreover, the cumulative subsidy measure's impact—a confirmatory outcome measure—remained statistically significant when adjusted for multiple outcomes.[92]

In each of the three PHAs, these patterns were generally similar (see exhibit 3.1 and, for more details, appendix exhibit C.1). The new policy increased the total housing subsidy amounts by a statistically significant amount in all three PHAs, ranging from $2,494 in Lexington to $3,895 in Louisville.[93,94] Relative to the control group mean in each PHA, the increase for the new rules group ranged from 7 percent to 10 percent.[95]

Exhibit 3.3 depicts the month-by-month trends in voucher receipt graphically. It illustrates each research group’s steady decline in the likelihood of receiving vouchers (top panel), and the average amount of subsidies received by each group, including zero values for families who exited the HCV program (bottom panel). It also shows that by the end of the first year, the new rules group was consistently more likely than the existing rules group to receive subsidy through the end of the followup period and to receive more of it.

It was largely because of the extra time they spent in the voucher program that the new rules group received more in cumulative subsidy over the full followup period. The average subsidy

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[91] As explained in Chapter 1, because 22 percent of families in Louisville opted out of the new rent policy, the treatment-on-treated (TOT) adjustments were made that attributed all effects to only those families who were exposed to the policy. The TOT results for Lexington, Louisville, and San Antonio combined are presented in appendix exhibit B.3 and are not appreciably different than the intent-to-treat (ITT) results that represent the average effects for the full sample. For example, the TOT impact on total amount of housing subsidy received is $4,016 (an 11 percent increase relative to the control group mean) compared with an ITT impact of $3,480 (about a 9.6 percent relative increase).

[92] As mentioned in chapter 1, the impact estimates were adjusted using the Benjamini-Hochberg method described in appendix B of Riccio and Deitch (2019). The adjustment considers that impacts were also estimated for two additional confirmatory outcome measures. The impact estimate remains statistically significant, with an adjusted *p*-value = .000.

[93] As indicated in Riccio and Deitch (2019), an H-statistic test is used to assess whether the differences across PHAs in the estimated impacts on cumulative housing subsidies (a confirmatory outcome measure) are statistically significant. The results show that the variation in the 6.5-year subsidy amounts is not statistically significant across the three PHAs.

[94] Appendix exhibit B.2 shows that in Louisville the TOT impact on the average total subsidies in the 6.5-year followup period was $5,019 (a 10.5 percent increase relative to the control group mean) compared with an ITT impact of $3,895 (a 13.5 percent relative increase).

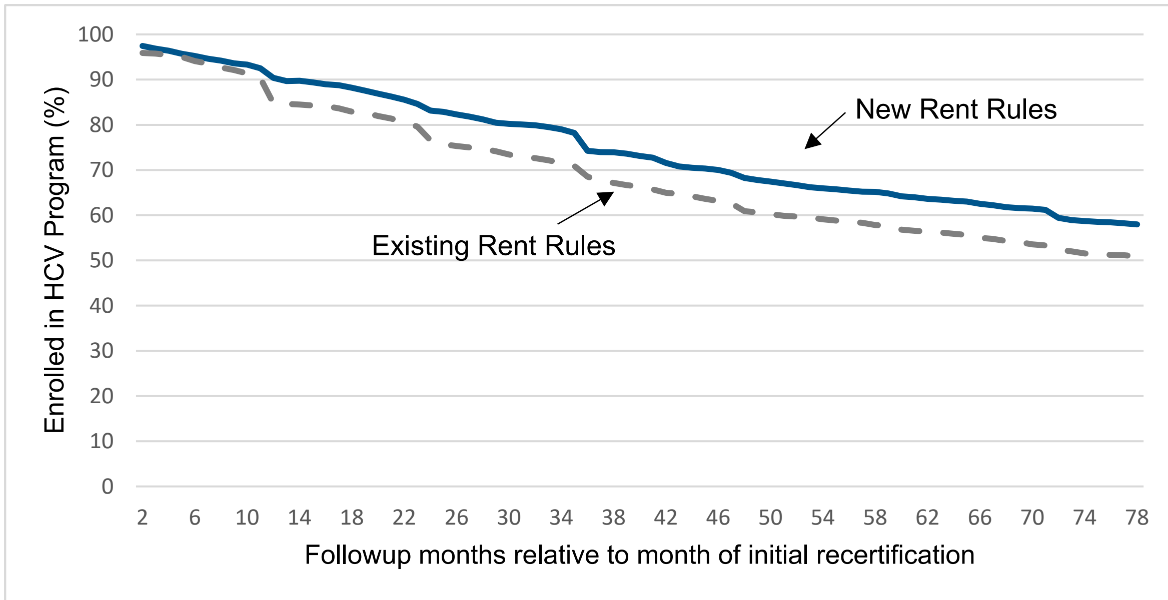
[95] This general pattern of impacts did not differ statistically or substantially for the subgroups employed or not employed at baseline, despite the fact that in both research groups, the non-employed subgroup was less likely to exit the voucher program during the followup period and had a higher average subsidy receipt.

amount per family per month was only slightly higher for the new rules group than the control group: about $1 per month. (See exhibit 3.2.) This accounts for only about $59 in extra subsidy over the total average length of time families in the new rules group were enrolled in the voucher program, and about 1.7 percent of the full $3,480 subsidy impact.

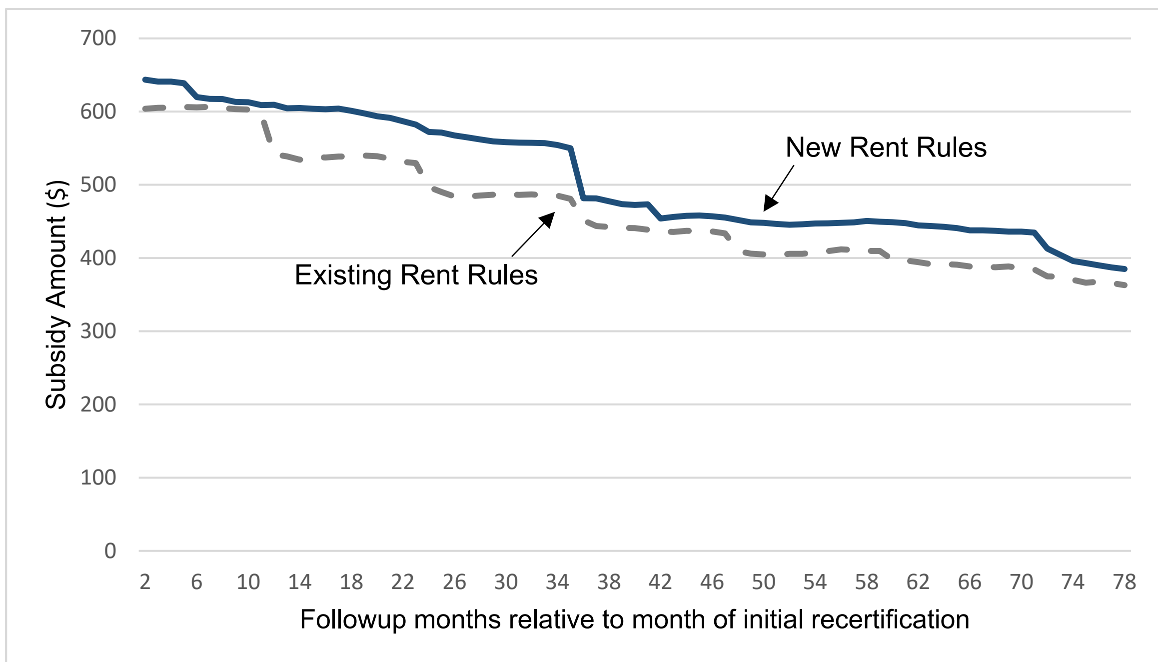
The impacts on subsidy duration and cumulative subsidy amounts follow directly from the switch from annual to triennial recertifications under the new rent policy. Because families in the control group who experienced an income increase had to report that increase to the PHA annually (or, in some PHAs, whenever it occurred), they would have their TTPs raised and their subsidies reduced within a year's time. In contrast, families in the new rules group had their initial TTPs capped for up to three years, even when their earnings grew. Because of the cap, no earnings increases, no matter how large, had to be reported to PHAs, and thus families saw no reduction in their subsidies or were made ineligible for the voucher program during that period. The policy was designed so that families would experience the benefits of their increased work effort during the 3 years leading up to the triennial recertification. While incomes were reassessed and new TTPs set at that time, TTPs were again capped for the next three years (meaning that their subsidies would not be reduced in the face of higher incomes) until recertification in year 6, which was near the end of the study period.

Exhibit 3.3. Monthly Impacts on Program Participation Rates and Housing Subsidy Amounts Within First 78 Months of Followup: Lexington, Louisville, and San Antonio Combined, Heads of Households

A. Enrolled in HCV Program



B. Housing Subsidy Amount



Notes: HCV = Housing Choice Voucher. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. In Graph A, except for months 6 and 8, the differences between the new rent rules group and the existing rent rules group during the followup period were statistically significant. In Graph B, except for months 8, 10 through 12, and 43, the differences between the new rent rules group and the existing rent rules group during the followup period were statistically significant.
Source: MDRC calculations using public housing agency data

Changes in Families' Total Tenant Payments After the Triennial Recertification

Families in the new rules group who were still in the voucher program near the end of the 6.5-year followup period (just before their year 6 recertification) were paying only a slightly higher average monthly TTP ($315) than control group families who were still receiving vouchers at that time ($302). (See exhibit 3.2.) These families in the new rules group were also less likely to be paying a very low TTP ($0 to $50 per month) because of the new policy's minimum TTP requirement. The families' average monthly family share at that time (which includes payments by tenants above their obligated TTP contribution) was also slightly higher for the new rules group than for the existing rules group ($396 versus $375 per month).

An important question pertaining to the triennial recertification policy is how much families' TTPs would jump in the face of the 3-year cap (if they remained in the voucher program). For example, would some families face larger increases all at once rather than the more gradual increases with interim recertifications per the existing rent policy? Exhibit 3.4 shows how average TTPs changed for the two research groups in Lexington, Louisville, and San Antonio combined before and after the new rules group's first triennial recertification and the control group's third annual recertification. These recertifications were conducted as the end of the third year approached, and any changes made to TTPs and subsidies took effect at the beginning of the fourth year. As the top panel indicates, the average TTP for the new rules group rose from $252 in the prior month to $367 after the triennial recertification—an increase of $115 (46 percent) per month. For control group families who were still in the voucher program, the average TTP rose by $56 (20 percent) per month after their third annual recertification.[96]

[96] For PHA-specific findings on TTP changes before and after the triennial recertification, see appendix exhibit C.1. For additional details, see Riccio et al. (2021).

Exhibit 3.4. Change in Families' Average Total Tenant Payments After Year 3 Recertification: Lexington, Louisville, and San Antonio Combined

Outcome and Comparison	New Rent Rules	Existing Rent Rules
Comparison to Most Recent Prior TTP		
TTP in month after year 3 recertification ($)	*367*	*337*
TTP in month before year 3 recertification ($)	*252*	*281*
Difference ($)	*115*	*56*
Change (%)	*45.8*	*19.8*
Comparison to Initial TTP		
TTP in month after year 3 recertification ($)	*367*	*337*
TTP at initial recertification ($)	*247*	*255*
Difference ($)	*120*	*82*
Change (%)	*48.6*	*32.0*
Sample size (total = 3,075)	1,541	1,534

Notes: TTP= Total Tenant Payment. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. Sample sizes for specific outcomes may vary because of missing values. Outcomes shown in italics are nonexperimental. Statistical significance tests are not conducted on nonexperimental outcomes. Nonexperimental measures exclude the Louisville sample members who declined to participate in the study (or opt-outs). Total tenant payment is the amount a family must contribute toward rent and utilities regardless of the unit selected. Under the new rent rules TTP is 28 percent of prior-year gross income, and under existing rent rules TTP is 30 percent of adjusted income. Year 3 recertification is the 'triennial' for the program group, excluding opt-outs, and the third annual recertification for the control group and opt-outs. The effective date of year 3 recertification is approximately 36 months after the date that the new rent rules went into effect (the initial recertification), although the exact timing varies for some households. For the program group, the triennial includes "2: annual reexamination" actions as well as other actions that may have substituted as the triennial, such as a "3: interim reexamination" or "7: change of unit." Some households did not have a triennial identified because they exited the program or did not have a triennial for other reasons. For the control group, if a household did not have a clearly identifiable regularly scheduled recertification in the third year, the closest record was chosen as an approximation. The measures exclude some households based on the timing of their year 3 recertification and their active status in surrounding months. About 2 percent of the program group and 3 percent of the control group were excluded from these measures because they were not active and leased up in both the month preceding the year 3 recertification and the month of the recertification or because they had a particularly late recertification. Additionally, some households did not have information regarding the first certification, so first-certification measures have a slightly smaller sample size.
Source: MDRC calculations using public housing agency data

Importantly, families in the new rules group still in the voucher program just after the first triennial paid higher TTPs because they had higher base incomes at the time of the 3-year

recertification compared with the remaining voucher holders in the control group (not shown in exhibits).[97] Under the new rent rules, the average monthly income (based on retrospective gross income) used to calculate new TTPs at the first triennial recertification (unless a family had a temporary grace period or hardship TTP) was $1,277. This is $177 higher than the $1,100 monthly income (based on current/anticipated adjusted income according to traditional HUD rules) used to calculate TTPs for the existing rules group at the time of the third annual recertification.

Not all families who remained in the voucher program saw a jump in their TTPs after the third-year recertification. As exhibit 3.5 shows, 62 percent of those in the new rules group experienced an increase in their TTPs, while 26.2 percent experienced a decrease, and another 11.8 percent saw no change at all. For some families, the increase—or decrease—in their TTPs was substantial. For example, 34 percent of families in the new rules group experienced a TTP increase of over $150 per month, compared with 18.2 percent of control group families. A small proportion of families experienced large jumps in their TTPs: 18 percent saw their TTPs jump by more than $300 per month, and 2.4 percent experienced increases of over $700 per month—rates that were somewhat higher than for the control group. These increases in TTPs reflect greater increases in income that had to be taken into account in the triennial recertification for the new rules group. According to in-depth interview data, some families experienced the large TTP increase as a kind of "sticker shock"—a change for which they were not prepared. Some families who adopted spending patterns based on their higher disposable income during the prior 3 years now had to cut back on certain expenditures.[98]

[97] This finding is not inconsistent with the finding of no statistically significant impact on National Directory of New Hires (NDNH) earnings in Year 3. Recall that NDNH data include the earnings of all household heads in the sample, whereas the PHA data only pertain to families still on the voucher program and include other sources of income in addition to earnings.
[98] See Riccio et al. (2021) for a fuller discussion of this issue.

Exhibit 3.5. Distribution of Changes in Families' Total Tenant Payments After Year 3 Recertification: Lexington, Louisville, and San Antonio Combined

Outcome	New Rent Rules	Existing Rent Rules
TTP		
Among those enrolled in HCV program:		
Change in TTP from month preceding year 3 recertification (%)		
Decrease	*26.2*	*26.1*
No change	*11.8*	*23.0*
Increase	*62.0*	*51.0*
Change in TTP from month preceding year 3 recertification (%)		
Decrease of		
$701 or above	*0.0*	*0.2*
$301 - $700	*1.8*	*1.2*
$151 - $300	*4.9*	*2.9*
$101 - $150	*4.0*	*2.6*
$76 - $100	*3.0*	*2.2*
$51 - $75	*3.6*	*2.7*
$1 - $50	*9.0*	*14.3*
No change	*11.8*	*23.0*
Increase of		
$1 - $50	*12.8*	*20.8*
$51 - $75	*3.8*	*3.8*
$76 - $100	*4.1*	*3.9*
$101 - $150	*7.2*	*4.3*
$151 - $300	*16.0*	*9.7*
$301 - $700	*15.6*	*7.3*
$701 or above	*2.4*	*1.2*
Sample size (total = 4,544)	2,156	2,388

Notes: TTP=Total Tenant Payment. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. Sample sizes for specific outcomes may vary because of missing values. Outcomes shown in italics are nonexperimental. Statistical significance tests are not conducted on nonexperimental outcomes. Nonexperimental measures exclude the Louisville sample members who declined to participate in the study (or opt-outs). Total tenant payment is the amount a family must contribute toward rent and utilities regardless of the unit selected. Under the new rent rules TTP is 28 percent of prior-year gross income, and under existing rent rules TTP is 30 percent of adjusted income. The year 3 recertification is the triennial for the program group, excluding opt-outs, and the third annual recertification for the control group and opt-outs. Its effective date is approximately 36 months after the date the new rent rules went into effect (the initial recertification), although the exact timing ranges for some households. For the program group, the triennial includes "2: annual reexamination" actions as well as other actions that may have substituted as the triennial, such as a "3: interim reexamination" or "7: change of unit." Some households did not have a triennial identified because they exited the program or did not have a triennial for other reasons. For the control group, if a household did not have a clearly identifiable regularly scheduled recertification, the record closest to the expected recertification date was chosen as an approximation.
Source: MDRC calculations using public housing agency data

Control group families were less likely than families in the new rules group to face larger TTP increases at the time of their third annual recertification partly because of the annual and interim recertifications they were subject to under the existing rent rules. The greater frequency of recertification meant that the TTP for control group families in the month before their third annual recertification already took into account any income increases during the first 3 years. Although the new rules group experienced a bigger TTP increase with the triennial recertification because of the delay with increasing TTP, the total cumulative amount of subsidy the new rules group received exceeded the amount the control group received.

Paying the Minimum Total Tenant Payment

As described in chapter 1, the minimum TTPs by PHA set for each group are as follows:

Lexington: $150 for the new rules group and the control group.

Louisville: $50 for the new rules group and $0 for the control group.

San Antonio: $100 for the new rules group and $50 for the control group.

Exhibit 3.6 shows how the TTPs paid by the new rent rules group compared with their PHAs' minimum TTP levels. For Lexington, Louisville, and San Antonio combined, only 12.1 percent of families in the new rent rules group ever paid *less* than the minimum TTP set by their PHAs during the 6.5-year followup period, and those who did so only paid below the minimum for 8.3 months of that period, on average. These were mostly families who received a time-limited hardship remedy (although not all families with a hardship remedy paid below the minimum TTP). Most families (91.4 percent) paid above the minimum TTP sometime during the followup period, and 42.4 percent had at some point paid exactly the minimum.

Exhibit 3.6. Payment of Minimum Total Tenant Payment and Use of Safeguards Within First 78 Months of Followup: Lexington, Louisville, and San Antonio Combined, New Rent Rules Group Only

Outcome	Lexington	Louisville	San Antonio	All PHAS
Minimum TTP	150	50	100	-
Family TTP relative to the local minimum TTP (%)				
Ever paid below the minimum TTP	0.6	19.0	12.2	12.1
Ever paid the minimum TTP	64.3	38.1	34.7	42.4
Ever paid above the minimum TTP	83.7	94.7	92.9	91.4
Number of months paid[a]				
Below the minimum TTP	9.3	7.6	9.2	8.3
The minimum TTP	27.5	19.9	28.4	25.3
Above the minimum TTP	47.7	53.8	49.9	50.9
Ever had grace-period TTP[b] (%)	43.5	37.0	30.7	35.7
Ever received a restricted interim recertification (%)	16.2	15.9	11.6	14.1
Ever received a hardship remedy[c] (%)	22.2	41.2	19.5	27.7
Received hardship remedy in month preceding year 6 recertification, if enrolled in HCV program in that month[d] (%)	1.9	17.7	1.3	7.6
Average number of months receiving a hardship (among those who received one)	4.9	10.2	9.6	9.0
Sample size	486	735	935	2,156

[a] The "number of months paid" measures limit the sample to those who ever paid that family TTP relative to the local minimum TTP. For example, the number of months paid below the minimum TTP is shown only for those who ever paid the minimum TTP.
[b] At the regularly scheduled recertification, families receiving grace-period TTPs have their TTPs calculated based on current/anticipated income for 6 months, rather than retrospective income. The grace-period TTP is used if a family's current/anticipated income is more than 10 percent lower than its retrospective income.
[c] This measure includes individuals who were applying for disability benefits and were getting an adjusted long-term TTP reduction.
[d] This measure includes households that had an identifiable year 6 recertification within the followup period and that received HCV in that month.
Notes: TTP=total tenant payment. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. Sample sizes for specific outcomes may vary because of missing values. Outcomes are nonexperimental. Statistical significance tests are not conducted on nonexperimental outcomes. Louisville families who opted out of the study are excluded because their rent calculation was subject to existing rules. Total tenant payment is the amount a family must contribute toward rent and utilities regardless of the unit selected. Under the new rent

rules TTP is 28 percent of prior-year gross income, and under existing rent rules TTP is 30 percent of adjusted income. The minimum TTP varies by site and research group. The measures are created using the relevant minimum TTP. After the year 6 recertification, Louisville and San Antonio households transition back to the existing rent rules. Lexington households continue using the new rent rules.
Source: MDRC calculations using public housing agency data

Lexington stands out, with nearly two-thirds (64.3 percent) of its families having paid exactly the minimum TTP. This rate is considerably higher than in the other PHAs (where the rate is about one-third) and reflects Lexington's relatively high $150 per month minimum TTP and its limited exemptions policy. Almost no Lexington families ever paid less than the minimum. In Louisville and San Antonio, higher proportions of families (over 90 percent) paid above the minimum TTP because the minimum TTP thresholds were set at lower levels. However, even in Lexington, over 84 percent had at some point paid above its high minimum—perhaps reflecting the growing incomes among families in that PHA as in the other PHAs.

Use of Safeguards by the New Rent Rules Group

The new rent policy included several critical safeguards (described in chapter 1 and summarized in exhibit 3.7) to help protect families from excessive rent burdens. Many families took advantage of them, and they are likely to have helped avert increasing families' material hardships under the new rent policy. MDRC's prior evaluation report found that on the whole and on a variety of indicators measured in the 4-year survey, the new rent policy had little effect on overall material or financial well-being, causing neither undue harm nor improvement.[99]

Grace-Period Rents

Some families in the new rent rules group found that, at the time of their initial recertification and subsequent triennial recertification, due to recent income losses, their retrospective gross incomes were substantially higher than their current/anticipated gross incomes. Anticipating the excessive rent burden that would be imposed on such families by setting a new TTP for the next three years based on their retrospective income, the policy designers included a grace-period rent as a safeguard. If, at the time of recertification, a family's current/anticipated gross income was more than 10 percent lower than its retrospective income, the family automatically qualified for

[99] See Riccio et al. (2021). The material hardship score (a confirmatory outcome measure for this evaluation) is a cumulative hardship scale that reflects the presence and frequency of reported hardships within the last 12 months pertaining to monthly rent payments, utility and phone bill payments, food access, and access to preventive healthcare and prescription medication. Scores closer to zero reflect, on average, fewer and shorter durations of such hardship. Respondents in the new rent rules group scored 3.6, compared with 3.8 for families in the existing rules group, a difference that is not statistically significant. Detailed PHA-specific findings on material and financial well-being measures are available in a supplemental appendix to that report. See Supplementary Materials in Riccio et al. (2021).

and received a 6-month grace-period TTP based on 28 percent of its current/anticipated gross income. The family had to pay the minimum TTP if that 28 percent were less than the minimum

Exhibit 3.7. Safeguards Built into the New Rent Rules Policy

Safeguard	Timing	Eligibility Criteria	Modified TTP
Grace-Period TTP	At triennial certification	Current or anticipated monthly income is more than 10 percent less than the retrospective monthly income.	Based on 28 percent of the current or anticipated monthly income. The modified TTP lasts for 6 months and then automatically switches back to a TTP based on retrospective income.
Interim Recertification[a]	Upon family's request, up to once per year.	The family's retrospective income at the time of request for the interim recertification is more than 10 percent below its previously established income.	Set at 28 percent of retrospective income based on the 12 months before the request.
Hardship Remedies	At any time	TTP is more than 40 percent of current or anticipated monthly income *or* the family is at risk of eviction.	Set at 28 percent of a family's current or anticipated income (which may be less than the minimum TTP, except in Lexington) for up to 180 days (can be renewed), *or* set at the minimum TTP for up to 180 days (can be renewed), *or* based on an additional interim recertification beyond the normal one-per-year option, *or* supplemented with a "transfer voucher" to help a move to a more affordable unit.

[a]Interim recertification refers to restricted interims to reduce TTP.
Notes: TTP = total tenant payment. The new rent policy looks at gross income regardless of whether the income used is current, anticipated, or retrospective. Gross income is income without adjusting for deductions.

TTP threshold set by its PHA unless the family applied for and received a hardship exemption. Only available at the beginning of the 3-year period (and at any subsequent triennial recertifications), the 6-month grace period was intended to protect the family from a high rent burden as the family tried to restore their income to its prior level. At the end of the 6-month

grace period, the TTP for these families automatically reverted to the TTP originally calculated based on the retrospective income. If the family could not restore their current income to their original retrospective gross income level, they could request an interim recertification (limited to one per year) or a hardship remedy (which could be renewed, if necessary). Exhibit 3.6 shows that about one-third (35.7 percent) of families received a grace-period TTP in the initial recertification when the study period began or in their triennial recertification. The substantial degree of reliance on this safeguard testifies to its importance in protecting families from prohibitively high TTPs, at least temporarily, in a rent system that bases TTPs primarily on retrospective income.

Restricted Interim Recertifications

As another safeguard, the new rent policy allowed families one interim recertification per year. For the new rent rules group, these are referred to as "restricted interim recertifications" because of that numerical restriction placed on them. A family qualified for this mechanism to lower its TTP only if its income over the 12 months prior to the requested adjustment dropped by more than 10 percent of its previously established retrospective income. Exhibit 3.6 shows that during the followup period for Lexington, Louisville, and San Antonio combined, 14.1 percent of the new rent rules group received a restricted interim recertification for this purpose. As intended, the new rules group was less likely to receive an interim recertification to reduce a family's TTP than the existing rules group (for whom no restrictions were placed on the number of interim recertifications allowed), as discussed later in this chapter.

Temporary Hardship Remedies

In addition to grace-period TTPs and interim recertifications, the new rent policy offered potential further relief to families whose TTPs exceeded 40 percent of their current/anticipated gross income (exhibit 3.7). Such families were considered to have excessive rent burdens and were generally eligible to request a temporary hardship remedy. In Lexington, however, families were eligible for a hardship remedy only if they were paying TTPs that exceeded the PHA's $150 minimum and still met the 40-percent threshold. No families in Lexington could pay below the $150 minimum except in cases where households became classified as disabled.

Of course, not all families who qualified for a hardship remedy may have wanted to apply for one because doing so might have required them to have more interaction with the PHA than they wanted. Some potentially eligible families may also have had an increase in income after the initial recertification, which they realized would disqualify them from receiving a hardship remedy. Other considerations, such as families' lack of awareness of hardship remedies, may have been factors as well. [100]

[100] See chapter 5 for findings on participants' awareness of, experiences with, and views of the hardship policy and the other safeguards.

A hardship remedy could be issued at any time during the 3-year period between regularly scheduled recertifications. Exhibit 3.6 shows that for Lexington, Louisville, and San Antonio combined, 19.4 percent of families in the new rules group had requested and received a hardship remedy by the end of the followup period. The rate was 22.2 percent in Lexington, 19.5 in percent in San Antonio, and about double those rates in Louisville at 41.2 percent.[101]

Exhibit 3.6 also shows that for Lexington, Louisville, and San Antonio combined, a smaller proportion of families were receiving a hardship remedy near the end of the followup (only 7.6 percent) if they were still in the voucher program, compared with the proportion who ever received a hardship remedy at some time during their period of voucher receipt (27.7 percent). This finding suggests that, for many families, the time-limited hardship remedies expired and were not renewed.

Impacts on Housing Agency Actions for Families

One goal of the new rent policy was to simplify the rent-determination process. Doing so, it was hoped, would reduce the administrative burden and costs for the PHAs and lighten the burden on families. Toward that end, as discussed previously, the new policy relied on gross rather than adjusted income, ignored any income from (and documentation requirements for) assets valued at less than $25,000, simplified the approach to estimating the cost of utilities, switched to a triennial recertification schedule,[102] and limited the number of interim recertifications permitted as a result of income reductions. These burden-reducing features were counterbalanced to some degree by the new policy's reliance on retrospective income in setting a family's TTP and its safeguard policies, which could be time-consuming to administer for certain types of families.[103]

To explore the implications of the new rules on PHA staff burden, the analysis considers the frequency of various types of staff actions taken for each research group. Exhibit 3.8 depicts one general pattern for the three PHAs combined. It shows for each year, for families who ever received a voucher subsidy in that year, the average number of staff actions taken in response (such as a regular recertification or an interim recertification for reasons including income changes, family composition changes, moves, hardships, and others). As the graph shows, the likelihood of a staff action was generally lower for the new rules group than the existing rules group in any year that families were receiving vouchers, except during the third year and sixth year of recertification (reflecting the triennial recertification schedule for the new rules group).

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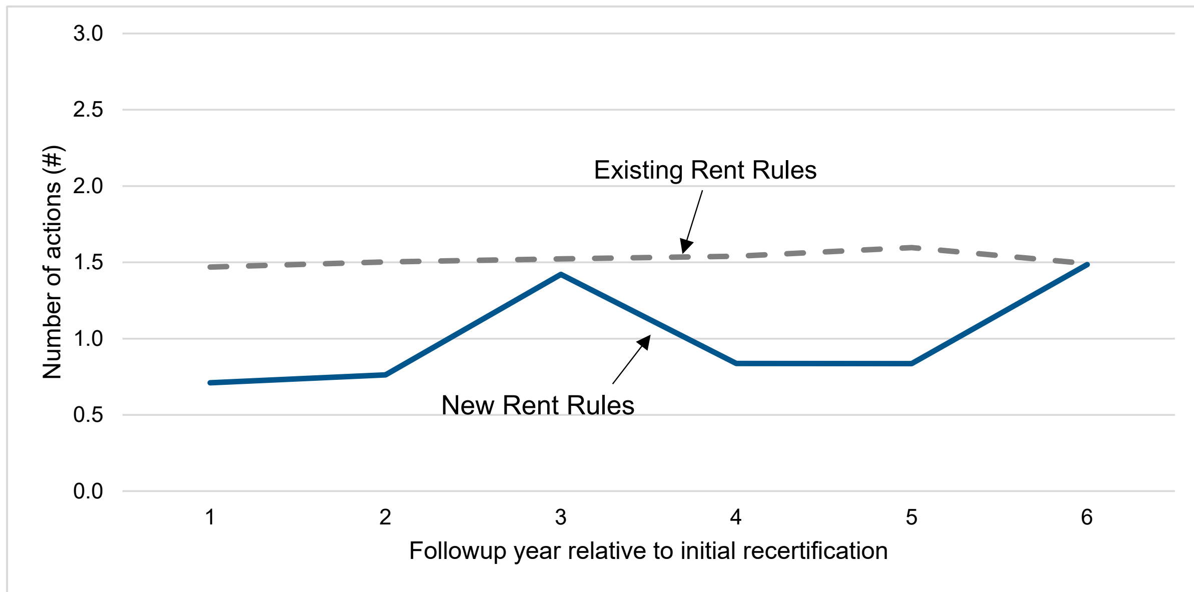
[101] The hardship rate for Louisville is based only on families who did not opt out of the new rent policy.

[102] The Housing Opportunities Through Modernization Act of 2016, among other changes and with some exceptions, eliminates the requirement for PHAs to take families' increased earnings into account in determining whether families' TTPs should be increased between annual recertifications (codifying an option that had previously been left to local PHA discretion). It also permits PHAs to forego interim reductions in TTPs if families' incomes fall by less than10 percent (or by a lower threshold set by the PHAs).

[103] For details on how retrospective income is determined, see Riccio, Deitch, and Verma (2017).

Exhibit 3.8. Average Number of Actions per Year Within First 78 Months of Followup: Lexington, Louisville, and San Antonio Combined, Heads of Household Enrolled in the Housing Choice Voucher Program



Notes: Louisville families who opted out of the study were excluded because their rent calculation was subject to existing rules.
Source: MDRC calculations using public housing agency data

Exhibit 3.9 compares the likelihood and frequency of these actions during the 6.5-year followup period for Lexington, Louisville, and San Antonio combined. For several key indicators, it examines actions for *all* families in each research group, including families who had exited the voucher program during that period, to assess the new rent policy's overall cumulative impact on staff actions (which requires comparing the results for all members of each research group). It should be kept in mind that families in the new rules group were in the voucher program for a longer period of time than the control group during the 6.5-year followup period, and consequently, being subject to formal actions was potentially higher, even though they were actually subject to fewer actions.

Exhibit 3.9. Impacts on Public Housing Agency Actions Within First 78 Months of Followup: Lexington, Louisville, and San Antonio Combined

Outcome (%)	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
Ever Had Type of Action (%)				
Any action that requires staff response[a]	88.1	90.1	-1.9**	0.031
Regularly scheduled recertification[b]	78.3	85.6	-7.3***	0.000
Had a year 3 regularly scheduled recertification[c]	74.4	67.4	7.0***	0.000
Had a year 6 regularly scheduled recertification[c]	57.4	50.9	6.5***	0.000
Move/change of unit[d]	38.0	33.0	5.0***	0.000
Interims[e]				
Decreased income	39.0	58.0	-19.0***	0.000
Restricted interim	12.8	n/a	- -	- -
Hardship exemption[f]	20.7	0.5	20.2***	0.000
Household composition change[g]	11.1	18.3	-7.2***	0.000
Increased income	14.2	43.4	-29.1***	0.000
Any household composition change	29.3	29.1	0.2	0.869
Contract rent change[h]	53.3	26.1	27.2***	0.000
Other action[i]	35.4	17.7	17.7***	0.000
Number of Actions				
Average number of actions	5.0	6.6	-1.7***	0.000
Any action that requires staff response[a] (%)			***	0.000
None	11.9	9.9	1.9	
1-2	17.6	12.5	5.1	
3-4	21.1	10.1	10.9	
5-6	16.9	13.9	3.0	
7-9	19.6	28.6	-8.9	
10 or more	12.9	25.0	-12.0	
Regularly scheduled recertification[b]			***	0.000
None	21.8	14.4	7.3	
1	20.6	11.1	9.5	
2	44.0	9.7	34.4	
3 or more	13.6	64.9	-51.2	

Outcome (%)	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Move/change of unit[d]				***	0.002
None	62.1	67.0	-5.0		
1	26.8	23.9	2.9		
2 or more	11.1	9.0	2.1		
Decreased income (%)				***	0.000
None	61.0	42.0	19.0		
1	22.7	26.5	-3.8		
2 or more	16.3	31.5	-15.2		
Increased income (%)				***	0.000
None	85.8	56.6	29.1		
1	10.0	20.5	-10.6		
2 or more	4.3	22.8	-18.6		
Any household composition change (%)					0.193
None	70.7	70.9	-0.2		
1	22.0	20.5	1.5		
2 or more	7.3	8.6	-1.3		
Contract rent change[h] (%)				***	0.000
None	46.7	73.9	-27.2		
1	19.8	18.3	1.6		
2 or more	33.5	7.8	25.7		
Other action[i] (%)				***	0.000
None	64.6	82.3	-17.7		
1	19.1	13.4	5.7		
2 or more	16.4	4.3	12.1		
Sample size (total = 4,756)	2,368	2,388			

[a] Certification actions that require staff interaction or other notable effort from staff include annual reexaminations, interim reexaminations (except for end-of-grace-period and end-of-hardship records), and change-of-unit actions.
[b] Regularly scheduled recertification reflects actions recorded as "Action code 2: annual reexamination" on the 50058 form. PHAs record all regularly scheduled reexaminations under this action code regardless of the frequency of reexamination: Annual, biennial, and triennial reexaminations are recorded under this action code.
[c] Year 3 and year 6 recertifications are the 'triennial' for the program group, excluding opt-outs, and the third and sixth annual recertification for the control group and opt-outs. The effective dates of the triennial recertification were approximately 36 and 72 months after the date that the new rent rules went into effect (the 'initial' recertification), respectively, although the exact timing varies for some households. For the program group, the triennial includes "2: annual reexamination" actions as well as other actions that may have substituted as the triennial, such as a "3: interim reexamination" or "7: change of unit." Some households did not have a triennial identified because they exited the program or did not have a triennial for other reasons. For the control group and opt-outs, if a household did not have a clearly identifiable regularly scheduled recertification in the third year, the record closest to the expected recertification date was chosen as an approximation.
[d] "Move/change of unit" actions reflect actions recorded as "Action code 7: other change of unit" on the 50058 form. If a move was recorded through an annual or interim action, it is not reflected in this outcome.
[e] Interims reflect all actions recorded as "Action code 3: interim reexamination" on the 50058 form, except interim reexaminations to end a grace period or hardship rent. Types of interim actions are not mutually exclusive. Any action is counted once in these measures. At the same interim certification event, a household may have reported changes in situation that fell into more than one of the categories displayed in this table.
[f] Households in the existing rent rules groups in Louisville were not subject to a minimum rent. Thus, there was no hardship exemption available to them. This only includes hardships received through an interim recertification.
[g] This outcome indicates a decrease in income that occurred at the same time that household composition changed. When household members are removed, so does their income.
[h] The "existing rent rules" group often has contract rent changes included in their annual reexaminations, and in that case the contract rent increase is not included in this category.
[I] Other actions include interims (or some other reason but not end of grace or hardship), which are difficult to classify from the available data.
Notes: PHA=public housing agency. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. Differences between the new rent rules group and the existing rent rules group were assessed using a two-tailed t-test for continuous variables and selected outcomes expressed as proportions. For categorical variables, a chi-square test was used to determine whether there is a difference in the distribution of related outcomes for the new rent rules group compared with the existing rent rules group. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. When categorical variables are part of a distribution, the statistical significance levels, which apply to the distribution, are shown above the distribution. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using public housing agency data.

By the end of that period, 85.6 percent of control group families in Lexington, Louisville, and San Antonio combined had completed a regularly scheduled, annual recertification. This rate was not 100 percent because, although these recertifications are required under traditional HUD rules, some families had exited the voucher program or moved to another PHA before they were due for their first annual recertification after their initial recertification at the beginning of the study. In other cases, the family moved to another unit, and the full income review conducted by the PHA when it processed that move (a “move action”) substituted for the annual recertification.

Among families in the new rules group, 78.3 percent had a regularly scheduled recertification—the triennial recertification after the initial recertification at study enrollment—a 7.3 percentage point reduction relative to the control group rate of 85.6.

A substantially larger reduction (about 19 percentage points) occurred for interim recertifications due to loss of income: 39 percent of families in the new rules group had an interim recertification for this reason compared with 58 percent of the control group.[104] Similarly, the new rent policy led to sizable reductions in the likelihood of interim recertifications for increased income (by 29.1 percentage points).[105] The latter finding is driven primarily by the results in Lexington and Louisville. As appendix exhibit A.1 explains, San Antonio's policy for the existing rule group (starting in 2017) did not require interim recertifications for increased income between annual reviews (an option that HUD left to the discretion of all PHAs). Consequently, whereas the new rent policy reduced interim recertifications for increased income by about 44 percentage points in both Lexington and Louisville, the reduction was only 6.9 percentage points in San Antonio (from a control group rate of 8.3 percent). (See appendix exhibit C.2.)

Although the new rent rules generally eliminated interim recertifications for increased income, some families in the new rules group (14.2 percent) had received such an action, including families in Louisville who opted out of the new rent rules. Based on examination of the data and discussions with the PHAs, various reasons explain why increases occurred for the new rules group, such as when another adult was added to the household, or the household moved. In Louisville, some interim recertifications may reflect corrections to triennial recertifications in the PHA's data system. Some cases may also reflect coding inaccuracies in the PHAs' data systems or, in a few instances, a misapplication of the appropriate rent rules.

At the same time, some types of actions were more frequent for the new rules group than for the existing rules group, thus offsetting somewhat the larger reduction in actions resulting primarily from the reduction in annual recertifications. Among these were staff actions to process changes in rent contracts with landlords, typically when landlords raised the rent. For control group families, these changes were usually addressed as part of the annual recertification process. For the new rules group, which was subject to triennial recertifications, changes in contract rents

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[104] Exhibit 3.9 shows that very few control group families received temporary hardship exemptions. It is important to note that hardship exemptions under the existing rent policy would apply to the minimum TTP. However, in Lexington, paying less than the minimum was not permitted except in rare instances involving a disability. In Louisville, the control group was not subject to a minimum TTP. However, even in San Antonio, where the control group minimum TTP was $50, very few control group families received a hardship exemption (see appendix exhibit C.2). This may be because it relied heavily on unrestricted interim recertifications to address income losses that made it difficult for families to pay the minimum rent. It is also important to note that for the new rules group the hardship remedies were intended to protect against excessive rent burden more generally, even among those who could afford more than the minimum TTP.

[105] The reasons for interim recertifications listed in exhibit 3.9 are not mutually exclusive. The same family could have had two reasons for an interim recertification, sometimes occurring concurrently (for example, in the control group, a change in household composition and an income increase). These actions are counted separately, except in "number of actions requiring staff response" measures.

during the 3-year period required a separate action. These actions primarily required staff to determine whether the increase was reasonable, update the contract rent amount, apply any updates in payment standards and utility allowances, and notify the landlord and tenant about the changes to the rent calculations. This type of action does not require a review of a family's income, which is one of the more time-consuming aspects of processing recertifications.

Overall, under the new rent policy, the average number of actions taken up by staff decreased by 1.7 during the followup period—6.6 for the existing rules group versus 5 for the new rules group (exhibit 3.9)—despite the fact that the new rules group remained in the voucher program longer. Moreover, much of the reduction occurred among families likely to have a moderate or high number of actions. For example, the new rent policy reduced the likelihood of five or more actions by 18 percentage points. And it reduced the likelihood of 10 or more actions by 12 percentage points. The frequency of PHA actions was reduced the most for three types: (1) regularly scheduled recertifications, (2) interim recertifications for reductions in income, and (3) interim recertifications for increases in income. These three actions were generally the most time-consuming actions for staff, because they required reviewing household income to enable the PHA's software system to recalculate TTPs and subsidies.[106]

Exhibit 3.10 provides additional information on the changes in the number of PHA staff actions—taking into account that families in the new rules group remained in the voucher program longer than the existing rules group. It only compares families in each research group who remained in the voucher program through month 78. The top panel shows that, on average, families in the new rules group were recipients of staff actions for a smaller fraction of the time than the control group (7.2 percent of their months on the program compared with 11 percent, respectively). The bottom panel shows that not only did the new rules group initiate a lower number of staff actions overall, but most of the reduction was also driven by a reduction in the proportion of families likely to have a high number of actions. For example, among those who were still receiving vouchers at the end of the followup period, 71.5 percent of those in the new rules group had received five or more actions, compared with 98.4 percent of the control group (a reduction of about 27 percentage points). Moreover, 18.5 percent of those in the new rules group had received 10 or more actions, compared with 43.4 percent of the control group (a reduction of about 25 percentage points). Because the characteristics of families who remained in the voucher program longer may differ across the two research groups, estimates of impacts were not calculated in this exhibit.

[106] The time estimates for various staff actions were collected for the cost analysis, as discussed in chapter 6.

Exhibit 3.10. Public Housing Agency Actions Per Month of Voucher Receipt Within First 78 Months of Followup: Lexington, Louisville, and San Antonio Combined

Outcome (%)	New Rent Rules	Existing Rent Rules
Percentage of months with any formal staff actions while enrolled in HCV program[a] (%)	*7.2*	*11.0*
Number of Actions During Full Period, if enrolled in HCV program in Month 78		
Average number of actions	*6.6*	*9.5*
Any action that requires staff response[a] (%)		
None	*0.5*	*0.3*
1-2	*6.6*	*0.4*
3-4	*21.5*	*0.9*
5-6	*23.7*	*10.7*
7-9	*29.3*	*44.3*
10 or more	*18.5*	*43.4*
Sample size (total = 4,544)	2,156	2,388

[a] Certification actions that require staff interaction or other notable effort from staff include annual reexaminations, interim reexaminations (except for end-of-grace-period and end-of-hardship records), and change-of-unit actions.

Notes: HCV=Housing Choice Voucher. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. Sample sizes for specific outcomes may vary because of missing values. Outcomes shown in italics are nonexperimental. Statistical significance tests were not conducted on nonexperimental outcomes. Nonexperimental measures exclude the Louisville sample members who declined to participate in the study (or opt-outs).

Source: MDRC calculations using public housing agency data.

These patterns vary substantially across the three PHAs, as shown in appendix exhibit C.2. In reviewing these results, it is necessary to keep in mind the differences across the PHAs in the policies that applied to the control group. In Lexington, Louisville, and San Antonio, control group families remained subject to most traditional HUD requirements, including an annual schedule for regular recertifications. However, these three PHAs had different reporting requirements for control group families whose incomes increased between those annual recertifications.[107] Note that in Louisville, some staff actions for the new rules group related to the application of the existing rent rules for families who opted out.

[107] See appendix exhibit A.1.

As with the three-PHA pooled sample, the likelihood of having a high number of actions was lower for families in the new rent rules group if they were still receiving vouchers at the end of the followup period. The reduction was greatest in San Antonio: only 50.8 percent of the new rules group still in the voucher program had five or more actions, compared with 98.3 percent of the control group. The difference was also large in Lexington (66.9 versus 99.1 percent). However, there was virtually no difference in Louisville (97.8 versus 99 percent). At the same time, even in Louisville, the new rules group was less likely to have 10 or more actions (44.5 percent versus 62.8 percent). The smaller difference in Louisville may reflect, in part, the substantial proportion of families in the new rules group who opted out of the new rent policy, and the high proportion of those who did not opt out who received hardship remedies, which required staff actions. This PHA's larger positive impact on families' length of stay in the voucher program may have been another contributing factor. In Lexington, the likelihood of 10 or more actions was only 5.8 percent for the new rules group still receiving vouchers through month 78 compared with 67.9 percent for the control group. In San Antonio, the corresponding proportions were 1.2 percent versus 13 percent.

Conclusion

The new rent policy changed families' experiences with the HCV program. On average, the new policy slowed the pace at which families exited the voucher program, leaving a higher proportion of families in the new rules group than the control group still in the voucher program by the end of the 6.5-year followup period for this report. These effects resulted in an increase in the average cumulative amount of housing subsidy received by the new rules group during the followup period—an effect that was consistent with the policy's intent to support work, especially early on. This effect was largest prior to the first triennial recertification. In the later months of the followup period, the positive impact on subsidies persisted (largely reflecting the new rules group's longer persistence in the voucher program) though it became smaller as the families in the new rules group had their TTPs adjusted after the first triennial recertification.

The new policy reduced the likelihood of certain types of transactions with staff, especially the most time-consuming ones that involved income reviews for adjustments to TTPs and subsidies (for example, annual recertifications and interim recertifications as a result of increases or decreases in family income). It also reduced the likelihood of families having a high number of interactions with staff. Although some aspects of the new rent rules, such as the reliance on retrospective income and application of safeguards to protect families from hardship, could increase PHA administrative burden, the reduction in time-consuming formal actions and multiple actions per family helped to reduce that administrative burden.

The safeguards included in the new policy were used by many families, testifying to their importance. These features were intended to help ensure that the new rent policy, despite its minimum TTPs, elimination of deductions, restrictions on interim recertifications, and reliance

on retrospective income in calculating TTPs, would not cause more families to experience financial hardships.

Chapter 4

Impacts on Other Government Benefits and How Families Fared After Leaving the Voucher Program

When assessing a policy designed to help families progress toward greater economic well-being through work, it is important to consider its effects on families' receipt of income-conditioned (or "means-tested") public benefits, including welfare and other income transfers as well as housing subsidies. This is because increases (or decreases) in earnings may cause corresponding changes in those benefits, thus affecting a family's overall income and resources. Chapter 3 examines how the new rent policy affected the amount of housing subsidy that voucher holders received. The current chapter examines the new policy's effects on two other important income-conditioned benefits: Temporary Assistance for Needy Families (TANF), commonly known as "welfare," and the Supplemental Nutrition Assistance Program (SNAP), commonly known as "food stamps," both of which are intended to assist low-income families.

This chapter also draws on data collected from the Homeless Management Information System used in localities around the country to track the reliance on homeless shelters and other housing for people experiencing homelessness and their receipt of homelessness services. For this evaluation, MDRC matched the Rent Reform Demonstration full impact sample to the Homeless Management Information System (HMIS) database for each study site to determine whether the new rules group was any more likely than the existing rules group to use homeless services.

Overall, only a small proportion of the families enrolled in either group in the Rent Reform Demonstration in the Lexington, Louisville, and San Antonio public housing agencies (PHAs) combined used TANF. However, nearly all families received SNAP benefits at some point over the followup period. At the same time, SNAP receipt declined steadily over time, presumably reflecting the steady increase in earnings among both research groups described in chapter 2. Very few families in either research group received assistance from the homelessness system.

The new rent policy produced few statistically significant positive or negative effects on the receipt of these benefits, either for the pooled sample or the PHA-specific samples. (PHA-specific results are presented in appendix D.)

This chapter also examines the circumstances of families who left the Housing Choice Voucher (HCV) program—referred to here as "leavers"—in the 3 years after they left the program. Tracking the experiences and trajectories of leavers may help show whether losing access to such an important safety-net benefit was detrimental to many families, and whether changes in how PHAs address these transitions may be warranted. For example, if many families ended up using homeless services soon after exiting the voucher program, that may indicate a need for special assistance for certain vulnerable families.

Overall, the analysis found that voucher holders who exited the HCV program did not fare worse in terms of employment, earnings, benefit receipt, and various indicators of material and financial hardship than when they were receiving vouchers, or when compared with families who continued to receive vouchers during the study's followup period (referred to here as "stayers"). In fact, on average, their earnings improved somewhat—an outcome consistent with the observation in chapter 3 that many families (though not the majority) exited the voucher program because of increased income. At the same time, their earnings remained low. Only a very small proportion of leavers used homelessness services after exiting the program. These patterns, of course, do not mean that no families experienced more hardship after leaving the voucher program, but only that that was not a common case.

TANF and SNAP Receipt

Nationally, a relatively small proportion of HCV families are TANF recipients, but most receive SNAP benefits (Eggers, 2017). The same is true among families in the Rent Reform Demonstration.

Because TANF and SNAP benefits are income-conditioned, an intervention that changes tenants' earnings and income should eventually lead to changes in their receipt of those benefits. The new rent policy had no statistically significant impacts on families' receipt of TANF or SNAP benefits during the 6.5-year followup period. This is not surprising, given the absence of large statistically significant increases in family earnings, and (according to the 4-year survey) on overall income.

Among all Lexington, Louisville, and San Antonio families combined, TANF receipt was already extremely low: Only about 7 percent of families in the new and existing rules groups had ever received TANF during the followup period, as exhibit 4.1 shows. Average benefit amounts received per family were also quite small. (These averages include zero values for families who did not receive TANF.[108]) This same general pattern is evident in each of the three PHAs when examined separately (appendix exhibit D.1). Overall, the very low reliance on TANF among families in these three PHAs left little room for the new rent policy to reduce them much further, even if the policy had a positive impact on earnings.

[108] Among recipients in the new rules group who received any TANF benefits, the amount received averaged $2,181 over the entire followup period. This amount is obtained by dividing the average total amount received ($157) by the receipt rate (.072) as shown in exhibit 3.1.

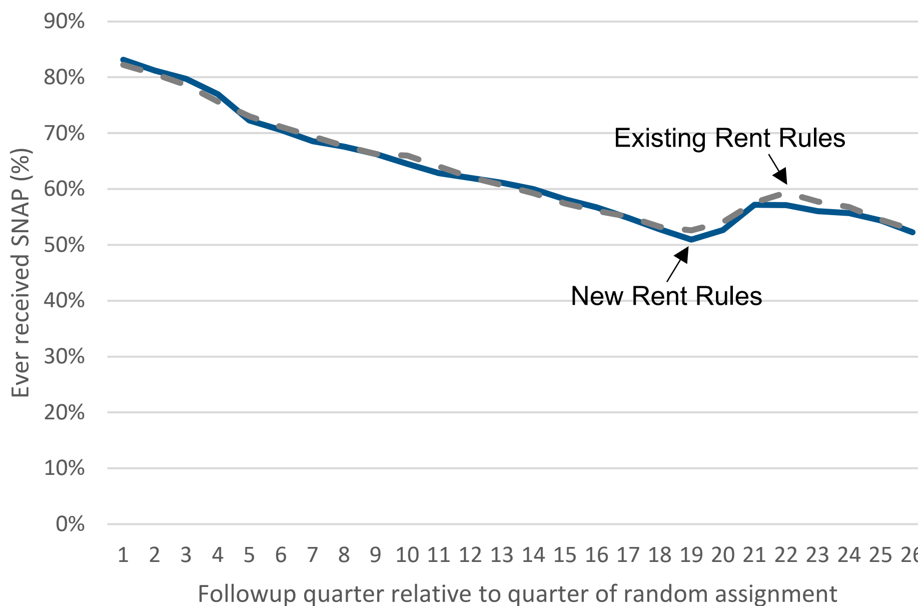
Exhibit 4.1. Impacts on Household Temporary Assistance for Needy Families and the Supplemental Nutrition Assistance Program Benefit Receipt Within the First 78 Months of Followup: Heads of Households in Lexington, Louisville, and San Antonio Combined

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
TANF receipt				
Full period (quarters 3-28)				
Ever received (%)	7.2	6.8	0.4	0.575
Average quarterly receipt (%)	1.0	1.2	-0.2	0.294
Amount received ($)	157	200	-42	0.120
Last quarter (28)				
Ever received (%)	0.4	0.8	-0.4**	0.046
Amount received ($)	2	9	-6*	0.052
SNAP receipt				
Ever received (%)				
Year 1 (quarters 3-6)	83.4	83.4	0.0	0.981
Year 2 (quarters 7-10)	75.1	75.2	-0.1	0.949
Year 3 (quarters 11-14)	70.3	70.0	0.4	0.771
Year 4 (quarters 15-18)	64.7	64.5	0.2	0.850
Year 5 (quarters 19-22)	65.9	67.6	-1.6	0.213
Year 6 (quarters 23-26)	62.3	63.8	-1.5	0.266
Full period (quarters 3-28)	91.8	91.0	0.8	0.281
Last quarter (28)	44.3	45.2	-0.9	0.519
Average quarterly receipt (%)				
Year 1 (quarters 3-6)	74.9	74.6	0.3	0.801
Year 2 (quarters 7-10)	66.7	67.3	-0.6	0.605
Year 3 (quarters 11-14)	61.5	61.5	0.0	0.971
Year 4 (quarters 15-18)	55.6	55.4	0.2	0.882
Year 5 (quarters 19-22)	54.5	55.9	-1.4	0.241
Year 6 (quarters 23-26)	54.6	55.4	-0.9	0.496
Full period (quarters 3-28)	60.2	60.7	-0.4	0.636
Amount received ($)				
Year 1 (quarters 3-6)	3,652	3,635	17	0.819
Year 2 (quarters 7-10)	3,215	3,275	-60	0.448
Year 3 (quarters 11-14)	2,857	2,869	-12	0.875
Year 4 (quarters 15-18)	2,479	2,503	-24	0.754
Year 5 (quarters 19-22)	2,652	2,766	-113	0.162
Year 6 (quarters 23-26)	3,325	3,395	-70	0.491
Full period (quarters 3-28)	19,761	20,030	-269	0.553
Last quarter (28)	738	745	-7	0.819
Sample size (total = 4,756)	2,368	2,388		

Notes: TANF = Temporary Assistance for Needy Families. SNAP = Supplemental Nutrition Assistance Program. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. A two-tailed t-test was applied to the differences between research group outcomes. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Rounding may cause slight discrepancies in sums and differences. SNAP = Supplemental Nutrition Assistance Program. Dollar averages include zero values for sample members who did not receive TANF or SNAP.
Source: MDRC Calculations using administrative records data

In contrast to TANF, most families in the Rent Reform Demonstration received SNAP at some point during the 6.5 years of follow up—approximately 91 percent in each research group, with Lexington, Louisville, and San Antonio combined. However, the receipt rate dropped sharply over time for both research groups. Exhibit 4.1 shows the receipt patterns year-by-year, and exhibit 4.2 graphically depicts the generally downward trends. For example, while 83.4 percent of household heads in the new rules group received SNAP in the first followup quarter, this rate fell by almost half, to 44.3 percent, by the last quarter of that period (Quarter 28). The total (cumulative) average value of SNAP benefits received during the full 6.5-year followup period (counting zero for families who had not received those benefits) was $19,761. (This amount translates to a total average value of $21,526 per family that had received SNAP at any time during the followup period.) The control group experienced a very similar pattern, and there were no noteworthy differences in the results across the three PHAs.

Exhibit 4.2. Quarterly Impacts on the Supplemental Nutrition Assistance Program Receipt



Notes: SNAP = Supplemental Nutrition Assistance Program. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Differences between research groups were not statistically significant.
Source: MDRC calculations using public assistance records

Use of Homeless Shelters and Services

The evaluation uses data collected from the HMIS to assess the policy's effects on the receipt of homelessness services.[109] The sample for the Rent Reform Demonstration was matched to the HMIS database for each study site to determine whether the new rules group was any more likely than the existing rules group to use such services. The analysis focuses on the heads of households in each group.

For the three-PHA pooled sample, a small number of household heads in either the new rent rules group or the existing rules group had received housing assistance for individuals or families experiencing homelessness. Roughly 7 percent in both groups had spent at least one night in housing designated for people who experienced homelessness or in an emergency shelter or had received other types of homelessness-related housing assistance at any time during the 6.5 years of followup (not shown).[110] Appendix D also shows that the use of any homelessness services appears to be somewhat higher in San Antonio than in the Lexington and Louisville, though comparable for the two study groups (13 percent for the new rules group and 13.4 percent for the existing rules group).[111]

Outcomes for Families After Exiting the Housing Choice Voucher Program

By the end of the followup period, 1,969 study families in the New Rent Rules and Existing Rent Rules had exited the HCV program, according to PHA records. This section examines the employment, earnings, use of homelessness services, and public benefit receipt outcomes from administrative records for all study families who left the HCV program (leavers) during the study period. Additionally, based on the 42-month followup survey, measures covering self-reported employment, material hardship, and financial well-being of leavers vs. stayers in the HCV program were examined. It is important to note that the families who exited the new rules group may differ in important and unmeasurable ways from those who exited the control group, so this analysis does not estimate the impacts of the new rent policy on post-exit outcomes among those who exited. Moreover, the pattern of results for leavers is very similar for the new rules group

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[109] As explained on HUD's website, "A Homeless Management Information System (HMIS) is a local information technology system used to collect client-level data and data on the provision of housing and services to homeless individuals and families and persons at risk of homelessness. Each Continuum of Care is responsible for selecting an HMIS software solution that complies with HUD's data collection, management, and reporting standards" (HUD Exchange, 2019).

[110] A stay is defined as an individual's use of any of the following types of housing assistance: emergency shelter, transitional housing, safe haven, or various forms of permanent housing, such as permanent housing without services, permanent housing with services, permanent supportive housing, or rapid re-housing.

[111] Use of a service is defined as an individual's use of any of the following services: street outreach, day shelter, homelessness prevention, coordinated assessment, services only, or other project type. "Services only" and "other" project types indicate that the project only provides services, not including street outreach. "Services only" projects have associated housing outcomes while "other" projects provide "stand alone supportive services" (HUD, 2018).

and the existing rules group. For both of these reasons, the analysis here focuses on the sample of leavers from each of those groups combined.

Nationally, in 2019, 321,854 families exited the HCV program (Bachand and Helms, 2021). Some efforts have been made to understand the experiences and outcomes of those families (Smith, et al., 2015; McInnis, Buron, and Popkin, 2007; Kang, 2020; Bachand and Helms, 2021). Studies have found that leavers have higher incomes compared with families still receiving housing assistance, but the outcomes varied depending on the reasons for exiting. For example, the top reasons families exited the HCV program were finding employment and increased earnings, wanting to live independently without government assistance, dissatisfaction with the program requirements or rented unit, or personal or family issues. However, leaving the voucher program without first securing affordable housing has been found to lead to housing instability or homelessness. Furthermore, leavers have also been found to have fluctuating incomes, which makes the transition to unsubsidized housing precarious.

Using the data for families in the Rent Reform Demonstration, this analysis examines leavers' outcomes for each of the first 3 years after exiting the voucher program and compares their post-exit outcomes with their outcomes in the year before exiting. (Thus, the sample only included heads of households with at least three years of post-exit followup data.) Exhibit 4.3 shows that the majority of leavers (77 percent) were employed prior to exit, and employment rates remained stable 3 years after exit. Among leavers who were employed, earnings gradually increased over time after exiting the program. However, earnings remained low, at only $24,592 in the third year after leaving the HCV program.

As expected, only a very small percentage of leavers used homeless services before exiting the program. This likely occurred in emergency situations, such as domestic violence dispute or other unforeseen circumstances. The percentage of leavers who received homelessness services during the first year following their exit increased somewhat, although it remained quite low (about 2 percent). The patterns for public benefit receipt show a gradual decrease in SNAP and TANF receipt after exit. This trend resembles what was observed for the full study sample (see Exhibit 4.1).[112]

Exhibit 4.4 shows employment and material hardship by leavers and stayers at the time of the 42-month survey. The leavers include all household heads who had left the voucher program at least 1 year prior to the time of the survey interview, according to the survey or PHA housing

[112] The separate results for families in the new rules group and in the control group who left the HCV program are very similar to the results for both groups combined. Specifically, about three-quarters of new rules group leavers and the control group leavers were employed in the year preceding their exit (not shown). In the third year after exiting the program, new rules group leavers earned $24,072, while control group leavers earned $25,043. Additionally, for leavers in both research groups, SNAP receipt decreased over time through the third year of their post-exit.

Exhibit 4.3. Employment, Earnings, Receipt of Homelessness Services, and Receipt of Public Assistance Among Heads of Households Before and After Exiting the Housing Choice Voucher Program: Lexington, Louisville, and San Antonio Combined

Outcome	Leavers
Ever employed (%)	
Year prior to exit	76.8
First year after exit	76.7
Second year after exit	76.6
Third year after exit	75.5
Average quarterly employment rate (%)	
Year prior to exit	66.3
First year after exit	67.1
Second year after exit	67.1
Third year after exit	65.9
Average earnings, if employed ($)	
Year prior to exit	18,801
First year after exit	21,743
Second year after exit	22,757
Third year after exit	24,592
Use of homelessness services	
At least one night stay (%)	
Year prior to exit	0.4
First year after exit	2.0
Second year after exit	2.1
Third year after exit	1.4
Ever received SNAP (%)	
Year prior to exit	65.4
First year after exit	47.7
Second year after exit	46.6
Third year after exit	43.4
Ever received TANF (%)	
Year prior to exit	2.9
First year after exit	1.4
Second year after exit	1.2
Third year after exit	1.2
Sample size	1,591

Notes: TANF = Temporary Assistance for Needy Families. SNAP = Supplemental Nutrition Assistance Program. Rounding may cause slight discrepancies in calculating sums and differences. Sample sizes for specific outcomes may vary because of missing values. Sample includes only families with at least 3 years of followup data.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires, public assistance, Homeless Management Information System, and public housing agency data.

Exhibit 4.4. Employment and Material Hardship Among Heads of Households Who Responded to 42-Month Survey, by Exit Status: Lexington, Louisville, and San Antonio Combined

Outcome	Leavers	Stayers
Employment		
Employed at the time of the survey interview (%)	75.0	54.9
Self-employed at the time of the survey interview (%)	4.5	4.7
Material Hardship		
Any material hardship in the 12 months prior to interview[a] (%)	58.5	65.9
Average number of material hardships in the 12 months prior to interview	1.5	1.5
Material hardship score[b]	3.6	3.7
Difficulty paying commonly recurring monthly bills (%)		
Did not pay full rent	22.3	17.3
Utility service turned off for nonpayment of bill	21.3	16.7
Telephone service turned off for nonpayment of bill	28.0	30.5
Difficulty obtaining health care and food (%)		
Did not buy prescription drugs because of cost	20.2	20.6
Did not see a doctor or get medical assistance because of cost	24.2	25.2
Did not buy food because of cost	33.4	39.2
Any severe material hardships in the past 12 months[c] (%)		
Did not pay full rent or mortgage	5.5	5.8
Did not pay utility bill	1.8	1.0
Did not pay telephone bill	5.6	6.5
Did not buy food	13.6	14.6
Has no reliable vehicle (%)	17.7	32.5
Food Security and Hunger		
Food security (1=low, 4=high)[d]	3.2	3.0
Sometimes or often did not have enough to eat last month (%)	20.7	25.1
Household member skipped a meal due to lack of money for food last month (%)	25.3	27.5
Average number of months in the past year where household member skipped a meal due to lack of money for food (%)		
0 months	75.4	73.4
1-3	17.1	16.1
4-6	5.6	5.7
7-12	1.9	4.7

Outcome	Leavers	Stayers
Financial Well-Being		
Financial situation is better than last year (%)		
Strongly agree	22.1	11.9
Agree somewhat	29.4	25.7
Neither agree nor disagree	16.8	23.3
Disagree somewhat	12.3	15.1
Strongly disagree	19.4	24.2
Financial situation at the end of each month (%)		
Has money left over	15.4	5.6
Has just enough money to make ends meet	54.2	52.5
Does not have enough money to make ends meet	30.4	42.0
Sample size (total = 3,383)	581	2,802

[a]Includes hardships related to food, shelter, recurring monthly utility and phone bills, and medical care.
[b]The material hardship score is a cumulative hardship scale that reflects the average number of months of reported hardships within the last 12 months. The measure incorporates frequency of hardships related to food, shelter, recurring monthly utility and phone bills, and medical care.
[c]Severe material hardship is defined here as a hardship lasting four or more months.
[d]The food security question describes the availability of food eaten by the family in the prior month: 1= Often not enough to eat; 2 = Sometimes not enough to eat; 3 = Enough to eat but not always the kinds of food desired; 4 = Enough to eat of the kinds of food desired.
Notes: Rounding may cause slight discrepancies in sums and differences. Sample sizes for specific outcomes may vary because of missing values. A total of 28 percent of the leavers who exited the HCV program less than a year prior to the survey interview were excluded from the analysis.
Source: Rent Reform Four-Year Followup Survey and public housing agency data

records.[113] Thus, they are a subset of all the household heads who left the program by the end of the 6.5-year followup period (N=581). Seventy-five percent of the leavers were employed at the time of the survey interview, compared with 55 percent of the stayers. Only a very small proportion of either group (roughly 5 percent) reported being self-employed. A higher percentage of leavers reported that their financial situation was "better than last year" (51.5 percent) compared with stayers (37.6 percent). Furthermore, a higher percentage of leavers also stated that they had more money left over at the end of the month compared with stayers. A higher percentage of leavers also reported owning a home or apartment at the time of the interview (14 percent versus 1 percent; not shown in exhibits).

Several hardship outcomes at the time of the 42-month survey interview were similar between leavers and stayers with a few exceptions. For example, leavers were less likely than stayers to

[113] A large percentage of survey respondents were not asked their exit status during the survey interview; therefore, the PHA data were used when survey data were missing.

report having experienced a material hardship in the prior year, more likely to have a reliable vehicle, and somewhat more likely to have had difficulty paying for rent in the year prior to the interview. However, the overall results do not suggest a pattern of greater hardship among leavers than stayers.

Conclusion

The current chapter examines the effects of the new rent policy on the receipt of TANF and SNAP benefits, as well as the use of homeless services. The findings show that the new rent policy had no statistically significant impacts on TANF or SNAP receipt rates or on the amount of benefits received, or on the use of homelessness services. The results also show that very few families used homeless services, and that TANF receipt rates were also very low. Although most families used SNAP at some point during the followup period, the receipt rate fell substantially for both research groups by the end of the followup period.

This chapter also examined outcomes for families who exited the HCV program. Leavers reported on the survey of household heads that their financial situation improved compared to those who stayed in the voucher program. Leavers were also more likely to be employed and had slightly higher earnings. In general, there was no clear evidence that leavers overall were worse off after exiting the voucher program, and, in some respects, they were better off. Nevertheless, leavers continued to face economic challenges similar to those who remained in the HCV program. This is not surprising, considering that employed leavers were earning only $24,592 in the third year after leaving the program.

A limitation of this analysis is that it does not examine outcomes for families who left the voucher program according to their reasons for leaving. Past research has found that outcomes varied depending on whether exits were “positive” or “negative.” However, categorizing exits into these types using available PHA data from this study would have likely led to many families being incorrectly categorized. Future research on this topic would thus benefit from better data on voucher holders’ exit reasons.

Chapter 5

Experiences with the Alternative Rent Policy: Reflections from Staff and Families

Understanding the experiences and perspectives of the public housing agency (PHA) staff who operated the alternative rent rules for the Housing Choice Voucher (HCV) program and of the families who were subject to those rules is critically important for assessing the innovations tested as part of the Rent Reform Demonstration. Staff had to learn the details of the new policy, communicate the new rules to families, calculate TTPs and housing assistance payments in software systems modified to accommodate the new rules, and followup with families as they learned how these rules applied to them.[114] Families, too, had to be educated in the new policy and adapt themselves to rules quite different from what they were used to. This chapter draws on qualitative data to get behind the statistics and learn more about the new policy through the eyes of the staff and families who experienced it on the ground. It explains what features of the new policy were more appealing or less appealing, compared with the existing policy, and it offers insights relevant to the rent reform goals of increasing tenants' employment and earnings, reducing the administrative burden on staff and families, and avoiding increases in families' material hardship.[115]

The chapter draws on observations from in-depth interviews of staff and heads of households conducted at various times during the evaluation period, including a final round completed in the Lexington, Louisville, and San Antonio PHAs—the three agencies that operated the new rent rules for the full six years of the demonstration's policy implementation phase.[116] For staff, the final round of interviews was conducted right after the PHAs had formally ended their participation in the demonstration and had mostly transitioned the families in the new rent rules group to their agencies' current rent policies. For families, the final interviews were conducted roughly 6 to 12 months after their participation in the Rent Reform Demonstration had ended (with the exception of those in Lexington, where the PHA adopted the new rent rules as part of its agency-wide policy).[117] These final interviews, conducted in mid-2022, allowed staff and participants to reflect on the full 6 years of

[114] Earlier reports on the Rent Reform Demonstration document the start-up phase, the operational details that the PHAs and staff focused on, the types of software modifications that were required for PHA systems to support the new rent policy implementation, and the type of technical assistance provided by MDRC. See Olejniczak and Azurdia (2024) for their technical assistance summary report.

[115] Frontline staff were also responsible for explaining the evaluation to families and how it would affect them. See Riccio, Deitch, and Verma (2017) for more details on staff training and how staff informed families about the new rent policy, their assigned rent group, and the evaluation process.

[116] As noted earlier, District of Columbia Housing Authority ended its participation in the demonstration in 2019 at the end of the first triennial.

[117] The first round of interviews was conducted in mid-2016, roughly a year after the PHAs had started recertifying households under the new rent rules. The second round was conducted in late 2018 and coincided with the triennial recertification for families' coming up on their 3-year mark. The third and final round was conducted in mid-2022.

the demonstration, and on various aspects of the policy tested.[118] The chapter also selectively draws on some relevant experiences and perspectives documented in previous reports on this demonstration. It addresses the following questions:

- Overall reactions to the new rent rules: What did staff and participants find most appealing or most challenging?
- How did participants view the policy's financial incentive and its influence on their decisions about work?
- How did staff describe their experiences implementing hardship protections? Did participants understand the various protections and safeguards available to them?
- Did the new rent policy raise any concerns among landlords?
- Did the PHAs choose to continue the new rent policy, or any features of it, after the demonstration ended?

The chapter shows that some features of the new rent policy were extremely popular with both staff and families, and the operational areas of the policy that were reported to be challenging at the start remained so through the end. The operational experiences that remained challenging over the course of the demonstration were important factors that influenced the choices the PHAs made about adopting the new rent rules as part of their ongoing rent policy. Overall, families preferred the alternative rent rules for a variety of reasons described below, but they also spoke about the ways in which certain features of the policy were more complicated, and the extent to which they could or could not take advantage of its generous financial incentive.

Overall Reactions to the New Rent Policy

At a broad level, staff seemed to appreciate the simplified aspects of the new rent policy, such as the elimination of deductions, the simplified utility policy, and the triennial recertification period. The retrospective income feature of the policy continued to be daunting until the end. The designers of the new policy assumed that certain aspects of the policy, especially those focused on simplification and streamlining, would reduce staff burden, but also recognized that some of the features would increase staff burden. Exhibit 5.1 briefly summarizes the operational experiences assumed in the design of the alternative rent rules and the overall experiences voiced by

[118] A total of 11 PHA staff were interviewed for the final round, including HCV specialists who had worked with families in the new rent rules group and supervisors and administrators in each site. The final interviews focused on participants who were active in the voucher program in August–September 2022 and represented different work statuses over the course of the demonstration. Sixty interviews were conducted with heads of households across the three sites, as planned.

Exhibit 5.1. New Rent Policy Expectations for Staff Burden and Reported Experiences

Component	New Rent Policy	Implementation Expectations	Implementation Experiences
Total Tenant Payment (TTP)	28 percent of gross monthly retrospective income, with no deductions or allowances.	Eliminating deductions or allowances would simplify calculations. Retrospective income calculation may impose burden but would vary by families' work history and ability to produce documentation.	Consistent with expectation, elimination of deductions/ allowances reduced staff burden, but obtaining and verifying retrospective income was reported to be more burdensome for some types of families than anticipated.
Minimum TTP	All families pay a minimum amount of rent directly to their landlords.	Minimal computational burden. Potential communication burden for staff (clarify policy for families and landlords).	Experience consistent with expectation. No additional or unusual communications were needed with landlords.
Assets	Family income from assets ignored for assets less than $25,000; no documentation needed.	Simplifies income calculation and reduces administrative burden on public housing agencies.	Few families meet this higher threshold, but staff appreciated this change.
Recertification Period	Triennial recertifications. Earnings gains do not increase TTP for 3 years (that is, until the next triennial recertification).	Reduces administrative burden and staff time by greatly decreasing the adjustments to family TTP when income rises between recertifications.	Experience mostly consistent with reduced burden expectation. Because of interims and hardship requests, cases were touched more frequently than expected.
Interim Recertifications When Income Changes	Interim recertifications are limited to one per year, eligibility permitting.	Reduces the volume of interims conducted. Some interim eligibility-related determination burden.	Until families understood the interim recertification policy, staff report processing more requests than anticipated.
Utilities	A simplified utilities policy	Reduces administrative burden related to calculating utilities payments.	Staff found this change a time saver.
Hardship Policy	Families can qualify for hardship remedies.	Hardship reviews may add some administrative burden.	Staff reported higher than expected volume of hardship requests
Grace Period	At triennial recertification, eligible families will automatically be granted a grace period.	Grace period status determination is automated. Limited computational burden on staff.	Consistent with expectation. Limited computational burden on staff, but some followup with families' needing clarification about the temporary grace period.

staff over the course of the demonstration. For the most part, the design assumptions aligned with actual implementation experiences, but important nuances (or departures) stand out.

Triennial recertifications appealed to staff and administrators from the start. They described how families could benefit from this 3-year window to grow their earnings and not worry about having to report those changes to the housing agency. It spared both staff and families of having to go through the process of annual recertifications, which they liked. As one staff member put it:

> I think it gives people more freedom to go out and work without having to worry about losing the stability of their Section 8. And then by the time it's [time] for their recertification again, then they're already, you know, stable enough to where, you know, if they didn't qualify for the program, then they would be able to, you know, take care of that themselves.

Despite the relief for staff created by the switch to triennial recertifications, that new provision did not mean it was all hands off the files for three years at a time. Staff reported having to "touch" many files in the years between triennial recertifications, as lease renewals came up, as families decided to move and use their vouchers on a different unit, and as families required interims or hardship remedies for loss of income. Staff at San Antonio, in particular, spoke about processing a high volume of moves and interims and hardships requests, which they reported as being more burdensome under the new rules.

Policy modifications instituted halfway through the demonstration helped ease implementation burden. A set of policy modifications was introduced around mid-2020 in response to implementation issues initially raised by San Antonio. Based on discussions with HUD, these modifications (see Box 5.1), which were intended to reduce staff burden, were offered to all the PHAs in the demonstration. Lexington adopted the modification that allowed staff more flexibility with the retrospective income verification hierarchy. Louisville

Box 5.1: Policies modified in 2020

Allowing for more income imputations (e.g., using cumulative earnings shown on a recent paystub) and self-certification of prior income in the calculation of retrospective income.

Basing the shopping estimate on retrospective income from the last recertification to estimate the shopping allowance and to calculate Total Tenant Payment instead of current income.

Allowing use of prior-year tax returns under certain conditions as evidence of prior-year income.

Eliminating the provision that requires a reduction of 10 percent or more in retrospective income to qualify for the one-per-year restricted interim.

dropped the 10 percent reduction in retrospective income rule for processing restricted interims. San Antonio adopted them all.

Obtaining retrospective income documentation from some families remained challenging. Staff perspectives on the operational ease of the rent policy were generally colored by one feature of the alternative rent rules: the 12-month retrospective income look-back requirement for calculating TTPs (for triennial and interim recertifications). At the start of the demonstration, the PHAs worked with their respective software developers to modify their data systems to accommodate the new rent calculation. But while the software systems were adapted to support the new rent calculation, the process of obtaining the income documents necessary to verify families' retrospective income (an issue raised as a challenge in earlier evaluation reports) remained a concern over the full demonstration period.

Under the new rent rules, families were required to document countable income received from all jobs and all other sources in the 12-month period leading up to the recertification meeting. Families were notified of this requirement in their mailed recertification packets and were asked to submit this information in advance of their recertification meeting. For the initial triennial, when families were first enrolled in the demonstration, staff noted that they received many incomplete packets, which required them to engage in more back-and-forth to obtain the income information from the families in the new rules group compared with the existing rules group. Incomplete packets are also common for families under the existing rent policy, but the longer look-back period made tracking down that information more complicated for some families under the new rules. Over time, as families learned the requirements, staff received more complete packets, but they noted that the problem persisted for some families, particularly those with less stable work history. Staff also noted that tenants who had held multiple jobs in the retrospective period or had worked for smaller employers and "mom and pop" businesses struggled to obtain needed employment information. In some cases, tenants who had jobs that ended during the retrospective period and may not have left on good terms were reluctant to ask a former employer for their paystubs. Households with multiple earners also presented unique challenges.[119] As one staff member explained:

> I would say a lot of times they'd had several different employers throughout the previous 12 months. So sometimes, you know, just for example, we would review something in EIV, and see several different employers within that timeframe, but they maybe didn't remember if they worked there or how long

[119] As described in earlier reports, staff recounted situations where the head of household submitted incomplete or partial information about the employment of other adult household members. Sometimes, the other adult members in the household were not willing to comply with the agency's income documentation requirements, which not only delayed the rent determination process for the agency but also put some families at risk of termination. In other situations, the PHAs picked up additional employment information on household members during the income verification stage, information that may not have been available to the head of household at the time the application packet was being completed.

> would they work there. So, they weren't able to get us that income that they actually earned within the timeframe for the retro period.

In prior interviews, staff were also asked whether the documentation burden was related to specific types of information that was requested. They noted that it mostly affected earnings documentation rather than other types of income documents. As one staff member noted:

> The usual places like Social Security and child support — they're good about getting stuff back. That's no problem. … TANF is easy. Adoption assistance — they're good about that. Pensions are usually — they have that information. [From places out of] business or old employers where they got fired—things like that—they just chuck those in the trash, I think. Especially when they don't work there any longer.

Staff also acknowledged that they were used to chasing down information for families subject to the existing rules. But attempting to obtain documentation for those who had multiple jobs in the 12-month retrospective period was challenging and required families to engage with more former employers to get their paperwork in order.

Participants in the final round of in-depth interviews were asked about the burden they experienced producing the types of documents required to prove income in the 12-month retrospective period. A majority of those interviewed indicated that they were able to furnish the needed documents without much difficulty. This is consistent with the findings from the 4-year survey of household heads. In that survey, 77 percent of respondents said that meeting the documentation requirements under the new rent policy was about the same or easier than under the existing rent policy. Only about 5 percent said they were "much harder," while about 10 percent said they were "somewhat harder" (Riccio et al., 2021.)

At the same time, the in-depth interviews suggest that the income documentation burden that families experienced varied by income source and other circumstances. For example, some families received government benefits (such as TANF or disability benefits for the household head or another household member), which were easy to document. In other cases, families had no earnings in the past 12 months, so they had none to document. In some families, only one member had worked, and only at one employer in the past year, making it easy for them to document their earnings. Some families were also just good about saving paystubs and did not have trouble providing them to the PHA. Still, a few participants in the last round of in-depth interviews described this process as challenging, echoing the sentiments of their peers in prior rounds of interviews. As one participant explained:

> Yeah, because my job from that prior 12 months, I didn't work there anymore, so they had no motivation to get me the paperwork I needed. And then there was also, there was, like, a glitch in the system with one of my former employers, where they said that I had worked there, and like, I had to argue with my caseworker, like, I did not work there. And then I had to get a letter from

> them...well, I had to go up there, and I was like, you know, you guys put me in the work system, and I haven't worked for you guys…. I had to provide proof for that, and like, I couldn't get anyone on the phone, and then I had to end up going up there, and like, it was a bunch. It was kind of, like, a lot extra, you know, I had to do.

Another participant, who had a family member residing with her, noted the struggle this family member faced trying to document her income. The participant said:

> Her job was not helping us trying to get her income. She wrote to corporate, she tried to tell them like, "Hey, I need the information." They would not cooperate all the way to the point where I just had to take her off. I had to take [xxx] off.... I mean take her off of my housing and she moved out of my household.

With these difficulties in mind, HUD agreed to relax the income verification hierarchy in mid-2020, and allowed more self-certifications because of COVID-19. With those modifications in place, staff reported that they were able to move quickly to obtain self-attestations for those who were unable to provide pay stubs or employer verification.[120] PHAs follow a strict income-verification process, relying on HUD's Verification Hierarchy, which mandates the use of HUD's Enterprise Income Verification (EIV) system and offers guidance on the use of other verification methods.[121] Although the new rent policy introduced a different procedure for estimating TTPs from the one used traditionally, the verification hierarchy and the types of income subject to verification provided in the procedure were consistent with HUD requirements and allowed for self-certification when a family was unable to provide HUD preferred sources of income-verification documents.[122] Relaxing the verification hierarchy brought much relief to staff and eased this aspect of the recertification process.

What Participants Understood—and Liked—About the New Rent Rules

Recognizing that for families to take full advantage of the rent policy, to benefit from its financial incentive, and to avail themselves of the hardship provisions (if needed), MDRC, HUD, and the PHAs discussed and developed a communication strategy, which the PHAs implemented. This strategy involved sending periodic reminders (See appendix exhibit E.1 for an example of a simple

[120] Lexington did not require staff to verify income under $200.

[121] In order of priority, the forms of verification are income verification using HUD's Enterprise Income Verification, income verification (UIV) using a non-HUD system, written third-party verification (may be provided by applicant or resident), written third-party verification form, oral third-party verification, and self-certification. https://www.hud.gov/sites/dfiles/OCHCO/documents/18-18pihn.pdf

[122] Self-certifications (also called self-declarations) generally include affidavits signed by applicants to document their income and income sources. Part of the verification burden described by staff is linked to the income-verification sources used by the PHAs, which appear to have less than complete information. Work Number, for instance, a non-HUD income verification system, used by three of the PHAs in the demonstration, did not include several types of employers. HUD's EIV, on the other hand, had a reporting lag and did not include the most recent employment information. As a result, PHA staff report that they struggled to piece together 12-month retrospective income verification from multiple sources, making it a more burdensome process for complicated cases.

one-page flyer) highlighting the central features of the new rent policy. The goal of this ongoing communication strategy was to ensure that key aspects of the rent policy remained salient to participants, especially given that the new rent policy reduced the requirement for families to interact with the housing agencies on an annual basis.[123]

A participant survey conducted roughly 4 years after families had been exposed to the new rent policy sheds some light on the features participants remembered a few years after they had been assigned to the new rent rules group. The survey included questions about their understanding of such features as triennial recertifications, having to pay a portion of their monthly TTP directly to the landlord, the hardship remedies, retrospective income, not reporting higher earnings between triennial recertifications to the housing agency, and changes to household composition affecting TTP. The findings show that participants reported a greater familiarity with some aspects of the rent policy than others.[124] As might be expected, awareness of the policy features was higher among respondents still active in the voucher program than those who were no longer in the voucher program at the time of the interviews.

According to the same survey, most in the new rules group (about 81 percent) reported that they were aware of the triennial recertification policy and that their TTPs would be recalculated every three years.[125] While awareness of triennial recertifications was high, only about 66 percent of the respondents in the survey said that they did not have to report earnings increases between required income reviews. This level of awareness is lower than what one would expect for the policy to shape work behavior, and it raises the question as to whether it is possible to expect people to respond to the financial incentive the policy offers if they are not aware that the incentive exists. Further analysis of the survey data showed that among those who indicated otherwise (that is, they were required to report earnings increases or were unsure of the requirement), a majority (75 percent) had recent work history and earnings in the year prior to the survey and an additional 12.3 percent provided a health-related reason for not working or for not looking for work at the time they completed the survey. The earnings incentive built into the rent policy may have felt less relevant for some of the people who were already working if they thought they were already working or earning as much as they believed they could. It may also have felt less relevant for people with health challenges and who were not working at the time of the survey. These circumstances may be reflected in how they responded to the survey question about their familiarity with the rent-based work incentive.

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[123] The flyers emphasized that families did not have to inform the PHA if their earnings increased; that their TTPs would not increase because of an increase in earnings (before the triennial recertification); and that, if their incomes dropped, they should reach out to their housing specialists to see whether they qualified for a TTP reduction. Later in the demonstration, text messages were also used to convey policy reminders. Overall, these reminders were also used to educate participants on features of the policy that may not been relevant previously.

[124] See exhibit 7.1 in Riccio et al. (2021).

[125] Estimate for the three sites that continued to participate in the demonstration. The question in the 42-month survey asked respondents to indicate "yes," "no," or "not sure" to the following statement: "required income reviews are now conducted every 3 years – in other words, my household only [needs/needed] to have its income reviewed every three years instead of every year."

Fewer respondents seemed to report that they were aware of the protective aspects of the new rent policy. About one-half of the respondents (49.6 percent) said they knew they could have their rent lowered if they had difficulty paying it. It is hard to tell from the data—both qualitative and quantitative—whether families who could have requested a hardship did not do so because they did not know that they could or for other reasons. In previous rounds of interviews, and as documented in earlier reports, some participants mentioned that they were inclined to turn first to family, friends, and possibly other organizations (such as religious institutions or social service providers) in times of rent hardship.

The final round of interviews with participants also confirmed that they liked the alternative rent policy, with the majority noting that they preferred that policy to the traditional rent policy.[126] Likewise, staff indicated their preference for the new policy because of its triennial recertification feature, which eliminated the hassle of annual recertifications and reduced families' appointments with the PHA. Box 5.2 shows some of the ways in which they described the benefits of the triennial recertification feature. Among the various perspectives they shared, some respondents appreciated that they were able to increase their earnings and not worry about their rent going up, and knowing their rent was stable until the next recertification brought an element of stress relief.

Despite a high level of familiarity with the triennial recertification requirement, some participants in the in-depth interviews also noted that they erred on the side of caution and continued reporting earnings increases to the PHAs in the three years between recertifications. Their inclination to report earnings changes to the housing agencies taps a mix of reasons, including the long-standing habit of reporting earnings increases to the PHA, not wanting to take a chance and risk losing a critical subsidy, and, for some, possibly not fully understanding the change in the reporting requirement. In the words of one respondent:

> *[Interviewer: And did you ever report them to the housing authority even though you knew you didn't need to?]* Yes, I did. I did. Well, I would tell them I got a raise, do you guys need me to bring the paperwork and da, da, da? No, let's just wait until certify comes up. Okay…. I like that I didn't have to report them all the time. I just wanted to make sure that I didn't have to provide the paperwork. Even though, you know, I already knew that they didn't want them, so I just waited until then, and saved them until the end, and then just give them to them altogether.

Another possible area of confusion, which some staff and participants raised during the in-depth interviews, was related to what income would be counted in the triennial recertification. At the

[126] Only 5 of the 60 respondents picked the existing rent rules; 9 did not respond to the question and 42 picked the alternative rent rules. As discussed in Riccio et al. (2021), this strong preference for the rent policy was also conveyed by 71 percent of respondents in the new rules group who completed the 4-year survey (13 percent of respondents to the same survey said they preferred the traditional rent rules and 16.7 percent did not express a clear preference).

Box 5.2: What Respondents Liked About the Rent Policy

…it **relieved a lot of stress** of having to, you know, come up with all the paperwork and everything else you needed, you know, to recertify and stuff.... It just made it easier. Well, the fact that you didn't have to report in 10 days. Like when, you know, my daughter's SSI check or something yearly went up, you didn't have to report it within 10 days, you know?

...so you **could get caught up** if you needed to like on some bills or some debt or stuff like that. Yeah. If you had a little extra money or something, like in my case when my daughter's check, you know, yearly would change with the increase, well, then knowing that I didn't have to report it, that was kinda good because it gave extra spending money, you know, to get caught up on stuff or extra for food or something.

Yeah. I wouldn't have to worry about reporting that. I can buy a car or pay a car off cash or something, save enough money to do that **without having to be worried because my rent is gonna go up** within those three years.

It's less of a hassle. Didn't have to keep every time something changes, you know, going back and forth and keep having to call the hotline because you done got a job or lost a job. And it's basically steady. Even if you lose a job or whatever, you still didn't have to report. Even if you still had your job, I've switched a job, you didn't have to report till every three years. So, it was just, it was more less of a hassle to me.

The things I liked most, I would say the recertification part where you **didn't really have to worry about that every year**. And also, where you could get an increase and didn't have to report it also right at that time. Those were the two things I liked the most.

The most that I liked that I took advantage of was **saving my money** that I had left over. It helped me within the three years. Every time I was like, okay, I have extra money, I can do this, I can do that.

end of the first 3-year recertification period, staff noted that some families did not remember that retrospective income would be used for recalculating their new TTP. For some families, there was the shock of how much their rent increased during the triennial recertification (based on sustained earnings increases in the last 12-month period), for which they were not prepared, and they subsequently had to cut back on certain expenditures. Families whose household earnings fluctuated during the 12-month retrospective period struggled to come to terms with the use of prior earnings to calculate their TTP. Although families were informed that retrospective income would be used to calculate their TTPs in their next triennial, staff noted that some families appeared to have forgotten this part of the policy. Others were mindful of their earnings in the final year leading up to the triennial. As one respondent noted:

> No matter how much money I made, I didn't have to report it. However, in that last year, just before it was time for me to get ready to recertify, I needed to be mindful of the fact that they were going to use that whole...they were going to retro the rent to the whole year, and basically determine what was coming up going forward.

As the Rent Reform Demonstration ended, and families began to roll off the new rent rules and have their TTPs set under traditional rules, some struggled to understand why their TTPs were so much higher.[127] Some had seen their incomes increase over the second 3-year period (after the triennial), and when TTPs were recalculated at their year 6 recertification at the end of the new rent policy (now based on current income in two of the three PHAs), the families were surprised to see higher TTPs on their rent notices.

The end of the demonstration also left some families wishing it had continued. At one site, staff commented that since the end of the demonstration, some of the households that had been under the alternative rules asked if they could return to those rules because they were paying higher rent based on their higher current income.

How Participants Described the Policy's Influence on their Own and Other Household Members' Work Behavior

An important question for the Rent Reform Demonstration is whether the financial incentive embedded in the alternative rent policy's triennial recertification feature has positive labor market effects, such as increasing employment or earnings for those in the new rent rules group relative to the control group. The long-term results presented in chapter 2 do not provide evidence of statistically significant positive effects on employment and earnings during the study's followup period, raising questions about why this new rent policy, with its generous work incentive, did not yield such results. The findings from the 4-year survey, as previously mentioned, suggest that not everyone subject to these rules remembered the policy's work incentive. Further, some were not in a position to go to work or increase their earnings. Could the in-depth interviews, which only focused on a small number of participants, offer any insights to help interpret the broader patterns in the quantitative data?

The final round of in-depth interviews conducted with 60 participants in mid-2022 encouraged them to reflect on the alternative rent policy and whether and how, if at all, it influenced work-related

[127] MDRC worked with the PHAs to develop different types of materials to inform families of the new rent rules and how their rent would be calculated in their next recertification. For the two sites that transitioned families back to existing rules, for example, a Frequently Asked Questions document was developed to speak to some of the obvious questions families might have about the transition and what it meant for their TTPs. These materials were included in the recertification packets sent out by each housing agency, roughly 120 days in advance of their next recertification date, along with a cover letter addressed to the head of household listing out the key features of the rent rules they would be subject to.

decisions in their households.[128] Across the three PHAs, the overwhelming response was that the rent policy was not the driving force behind their work decisions, and many went on to say that their work decisions would not have been any different under the traditional rent rules.[129] Considering these participants' bottom-line assessment of the policy's influence on work, and taking into account their responses to questions about their current work circumstances and work decisions, one key takeaway from this mix of participants is that the choices and decisions families make about work are complex, requiring them to balance multiple considerations, and that for some, rent rules alone are insufficient to overcome barriers that come in the way of their participation in the labor force. Three broad response patterns seem to rise out of the final round of interviews.

They would have worked "anyway."

Many of the respondents, especially those who were working when they enrolled in the study, made it a point to disconnect household decisions about work from the rent policy.[130] Deliberately severing this connection, they pointed out that work was the norm for them, that they have always worked, that they were aware that the new rent policy encouraged work and that if their earnings increased their rent would eventually catch up, but that they had bigger goals to achieve in life (such as homeownership). In this way, the financial incentive within the rent policy was aligned with their own goals, and that they did not need the policy to induce a special work effort. These perspectives were conveyed in the following ways:

> I'll always work. I like money, so I have always worked.
>
> No, it didn't really affect the decisions because I knew that in the last three years that I knew my rent would change because I was making a little bit more money than what I was making when I initially got in the program. So, by the end of that three years, I knew it [rent] would change because I was making, you know, maybe a dollar or two more. *[Interviewer: You would've taken those different jobs, moved to get a higher paying job, even under the traditional rules?]* I mean, yeah, because I gotta survive.
>
> I gotta work and just keep on. You know, we all gotta pay rent, you know? It didn't affect me. I had to work.

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[128] Interview question: "Do you think the alternative rent policy, especially the 3-year recertification where you do/did not have to report income increases, affected decisions you or members of your family have made related to work (such as whether to work, working more hours, taking an additional job, etc.)? **[If yes]** In what ways has it changed your *decisions* related to employment (such as whether to work, working more hours, taking an additional job, etc.)?"

[129] Overall, 42 of the 60 respondents in the final round of interviews, regardless of their employment status at the time of study enrollment or the final interview, indicated that the rent policy did not drive their work decisions.

[130] The in-depth interview sample comprised of heads of households who were either working or not working at the time of study enrollment, allowing to glean perspectives from both groups.

> I would've still chosen the job even if I had to pay the higher rent because it was a better income. …the job that I got now, which disqualified me from the program itself, I'm just like, okay there is that push I need to go on and say, "Hey, I need a house."

It clearly encouraged some to work or work more.

Another group, albeit a much smaller proportion of the 60 respondents, attributed their work decisions to the rent policy.[131] This included decisions such as working more hours, encouraging adult dependents in the household to work or to work more hours and, and as in the case of one participant, switching jobs and taking a chance on trying something new because the family's TTP was not going to change for three years.

> Yes, it did. Because I don't have to report income for three years. A lot more we can do now. *[Interviewer: Worked more hours?]….* Yes, I did. The last thing is that I hate that it ended, because I feel like I was thriving off of that. Because yeah, I got a lot of stuff accomplished.

> Yeah, it did…It did incent me to work more hours…I told them [children], you know, you guys can, you know, work two jobs if you want to. They're healthy. They're younger than I am. They're healthy. They can work two jobs, you know, it's not gonna affect our rent.

> It had a very positive effect.... It just so happened that I came across an opportunity for employment and it paid more than what I was currently making at that time. And I just took a leap of faith and stepped into that particular career field…. So being that the rent reform rule was what it was, like I was saying, I didn't have to think about that stress about me transitioning from one job arena to the other. The only thing that I had to be worried about was that making sure that I sustained, you know what I mean, income.… So, yeah, definitely, the rent reform being the way that it was set up, it did help because, again, I didn't have to worry about being the fact that I switched over.

The work incentive is of little value for those with daunting barriers to work.

Those respondents who did not work much, or at all, during the demonstration period, or were constrained from increasing their hours, described their personal circumstances and why they could not take advantage of the rent policy's work incentive. Their responses suggest that for this

[131] Seven of the 60 respondents reported that the rent policy did affect their work-related decisions.

group, in the face of their life circumstances and the issues they battled on a regular basis, the alternative rent policy, even with its attractive work incentive, is a blunt instrument to overcome the barriers to work they face.

Personal health and/or caregiving responsibilities. Some cited their own health issues (chronic conditions or serious illnesses) or caring for a family member as a reason they were unable to work or look for a better job (in terms of hours or wages). To them, not working (or working fewer hours was tied up with their other commitments, not a matter of not wanting to leave a "comfort zone."

> Well, like I said…. the problem is I don't have anybody to care for him. So, that was the problem. *[Interviewer: So, it sounds like even though you benefited a little bit, it didn't change your behavior in terms of employment.]* No. No.
>
> Well, probably, I might just try a different [job] but not an additional one. Because, like I said, taking care of [family member] pretty much fills up the rest of my day. *[Interviewer: And are you at all concerned about, like, increases in rent if you work more when you're not under the alternative rent rules anymore?]* Not really. Because I hope one day soon' I'll just go and get my own house anyway. That's my goal.

Findings from the 4-year survey, also discussed in chapter 2, show that the most commonly cited reasons for not working and not seeking work had to do with respondents' own health problems, or their caregiving responsibilities for other household members who were ill or had a disability, or caregiving responsibility for children. Financial work incentives alone may be less effective in changing work effort among individuals facing those types of circumstances.[132]

Receiving multiple benefits also complicates work decisions. While this may be a more common occurrence, one respondent made explicit reference to the problem that voucher households receiving additional government subsidies confront. This respondent noted that the silo nature of the public benefits system, with each unit governed by its own set of rules, the work incentives offered by one part of the safety net could be in direct conflict with other public benefits designed for families with low incomes.

> The alternative rent rule, it helped in regards to the rent part. [but] the way that food stamps are set up is like, it does matter what your situation is. If you make too much money or if you have too much money coming in, they're deducting, period. They don't give you a timeframe to get on your feet. So, let's just say I make an extra $300 this one particular month and those $300 need to go to electricity. Well,

[132] See Riccio et al. (2021).

> guess what? It's not going to go to the electricity because as soon as you make that $300, you're going to get a notice in the mail from food stamps saying that they just took away half of your food stamps. And so then now it's a choice of, "Okay, do I get to spend this extra money on food, or do I go send it to the electric company like I intended to?" So, the rent reform, it helped in the sense that the rent was steady, and it wasn't moving and so at least that way, she [respondent's daughter] knew minimally, like, you need to be able to take care of rent, lights, whatever else.

To get at the staff perspective, the final round of in-depth interviews asked PHA managers and housing specialists working with families in the new rent rules group to describe their sense of how their clients were benefiting from the new rent policy. Acknowledging they could not broadly comment on all the participants under this policy, they shared what they observed from their work with the families. One staff member, who worked with families in both the new rules and existing rules groups, noted that they were seeing more job stability among participants in the former group. She said: "Well, on the regular ones, like, with my caseload, I've noticed the ones that would…just work a little bit at a time. I've noticed that a lot of them, because of the alternative [rent rules] have started to get more permanent jobs." Contrasting her experiences with participants in the new and existing rent rules groups, the same staff member reflected on the employment stability she was seeing among some households she worked with in the new rules group. She noted: "You know, they're not quitting right before recert, they're staying where they're at versus under the other recertification way." (It could not be determined from the evaluation how often the patterns of behavior observed by this specialist occurred.)

A specialist at another PHA noted that the benefits of the new rent policy may have played out in different ways for different families. She said:

> There were some people who struggled with the program, and I think didn't really understand, or how they could make it work for them. But then I had other families, especially the ones that were, you know, able to come off of Section 8 and transition into, you know, homeownership, or even families that are, you know, still on Section 8 and haven't transitioned, who have said, you know, "I was able to take care of expenses," or "I was able to take care of going to school and start a new job. And I didn't have to worry about my rent going up because, you know, all of this happened, you know, while I was on the rent reform program." So, I mean, I would say it was probably evenly split. And again, it just depended on whether the family was able to make the program work for them or not.

Did Families Understand the Rent Hardship Protections and Safeguards?

The new rent rules included important provisions to protect families from excessive rent burden that may be due to TTPs based on retrospective income or imposed minimum TTP. In addition to offering "restricted interims," which refers to a limit on interim recertifications to address income reductions to one per year, the new rent policy includes an initial temporary grace period and a set of hardship remedies that permit TTP reductions at any time during the 3-year period if required to protect households from excessive rent burdens.

Early in the demonstration, the PHAs, working with MDRC, adopted a multi-pronged and periodic communication strategy to help families understand (and remember) that these types of safeguards exist. Yet, as described earlier in this chapter, the followup survey conducted at the four-year mark showed that just about one-half of the respondents reported awareness of the hardship protections and that they could have their rent lowered if they had difficulty paying it. It is possible that many families who did not experience income reductions and higher rent hardship burdens paid less attention to this feature of the rent policy, reducing the overall awareness rate.

As described below, staff noted that they continued to process a high volume of hardship requests until the end of the demonstration, suggesting that whether or not families were aware of the hardship policy (or able to differentiate between the remedies) they turned to the PHAs when they were in need of rent relief.

Temporary Grace-Period Rent

Close to 36 percent of the families in the new rent rules group ever received a grace-period rent at their initial or triennial recertification. At each recertification, this safeguard offers families temporary relief from high rent burden, giving them 6 months to restore their income. At the end of the 6-month grace period, the temporary TTP expires, and the family is switched automatically to the "regular" TTP amount previously determined based on its retrospective income. Unless the family qualifies for and seeks an interim recertification or hardship option, no additional review is necessary.

During recertifications, staff relied on the PHAs' rent calculation systems to flag a family's eligibility for grace-period rent, and they followed their standard notification policy of mailing two letters to families: one letter to indicate the temporary 6-month grace-period rent and another to show the TTP that would be in effect once the grace period ended. Staff also informed families that they could request a hardship remedy when their grace-period rent ended, but that the new TTP would automatically go into effect at the end of the grace period. Families did not receive a separate notification near the end of the 6-month grace period to prepare for the TTP change, and staff expected families to use the two letters to keep track of when their rent would reset.

Previous reports on this demonstration have documented PHAs' early experiences implementing this feature of the new rent policy. Overall, staff reported few issues implementing this feature. Automating eligibility determination for grace-period rent greatly eased implementation of this safeguard. As families approached the end of the grace period, some reached out to their Housing Choice Voucher (HCV) specialists to discuss the new TTP that would go into effect. Some staff also reported receiving inquiries from families about the two letters and being confused about what the different sets of start and end dates meant. Few concerns related to grace period rent implementation were raised by staff in the latest round of interviews conducted with them.

Restricted Interim Recertifications

This feature of the rent policy was intended to reduce the volume of TTP adjustments conducted by the PHAs, while still protecting families when their incomes dropped substantially. Staff were expected to first determine whether the rent burden could be remedied by the one interim (that is, the restricted interim) permitted each year. If the family qualified for a restricted interim recertification, that process was completed instead of having the family request a hardship remedy. Previous reports for this evaluation have documented that families did not always know whether they would qualify for an interim, but once they made a request, the PHAs had to review their income, both retrospective and current, to determine their eligibility for a restricted interim.

In 2020, as noted above, HUD, the PHAs, and MDRC agreed to a set of policy modifications to further simplify administration of the rent policy and reduce burden on staff. One of those changes included eliminating the eligibility threshold for restricted interims. Families no longer needed to demonstrate a significant drop in income (more than 10 percent) for them to qualify for an interim adjustment. The PHAs that adopted this modification found that dropping the 10 percent reduction in retrospective income threshold made the restricted interim verification easier to implement; staff did not need to collect prior income to estimate whether the household's income loss crossed the threshold. Staff actions recorded in the PHA systems, as discussed in chapter 3, also suggest a substantially large reduction in interim recertifications due to families' loss of income (27.3 percent of families in the new rules group compared to 58 percent of the control group). However, one staff member said that the volume of requests did not decrease, but that "people are always trying to submit changes…But I think once we did away with the 10 percent it was just easier for staff to do."[133] The sentiment that the policy modification brought some verification relief but also that a substantial volume of requests continued was echoed by staff at the three PHAs.

[133] As discussed earlier in this chapter, starting in mid-2020, families could choose to exercise the restricted interim option for a reduction of any amount (but restricted interims were still limited to one per year). After the one restricted interim per year, if the family continued to experience rent hardship, they could apply for a hardship remedy. The 10 percent threshold elimination option was conveyed to the PHAs in mid-2020, starting with San Antonio Housing Authority.

Hardship Remedies

In addition to grace-period rent and annual interims, the new rent policy offered further relief to families whose TTPs exceeded 40 percent of their current/anticipated gross incomes.[134] Staff confirmed that they first determined whether a family's rent hardship can be remedied by the one interim recertification permitted each year. Unlike grace-period rent, which is automatically determined at each 3-year recertification, families must request subsequent hardship remedies by completing a hardship request form and supplying information to support the hardship claim. Each PHA determined its own process for reviewing hardship requests based on standing procedures for addressing tenants' rent-hardship grievances. Staff responsible for administering the hardship process determined which remedy to apply from a list of preapproved options.

Staff reported that most participants did not necessarily distinguish between the types of hardship safeguards (interims vs. hardship remedies) available to them under the new rent policy. In their view, families would reach out to them when they experienced income loss and needed help paying their portion of the rent. As one staff member put it:

> What they know is, "I need my rent reduced." So, they're not gonna say, "Hey, I need an interim, or I need a hardship." They're "I need my rent reduced." So, and then as a worker, we're the ones who have to determine, "Okay, which one is it? Do we need to look at this, or do we need to look at that?"

As with interims, staff continued to report processing a high volume of hardship requests. Hardship requests that were denied were not logged into the PHAs' computer systems, so the volume of requests, whether they increased or decreased over time, and the number of requests that were not approved, could not be quantified. For all three PHAs combined, as shown in chapter 3, about 28 percent of families in the new rules group had received a hardship remedy by the end of the followup period. The rate in Louisville (48 percent) was almost double that of the other two sites (22 percent in Lexington and 23.7 in percent in San Antonio).

Reduced pay or loss of a job were the most common reasons for families requesting hardship remedies, but not the only ones. As a staff member reflected:

> They lost their job. … Yeah, most of them are on zero income. … So that's the most [common] scenario. And then I cannot say the majority. Some lost, you know, because TANF has a certain cutoff time that they pay you, and then after that, they cut you off… Yeah, it's not all just their job, itself. Reduction in hours — they do have that, too.

Earlier rounds of interviews also asked staff whether some families were more likely to receive recurring hardship remedies. Staff reported that as families got closer to the end of a hardship period, some approached the PHA for another hardship remedy. Then there were others who used the hardship remedy as temporary relief. As one staff member noted: "Well, some people have come

[134] The new rent rules that families in Lexington were eligible for included a hardship remedy only if they were paying TTPs that exceeded the PHA's $150 minimum and still meet the 40 percent threshold. No family could pay below the $150 minimum except in cases where households became classified as disabled.

back in to request another hardship because they're still in the same situation. But I've had quite a few families that when the lower portion stops after the six months, they went out and paid their higher portion for the following six months." This same specialist estimated that about 50 percent of her cases requested another hardship. Another said, "They try to get it — because the one time it was set in June, they're coming in May to assess their decrease and then when December gets here, they're requesting because it would be effective the first of January, which is going to end. So, some they just ask when they come like clockwork…"

Other Changes

The new rent policy introduced other changes to try to simplify the calculation of TTPs. These included eliminating all deductions from income and changing how utility costs were determined. Staff welcomed those changes and did not raise major issues or concerns. The process for handling utilities was changed, eliminating the need to consider many idiosyncratic details of each housing unit's type of building, location in a building, heating system, and other special factors. Staff noted that the process of determining utility costs was now quicker ('It's definitely a time saver").[135]

Did Landlords and Other Stakeholders Raise Objections About the New Rent Rules?

Over the course of the evaluation, the research team sought to learn how, if at all, landlords responded to this new policy and what it meant for them. As described earlier, all families in the new rent rules group were required to pay at least the minimum TTP amount to their landlords (unless they had received a waiver of the minimum TTP as a hardship remedy). When the demonstration first launched, the policy designers and staff wondered whether they would be "flooded" with calls from landlords' asking about changes in the rent rules. This did not happen at the start, nor over the course of the demonstration. The few landlord calls staff did receive stemmed from confusion about the rent policy. In one of the early rounds of interviews, a staff member noted:

> We sent out letters to all the landlords and I think it was one landlord that called me and he was like "Well, I'm not understanding why this is the case because she's supposed to pay me this. …" And I told him okay, we're in the rent reform now, you got a letter that explained that your payment is going to go down but the client is supposed to pay the residual. And he's like, "Yeah, I didn't pay no attention to it."

In San Antonio, where it was standard practice for most families to pay something in rent, the introduction of the minimum rent payment from tenants was not new for their landlords. A staff member commented: "It could have been two or three dollars, but they were paying something or SAHA [the housing agency] was paying the full rent. So really no impact to the landlords regards as far as the rent. They just want their money."

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[135] The simplified utilities policy adopted for the Rent Reform Demonstration is based on an approach previously developed by the District of Columbia Housing Authority.

Landlords who were familiar with their tenants' income situation also appeared to express concern about how families would come up with the extra money to pay a larger share of the rent (not recognizing immediately that the PHA would still provide the same total subsidy for families but redirect some of it to tenants directly to help them meet the minimum rent obligation.) One Lexington staff member described a call with a landlord who asked, "How do you think she's going to pay this? She no longer has that income." Describing a similar situation in Louisville, a staff member said that the landlord didn't think the tenant would be able to meet the rent obligation. "And I think their concerns were more [about] 'Well, she's already paid me the rent late every month, so how do you expect them to be giving me twice as much?' Or something like that."

Over time, staff did not report an uptick in complaints from landlords or other stakeholders about the new rent policy.

Adopting the New Rules or Integrating Select Features as Ongoing Rent Policy

The housing agencies in the Rent Reform Demonstration had the option of continuing with the alternative rent rules once the six-year demonstration ended.[136] One of the three PHAs—Lexington—opted to do that by expanding the alternative rent rules to eligible HCV families PHA-wide. The retrospective income and triennial recertification features of the new rent rules were appealing to this agency, and agency leadership felt that once their software system issues were resolved, it would be much easier for the HCV specialists and would reduce their caseloads.

> …I think now they will begin to see the reduction in their caseload when not having to do these recerts, you know, annually. Just imagine, you know, the only ones they [are] gonna have to do an annual recert on are the new families that are coming up the first year. Then after that, they gonna go to triennial. So, I think they will get to see the reduction.

For the other two PHAs, a combination of staffing issues, not having adequate internal and external support, and above all, the complexity of some aspects of the new rent rules—particularly the challenges related to the retrospective income feature—appear to have shaped their decision to not fully embrace the alternative rent rules as ongoing policy once the demonstration ended. Supervisors in all three agencies noted that they had lost staff and had been unable to hire and retain new staff. This staffing challenge, exacerbated by the COVID-19 pandemic, led to an increase in staff workload and increased overtime. As a result, staff were

[136] As noted earlier in this report, in 2019, the District of Columbia Housing Authority made the decision to end its participation in the demonstration. This decision was primarily driven by the agency's need to devote staff to other priorities, which would be more difficult while operating a special rent policy for some voucher holders as part of the demonstration.

unable to keep up on all recertifications, including those for the Rent Reform Demonstration.[137] These and other operational challenges with aspects of the alternative rent policy are reflected in the views of administrators at the two housing agencies that did not continue with the new rent rules at the end of the demonstration. As one administrator put it: “I want to say the tediousness of collecting retro.... Unless there’s a better way to streamline collecting retro, current just seems to be the easiest.” The administrator also acknowledged that the existing rent policy, which allows for deductions, is also quite tedious for participants who have them, so both policies were tedious in their own ways. However, with the Rent Reform Demonstration families, the retrospective income component, plus dealing with a lot of families who moved, it felt like they were still seeing a substantial portion of the families every year, possibly making them indifferent to preserving the alternate rent rules. An administrator at another PHA summed up the experience by saying: “I would say it’s probably more complicated just because of all the information you do have to get back from a client.” It is important to note, however, that using reliance on retrospective income in setting TTPs is becoming standard policy under the Housing Opportunity Through Modernization Act of 2016 (HOTMA). (See chapter 1.)

While the San Antonio and Louisville housing agencies decided against continuing to implement the full packet of alternative rent rules tried as part of the Rent Reform Demonstration, staff at both these housing agencies made sure to convey that their decision to end the alternate rent rules did not mean they were not committed to or giving up on the idea of rent reform. They noted that their current rules also included or will include simplification features to benefit staff and families. Louisville dropped the minimum rent and went back to the traditional method of calculating utilities; however, it extended the recertification period from annual to biennial at the end of the demonstration. San Antonio’s current rules, like Lexington’s, now include the same triennial recertification period tested in the demonstration. It also bases TTPs on 27.5 percent of gross income with no deductions and a flat rate for utilities—features similar to those tested as part of the demonstration. However, it dropped the minimum rent as another way to reduce staff burden. In these ways, these housing agencies continued to adapt their current policies to streamline and simplify their administration of HCV rent subsidies, borrowing or modifying at least some features of the demonstration’s new rent policies.[138]

Conclusion

The in-depth interviews with staff and participants serve an important function in assessing the practical implications of rent reform: how policies and related guidance translate into practice and what it takes for staff to learn them and for families to understand and respond to the changes. Over the course of the study, observations and insights from these interviews have been

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[137] In some sites the staffing challenge was particularly acute from the start of Covid-19 when PHAs pivoted to offering remote services.

[138] San Antonio’s 3-year recertification does not apply to participants in the Moderate Rehabilitation (MOD-Rehab) Program, which provides project-based rental assistance for families with low income.

used to understand program operations, address implementation challenges, gauge families' understanding and awareness of the alternative rent policy, and draw some insights about how the policy shaped work behavior, if at all.

This and previous reports on this demonstration offer important insights into the implementation lift for PHAs who tested this new rent policy. Over time, staff became more familiar with the alternative rent policy and its key features. There were some aspects of the policy that appealed to them and there were others that clearly did not. Staff developed a better handle on the triennial recertification process, what to anticipate, and how to talk about the rent rules with families. Increased familiarity with the rent rules, though, did not necessarily remove some of the more tedious aspects of implementing the new policy requirements. PHA data reviewed earlier in this report show that overall, the new rent policy reduced the average number of actions taken on by staff, suggesting a reduction in staff burden related to time-consuming actions such as regularly scheduled recertifications and interim recertifications for reductions (or increases) in income. Behind these aggregate patterns, however, and as described in this chapter, lie the day-to-day experiences of frontline staff whose caseloads include both more straightforward and some time-consuming cases. The cost analysis, the focus of the next chapter, will bring an added perspective to questions about the new rent policy and whether its approach to simplification and streamlining resulted in meaningful administrative efficiencies and reduced staff burden.

The qualitative data on participants' experiences, which also offer important insights, are somewhat puzzling. In particular, how to reconcile the respondents' overwhelming preference for the alternative rent policy, their descriptions of its financial benefits (that is, being able to save money), with few attributing their work-related decisions to the work incentive in the new rent policy. Could it be that the triennial recertification, which an overwhelming majority of the new rules group preferred over traditional rules, served as more than just a mechanism to encourage work? As expected, it reduced the hassle of annual recertifications and provided families with a sense of rent stability and security—that their TTPs would not increase if their earnings increased and that hardship remedies would protect them from rent hardship because of loss of income. In that way, the new rent policy remained responsive to families' financial circumstances and rent burden and also allowed them to regain a greater sense of autonomy and control over their individual pathways to economic mobility and financial security.

Chapter 6
The Relative Cost of the New Rent Policy

In devising the Rent Reform Demonstration's new rent policy, an explicit goal was to reduce public housing agencies' (PHAs') administrative burden and costs for operating the Housing Choice Voucher (HCV) program for working-age/nondisabled families. Taking subsidy payments into account, it was hoped that the new policy overall would be cost-neutral (or close to it) relative to the existing rent policy. This chapter assesses how well the new policy achieved those goals.

Analytical Perspectives

The chapter explores the costs of the new rent policy by making three different types of comparisons, two of which focus just on administrative costs, and a third that combines administrative costs and subsidy payments.

Administrative costs for the core sample. The first comparison is the narrowest and the one most consistent with the analyses presented in the preceding three chapters: It compares PHAs' costs of administering the HCV program for families in the core impact evaluation sample—that is, for those families randomly assigned to the new rent rules group or the existing rules (or control) group—in the same way impact analyses compare other outcomes, such as earnings or total housing subsidies, between the two research groups. The difference in these administrative costs ***per sample member*** constitutes the net cost or the net savings per family in the core evaluation sample that is the result of substituting the new rent rules for the existing rules over the course of the evaluation's followup period. (The new policy's impacts on the receipt of housing subsidies—also referred to as housing assistance payments, or HAP—for the core sample are presented in chapter 3.)

Administrative costs per voucher. The second type of comparison widens the assessment of administrative costs to include all eligible families in the HCV program during the period of the study, not just those who were randomly assigned for the demonstration. This comparison takes into account the fact that PHAs generally receive a fixed amount of funding for vouchers from the HUD each year and, when some families leave the voucher program, other families take their place. In other words, when families exit the voucher program, the PHAs reallocate their "freed up" vouchers to new families entering the program from waiting lists. This report's analysis of administrative costs thus takes into account the costs of PHA efforts to administer the vouchers used by those "replacement" families at any time during the followup period. In this way, the analysis produces estimates of the administrative cost ***per voucher slot***.[139]

The analysis assumes that the families who took the place of departing families in the new rent rules group would be subject to the new rent rules. (Although this was not the case once the demonstration ended, it would be true if the new rent policy were to become HUD's official rent

[139] This analysis does not take into account any effects on HUD's own administrative costs, which are likely to be relatively miniscule.

policy).[140] It was also assumed that, on average, these replacement families would respond to the new rules in the same way as families in the core sample (which, of course, could not be known for certain).[141] Consequently, the estimation process for the replacement sample should be viewed as a ***simulation*** rather than impact estimation within the evaluation's experimental framework.[142] Nonetheless, taking simulated results for the replacement sample into account so that costs per voucher slot cost could be estimated is important. This is because policymakers and administrators (including PHA administrators) are likely to be interested particularly in the budgetary costs of administering the voucher program in a specified period of time for the entire population of targeted voucher holders the PHAs served, not just for the subset of families who are in the core randomly assigned evaluation sample.

Administrative plus subsidy costs per voucher. The third type of comparison has the greatest scope. It examines the overall budgetary implications of the new rules on the entire eligible population (families in the core sample plus families in the replacement sample) during the followup period. To do this, it considers expenditures for housing assistance payments for families while in the HCV program, in addition to the administrative expenditures associated with their vouchers. The resulting estimates thus include these subsidy costs along with administrative costs, and they can be used to see both the average total net expenditures per family in the core evaluation sample and the average per voucher slot. In this as well as the other comparisons, all costs are expressed in 2022 dollars.

Importantly, the focus on costs per voucher slot takes the study beyond the experimental research framework underlying the core impact analysis. Exhibit 6.1 illustrates what this extension of the experimental framework signifies. The top panel shows five hypothetical cases randomly assigned to the existing rules group in the core sample, each with a specified duration in the voucher program during the study period. The bottom panel shows five hypothetical cases assigned to the new rules group. Each box except the last one represents two months of the 79-month followup period; the last box represents 1 month. Although the impact analyses discussed in prior chapters used a 78-month followup period, the cost analysis covers an additional month because it includes the month when each family's initial recertification was completed after being enrolled in the study. That month is important to include because the average amount of time the PHAs' housing specialists spent determining families' new total tenant payments (TTPs) and subsidies in that month differed for each research group. In contrast,

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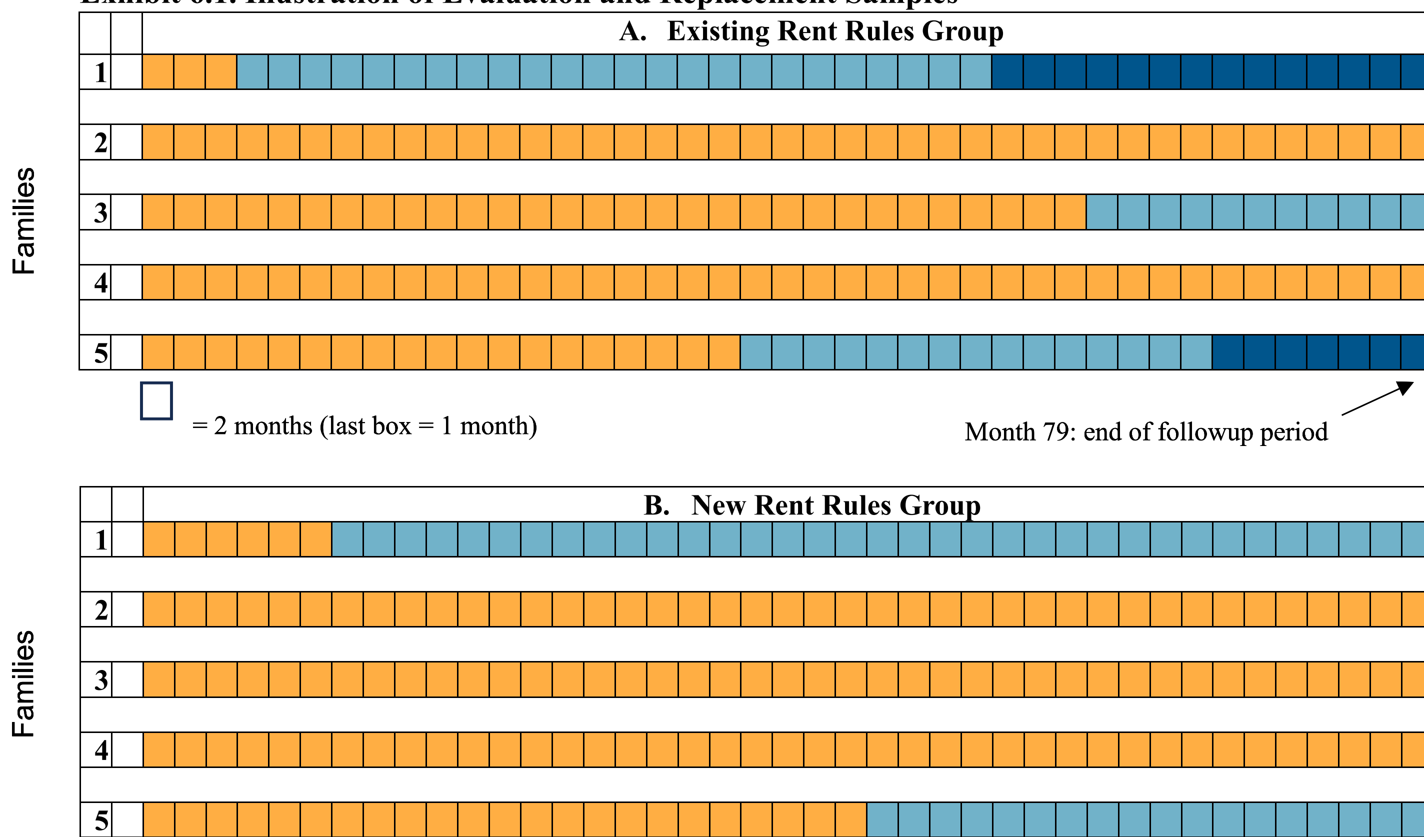
[140] Once the study enrollment period ended for the demonstration in 2015, no new families were subject to the new rent rules.

[141] Because the demonstration only called for the new rent rules to be applied to families randomly assigned to the new rent rules group, other families who would have been eligible for the evaluation but came up for recertification after the study's enrollment period had ended were, in actuality, subject to the PHA's existing rules, just as was the case for control group families.

[142] While this is a simulation, many of its estimation elements are dictated by the rules of the demonstration or the HCV program. For example, a replacement family for a new rent rules sample member must go through an intake process and receive triennial recertification rather than annual recertification. This increases confidence in the simulation approach and results.

Exhibit 6.1. Illustration of Evaluation and Replacement Samples



Notes: This figure displays the length of time of the voucher program in months for 10 hypothetical families from the evaluation sample—5 in the existing rules group and 5 in the new rules group. The months that these 10 families spent in the HCV program are shown in orange. The figure also shows the number of months in the HCV program of 7 supplemental cases drawn from the available pool of eligible families on the waiting list when evaluation sample members left the program. The months that these 7 supplemental families were enrolled in HCV are shown in blue—light blue for the 5 who replaced departing families in the evaluation sample and dark blue for those who replaced families in the supplemental sample who left before the end of the 79-month followup period.

Source: MDRC

the impact analyses are concerned with the new policy's effects on employment, subsidy receipt, and other outcomes *after* each family's initial TTP and subsidy took effect.

The top panel of exhibit 6.1 assumes that two control group families (cases 2 and 4) remained in the HCV program for the entire followup period. The other three families departed after 6 months, 60 months, and 38 months, respectively, freeing up vouchers for other families. Two of those replacement families were themselves eventually replaced by other families, referred to in the exhibit as "subsequent replacement families." (See top-panel cases one and five.) Thus, while the core evaluation sample's control group had five families, the total number of families who filled the 5 voucher slots assigned to the control group, including the five replacement families, was 10. These 10 families were included in the ***cost-per-voucher*** analysis, whereas only the five original control group families were included in the ***cost-per-sample-member*** analysis. It is also noteworthy in this example that, collectively, the five hypothetical members of the control group were enrolled in the

voucher program for about two-thirds of all the months across the five slots, while the replacement families collectively filled the slots in all the remaining months.

The bottom panel of exhibit 6.1 illustrates a pattern whereby the families in the core evaluation sample who were randomly assigned to the new rules group stayed in the HCV program longer than their counterparts in the existing rules group—a pattern observed in the impact analysis (see chapter 3). In this example, three of the five core sample members remained in the voucher program for the full followup period, and the other two (bottom-panel cases one and five) stayed for 12 months and 46 months, respectively, which means that fewer followup months were available for replacement families; as a result, only two new families entered the voucher program as supplemental cases to replace families in the new rules group. Thus, in this hypothetical example, a total of seven families used vouchers under the new rent policy.

The per-voucher focus of this component of the cost analysis represents a dramatic change in analytical perspective compared with the cost per family in the core evaluation sample. In large part because of the substantial impact of the new rules on the length of time families stayed in the voucher program—which drove many of the impact results discussed in chapter 3, including the increase in subsidy payments—this change in perspective can produce results that may seem at odds with some of this report's other findings. The results are consistent, however, and they are also indicative of the multilayered consequences of rent reform.

Methodology

Estimating Administrative Costs Per Family in the Core Sample

The analysis of administrative costs per family in the core evaluation sample is based on data on PHA staff actions (discussed in chapter 3) and information gleaned from interviews with frontline and supervisory staff about how they spent their time administering the new and existing rent rules in the demonstration sites. The estimation approach was also informed by the qualitative analysis of staff practices described in chapter 5, and by information reported to HUD by the demonstration sites and other Moving to Work (MTW) PHAs over the course of the demonstration.

The per-sample-member cost estimation process is driven by the measured impacts of the new rent policy on the specific HCV administrative actions that were directly affected by the new rent policy—notably the actions related to regularly scheduled and interim recertifications. (The cost of PHA administrative activities *not* potentially affected by the new rent policy are thus excluded here.) These impacts, which were presented in exhibit 3.9, are valued using the cost of pertinent PHA labor needed to carry out the actions. To do this, staff time estimates were made for each type of recertification action completed for the families in the research sample (for example, an annual recertification or an interim recertification for a change in income).

Estimates also were calculated for additional time that staff spent working with families that did not result in a formal action and, thus, was not recorded in the PHAs' rent subsidy software systems. For example, housing specialists spent time determining whether families in the new rent rules group qualified for restricted interims or hardship remedies. When the family did not

qualify, no formal recertification action was taken, and nothing was recorded in the software data systems. Consequently, staff time for these activities was estimated based on staff interviews.

These interviews were conducted with housing specialists from each site and their supervisors—including individuals with extensive experience conducting recertifications and other pertinent actions under the new policy rules. The interviewed staff were also experienced in conducting these actions under the existing rules. The estimates based on these interviews were further informed by the PHAs' MTW reports to HUD. In particular, the analysis drew on information on staff time use in these reports as a starting point when interviewing staff about how their time use differed under the new and existing rent policies. Exhibit 6.2 presents the time estimates for each of the PHAs separately.

The estimates of staff hours were then valued using pertinent wage rates, fringe benefits, office and other non-labor expenses, and overhead cost information. Financial reports and other financial information gathered from the three PHAs were used to determine the hourly rate for staff salaries and fringe benefits and overhead costs related to office space, supplies, and general housing agency expenses. Information from HUD's Housing Choice Voucher Administrative Fee Study, which was collected from a nationally representative sample of housing agencies, was used to estimate mark-up rates for the direct hourly labor cost estimates for supervision (of employees carrying out recertifications and other directly affected tasks) and staff support costs.[143] (See appendix exhibit F.1 for the mark-up rate estimates that were applied for each PHA.)

The new rent policy also had other, mainly indirect, effects on administrative costs. One of these effects has been addressed by estimating, based on the direct labor unit cost estimates and other data, the expenses associated with agency administrative functions, such as finance, human resources, and overall management. Other indirect effects cannot be dealt with in the per-sample-member analysis, but some are addressed in the per-voucher-slot analysis.[144]

Estimating Administrative Costs Per Voucher Slot

The per-voucher-slot cost estimation adds the administrative costs associated with replacement families to the costs incurred in serving the families in the core evaluation sample. The first step in estimating these additional costs was identifying the supplementary sample of replacement families—that is, the families who were assigned vouchers that were freed up when families in

[143] Abt Associates Inc. conducted the Administrative Fee study. See Turnham et al. (2015).

[144] One noteworthy type of indirect effects—those that occur as resources are freed up when less PHA staff time is devoted to activities such as recertification—cannot be addressed in any of the analyses presented here. However, the use of such freed-up resources by PHAs in the Moving to Work demonstration (including the PHAs in the Rent Reform Demonstration) is discussed in Levy, Edmonds, and Long (2020).

Exhibit 6.2. Estimates of Staff Time Use per Staff Action for Existing Voucher Holders

Type of Action	New Rent Rules	Existing Rent Rules
Lexington		
Regularly scheduled recertification[a]	1:15	0:49
Move/change of unit[b]	1:00	1:00
Interims[c]		
Contract rent change[d]	0:15	0:15
Household composition change	0:45	0:45
Increased or decreased income	0:40	0:50
Hardship exemption	1:05	NA
Other action[e]	0:14	0:14
Sample size (total = 979)		
Louisville		
Regularly scheduled recertification[a]	2:00	1:10
Move/change of unit[b]	1:30	1:30
Interims[c]		
Contract rent change[d]	0:24	0:50
Household composition change	0:32	0:32
Increased or decreased income	0:20	1:00
Hardship exemption	1:15	NA
Other action[e]	0:20	0:22
Sample size (total = 1,908)		
San Antonio		
Regularly scheduled recertification[a]	1:30	1:00
Move/change of unit[b]	1:38	2:02
Interims[c]		
Contract rent change[d]	0:37	0:30
Household composition change	0:20	0:20
Increased or decreased income	1:03	0:55
Hardship exemption	1:10	NA
Other action[e]	0:40	0:20
Sample size (total = 1,869)		

[a] Regularly scheduled recertification reflects actions recorded as "Action code 2: annual reexamination" on the 50058 form. PHAs record all regularly scheduled reexaminations under this action code regardless of the frequency of reexaminations: Annual, biennial, and triennial reexaminations are recorded under this action code.
[b] "Move/change of unit" actions reflect actions recorded as "Action code 7: other change of unit" on the 50058 form. If a move was recorded through an annual or interim action, it is not reflected in this outcome.
[c] Interims reflect all actions recorded as "Action code 3: interim reexamination" on the 50058 form, except interim reexaminations to end a grace period or hardship rent. Types of interim actions are not mutually exclusive. Any action counts as each action once. At the same interim certification event, a household may have reported changes in its situation that fell into more than one of the categories displayed in this table.
[d] The "existing rent rules" group often has contract rent changes included in their annual reexaminations, and in that case the contract rent increase is not included in this category.
[e] Other actions include interims (or some other reason but not end of grace or hardship), which are difficult to classify from the available data.
Notes: NA = Not available. Staff were asked to be comprehensive in thinking about the amount of housing specialist time different types of recertifications took and to talk about the average amount of time (for example, not best case or worse case scenarios). In cases where recertifications comprised several action types, only the

action with the greatest time estimate was counted. Therefore, some of the actions represented in the "number of actions" estimates may have been subsumed under the cost of another action. Staff Time Estimates are shown in hours and minutes.
Sources: MDRC interviews of housing specialists and their supervisors. Number of staff actions are MDRC calculations using public housing agency data.

the core evaluation sample left the HCV program during period following random assignment. For the purposes of this analysis, the per-voucher cost analysis sample can be seen as including the initial families filling voucher slots (core sample) during the followup period, and the supplementary sample as comprising families who subsequently filled those same slots when the initial families left the voucher program. Among families in the core sample, 41.3 percent of those in the new rules group left the voucher program or ported out during the followup period and were replaced by other families, compared with about 47.8 percent of control group families (see chapter 3). The supplementary sample is thus correspondingly larger for the control group, which was subject to the existing rent rules.

The process by which replacement families were identified for this analysis is multi-faceted but straightforward. When a family in the core evaluation sample left the HCV program, the research team added a family to the replacement sample. It identified these replacement families for each PHA from HUD records, focusing on HCV households who would have met the eligibility criteria for the Rent Reform Demonstration but were not included in the evaluation's core sample because they were new admissions or port-ins. The team then randomly picked from this pool of families those who had been given vouchers for the first time in the same followup month[145] that the families in the core evaluation sample left the HCV program.

If and when this replacement family left the HCV program later in the followup period, another family was identified and added to the replacement sample. The choice of this family was again random, in this case chosen from the eligible families receiving a voucher in the month following the initial replacement family's departure month. This and subsequent replacement families who left the voucher program before the end of the followup period were replaced in the same way, so that all families filling a voucher slot after the core sample family left are included in the sample of replacement families.

The second step involved estimating pertinent administrative costs for the supplementary sample. In contrast to the core evaluation sample, all administrative costs are germane for replacement families. For the core sample, the change in rent policy affected only some administrative actions. However, because that new rent policy caused a reduction in the overall *number* of replacement families, all actions associated with administering vouchers had to be taken into account to capture the full administrative cost implications of serving fewer families. In

[145] In a small number of cases, there were insufficient replacement families to take the place of all departing sample members. As a result, a single replacement family could be added to the replacement sample multiple times. See appendix F for details.

estimating these costs, the analysis assumes that the replacement families who received vouchers freed up by families in the new rules group who exited the HCV program would similarly be subject to the new rent rules and would respond to them in the same way that families in the core sample did (for example, that they would experience similar patterns of staff actions as the core evaluation sample, and have a similar duration in the voucher program).

In effect, each family in the core evaluation sample—in either the new rules group or control group—is the initial family to fill a voucher slot. Thus, the average per-sample-member expenses are the costs for the average initial family, while the pertinent expenses for replacement families capture the costs for the remaining families filling those newly available slots during the followup period.

The outcomes for the control group replacement families could be directly measured because they were generally subject to the same existing rent rules as the control group. For new rules replacement families, however, the outcomes were estimated by adjusting each measured outcome using the average impact for the pertinent outcome by site. This means that the base estimates of costs per voucher slot relied on the key assumption that new rules group replacement families would have responded to the new rules, on average, in the same way that the evaluation sample families did. It also means, as previously mentioned, that this component of the cost analysis provides simulation estimates rather than the kind of truly experimental estimates of administrative costs per sample member.

In addition to the administrative actions directly affected by rent reform policies, a wide range of actions were affected due to the policies' impact on the length of time families remained in the HCV program. As chapter 3 shows, families spent longer in the program under the new rent rules, which means there was less turnover in families per voucher. As a result, substantially less staff time was devoted to issuing new vouchers, the lease-up process, initial apartment inspections, and many other administrative activities and actions. The cost estimation per voucher slot addresses these outcomes and the potential resource savings associated with them. As discussed more fully in appendix F, the average staff time needed for this broader set of activities and actions was estimated using data collected in the HCV Administrative Fee Study.[146]

Estimating Total Costs Per Voucher Slot

The assessment of the larger budgetary cost implications of the new rules on voucher slots over the course of the followup period takes into account housing voucher subsidy payments. The estimated impacts on housing subsidies are presented in chapter 3, and these results are used in computing subsidy costs for families in the core evaluation sample. For the replacement families, the subsidy amounts were measured for the existing rules group and estimated for the new rules group in the same manner as for other outcomes. As for administrative costs per voucher slot, the

[146] Staff time estimates are presented in Chapter 4 of Turnham et al. (2015).

analytical approach is intended to provide simulation estimates of net subsidy costs per slot based on data assembled for replacement families who filled the voucher slots.

Sensitivity Tests

Uncertainty surrounded the various estimates used in the cost analysis. Consequently, the analysis developed base estimates of the administrative and subsidy costs along with a number of alternative estimates that tested the sensitivity of the base estimates to different assumptions about matters such as staff time use and the response of household heads to rent reform rules. Not surprisingly, the base per-voucher-slot cost estimates—which involved a supplementary sample as well as the evaluation sample—when more vulnerable to changes when assumptions were modified than the per-sample-member estimates. (See appendix F.)

Findings on the Administrative Cost Per Family in the Core Sample

For the core evaluation sample, the analysis found that the new rent policy produced savings in pertinent administrative expenditures over the full followup period. As exhibit 6.3 shows, for the three PHAs combined, the estimated average total (pertinent) administrative cost per family in the core sample was $354 for the new rules group and $407 for the existing rules group. (These results are expressed in 2022 dollars.)[147] The cost savings were small—PHAs, on average, saved about $53 in administrative costs per family in the new rent rules group because of the new rent policy. These are base estimates and, as shown in appendix exhibit F.3, they changed, although not dramatically, when assumptions were altered.

Administrative expenses were reduced at all three PHAs. The reduction was somewhat larger for Lexington than for the other two PHAs because, as noted earlier, the new rules generated more staff time savings at that site.[148] The administrative cost savings in Lexington ($112 per family) constituted about one-third of the administrative cost for control group families. The cost savings at the other two PHAs were smaller, constituting a considerably smaller reduction in percentage terms relative to control group costs.

[147] As previously explained, the focus here is on the cost of PHA administrative activities that could be affected by the new rent policy.

[148] The exact reasons for the larger savings in Lexington are uncertain. In general, a PHA might experience greater savings if, for example, its staff are more efficient in performing administrative tasks, if the families they serve are better at providing their retrospective income documentation, if fewer of the families served had multiple workers and/or multiple jobs per worker in the past year, or other idiosyncratic site factors. Estimates of differences across sites may be subject to measurement error.

Exhibit 6.3. Net Administrative Cost per Family for 79 Months, by Public Housing Agency

Cost Category ($)	New Rent Rules	Existing Rent Rules	Difference (Net)
Lexington, Louisville, and San Antonio Combined			
Personnel	257	295	-38
Overhead	97	112	-15
Total	354	407	-53
Sample size (total = 4,756)	2,368	2,388	
Lexington			
Personnel	181	262	-81
Overhead	69	100	-31
Total	250	362	-112
Sample size (total = 979)	486	493	
Louisville			
Personnel	334	356	-22
Overhead	127	135	-8
Total	461	491	-30
Sample size (total = 1,908)	947	961	
San Antonio			
Personnel	216	250	-34
Overhead	82	95	-13
Total	298	346	-47
Sample size (total = 1,869)	935	934	

Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Tests of statistical significance were not performed. All dollar values were rounded to the nearest whole dollar. Rounding may cause slight discrepancies in sums and differences. Program costs were based on steady state of operation that excluded external research and start-up costs. All costs are shown in constant 2022 dollars. The estimated administrative costs pertain only to the costs of public housing agency activities that were potentially affected by the new rent policy.
Source: MDRC calculations using public housing agency data

The magnitude of the reduction PHA administrative costs per family in the core sample that is attributable to the new rent policy was limited by three factors. First, the new rent reform policy could directly affect the nature or frequency of only a few kinds of administrative tasks—such as the review of household income and eligibility, changes in household composition and moves, and calculations of rent contributions and subsidies. Thus, even a substantial reduction in impacted administrative areas would translate into a limited overall reduction in administrative expenses. It is noteworthy, however, that the new rules indirectly affected other aspects of administration, which are captured in the estimated costs per voucher slot, as discussed below.

Second, the cost reduction associated with the most time-consuming administrative activity affected by the new rules—recertifications—was constrained by the nature of the rule changes. Although families in the new rules group had fewer recertifications than the control group, some recertification activities under the new rules took more staff time to complete per family, especially for certain types of families. This is primarily attributable to the switch from using current/anticipated income to retrospective income as the basis for calculating families' TTPs and changes in those TTPs.

Third, the longer stays in the voucher program among families in the new rules group increased the number of months in which the full range of ongoing administrative actions could take place, thus offsetting some of the savings in administrative costs per family in the core sample.

While the absolute cost savings were small, they still indicate that 13 percent of the pertinent administrative expenses for existing rules families was eliminated by the new policy. Thus, they signify some streamlining of the impacted administrative functions. At the same time, these savings were well exceeded by a substantial impact of the new rent rules on subsidy payments, which increased for the new rules group due primarily to their longer stays in the voucher program than the control group. The average total extra, or "net," cost per family in the new rules group (including both administrative costs and subsidy payments) was estimated at $4,026 (in 2022 dollars), or about 9.3 percent higher than the control group average during the study period.[149]

Findings on the Administrative Cost Per Housing Voucher Slot

Not surprisingly, the estimated administrative costs for housing voucher slots over the full followup period were larger than the estimated costs per family in the core evaluation sample because for the per-family estimate those costs end once a family exits the voucher program. Exhibit 6.4 presents the base estimates of the costs per slot.

[149] It is important to note that certain reforms, such as the requirement to base TTPs on retrospective income and the changes to families' income-reporting requirements between recertifications, are similar in some respects to features of the Reform Demonstration's new rent policy. It is thus possible that had the control group been subject to Housing Opportunity Through Modernization Act (HOTMA) rules, the difference in administrative costs between the new rent policy and exiting rules would have been somewhat less than the difference estimated here. This should be kept in mind when reviewing this study's cost estimates.

Exhibit 6.4. Net Administrative Cost per Voucher Slot for 79 Months, by Public Housing Agency

Cost Category ($)	New Rent Rules	Existing Rent Rules	Difference (Net)
Lexington, Louisville, and San Antonio Combined			
Cost for sample members	354	407	-53
Cost for replacement families	278	364	-86
Total	632	771	-139
Evaluation sample (total = 4,756)	2,368	2,388	
Sample size (total = 7,771)	3,714	4,057	
Lexington			
Cost for sample members	250	362	-112
Cost for replacement families	261	356	-94
Total	511	717	-206
Evaluation sample (total = 979)	486	493	
Sample size (total = 1,684)	810	874	
Louisville			
Cost for sample members	461	491	-30
Cost for replacement families	274	412	-138
Total	735	903	-168
Evaluation sample (total = 1,908)	947	961	
Sample size (total = 3,078)	1,451	1,627	
San Antonio			
Cost for sample members	298	346	-47
Cost for replacement families	292	318	-26
Total	591	664	-73
Evaluation sample (total = 1,869)	935	934	
Sample size (total = 3,009)	1,453	1,556	

Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Tests of statistical significance were not performed. All dollar values have been rounded to the nearest whole dollar. Rounding may cause slight discrepancies in sums and differences. Program costs are based on steady state of operation that excludes external research and start-up costs. All costs are shown in constant 2022 dollars. The estimated administrative costs pertain only to the costs of PHA activities that were potentially affected by the new rent policy.
Source: MDRC calculations using public housing agency and Public and Indian Housing Information Center (PIC) data

The first row of each panel in that exhibit shows the administrative cost (in 2022 dollars) for families in the core evaluation sample, and these costs are the same as the totals shown in Exhibit 6.3. The second row shows administrative costs for families in the replacement sample. Adding the estimates for those two samples yields the estimated total (pertinent) administrative cost per voucher slot. With all three PHAs combined, the total administrative cost per voucher slot under the new rent rules is $632 for the full followup period, compared with $771 under the exiting rent rules. The estimated total administrative cost savings per voucher slot due to the new rent policy is thus $139. This represents about an 18 percent reduction in per voucher administrative costs over the full followup period. Again, the savings are greatest in Lexington, although Louisville's savings are nearly the same.

For the replacement families, administrative costs are driven not only by ongoing administrative functions but also case-opening and cases-closing functions. Because the control group in the core evaluation sample, compared with the new rules group, had shorter stays in the HCV program, there were more replacement families using voucher slots allocated to the control group and subject to the existing rent policy. More replacement families meant more intakes, more vouchers issued, and more initial inspections, which were required for all families who entered the HCV program, and more administrative actions related to HCV departures. These all add to the program's administrative costs and are included in the cost estimates for replacement families presented in exhibit 6.4. Thus, much of the indirect administrative cost savings per voucher that are due to the new rent policy are associated with this reduction in voucher family "churn."[150]

Total Costs for Housing Voucher Slots

The overall budgetary effect of the new rules includes its estimated effects on subsidy expenses as well as the effect on administrative costs. Exhibit 6.5 shows both these effects.

The direct impact of the new rules on voucher subsidy payments for the core evaluation sample presented in chapter 3 indicated a net cost over the 78 months following the initial recertification of $3,480—which is $4,079 in 2022 dollars. That cost is attributable primarily to the longer time that families in the new rules group spent on the voucher program.

However, when the costs per voucher slot are considered, the impact of the new rules on voucher subsidy payments shrunk. This is because the estimated subsidy payments for *replacement* families for the existing rules group exceeded the total amount of subsidy paid to replacement families in the new rules group. This is not surprising. Because the initial families in the control group, compared with those in the new rules group, stayed in the HCV program for less time, their voucher slots were

[150] To provide some context for these estimates, it is helpful to consider the total approximate administrative fees paid to the PHAs to cover the costs of the voucher program—including the costs of activities *not* affected by the new rent policy. The total fees paid *per voucher slot per year* were estimated to be as follows (in 2022 dollars): $902 for Lexington. $801 for Louisville, and $961 for San Antonio. For the *full followup period*, the estimates are $5,388 for Lexington, $4,786 for Louisville, and $5,738 for Antonio.

freed up for subsequent use by replacement families more frequently and for a longer portion of the total followup period. Moreover, as explained below, monthly subsidy payments tend to be higher

Exhibit 6.5 Net Budget Cost per Voucher Slot for 79 Months, by Public Housing Agency

Cost Category ($)	New Rent Rules	Existing Rent Rules	Difference (Net)
Lexington, Louisville, and San Antonio Combined			
Administrative cost for sample members	354	407	-53
Administrative cost for replacement families	278	364	-86
Subsidy cost for sample members	46,820	42,741	4,079
Subsidy cost for replacement families	14,492	17,674	-3,182
Total	61,944	61,186	758
Evaluation sample (total = 4,756)	2,368	2,388	
Sample size (total = 7,771)	3,714	4,057	
Lexington			
Administrative cost for sample members	250	362	-112
Administrative cost for replacement families	261	356	-94
Subsidy cost for sample members	42,551	39,635	2,916
Subsidy cost for replacement families	13,497	16,025	-2,528
Total	56,560	56,378	182
Evaluation sample (total = 979)	486	493	
Sample size (total = 1,684)	810	874	
Louisville			
Administrative cost for sample members	461	491	-30
Administrative cost for replacement families	274	412	-138
Subsidy cost for sample members	48,385	43,804	4,581
Subsidy cost for replacement families	13,811	19,377	-5,565
Total	62,931	64,084	-1,153
Evaluation sample (total = 1,908)	947	961	
Sample size (total = 3,078)	1,451	1,627	
San Antonio			
Administrative cost for sample members	298	346	-47
Administrative cost for replacement families	292	318	-26
Subsidy cost for sample members	47,587	43,154	4,433
Subsidy cost for replacement families	15,742	16,748	-1,006
Total	63,920	60,566	3,354
Evaluation Sample (total = 1,869)	935	934	
Sample size (total = 3,019)	1,453	1,556	

Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Tests of statistical significance were not performed. All dollar values have been rounded to the nearest whole dollar. Rounding may cause slight discrepancies in sums and differences. Program costs were based on steady state of operation that excluded external research and start-up costs. All costs are shown in constant 2022 dollars. The estimated administrative costs pertain only to the costs of public housing agency activities that were potentially affected by the new rent policy.
Source: MDRC calculations using public housing agency and Public and Indian Housing Information Center (PIC) data

earlier on during a families' time in the HCV program. Thus, filling the months in which existing rules group families were no longer enrolled in the voucher program with higher subsidy payments for replacement families added substantially to the total subsidy cost for the existing rules group from a per-voucher perspective. While there is an overall net subsidy cost over the full followup period, the picture changes over time. There is a net subsidy cost through the first four years of followup, but a small net savings in Year 5, and somewhat larger savings in Year 6 and the seven months covered in Year 7. This suggests that, if the new rent rules were adopted as ongoing policy, the long-term effect on voucher subsidies might produce modest savings in total costs per voucher.

The monthly subsidy amounts for the replacement families show two processes at work. First, the average subsidy cost per month is generally higher for replacement families than departing families because subsidy amounts are high initially and then decline on average during the duration of a family's time in the voucher program.[151] This is probably due to the normal trend among voucher holders, who, on average, experience a growth in earnings over time, which was observed for household heads in the core sample in the years following random assignment (exhibit 2.2). Second, the estimation method used here for replacement families yields a cumulative subsidy amount that is larger for the new rules group relative to the control group, mirroring what was observed for families in the core evaluation sample.

As shown in the last column of exhibit 6.5, for all three PHAs combined, the indirect subsidy cost saving for replacement families (-$3,231) offset part but not all the direct subsidy cost for core sample families ($4,079). When combined with the small savings in administrative costs, the result is a total net cost per voucher slot of $758. This represents an overall increase in total voucher slot costs of only about 1 percent relative to the total cost per control group voucher. There was an overall net savings in Louisville and net costs in the other two sites.

As with subsidy costs, the picture changed over the course of the followup period. During the last 2.5 years of followup, there was a small net overall cost savings, reflecting continuing administrative cost savings and a gradual change from net subsidy cost per voucher slot to a small cost savings. Exhibit 6.6 presents the administrative and subsidy costs per voucher slot during the followup month one to month 48 and month 49 to month 79. During the first 48 months, the estimated administrative cost is outweighed by the estimated subsidy cost, but during the last 31 months there are both

[151] For example, for existing voucher holders in either research group who were still in the voucher program after the Year 3 recertification, exhibit 3.4 shows that TTPs were higher (and, hence, subsidies were lower) after that recertification compared with their initial TTPs (and subsidies) at the time of their enrollment in the demonstration when they were newer voucher recipients.

administrative and subsidy cost savings. The overall net cost in the first time period is $819, while the overall net savings in the second period is $61.

Overall cost savings were estimated for followup Year 5, Year 6, and Year 7, with the largest savings occurring during the seven months covered in the final year. Thus, the overall savings were steady, albeit small. The results also vary across the three PHAs. Given the small overall cost differences and their variability across PHAs, together with the uncertainty associated with the assumptions used in the analysis, the results for month 49 to month 79 should be viewed as suggestive, not conclusive.

Conclusion

When only the results for the core evaluation sample are taken into account, it appears that the rent reform policy tested in this demonstration did not reduce the overall cost of the HCV program for those families. It produced some administrative cost savings, but these savings were well exceeded by a substantial positive impact of the new rules subsidy payments, yielding an average total net cost per family in the new rules group that was about 9.3 percent higher than the control group's average during the study period.

However, when the analysis examined costs per voucher slot—taking into account replacement families as well the families randomly assigned to the new and existing rent rules groups—the results moved closer to overall budget neutrality. Although subject to uncertainty, the best estimate of the overall budgetary effect of the rules on per-voucher costs is that there is a net cost for the first four years and a modest saving thereafter. Modest administrative cost savings become more substantial through the followup period, and the large subsidy cost becomes much smaller over the same period. The estimates for the last 2.5 years of the followup suggest a small net savings.

One thing that is very clear from this cost analysis is that the results were heavily driven by the impact of the new rent rules on the length of time families spent in the HCV program, which is critical to both administrative and voucher subsidy costs. The fact that families in the new rules group stayed in the voucher program longer than control group families offset some of the administrative cost savings that resulted from reduced recertifications and other policy changes, though it did not eliminate those savings. From the perspective of voucher slots, however, the longer stays made no difference to ongoing administrative expenses—the families changed, but the ongoing costs of administering the vouchers incurred over the full followup period did not. Having new-rules families stay in the voucher program longer also meant that fewer families were served per voucher slot resulting in fewer intakes, vouchers issued, and initial inspections when families enter the HCV program, and fewer administrative actions related to the HCV departures. In other words, administrative costs were reduced because there was less "churn."

Exhibit 6.6 Net Budget Cost per Voucher Slot in Months 1-48 and 49-79, by Public Housing Agency

Cost Category ($)	New Rent Rules	Existing Rent Rules	Difference (Net)
Lexington, Louisville, and San Antonio Combined			
Months 1-48	37,714	36,895	819
Months 49-79	24,230	24,291	-61
Full period	61,944	61,186	758
Evaluation sample (total = 4,756)	2,368	2,388	
Sample size (total = 7,771)	3,714	4,057	
Lexington			
Months 1-48	33,947	33,503	444
Months 49-79	22,613	22,875	-262
Full period	56,560	56,378	182
Evaluation sample (total = 979)	486	493	
Sample size (total = 1,684)	810	874	
Louisville			
Months 1-48	38,691	38,566	125
Months 49-79	24,241	25,518	-1,277
Full Period	62,931	64,084	-1,153
Evaluation sample (total = 1,908)	947	961	
Sample size (total = 3,078)	1,451	1,627	
San Antonio			
Months 1-48	38,785	36,864	1,921
Months 49-79	25,134	23,702	1,433
Full period	63,920	60,566	3,354
Evaluation sample (total = 1,869)	935	934	
Sample size (total = 3,009)	1,453	1,556	

Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Tests of statistical significance were not performed. All dollar values were rounded to the nearest whole dollar. Rounding may cause slight discrepancies in sums and differences. Program costs were based on steady state of operation that excluded external research and start-up costs. All costs are shown in constant 2022 dollars. The estimated administrative costs pertain only to the costs of public housing agency activities that were potentially affected by the new rent policy.

Source: MDRC calculations using public housing agency and Public and Indian Housing Information Center (PIC) data

The longer time that families in the new rules group stayed in the HCV program also led to the positive estimated impact of the new rent rules on housing subsidy costs reported in chapter 3. When replacement families are taken into consideration, the simulation analysis indicates that this cost is largely but not entirely offset by the greater subsidy payments to replacement families subject to the existing rent rules, at least within the timeframe covered by this analysis.

The impact of the new rules on the time families received housing assistance was sufficiently important that a cost analysis based on the core evaluation sample alone would have provided a limited, and potentially misleading, picture of how rent reform affected HCV expenditures. Subsidy expenditures did not decline because of the new rules; instead, more of those expenditures stayed with the same families rather than shifted to replacement families. Administrative costs for HCV intakes and exits of families were also critical considerations as it became clear that the new rules reduced voucher churn.

It is also noteworthy that the new rules' impact on time in the HCV program reduced the number of families served in the demonstration PHAs' voucher slots over the full followup period. There were 343 fewer replacement families taking the place of families in the new rules group than in the existing rules group. This represents about 8.5 percent of all families who had access to vouchers under the existing policy. This is an important consideration for policymakers to weigh. Under the new rules, some families received housing assistance longer, potentially providing them more family stability and disposable income. But these rules also gave families on PHA waiting lists a longer delay before starting housing assistance.

In considering these conclusions, three important matters should be kept in mind. First, this analysis used numerous assumptions, and the results change when the assumptions are altered. Assumptions are obviously important, in particular, to components of the cost analysis involving replacement families, whose response to the new rules could not be observed. The sensitivity tests conducted for replacement families reduced but did not eliminate the total net cost estimate for the full followup period (see appendix exhibit F.4). That said, the tests suggest that, even when assumptions are changed, the new rules' per-voucher effects were close to being budget neutral over more than 6.5 years of followup.

Second, the results of the analysis described in this chapter are based on only three demonstration sites, which clearly limits their generalizability. At the same time, it is noteworthy that the three PHAs are reasonably similar to many PHAs nationwide in a number of important respects, particularly those serving more than 500 HCV families. For example, the fair market rents (FMRs) for the three PHAs are above the average for all PHAs, but close to average among PHAs serving more than 500 families. The study PHAs are also close to national averages for most measures (such as wage rates) found to be important in determining administrative cost variation across sites. Thus, the findings from these three sites should have broad relevance.

Finally, the "current rules" used as the base of comparison for this analysis (as in the impact analysis) are those that were in effect prior to the implementation of the Housing Opportunity Through Modernization Act of 2016. If the costs associated with the voucher program are lower or higher than under current rules, then, of course, the estimated net cost of the new rent policy tested in this demonstration would be different.

Chapter 7
An Overall Assessment

This report concludes a comprehensive evaluation of the Rent Reform Demonstration's alternative rent policy for families receiving Housing Choice Vouchers (HCVs). Sponsored by HUD, the demonstration called for designing and carefully evaluating a new policy that would achieve four main goals: (1) improve tenants' labor market outcomes by reducing the financial disincentives built into the traditional policy that may discourage work; (2) protect families from greater economic hardship; (3) simplify the rules to reduce the burden on public housing agencies (PHAs) in administering the rent rules and the burden on tenants to comply with those rules; and (4) remain cost neutral—that is, the overall cost of administering the policy and subsidizing families' rent should be the same, or not very much more, than the traditional rent policy.

With these goals in mind, HUD, PHA representatives, and MDRC, with input from other housing experts and tenant advocates, designed a single alternative rent policy that four PHAs agreed to trial (with some local adaptation), and that fundamentally changed key aspects of HUD's traditional HCV rent policy. For example, the new policy changed the ways families' rent contributions—i.e., their total tenant payments (TTPs)—were calculated and their housing subsidies were determined; introduced or increased the minimum contribution families were expected to make toward their rent and utilities ("minimum TTP," also referred to as "minimum rent"); capped families' TTPs for successive 3-year periods, even if families' earnings increased; and introduced a number of safeguards to protect families from excessive rent burden and hardship.

This chapter highlights key findings from the evaluation and offers an overall assessment of how well the demonstration's goals were met. It focuses primarily on the three PHAs for which longer-term findings are available: Lexington, Louisville, and San Antonio.[152] (Earlier MDRC reports include shorter-term results on the fourth PHA, Washington, D.C., which ended its participation in the demonstration sooner.)[153]

In addition, this chapter highlights several general observations about voucher holders' overall labor market outcomes, use of housing subsidies, and use of other government benefits

[152] As explained in Chapter 2 and subsequent chapters, this report focuses on intent-to-treat (ITT) impact estimates, but also includes treatment-on-treated (TOT) impacts on selected outcome measures for Louisville and for all three PHAs combined. (See appendix exhibits B.2 and B.3). The TOT estimates provide a clearer indication of the effects of the new rent policy on families who were subject to it, reflecting the fact that 22 percent of Louisville families opted out of the new policy. At the same time, it should be noted that those who opted out were a self-selected subset of the enrolled families, and they were more disadvantaged on a number of indicators at the time they entered the study.

[153] As those reports show, through 42 months of followup, the results from Washington, D.C., were largely consistent with the combined results from the three other PHAs.

(regardless of their research group assignment). It is well-positioned to do this because the sample of families included in the evaluation were selected in a way that makes them highly representative of all voucher families in the participating PHAs who met the demonstration's eligibility criteria around the time the study was launched (see chapter 1), and because the longitudinal data cover an extended period (6.5 years). The patterns observed may thus contribute to a better general understanding of voucher families' experiences in these important domains.

Labor Market Outcomes

For both research groups, work in the formal labor market was common. Even under the existing rent policy, more than 86 percent of control group household heads (in Lexington, Louisville, and San Antonio combined) had at some point during the 6.5 years of followup worked in a job covered by the unemployment insurance system (a "UI-covered job"). About 60 percent, on average, worked during any given quarter of that period. During Year 4 (prior to the COVID-19 pandemic), just over half (52 percent) worked in all four quarters of that year. And even during the height of the pandemic, quarterly employment rates never fell below 50 percent.

Although most household heads in the existing rules group, like those in the new rules group, worked in a UI-covered job during the study period, a 60-percent quarterly employment rate in the face of a much higher ever-employed rate implies that many household heads did not work consistently. Their earnings were also quite low on average. For example, among those who ever worked in Year 4, only 40 percent earned more than $20,000 during the year, and only 8 percent earned more than $40,000. These patterns reveal that despite a relatively high ever-employed rate, inconsistent employment and low earnings continued to be important challenges for voucher holders under the existing rent policy. Against this backdrop, the Rent Reform Demonstration's new rent policy had limited success in boosting average employment rates and earnings.

Impacts on Employment and Earnings

Two of the PHAs—Lexington and San Antonio—produced some statistically significant positive effects on either employment rates or average earnings within the first three years leading up to the triennial recertification, suggesting some potential for the new policy to improve labor market outcomes. In addition, data from the 4-year survey (presented in a prior MDRC report) suggest that the new rent policy may have produced a small positive effect on self-reported employment (at the time of the survey interview and in the year prior to the interview), which may have included some jobs not covered by the UI system.[154]

Overall, though, there is little evidence that the new rent policy set tenants on distinctively better employment and earnings trajectories. The longer-term pooled results for all three public housing

[154] For all survey findings, see Riccio et al. (2021).

agencies combined show that the new rent rules group did not consistently work more than the control group in UI-covered jobs by a margin that was statistically significant, nor did it have statistically significantly higher cumulative earnings (one of the study's confirmatory outcomes) than the control group. This was generally the case among tenants who were not employed at baseline as well as among those who were already employed.

More puzzling are the unanticipated negative effects on UI-covered employment and earnings observed in Louisville—especially among household heads who were not employed at the time of study entry, and especially in the early years of followup prior to the triennial recertification. Although these negative effects diminished by the end of the followup period, and although they are difficult to explain, they add an important cautionary note, suggesting that some families in some contexts might respond to the new rent policy in unanticipated ways.

Health, Caregiving Responsibilities, and Work

Household heads who were out of the labor force faced significant impediments. According to the results of the 4-year survey (Riccio et al., 2021), the most commonly cited reasons for not working and not seeking work had to do with respondents' own health problems, their caregiving responsibilities for other household members who were ill or had a disability, and caregiving responsibility for children. Qualitative interviews with families cited in chapter 5 of the current report reinforced this observation, with some respondents citing their own health issues or caring for a family member as a reason they were unable to work or look for a job offering more hours or better pay. To them, the decision not to work (or not to work more hours) had little to do with financial considerations. Rent-based work incentives alone may thus be less effective in changing work effort among individuals facing these types of impediments.

Rent Subsidies and "Making Work Pay"

The new rent policy reduced voucher holders' likelihood and pace of exiting the HCV program during the followup period. By the end of that period, the proportion of families in the new rules group still enrolled in the voucher program was 5.9 percentage points higher than the control group rate. Families in the new rules group had also accumulated 4.9 additional months of subsidy receipt. How the new rent policy treated families' increases in income may be the main reason the exit rate was lower for the new rules group. Because recertification was every three years for families in the new rules group, they did not have to report any increases in their earnings during the interim period, and therefore could not be disqualified from the voucher program or have their subsidies reduced until the time of recertification. This benefit was not available to the control group, which had to report earnings increases at least annually. This is the main mechanism through which the new rent policy helped to "make work pay" more than it did under existing rules, which required annual and interim income reviews. As intended, this

feature of the new rules made it easier for voucher holders to combine work and voucher receipt than was possible under traditional HUD rules.[155]

It is also possible (although it cannot be proven with the data available for this report) that because the new rules group had fewer required income reviews and interim recertifications, and fewer interactions with PHA staff, they may have been less likely to violate voucher program administrative rules within each 3-year recertification cycle, or have had other program violations come to light as quickly as may have been the case for the control group. For example, they may have had fewer chances to miss required appointments with PHA housing specialists, or not meet paperwork requirements, or, perhaps, not meet requirements due to PHA administrative errors related to appointments and reporting. These reasons may have contributed to the slower exits among the new rules group. In addition, some families in the existing rules group who had growing incomes and had or anticipated a smaller subsidy, or an end to their subsidy, may have left the voucher program of their own volition, even before a new interim or annual recertification, and possibly without notification. They may have felt a smaller subsidy would not be worth the extra hassle of remaining engaged with the PHA. Similar families in the new rules group may have been less inclined to exit as quickly at their own volition because they were subject to fewer recertifications to review their income and recalculate their subsidy.

Slower exiting meant that the new rules group, compared with the control group, received more total housing subsidy, which helped to increase families' net disposable income while they were still in the HCV program. This was not extra income that families could "see" in the form of cash flowing to them directly. However, the higher average subsidy they received implies that they had more cash left over from their other income sources with which to pay their bills. At the same time, it is important to recognize that the average increase in cumulative subsidy (about 10 percent) was a modest increase from a family's perspective; as such, it may have eased families' financial strain somewhat, but not dramatically.

It is also important to remember that increasing the length of time that families with vouchers continue to receive them comes with a tradeoff: Families on the waiting list have to wait longer to secure a voucher. Thus, a benefit to one group of families in need can be a loss to another group.

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[155] According to data from the 4-year survey of household heads, families in the new rules group who were still on the voucher program were more likely than control group families still on the voucher program to have had wage income in the month prior to the survey interview. Similarly, according to administrative records, earnings and employment for household heads who had not exited the voucher program before the first triennial ("stayers") in the new rules group were substantially more likely than control group stayers to be employed and earn more before the first triennial recertification. These findings suggests that it was "easier" to remain on the voucher program with earnings under the new rent rules than under the existing rules—an outcome consistent with the new rent policy's goal of supporting work.

A Diminishing Work Incentive

Once tenants exit the voucher program, they have no more housing subsidy to lose by increasing their earnings; hence, they face no more rent-based work disincentive. Although the control group faced a bigger disincentive than the new rules group *while in the voucher program* (at least while TTPs were capped for the new rules group during each 3-year period), any "incentives differential" between the two groups lessened as more members of each group exited the voucher program.

By slowing the voucher exit rate for the new rules group, the new rent policy may have further diminished the new policy's potential to impact employment and earnings as time went on, because only after exiting the voucher program were families' rent contributions totally detached from their income, eliminating any work disincentive possibly linked to the rent subsidies (which the triennial income reviews only eliminated in 3-year cycles). That "total detachment" occurred faster for the control group. This may be one reason the limited positive impacts on labor market outcomes evident early on in Lexington and San Antonio were not sustained and did not grow. This possible collateral effect of the new rent policy's impact on housing subsidies, together with the general decline in the incentives differential as both groups exit the voucher program, implies that unless rent-based work incentives jolt tenants onto distinctively better and enduring labor market trajectories early on, any labor market effects the incentives induce for a given cohort of families may be destined to be short-lived.

Tenants' Views on the Motivational Effects of a Rent-Based Work Incentive

Some respondents to the qualitative interviews clearly attributed their work decisions to the new rent policy. These included decisions such as working more hours or encouraging other adults in the household to take a job or work more hours. Other respondents, especially those who were already working when they enrolled in the study, indicated that the policy's work incentive was irrelevant to their labor market decisions. They said that work was the norm for them, and that they had bigger goals to achieve in life (such as homeownership), implying that even under the existing rent rules they would have worked. The rent-based financial incentive aligned with their own goals, and may have been an added benefit, but they said they did not need the policy to induce more work effort. These perspectives, along with the impact findings, suggest that it may take more than rent reform alone to help many non-working or low-earning employed voucher recipients substantially increase their earnings.

Protecting Tenants from Greater Material Hardship

Minimum Rent and Restrictions on Interim Recertifications

The new rent policy included a minimum TTP (also referred to as a "minimum rent") so that nearly all residents would be responsible for paying at least some of their housing costs. Because it was not income-based, the minimum TTP may have functioned as a small additional work

incentive. The amount varied across PHAs, from a low of $50 per month in Louisville to a high of $150 per month in Lexington. Another feature of the new rent policy was a restriction on interim recertifications in the face of drops in income. These were limited to one per year and were available only when retrospective income dropped by more than 10 percent (a restriction intended to reduce PHAs' administrative burden of having to recompute TTPs and subsidies for small income losses). Both these features raised concerns during the policy design phase that the new rent policy might exacerbate families' financial and material hardships. Thus, an important question for the evaluation was to determine whether that happened, which would have undermined the new policy's goal of protecting families from greater hardship.

The new policy's allowance of at least one interim recertification per year, plus its renewable hardship remedies, which offered reductions in tenant rent contributions when their TTPs exceeded 40 percent of current income, were intended to mitigate such an outcome. Overall, it appears that they succeeded, and, taken as a whole, the new rent policy did not worsen (or improve) families' material or financial well-being.[156] For example, according to the survey of household heads, respondents in the new rules group were *not* substantially more likely, on average, than those in the control group to report experiencing various hardships (such as not being able to pay their rent or utilities bill, not having adequate food to eat, or having more difficulty making ends meet). This was true even in Lexington, which only permitted a reduction in its $150 minimum rent (for either research group) if a household became disabled, according to HUD's definition.[157]

Triennial Rent Increases

Families in the new rules group could not avoid TTP increases forever. In fact, upon completing their triennial recertification, about 62 percent of those remaining in the voucher program began paying a higher TTP and receiving a smaller housing subsidy than they had just before the triennial recertification. This reflects their growth in prior-year income. Had they been in the control group, of course, their TTP increase would have kicked in sooner (because of annual and interim recertifications), and their cumulative housing subsidy would have been less. (Among control group families still in the voucher program, 51 percent saw their TTPs increase over the same period.) Still, for some families in the new rules group, the magnitude of the increase was sizeable. For example, 34 percent saw their TTPs jump by more than $150 per month, and 18 percent experienced an increase of over $300 per month. (The comparative figures for control group families still receiving vouchers were 18.2 percent and 8.5 percent, respectively.)

Of course, families in the new rules group, unlike those in the existing rules group, had their new TTPs capped for another 3 years after the triennial recertification. Had their new TTPs exceeded 40 percent of their current income, they could have them reduced through a hardship remedy.

[156] For an in-depth analysis of the policy's effects on these outcomes, see Riccio et al. (2021).
[157] For PHA-specific information of families' material and financial well-being, see Supplementary Materials in Riccio et al. (2021).

Nonetheless, some families in the new rules group felt a kind of "sticker shock" and were unprepared for the change. Some began adopting spending patterns based on their higher disposable income during the prior 3 years, but now had to cut back on some of their expenditures. This suggests that where a triennial recertification feature is in place, PHAs should consider finding ways to help families understand and prepare for a potential jump in their TTP as well as the subsequent 3-year cap on further TTP increases should their earnings continue to increase after the triennial recertification.

Simplifying the Rent Policy to Reduce Administrative Burden and Improve Families' Understanding of the Rent Rules

An important goal of the new rent policy was to make the rent rules easier for staff to administer and less burdensome on tenants, and simpler for staff and tenants to understand. On this score, the results were mixed.

Overall Administrative Burden on PHAs

Some features of the new policy eased PHAs' administrative burden operating the rent subsidy program and were welcomed by staff, especially using gross income (at a 28 percent rate) rather than adjusted income (at a 30 percent rate) to set TTPs, a simpler utilities policy, the extension of the recertification period from one to three years, and limits on interim recertifications.

The new policy substantially reduced the number of PHA staff actions on behalf of families, such as recertification for the purpose of reassessing their eligibility for the voucher program and recalculating their TTPs in the face of income changes. Contributing most to the overall reduction in staff actions was a reduction in the proportion of families who had a high number of actions (for example, 5 or more and 10 or more).

These and other factors helped to offset the extra burden associated with other features of the new policy. Particularly burdensome was the need to estimate and verify retrospective income over a 12-month look-back period (see below). In addition, inquiries made by families whose income dropped by an amount that may not have merited an interim recertification or a hardship remedy also created some extra burden. In many cases, PHA staff spent time reviewing income changes based on these inquiries, but these actions were not captured by the PHA software systems. Nonetheless, they offset at least some of the reduction in burden associated with the reduction in formal actions.

The experience of designing and implementing the new rent policy makes clear that the goal of simplification can conflict with other goals. For example, although the various safeguards added complexity and costs to the new policy, they were considered essential for protecting families against extra financial hardship. Efforts at simplification must be balanced against other objectives.

Retrospective Income

In the eyes of the PHA staff, collecting retrospective income was the single most important complicating feature of the new rent policy. The rationale for retrospective income was closely linked to the concept of a 3-year recertification cycle. It was thought to provide a more accurate basis for projecting families' income over the following three years than current income would, and that it may avoid an incentive for some families to deliberately reduce their earnings at the time of recertification to lock in an artificially low TTP over the next three years. However, for families with complicated work histories, such as those in which household heads had multiple employers in the prior year (and may not have left on good terms), and for families with multiple adults who worked, collecting retrospective income could be very burdensome for families and PHA staff, who also had to verify prior income. Although complicated cases such as these were in the minority, the extra time they required added up.

Finding ways to streamline the process for capturing retrospective income would thus go a long way toward further reducing PHAs' overall administrative burden and the cost of operating such a feature. This concern should be relevant to PHAs nationally: the Housing Opportunity Through Modernization Act (HOTMA) regulations require the use of retrospective income in setting families' TTPs.[158] Toward that end, in the later part of the demonstration, each of the three PHAs adopted several procedures agreed to with HUD and considered them helpful in reducing burden. Most importantly, they began to rely much more on families' self-attestation rather than formal documentation for difficult-to-get prior earnings information needed to calculate retrospective income. Another streamlining effort included elimination of the requirement that retrospective income had to fall by a specified amount (more than 10 percent) for a family to qualify for a once-per-year restricted interim recertification. Instead, a family could receive a once-per-year interim recertification for an income loss of any amount. If they had a subsequent income loss within the year, they might qualify for further protection through the policy's hardship remedies.

Implications of Requiring Families to Pay the Full Minimum TTP to Landlords

All families in the new rent rules group had to pay at least the minimum TTP amount to their landlords. The policy designers' goal was to make sure that all tenants had some direct responsibility for making monthly rental payments to their landlords, as would be required of them if they were to rent in the private market without subsidies. Under existing rules, some families paid less than the minimum rent to their landlords, with the PHA making up the difference with direct payment to landlords. Under the new rent rules, families whose TTPs were temporarily lower than the minimum (for example, due to a hardship exemption) had to pay the full amount to the landlord, but the PHA would reimburse them for the excess portion through

[158] The rule of interest for the purpose of this report is titled, "Housing Opportunity Through Modernization Act of 2016: Implementation of Section 102, 103, and 104 final rule" published in Federal Register Notice 88 FR 9600 on February 14, 2023.

the utility reimbursement mechanism. When the demonstration first launched, PHA staff wondered whether they would be "flooded" with calls from landlords about changes in the rent rules—an outcome that, had it occurred, would have added burden to the PHA staff. But this did not happen, either at the beginning or later in the demonstration. It seems clear that this feature of the new rent policy was a feasible one. Neither landlords nor tenants complained about it, and it created little additional administrative burden on the PHAs (beyond making some additional reimbursement payments to families when their TTPs were lower than the minimum rent).

Families' Understanding of the New Rent Rules

It was hoped that the new rent policy would be simpler than the existing rules for families to understand. According to this study's qualitative interviews with heads of households and findings from the 4-year survey, most families generally understood the triennial recertification policy and greatly appreciated the switch from annual to triennial recertifications. However, many were confused about other aspects of the new rent policy, such as the rationale for collecting retrospective income to calculate their TTPs, or they were not aware of (or did not remember) all the safeguards the new policy offered or the conditions under which they applied. Some tenants also did not fully understand—or did not trust—that they did not have to report increases in their income to the PHA prior to the triennial recertification, without jeopardizing their housing assistance.

Of course, not all families needed to understand all the details of the new rent policy as some of those features did not apply to them (for example, if they did not experience income losses and were not in need of hardship protections). Nonetheless, efforts should be made to improve tenants' understanding if PHAs replicate core features of the policy. In particular, ongoing education on the policy (beyond what was tried in the demonstration) could focus on strengthening families' understanding of the policy's built-in work incentives, its reduction in income reporting requirements, the importance of keeping records of their prior-year income, and the policy's safeguards (including hardship exemptions) to protect families in the face of income losses. Tenant understanding is important not only by helping PHAs achieve the streamlining benefits of the new policy, but also by helping to support families in achieving their employment goals and avoiding some of the worry over what will happen if their income changes. Simplifying the procedures for verifying retrospective income, as described above, would also reduce tenant as well as PHA burden.

Cost Neutrality

At the outset of the Rent Reform Demonstration, HUD set *cost neutrality* as another important goal for the new rent policy: it should not cost more per family than the traditional rent rules, taking into account both administrative costs and housing assistance payments (HAP). In assessing whether this goal was achieved, it is important to consider two important analytical perspectives: (1) the overall net cost *per family* in the evaluation's core sample who were

randomly assigned to the new rules group, and (2) the overall net cost *per voucher slot* tied to the new rent rules. The second perspective recognizes that each time a family leaves the HCV program, the PHA transfers its voucher to another family who enters the HCV program from the waiting list. The analysis assumes that under the new rent policy, the "replacement families" would be subject to the same new rent rules as the families they replaced. For the control group, the analysis assumes that replacement families would be subject to the same existing rent rules.

As chapter 6 showed, the new rent policy may have produced small administrative cost savings for families in the core sample assigned to the new rules group. Although some features of the new policy were more expensive to operate, and although the new rent rules group remained in the HCV program longer than the existing rules group, staff spent less time overall administering the rent policy for the new rules group—in large part because the triennial recertification schedule meant that fewer income recalculations and TTP adjustments had to be completed. In turn, this meant that the administrative costs incurred by the PHAs were slightly lower per family in the new rules group than for the existing rent policy. However, the new policy's substantial positive impact on subsidy payments well exceeded these savings. This is not a surprise, because those extra subsidies (due primarily to the longer stays in the voucher program by families in the new rules group) were primarily the consequence of capping TTPs as part of the triennial recertification schedule—the main mechanism through which the new rent rules sought to incentivize work while families were in the HCV program. Overall, from the first perspective, the cost per family under the new rent policy was not cost-neutral.

A very different picture emerges from the second perspective. When the analysis examines costs *per voucher slot*—taking into account the cost of serving new families who take the vouchers freed up by families in the core sample who left the HCV program—the costs moved much closer to overall budget neutrality. Administrative cost savings became more substantial over the course of the followup period, and the large subsidy cost became much smaller. In fact, the estimates for the last 2.5 years of the followup suggest a small net savings for PHAs per voucher slot.

These two cost perspectives highlight an important policy tradeoff. Under the new rent rules, families, on average, experienced an increase in their disposable income due to the extra time they receive housing subsidies. And although the PHAs would not spend more *per voucher* (many of which are used by more than one family) under the new rent policy, other families on the waiting list would have to wait somewhat longer than under the existing rent policy before a voucher becomes available to them.

Families' and PHAs' Overall Perspectives on the New Rent Policy

Most families preferred the new rent policy over the existing policy. Data from the 4-year survey of household heads indicated that among respondents in Lexington, Louisville, and San Antonio combined, 71 percent of those in the new rules group said they preferred the new rent policy to

the existing rules. Only 13 percent said they preferred existing rules. Much of this was likely driven by their appreciation of being freed of the burden of reporting income gains to the PHAs during the 3-year period. Most household heads also reported on the survey that they did not find that the new policy imposed more documentation burdens on them. This suggests that the extra burdens imposed by the retrospective income requirements were not terribly hard on most families, likely because their prior-year employment circumstances were not complicated (for example, especially if they had little or no earned income or only the household head worked and only worked one or two jobs).

All three PHAs favored aspects of the new policy. After the demonstration's operational phase ended, Lexington implemented the new policy fully on a PHA-wide basis for its working-age, non-disabled voucher households[159], including the triennial recertification feature. San Antonio adopted the triennial policy for nearly all of its voucher holders, and Louisville adopted a biennial recertification policy.

San Antonio reverted to calculating TTPs based on 27.5 percent of current gross income with no deductions, as it had been doing for working-age/non-disabled families not enrolled in the demonstration. (This rate is only slightly lower than the 28 percent rate adopted for the demonstration's new rent policy.) San Antonio dropped the minimum rent in the interest of further reducing staff burden, it also began using a flat rate for utilities, which was somewhat akin to the utilities approach under the new rent policy. Louisville dropped the minimum rent and went back to the traditional method of calculating utilities. (Imposing a minimum rent in Louisville had been controversial at the start of the demonstration with local advocates and was one reason for allowing families in that site to opt out of the new policy.) Louisville and San Antonio were also disinclined to institute the retrospective income feature for determining TTPs because of the perceived extra burden it entailed, although they may need to implement some version of that rule under HOTMA (unless they receive a waiver from HUD.)

Other Observations

The influence of broader labor market trends

Broader labor market trends, not just rent policies or their own circumstances, influenced voucher holders' employment and earnings trajectories. This seems evident from the year-to-year results, which reveal a more nuanced view of the study sample's labor market experiences. As chapter 2 showed, employment rates among household heads in each research groups were fairly steady in the period prior to the COVID-19 pandemic—a period during which unemployment rates in the metropolitan areas in which the PHAs were located were relatively low and generally stable or falling by a small degree. Moreover, both research groups saw their average earnings increase steadily before the pandemic—much more so than their employment rates—reflecting, in part, growth in minimum wages and prevailing wages in Kentucky and Texas, and nationally,

[159] Households with disabilities were exempt.

especially at the lower-end of the labor market. With the onset of the pandemic, employment and earnings dropped precipitously for both research groups, but they recovered substantially as the pandemic began to subside—again following regional and national trends.

Although voucher holders have lower earnings than the national average, the directional changes in labor-market outcomes for this study's heads of households align roughly with regional and national trends (see chapter 2). This underscores an obvious but important point: How voucher holders fair in the labor market depends to an important degree on larger economic conditions and policies, not simply on the rent policies to which they are subject or their own circumstances or desire to work. Moreover, the trends during and after the pandemic illustrate the employment resilience of many voucher holders.

Differences in Work Patterns Among Voucher Holders

In chapter 2, the subgroup analysis revealed a striking variation in employment and earnings among voucher holders that persisted over time. For example, the subgroup of household heads in the new rules group who were already employed at the time of study enrollment were more than twice as likely to be working in an average quarter than the not-employed subgroup: 78.3 percent versus 36.7 percent, respectively, over the 6.5 years of followup. Their average total earnings over that period were about 2.7 times greater than the total earnings of the not-employed subgroup: $110,000 versus $41,000, respectively. These patterns suggest that voucher holders who are less attached to the labor market may require extra services (not just financial incentives) if they are to work more consistently and earn more money, although certain health issues and caregiving responsibilities may prevent some from doing so.

Longer-Term Use of Other Safety Net Supports

Implicit in the goal of increasing work among voucher holders is that it will eventually lead a reduction in the use of income-conditioned safety net benefits, including Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families. Over 90 percent of voucher families in each of the two research groups relied on SNAP at some point during the followup period. The new rent policy did not generate greater reductions in SNAP benefits for the new rules group than the control group, which is not surprising given the absence of large positive impacts on earnings.

Still, SNAP receipt fell quite sharply over the course of the followup period among families in each of the two research groups. By the last quarter, only about 45 percent of families were receiving this benefit (following a temporary bump up during the pandemic)—likely reflecting, at least in part, the growth in average earnings among household heads in each group over that period. The steady downward trend in SNAP receipt, which mirrors but is sharper than the downward trend in voucher receipt over time, is a reminder that many voucher families use these safety net benefits as a transitional support, not a lifetime benefit.

Only a small portion of families (about 7 percent) had ever received TANF benefits during the followup period. This likely reflected restrictive statewide policies on access to TANF cash assistance in Kentucky and Texas.[160] These low rates left little room for the new rent policy to generate further reductions.

A small minority of families (also about 7 percent) used homeless shelters or homelessness services. This is likely because the voucher program, as intended, helped families afford and sustain housing, and because many tenants who left the voucher program did so with higher earnings.

Life After Vouchers

By the end of the followup period, 38.5 percent of the new rules groups and 44.3 percent of the existing rules group had exited the HCV program. For some families, the loss of a housing voucher could precipitate a dramatic deterioration in a family's economic circumstances and material well-being—especially if the reasons for exit were other than for increased income. While this may have been the case for some families in the research sample, it was not typical. As the analysis presented in chapter 4 shows, when families from each research group and all three PHAs are combined, about two-thirds of the voucher "leavers" were employed in the year prior to exiting, and the same proportion was employed in each of the subsequent three years. Moreover, their average earnings grew, and their use of SNAP fell. The study's survey-based measures of material hardship show little consistent evidence of worse circumstances among those who had left the voucher program compared with those who were still receiving vouchers. In addition, no more than about 2 percent of families made use of homelessness services in any of the three years after exiting the HCV program, according to Homeless Management Information System (HMIS) data. Overall, exiting the voucher program did not appear to lead to a distinctive worsening of living conditions (see chapter 4).[161]

Building More Evidence on Rent Reform

The Rent Reform Demonstration was the first national effort to test an alternative rent policy with a large-scale randomized trial—but it is not the last. Following the Consolidated Appropriations Act of 2016, which authorized HUD to award Moving to Work (MTW) authority to 100 additional housing agencies, and with input from a Research Advisory Committee to guide the MTW Expansion, HUD began planning for a new demonstration that would test two alternative rent policies in a total of 10 new MTW PHAs. This new initiative, called the Stepped

[160] In Washington, D.C., much higher proportions of families in the study sample received TANF benefits during the 42-month interim followup period: approximately 35 percent, with little difference between the two research groups (Riccio et al., 2021).

[161] Although interpreting the reasons for exiting the voucher program proved to be difficult from the administrative records available from the PHAs, some evidence (not shown in chapter 4) suggests that a larger percentage of household heads who may have exited due to a program violation were somewhat more likely to have had unstable employment and to have received SNAP after exiting. At the same time, a comparison of the survey measures of hardship did not reveal a consistently different pattern of hardship by those exit reasons.

and Tiered Rent Demonstration (STRD), is now underway, and its two new policies apply to public housing residents as well as voucher holders.[162]

One of the two alternative polices incorporates several features that were part of the Rent Reform Demonstration (including triennial recertifications and reliance on retrospective and gross income in setting TTPs, among others), but it differs by setting a standard TTP amount for all families whose incomes fall within a given income band. The lowest band, or "tier," extends from $0 to $2,499. The next tier goes from $2,500 to $4,999. Tiers continue going up in blocks of $2,500. The second alternative policy involves "stepped rents," meaning that families' TTPs will increase annually by a set amount pegged to the number of bedrooms in their units and local Fair Market Rent increases, rather than to increases in their income. By decoupling increases in rent from increases in income, this policy represents a substantial departure from HUD's traditional percent-of-income approach for determining families' expected contribution to their rental costs. However, hardship provisions that are income-based are intended to protect families whose incomes fall. Thus, under the stepped rent policy, tenants rent contributions are decoupled from income increases, but not from all income losses.

HUD selected MDRC to work with the selected PHAs to help refine the policy design and operating procedures, design and implement random assignment processes, and lay the foundation for a longer-term evaluation to assess the policies' impacts. The evaluation has begun, and PHAs began enrolling families into the study in early 2023.[163] Building on the findings from the Rent Reform Demonstration, the new study will greatly expand the scope of evidence on the operation, effects, and costs of different rent policies for HUD-subsidized tenants.

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[162] For background on this demonstration, see https://www.huduser.gov/portal/mtw/cohort2.html.
[163] For an introduction to the PHAs, the policy designs, evaluation design, and early implementation efforts, see Castells et al. (2024).

Appendix A
Supplementary Materials for Chapter 1

Selected Analysis Issues

Units of Analysis

In examining the effects of the new rent policy on labor market outcomes based on National Directory of New Hires data, chapter 2 of this report focuses on the heads of households, who make up almost 72 percent of the 6,651 adults in the study from Lexington, Louisville, and San Antonio. The report also examines, secondarily, the effects on other adults who were not household heads. The main reason for giving priority to household heads is that most other adults in the research sample (about 79 percent across all three PHAs combined) were 18 to 24 years of age at the time of random assignment and were very likely the young adult children of the household heads. Very few (10.2 percent) were the spouse or co-head of household, ranging from 7.2 percent in Louisville to 13.5 percent in San Antonio (see appendix exhibit A.4). Other PHA data (not shown) including Washington, D.C., indicate that about 21 percent of the other adults who had been on the lease at baseline were no longer on the lease at the end of the first year of followup.[164] It is unknown whether these individuals had moved out of the household (for example, to attend college or to begin their own households) or remained in the household but not on the lease. This rate has continued to rise over the course of the followup period, meaning that fewer other adults have been exposed to the new rent policy (or the existing rules) over time, making it progressively less likely that the new policy would shape their behavior.

For similar reasons, the analyses of other self-sufficiency measures, such as TANF and SNAP receipt rate and use of homelessness services (based on HMIS data), focus on household heads. However, TANF and SNAP benefit amounts pertain to all members of a household head's case. Of course, *any* exposure to the new rent policy may affect the employment outcomes of other adults in the household, and possibly even their likelihood of continuing to live with their initial households or remaining on the lease. For that reason, the labor market results for non-heads should not be ignored. These results are presented in appendix B.

In estimating the effects of the new rent policy in chapter 3 on housing-related outcomes (such as housing subsidies, exits from the voucher program, and transactions with the PHA), which are based on PHA data, the household is the unit of analysis.

Regression Adjustment

The basic estimation strategy used to assess the new rent policy's impacts is analogous to the method that researchers use in many social experiments to generate credible results. The analysis

[164] This number grew to about 25 percent by the end of the second followup year, and to 34 percent by the end of the 42-month followup period. By Month 42, only 44 percent of the other adult sample members were still on the lease of families who were still leased up in the voucher program and, hence, continued to be "exposed" to the rent policies in effect for the new rules group or the control group. The remaining adults were from families who had exited the voucher program or ported out. In contrast, about 75 percent of heads of households were still receiving vouchers from one of the four PHAs and were leased up in Mouth 42.

compares the average outcomes of the new and existing rent rules groups of specified followup periods by using regression adjustments to increase the precision of the statistical estimates.[165] A linear regression framework is being used to adjust impacts, with the following basic impact model:

$$Y_{ij} = \alpha + \beta P_{ij} + \delta X_{ij} + s_j + \varepsilon_{ij}$$

where: Y_{ij} = the outcome measure for sample member i in site j; P_{ij} = one for program (or intervention) group members and zero for control group members in site j; X_{ij} = a set of background characteristics for sample member i in site j; ε_i = a random error term for sample member i in site j; S=refers to site, β = the estimate of the impact of the program on the average value of the outcome; α = the intercept of the regression; and δ = the set of regression coefficients for the background characteristics.[166]

Adjusting for Multiple Outcome Measures

The evaluation design includes several "confirmatory" outcome measures related to tenants' earnings, housing subsidies, and material hardships. These confirmatory outcomes reflect the most important variables for judging the intervention's effectiveness. Given their primacy, statistically significant impact findings on those outcomes are subjected to further statistical adjustments that hold them to a higher standard of evidence. These adjustments account for the likelihood that in a study using many outcome variables, some impact estimates may emerge as statistically significant simply by chance and do not reflect true intervention effects. For example, if 10 outcomes are examined in a study of ineffective treatment, one of them is likely to be statistically significant at the 10-percent level by chance. One can have more confidence in any confirmatory impact estimates that remain statistically significant after adjusting for the total number of confirmatory outcome measures. The adjustments use the Benjamini-Hochberg method (Benjamini and Hochberg, 1995). The final report treats cumulative pooled impact estimates for household heads' earnings and families' housing subsidy amounts. MDRC's first impact report more fully describes the evaluation's confirmatory measures and its approach to adjusting for multiple outcomes.[167] The current report presents the final confirmatory impact estimates and adjustments—using longer-term data on the cumulative earnings and subsidy

[165] In making these adjustments, an outcome—such as "employed" or "received housing subsidy"—is regressed on an indicator for intervention group status, site (for all-sites analysis), and a range of background characteristics at random assignment, including race, ethnicity, age, number of adults in the household, age of the youngest child, family share, type of income reported for the HCV program certification, number of years of subsidy receipt through the HCV program, and whether gross rent exceeds the payment standard. When estimating effects for the pooled sample, site covariates are also included in the model.
[166] For a list of the variables included in the impact estimation model, and for analyses of the sensitivity of results to the adjustments, see appendix G. Appendix exhibit G.3 shows that the adjusted and unadjusted impact estimates on two main outcome measures (total earnings and total housing subsidy amounts) are very similar.
[167] See appendix B of Riccio and Deitch (2019).

measures (see exhibit A.7). (The corresponding results for the material hardship measure are included in Riccio et al. (2021.)

Exhibit A.1. Existing Rent Policies of Public Housing Agencies Participating in the Rent Reform Demonstration

Rent-Policy Component	Lexington	Louisville	San Antonio
Percentage of adjusted income for total tenant payment (TTP)	30%	30%	30%
Threshold of asset value below which asset income Is ignored	$5,000; if assets total more than this amount, income from the assets is "imputed" and the greater of actual asset income and imputed asset income is counted in annual income.	None.	None; self-certification of assets sold for less than fair market value.
Recertification	Working-age or nondisabled: annual. Elderly or disabled (on fixed income): triennial (proposed).	Working-age or nondisabled: annual. Elderly or disabled: biennial.	Working-age or nondisabled: biennial for some, annual for Rent Reform Demonstration existing rules group. Elderly or disabled (on fixed income): biennial (triennial proposed).
Minimum TTP	$150	$0	$50
Income-reporting requirements	Required to report income from new income sources; TTP recalculated immediately with new income factored in.	Required to report all income increases; TTP recalculated at next recertification except for zero-income households or those receiving external contributions that report increased income.	Not required to report income increases until next annual recertification (since 2017).
Utility policy	Uses the appropriate utility allowance for the size of dwelling unit actually leased by the family (rather than the family-unit size as determined under the housing agency subsidy standards).	Current HUD policy.	Current HUD policy.

Hardship policy for minimum rent	Suspension of minimum rent if a household experiences an increase in rent as a direct result of the Moving to Work Rent Reform Demonstration; reduction in rent if a household experiences a loss of income due to circumstances beyond the family's control.	(No minimum rent).	If the TTP calculated at recertification is lower than the minimum TTP, a hardship exists, and the family share is calculated at the highest of 30 percent of gross income, 10 percent of adjusted income, or the welfare rent.

[a] Starting in June 2016, income increases did not need to be reported between biennial recertifications. Before June 2016, a family had to report an increase in income even if it occurred before the family's next scheduled biennial recertification. If the increase was $10,000 or more, then the housing agency calculated a new TTP. If the increase was less than $10,000, then this income was excluded until the next biennial recertification.
[b] Starting in September 2016, families with disabilities and fixed-income families were on a triennial recertification.
Note: Current HUD utility policy is based on typical utilities costs in housing of similar size and type, on community consumption patterns, and on current utility rates.
Sources: Housing agency Moving to Work annual plans and other agency documents.

Exhibit A.2. Characteristics of Families in the Impact Sample, by Public Housing Agency

Characteristic	Lexington	Louisville	San Antonio	All PHAs
Average number of family members	3.2	3.3	3.6	3.4
Families with more than one adult (%)	26.7	33.9	32.7	31.9
Number of children in the family (%)				
None	17.3	21.6	14.0	17.7
1	24.4	22.4	20.3	22.0
2	28.4	24.0	27.7	26.3
3 or more	29.9	32.0	38.1	34.0
Among families with children, age of the youngest child (%)				
0-2 years	16.9	16.7	17.8	17.2
3-5 years	17.9	17.5	21.7	19.3
6-12 years	47.3	43.0	42.7	43.8
13-17 years	17.9	22.7	17.8	19.7
No earned income[a] (%)	53.6	61.8	53.1	56.7
Income sources[a] (%)				
Wages	46.4	38.2	46.9	43.3
Welfare	5.1	5.8	3.2	4.6
Social Security/SSI/pensions	19.4	25.8	23.0	23.4
Other income sources	49.8	44.3	53.1	48.9
Child support	35.2	28.6	38.0	33.7
Unemployment benefits	1.0	1.3	2.1	1.5
Other	17.6	17.0	15.8	16.6
Average annual income from wages, among families with any wage income[a] ($)	16,625	16,741	12,925	15,091
Sample size	979	1,908	1,869	4,756

[a]Income-source categories are as defined on the HUD-50058 form. Wages include one's own business, federal wages, public housing agency wages, military pay, and other wages.

Notes: Rounding may cause slight discrepancies in calculating sums and differences. Sample sizes for specific outcomes may vary because of missing values. Data were collected at the most recent recertification before random assignment. Welfare includes general assistance, annual imputed welfare income, and Temporary Assistance for Needy Families. SSI is Supplemental Security Income. Other income sources include child support, medical reimbursement, Indian trust/per capita, unemployment benefits, and other nonwage sources.

Source: MDRC calculations using public housing agency data

Exhibit A.3. Characteristics of Heads of Households in the Impact Sample, by Public Housing Agency

Characteristic	Lexington	Louisville	San Antonio	All PHAs
Female (%)	96.8	95.6	93.8	95.2
Age in years (%)				
18-24	3.5	0.9	5.7	3.3
25-34	39.0	32.3	38.9	36.3
35-44	39.8	44.7	35.6	40.1
45 or older	17.7	22.1	19.8	20.3
Average age (years)	36.9	38.7	36.7	37.5
Race (%)				
White	18.6	18.2	77.0	41.4
Black/African-American	81.1	80.3	22.2	57.6
Other	0.3	1.5	0.8	1.0
Ethnicity (%)				
Hispanic or Latino	1.9	1.2	74.9	30.3
Not Hispanic or Latino	98.1	98.8	25.1	69.7
Sample size	979	1,908	1,869	4,756

Notes: Rounding may cause slight discrepancies in calculating sums and differences. Sample sizes for specific outcomes may vary because of missing values. Data were collected at the most recent recertification before random assignment.
Source: MDRC calculations using public housing agency data

Exhibit A.4. Characteristics of Adults Who Are Not Heads of Households, by Public Housing Agency

Characteristic	Lexington	Louisville	San Antonio	All PHAs
Age in years (%)				
18-24	74.3	80.4	78.8	78.8
25-34	13.9	10.8	12.1	11.8
35-44	8.4	5.8	5.4	6.0
45 or Older	3.4	3.1	3.7	3.4
Relationship status (%)				
Spouse or co-head of household	9.8	7.2	13.5	10.2
Sample size	296	815	784	1,895

Notes: Rounding may cause slight discrepancies in calculating sums and differences. Sample sizes for specific outcomes may vary because of missing values. Sample sizes represent individuals who were at least 18 years of age at the time of random assignment. Live-in aides and foster children and adults have been excluded. Data were collected at the most recent recertification before random assignment.
Source: MDRC calculations using public housing agency data

Exhibit A.5. Random Assignment Period, New Rent Effective Dates, and Last Month of Followup Period, by Public Housing Agency

PHA	Random Assignment Period[a]	New Rent Effective Date[b]	Last Month of 78-Month Followup Period	
			Employment, TANF, SNAP, homelessness outcomes[c]	Housing outcomes[d]
Lexington	March 2015 – August 2015	July 2015 – December 2015	December 2021 – June 2022	January 2022– June 2022
Louisville	February 2015 – August 2015	July 2015 – January 2016	December 2021 – June 2022	January 2022– July 2022
San Antonio	February 2015 – November 2015	June 2015 – March 2016	December 2021 – September 2022	December 2021– September 2022
All PHAs	February 2015 – November 2015	June 2015 – March 2016	December 2021 – September 2022	December 2021 – September 2022

[a]Random assignment is when households were randomly assigned to the new rent rules or existing rent rules group. Households were notified that they were in the demonstration in their recertification packet from their public housing agency, and details about their research group assignment and the study were explained in their recertification meeting.
[b]The new rent effective date is the date that the new total tenant payment and housing assistance payment were expected to go into effect for the annual or triennial recertification.
[c]For employment, TANF, SNAP, and homelessness outcomes, followup is relative to random assignment, and to have better alignment with housing outcomes and when the new rents became effective, the quarter of random assignment and the quarter following random assignment are not considered followup. For example, if random assignment occurred in the first quarter of 2015, then the first and second quarters of 2015 would not be considered followup; followup would begin in quarter 3 of 2015 and end 42 months later in quarter 4 of 2018. There are 14 quarters of followup, or 78 months of followup for all families randomly assigned for the employment, TANF, SNAP, and homelessness outcomes.
[d]For housing outcomes, followup starts the month after the expected new rent effective date. For example, if the new rent effective date was June 2015, the last month of followup is 78 months after June 2015: December 2021.
Source: Public housing agency data and MDRC records.

Exhibit A.6. Data Sources for This Report

- **Public housing agency (PHA) records.** All families receiving a housing voucher complete or update a 50058 form as part of their initial or recertification interview; the information collected by the PHA includes their incomes and income sources, total tenant payment (TTP) amounts, family share, and total housing subsidy payment. The study team is collecting this information for all study participants for 1 to 3 years before study enrollment (depending on the PHA) and during the study followup period. For families who are subject to the new rent policy, the study team is collecting information on grace-period TTPs, interim recertifications, hardship remedies, and retrospective income.
- **HUD Data**. The study team analyzed data from HUD's Inventory Management System/Public and Indian Housing Information Center (PIC) to model the possible effects of the new rent policy rent policies at the beginning of the study and to examine additional information on exit information during the followup period. The team also analyzed Tenant Rental Assistance Certification System (TRACS) data to determine if families who exited the HCV program transferred to a Project-Based Rental Assistance (PBRA) unit.
- **Wage records.** Employment and earnings data were obtained from the National Directory of New Hires (NDNH), a national database of wages and employment maintained by the Office of Child Support Enforcement. The NDNH includes data on employment and earnings in all work covered by unemployment insurance (UI), including employment across state lines and on federal employment that is not captured in state UI records. NDNH records do not cover earnings from self-employment, some agricultural work, and informal jobs. Other research suggests that administrative data may miss relatively more employment for low-income populations than for higher-income groups, given the former group's greater prevalence of work in informal jobs. NDNH records also do not provide information about hours worked or about the characteristics of jobs held. For this reason, the study team will supplement NDNH records data with data from the long-term followup survey.
- **Homeless Management Information System (HMIS).** The HMIS tracks information on homelessness services accessed. The HMIS is maintained by a local Continuum of Care for each local area, and other service providers in the area may submit information to the HMIS. Not all service providers participate in the HMIS; however, information is available on the expected coverage of the HMIS for certain categories of services. Individuals are not required to give personally identifiable information to receive services, so some services for specific individuals may be undercounted. The study team is collecting information on overnight stays and other homelessness services.
- **Temporary Assistance for Needy Families (TANF) records.** TANF primarily provides cash assistance to families with children. States are able to provide other services through TANF, but the type of services provided varies by state. The study team is collecting TANF benefit amount for each month from each state's agency that administers TANF.
- **Supplemental Nutrition Assistance Program (SNAP) records.** SNAP provides money to families that can only be used to purchase food. The study team is collecting SNAP benefit amounts for each month from each state's agency that administers SNAP.
- **Implementation and process data.** Three rounds of in-person interviews were conducted with PHA staff and with a small number of participants subject to the new rent rules. The staff interviews focus on documenting the PHAs' experiences implementing the new rent policy. The interviews with participants focus on documenting their experiences with and perspectives on the new rent policy, including any hardships that appear to be created by the new policy.
- **Rent Reform Long-Term Followup Survey.** The survey firm Decision Information Resources, Inc. administered the long-term followup survey of the full study sample of household heads in mid-2019, which covered the period 4 to 17 months after the second triennial, or 40 to 53 months after the initial expected effective date of families' initial recertification under the study. These survey data have enabled the evaluation to assess the effects of the new rent policy on a more comprehensive array of outcome measures, including additional indicators of families' material hardship, overall economic security, personal and family well-being, and views of the new policy.

Notes: Abraham et al. (2009).

Exhibit A.7. Primary Outcomes with Multiple Hypotheses Adjustment: Heads of Households in Lexington, Louisville, and San Antonio combined

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value	Adjusted P-Value	
Lexington, Louisville, and San Antonio						
Total housing subsidy in full period[a] ($)	39,841	36,362	3,480	0.000	0.000	***
Total earnings in full period ($)	79,205	79,302	-97	0.956	0.956	
Sample size (total = 4,756)	2,368	2,388				

[a]Housing subsidy (housing assistance payment) is the full subsidy amount paid by the housing agency and includes any utility allowance payments made to the tenant in addition to rent paid to the owner by the housing agency.
Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: * = 10 percent; ** = 5 percent; and *** = 1 percent. Adjusted p-value was calculated to adjust for the false discovery rate using the Benjamini-Hochberg procedure (Benjamini and Hochberg, 1995).
Source: MDRC calculations using National Directory of New Hires and public housing agency data.

Appendix B
Supplementary Materials for Chapter 2

Exhibit B.1. Confidence Intervals for Impacts on Total Earnings Through 78 Months of Followup

PHA and Outcome	Low	90% CI Point Estimate	High
Louisville, Lexington, and San Antonio Combined			
Total earnings ($)	-2,975	-97	2,782
Full period (quarters 3-26)			
Sample size (Total = 4,756)			
Lexington			
Total earnings ($)	-5,035	1,046	7,128
Sample size (Total = 979)			
Louisville			
Total earnings ($)	-9,334	-4,577	181
Sample size (Total = 1,908)			
San Antonio			
Total earnings ($)	-1,091	3,515	8,121
Sample size (Total = 1,869)			

Notes: CI = confidence interval. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit B.2. Treatment-on-Treated Impacts for Selected Outcomes, Louisville

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	Impact per Participant
Employment and earnings for heads of households				
Full period (quarters 3-28)				
Ever employed (%)	84.8	86.8	-2.1	-2.6
Average quarterly employment[a] (%)	59.5	60.4	-0.9	-1.2
Total earnings ($)	80,983	85,560	-4,577	-5,898
Housing subsidy				
Average number of months received housing subsidy[b]	60.2	53.5	6.7	8.6***
Total housing subsidy (full period) ($)	41,103	37,208	3,895	5,019***
Public housing agency (PHA) actions				
Any action that requires staff response[c] (%)	93.3	93.2	0.1	0.1
Regularly scheduled recertification[d]	81.5	86.4	-4.9	-6.3***
Average number of actions	7.0	7.2	-0.2	-0.2
TANF receipt				
Full period (quarters 3-28)				
Ever received (%)	5.6	5.2	0.4	0.5
Average quarterly receipt (%)	0.9	0.8	0.0	0.0
Amount received ($)	134	137	-3	-4
SNAP receipt				
Full period (quarters 3-28)				
Ever received (%)	92.8	90.8	2.0	2.6*
Average quarterly receipt (%)	58.5	56.2	2.4	3.1
Amount received ($)	18,586	18,395	191	246.3
Sample size (total = 1,908)	947	961		

[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.
[b]Housing subsidy is the full subsidy amount paid by the housing agency and includes any utility allowance payments made to the tenant in addition to rent paid to the owner by the housing agency.
[c]Certification actions that require staff interaction include annual reexaminations, interim reexaminations (except for end-of-grace-period and end-of-hardship records), and change-of-unit actions.
[d]Regularly scheduled recertifications reflect actions recorded as "Action code 2: annual reexamination" on the 50058 form. PHAs record all regularly scheduled reexaminations under this action code regardless of the frequency of reexaminations: Annual, biennial, and triennial reexaminations are recorded under this action code.
Notes: TANF = Temporary Assistance for Needy Families. SNAP = Supplemental Nutrition Assistance Program. "Impact per participant" refers to the difference between the new rent rules group and existing rent rules group divided by the participation rate (0.776). Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Sources: MDRC calculations using public housing agency data, quarterly wage data from the National Directory of New Hires, and administrative records data

Exhibit B.3. Comparison of Intent-to-Treat (ITT) and Treatment-on-Treated (TOT) Estimates for Lexington, Louisville, and San Antonio Combined

	ITT Estimates			TOT Estimates
Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	Impact per Participant[a]
Employment and earnings for heads of households				
Full period (quarters 3-28)				
Ever employed (%)	86.2	86.5	-0.3	-0.3
Average quarterly employment[b] (%)	59.9	59.7	0.3	0.3
Total earnings ($)	79,205	79,302	-97	-769
Housing subsidy				
Average number of months received housing subsidy[c]	58.6	53.8	4.9***	5.6***
Total housing subsidy (full period) ($)	39,841	36,362	3,480***	4,016***
Public housing agency (PHA) actions				
Any action that requires staff response[d] (%)	88.1	90.1	-1.9**	-1.9**
Regularly scheduled recertification[e]	78.3	85.6	-7.3***	-7.9***
Average number of actions	5.0	6.6	-1.7***	-1.7***
TANF receipt				
Full period (quarters 3-28)				
Ever received (%)	7.2	6.8	0.4	0.3
Average quarterly receipt (%)	1.0	1.2	-0.2	-0.2
Amount received ($)[f]	157	200	-42	-46*
SNAP receipt				
Full period (quarters 3-28)				
Ever received (%)	91.8	91.0	0.8	1.1
Average quarterly receipt (%)	60.2	60.7	-0.4	0.0
Amount received ($)	19,761	20,030	-269	-48
Sample size (total = 4,756)	2,368	2,388		

[a]TOT estimates were obtained by creating a weighted average of TOT impacts across the three sites, with weights determined by the sample size in each site. The impact per participant (TOT) is calculated by dividing the ITT impact estimate by the difference in the program participation rate between the program group and the control group. Given that the latter is zero in this case, the TOT is equal to the ITT divided by the program group participation rate. The participation rate was 77.6 percent in Louisville and 100 percent in Lexington and San Antonio.
[b]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.
[c]Housing subsidy is the full subsidy amount paid by the housing agency and includes any utility allowance payments made to the tenant in addition to rent paid to the owner by the housing agency.
[d]Certification actions that require staff interaction include annual reexaminations, interim reexaminations (except for end-of-grace-period and end-of-hardship records), and change-of-unit actions.
[e]Regularly scheduled recertifications reflect actions recorded as "Action code 2: annual reexamination" on the 50058 form. PHAs record all regularly scheduled reexaminations under this action code regardless of the frequency of reexamination: Annual, biennial, and triennial reexaminations are recorded under this action code.
[f]The p-value for the ITT estimate is 0.12; the p-value for the TOT estimate is 0.09
Notes: TANF = Temporary Assistance for Needy Families. SNAP = Supplemental Nutrition Assistance Program. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Sources: MDRC calculations using PHA data, quarterly wage data from the National Directory of New Hires, and administrative records data

Exhibit B.4. Impacts on Employment and Earnings Within First 78 Months of Followup, by Employment Status at Random Assignment and by Public Housing Agency: Heads of Households

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value	
Lexington - Not employed						
Full period (quarters 3-28)						
Ever employed (%)	78.3	69.4	9.0	**	0.030	††
Average quarterly employment[a] (%)	42.0	40.2	1.8		0.569	
Total earnings ($)	39,864	43,938	-4,073		0.433	
Last quarter (quarter 28)						
Ever employed (%)	50.4	44.6	5.8		0.238	
Total earnings ($)	2,556	2,579	-22		0.954	
Sample size (total = 416)	209	207				
Lexington - Employed						
Full period (quarters 3-28)						
Ever employed (%)	98.4	99.4	-1.0		0.246	††
Average quarterly employment[a] (%)	80.8	80.1	0.7		0.729	
Total earnings ($)	114,070	109,007	5,063		0.333	
Last quarter (quarter 28)						
Ever employed (%)	78.9	80.2	-1.3		0.698	
Total earnings ($)	5,951	5,516	435		0.263	
Sample size (total = 563)	277	286				
Louisville - Not employed						
Full period (quarters 3-28)						
Ever employed (%)	68.5	72.3	-3.7		0.208	
Average quarterly employment[a] (%)	34.7	38.7	-4.0	*	0.076	††
Total earnings ($)	38,566	44,420	-5,854		0.123	
Last quarter (quarter 28)						
Ever employed (%)	36.0	39.5	-3.5		0.285	†
Total earnings ($)	1,937	2,430	-494	*	0.057	
Sample size (total = 855)	405	450				
Louisville - Employed						
Full period (quarters 3-28)						
Ever employed (%)	98.1	98.4	-0.3		0.713	

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value	
Average quarterly employment[a] (%)	79.7	77.8	1.8	0.242	††
Total earnings ($)	115,901	119,178	-3,276	0.439	
Last quarter (quarter 28)					
Ever employed (%)	76.1	71.6	4.6	0.102	†
Total earnings ($)	5,630	5,771	-141	0.654	
Sample size (total = 1,050)	541	509			
San Antonio - Not employed					
Full period (quarters 3-28)					
Ever employed (%)	70.4	69.0	1.4	0.664	
Average quarterly employment[a] (%)	36.1	33.9	2.2	0.342	
Total earnings ($)	37,348	34,844	2,503	0.490	
Last quarter (quarter 28)					
Ever employed (%)	40.5	39.2	1.3	0.707	
Total earnings ($)	2,163	2,220	-57	0.827	
Sample size (total = 815)	418	397			
San Antonio - Employed					
Full period (quarters 3-28)					
Ever employed (%)	98.3	99.3	-1.0	0.140	
Average quarterly employment[a] (%)	75.5	75.3	0.2	0.912	
Total earnings ($)	105,244	101,468	3,776	0.360	
Last quarter (quarter 28)					
Ever employed (%)	68.5	70.9	-2.4	0.406	
Total earnings ($)	4,844	4,990	-145	0.624	
Sample size (total = 1,053)	517	536			

[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.

Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. The H-statistic test was used to test for statistically significant differences in impact estimates across different subgroups. Statistical significance levels are indicated as follows: ††† = 1 percent; †† = 5 percent; † = 10 percent. Sample sizes for specific outcomes may vary because of missing values.

Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit B.5. Impacts on Employment and Earnings Within First 78 Months of Followup: Adults Who Were Not Heads of Households in Lexington, Louisville, and San Antonio Combined

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
Full period (quarters 3-28)				
Ever employed (%)	88.8	88.5	0.3	0.829
Average quarterly employment[a] (%)	58.7	59.9	-1.3	0.351
Total earnings ($)	73,323	76,784	-3,461	0.222
Last quarter ever employed	57.6	60.9	-3.3	0.121
Last quarter average earnings	4,055	4,246	-191	0.373
Sample size (total = 1,895)	972	923		

[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.
Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit B.6. Impacts on Employment and Earnings Within First 78 Months of Followup, by Public Housing Agency: Adults Who Were Not Heads of Households

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Lexington					
Full period (quarters 3-28)					
Ever employed (%)	87.2	89.5	-2.3		0.540
Average quarterly employment[a] (%)	62.3	60.3	2.0		0.549
Total earnings ($)	76,454	71,561	4,893		0.501
Last quarter (quarter 28)					
Ever employed (%)	59.5	58.0	1.6		0.783
Total earnings ($)	3,967	3,845	122		0.823
Sample size (total = 296)	131	165			
Louisville					
Full period (quarters 3-28)					
Ever employed (%)	89.9	91.1	-1.2		0.521
Average quarterly employment[a] (%)	58.0	61.9	-3.9	*	0.061
Total earnings ($)	67,539	74,580	-7,042	*	0.095
Last quarter (quarter 28)					
Ever employed (%)	56.8	61.4	-4.6		0.165
Total earnings ($)	3,767	4,064	-297		0.348
Sample size (total = 815)	429	386			
San Antonio					
Full period (quarters 3-28)					
Ever employed (%)	88.1	85.2	2.9		0.215
Average quarterly employment[a] (%)	58.2	57.7	0.5		0.838
Total earnings ($)	78,522	81,316	-2,795		0.552
Last quarter (quarter 28)					
Ever employed (%)	58.7	60.4	-1.7		0.613
Total earnings ($)	4,426	4,570	-144		0.686
Sample size (total = 784)	412	372			

[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.
Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit B.7. Impacts on Employment and Earnings Within 78 Months of Followup: All Adults in Household in Lexington, Louisville, and San Antonio Combined

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
Full period (quarters 3-28)				
Ever employed (%)	87.0	87.0	0.0	0.989
Average quarterly employment[a] (%)	59.7	59.6	0.0	0.990
Total earnings ($)	77,526	78,569	-1,043	0.485
Last quarter (quarter 28)				
Ever employed (%)	58.8	59.3	-0.5	0.629
Total earnings ($)	4,000	4,115	-115	0.294
Sample size (total = 6,651)	3,340	3,311		

[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.
Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Sample sizes for specific outcomes may vary because of missing values.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Exhibit B.8. Impacts on Employment and Earnings Within First 78 Months of Followup, by Public Housing Agency: All Adults in Household

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Lexington					
Full period (quarters 3-28)					
Ever employed (%)	89.5	87.3	2.2		0.186
Average quarterly employment[a] (%)	63.9	62.4	1.4		0.356
Total earnings ($)	81,153	79,017	2,136		0.515
Last quarter (quarter 28)					
Ever employed (%)	64.8	63.7	1.2		0.645
Total earnings ($)	4,398	4,157	241		0.324
Sample size (total = 1,275)	617	658			
Louisville					
Full period (quarters 3-28)					
Ever employed (%)	86.4	87.9	-1.5		0.199
Average quarterly employment[a] (%)	59.2	60.6	-1.4		0.201
Total earnings ($)	77,156	82,039	-4,883	**	0.041
Last quarter (quarter 28)					
Ever employed (%)	57.7	58.5	-0.8		0.672
Total earnings ($)	3,916	4,202	-286	*	0.099
Sample size (total = 2,723)	1,376	1,347			
San Antonio					
Full period (quarters 3-28)					
Ever employed (%)	86.7	85.7	1.0		0.426
Average quarterly employment[a] (%)	58.2	57.2	1.0		0.422
Total earnings ($)	75,976	74,996	980		0.685
Last quarter (quarter 28)					
Ever employed (%)	57.2	57.8	-0.6		0.737
Total earnings ($)	3,893	4,013	-119		0.497
Sample size (total = 2,653)	1,347	1,306			

[a]Average quarterly employment is calculated as total number of quarters with employment divided by total number of quarters of followup, expressed as a percentage.

Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. The variation across the four PHAs in estimated impacts on total earnings in the full period is statistically significant at the 10 percent level based on an H-statistic test. Sample sizes for specific outcomes may vary because of missing values.

Source: MDRC calculations using quarterly wage data from the National Directory of New Hires

Appendix C
Supplementary Materials for Chapter 3

Exhibit C.1. Impacts on Families' Housing Costs and Subsidies Within First 78 Months of Followup, by Public Housing Agency:

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
Lexington				
Enrollment status in month 78 (%)				
Currently enrolled in HCV program and leased up	55.3	52.4	2.8	0.370
Currently enrolled in HCV program, not leased up	0.0	0.0	0.0	n/a
Exited HCV program	39.6	41.7	-2.1	0.495
Ported out to another housing agency[a]	5.2	5.9	-0.7	0.624
Gross Rent				
Gross rent in month preceding year 6 recertification, if enrolled in HCV in that month[b] (%)				- -
Less than $1,000	36.2	38.5	- -	
$1,000 - $1,499	53.9	55.7	- -	
$1,500 or more	9.9	5.8	- -	
Average gross rent in month preceding year 6 recertification, if enrolled in HCV in that month ($)	1,120	1,089	- -	- -
Total Tenant Payment (TTP)				
Average monthly TTP in months received HCV[c] ($)	327	328	- -	- -
Average TTP in month preceding year 6 recertification, if enrolled in HCV in that month ($)	346	344	- -	- -
Change in TTP following year 3 recertification[c] (%)				- -
Decrease	20.7	15.0	- -	
No change	18.4	34.5	- -	
Increase	60.9	50.6	- -	
Change in TTP following year 3 recertification[c] (%)				- -
Decrease of				
$701 or above	0.0	0.0	- -	
$301 - $700	1.7	0.3	- -	
$151 - $300	2.1	1.0	- -	
$101 - $150	3.2	2.5	- -	
$76 - $100	3.7	1.1	- -	
$51 - $75	3.4	2.0	- -	
$1 - $50	6.7	8.2	- -	
No change	18.4	34.5	- -	
Increase of				
$1 - $50	9.4	16.2	- -	
$51 - $75	4.6	4.5	- -	
$76 - $100	4.3	4.8	- -	
$101 - $150	7.4	4.2	- -	
$151 - $300	15.5	12.0	- -	
$301 - $700	17.5	7.5	- -	
$701 or above	2.3	1.4	- -	

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Family Share					
Average monthly family share in months received HCV ($)	387	379	- -		- -
Paid above the payment standard in month preceding year 6 recertification, if enrolled in HCV in that month (%)	60.4	50.4	- -		- -
Housing Subsidy					
Average number of months received housing subsidy[e]	57.6	54.4	3.2	*	0.060
Average monthly housing subsidy in months received HCV[e] ($)	628	620	- -		- -
Average housing subsidy in month preceding year 6 recertification, if enrolled in HCV in that month[d] ($)	689	679	- -		- -
Total housing subsidy ($)					
Year 1	6,780	6,418	362	*	0.027
Year 2	6,403	5,853	550	*	0.009
Year 3	5,961	5,426	535	*	0.027
Year 4	5,080	4,931	149		0.571
Year 5	4,866	4,642	224		0.425
Year 6	4,790	4,287	503	*	0.081
Last 6 months	2,309	2,139	170		0.260
Full period	36,189	33,695	2,494	*	0.066
Sample size (total = 979)	486	493			
<u>Louisville</u>					
Enrollment status in month 78 (%)					
Currently enrolled in HCV program and leased up	60.9	49.8	11.1	*	0.000
Currently enrolled in HCV program, not leased up	0.3	0.5	-0.2		0.519
Exited HCV program	37.0	46.2	-9.3	*	0.000
Ported out to another housing agency[a]	1.8	3.5	-1.7	*	0.022
Gross Rent					
Gross rent in month preceding year 6 recertification, if enrolled in HCV in that month[b] (%)					- -
Less than $1,000	36.6	37.9	- -		
$1,000 - $1,499	61.6	58.0	- -		
$1,500 or more	1.9	4.1	- -		
Average gross rent in month preceding year 6 recertification, if enrolled in HCV in that month ($)	1,077	1,079	- -		- -

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
TTP					
Average monthly TTP in months received HCV[c] ($)	304	321	- -		- -
Average TTP in month preceding year 6 recertification, if enrolled in HCV in that month ($)	310	278	- -		- -
Change in TTP following year 3 recertification[c] (%)					- -
Decrease	26.4	28.7	- -		
No change	9.2	26.9	- -		
Increase	64.4	44.4	- -		
Change in TTP following year 3 recertification[c] (%)					- -
Decrease of					
$701 or above	0.0	0.4	- -		
$301 - $700	2.0	2.2	- -		
$151 - $300	6.2	3.3	- -		
$101 - $150	3.9	1.9	- -		
$76 - $100	1.7	1.1	- -		
$51 - $75	4.3	1.4	- -		
$1 - $50	8.5	18.6	- -		
No change	9.2	26.9	- -		
Increase of					
$1 - $50	11.4	22.6	- -		
$51 - $75	3.1	2.8	- -		
$76 - $100	3.3	2.7	- -		
$101 - $150	6.6	3.0	- -		
$151 - $300	17.7	6.9	- -		
$301 - $700	18.9	5.1	- -		
$701 or above	3.4	1.3	- -		
Family Share					
Average monthly family share in months received HCV ($)	364	343	- -		- -
Paid above the payment standard in month preceding year 6 recertification, if enrolled in HCV in that month (%)	54.3	52.8	- -		- -
Housing Subsidy					
Average number of months received housing subsidy[e]	60.2	53.5	6.7	*	0.000
Average monthly housing subsidy in months received HCV[e] ($)	674	695	- -		- -
Average housing subsidy in month preceding year 6 recertification, if enrolled in HCV in that month[d] ($)	694	739	- -		- -

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Total housing subsidy ($)					
Year 1	7,897	7,651	246	*	0.059
Year 2	7,656	6,803	853	*	0.000
Year 3	7,077	5,864	1,213	*	0.000
Year 4	5,548	5,167	381	*	0.056
Year 5	5,234	4,809	425	*	0.042
Year 6	5,255	4,657	598	*	0.006
Last 6 months	2,436	2,257	178		0.114
Full period	41,103	37,208	3,895	*	0.000
Sample size (total = 1,908)	947	961			
San Antonio					
Enrollment status in month 78 (%)					
Currently enrolled in HCV program and leased up	56.3	51.2	5.1	*	0.026
Currently enrolled in HCV program, not leased up	1.5	2.9	-1.3	*	0.053
Exited HCV program	39.6	43.5	-3.9	*	0.088
Ported out to another housing agency[a]	2.5	2.4	0.1		0.924
Gross Rent					
Gross rent in month preceding year 6 recertification, if enrolled in HCV in that month[b] (%)					- -
Less than $1,000	27.4	30.1	- -		
$1,000 - $1,499	64.4	62.5	- -		
$1,500 or more	8.3	7.4	- -		
Average gross rent in month preceding year 6 recertification, if enrolled in HCV in that month ($)	1,145	1,130	- -		- -
TTP					
Average monthly TTP in months received HCV[c] ($)	297	313	- -		- -
Average TTP in month preceding year 6 recertification, if enrolled in HCV in that month ($)	299	305	- -		- -
Change in TTP following year 3 recertification[c] (%)					- -
Decrease	29.3	29.7	- -		
No change	10.1	12.4	- -		
Increase	60.6	57.9	- -		
Change in TTP following year 3 recertification[c] (%)					- -
Decrease of					
$701 or above	0.0	0.2	- -		
$301 - $700	1.6	0.9	- -		
$151 - $300	5.4	3.7	- -		
$101 - $150	4.6	3.3	- -		
$76 - $100	4.0	3.8	- -		

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
$51 - $75	3.1	4.4	- -		
$1 - $50	10.7	13.5	- -		
No change	10.1	12.4	- -		
Increase of					
$1 - $50	15.6	21.9	- -		
$51 - $75	4.1	4.4	- -		
$76 - $100	4.7	4.7	- -		
$101 - $150	7.7	5.7	- -		
$151 - $300	15.2	11.0	- -		
$301 - $700	11.7	9.4	- -		
$701 or above	1.7	0.9	- -		
Family Share					
Average monthly family share in months received HCV ($)	359	383	- -		- -
Paid above the payment standard in month preceding year 6 recertification, if enrolled in HCV in that month (%)	69.1	61.7	- -		- -
Housing Subsidy					
Average number of months received housing subsidy[e]	57.4	53.7	3.7	*	0.003
Average monthly housing subsidy in months received HCV[e] ($)	707	684	- -		- -
Average housing subsidy in month preceding year 6 recertification, if enrolled in HCV in that month[d] ($)	759	735	- -		- -
Total housing subsidy ($)					
Year 1	7,507	7,088	419	*	0.002
Year 2	7,037	6,245	791	*	0.000
Year 3	6,573	5,894	679	*	0.000
Year 4	5,856	5,444	412	*	0.045
Year 5	5,795	5,075	721	*	0.001
Year 6	5,503	4,852	651	*	0.004
Last 6 months	2,304	2,187	118		0.300
Full period	40,575	36,785	3,790	*	0.000
Sample size (total = 1,869)	935	934			

[a]Some households that ported out may have subsequently exited the HCV program.
[b]Gross rent is the contract rent plus the utility allowance of the unit.
[c]Total tenant payment is the amount a family must contribute toward rent and utilities regardless of the unit selected. Under the new rent rules TTP is 28 percent of prior-year gross income, and under existing rent rules TTP is 30 percent of adjusted income.
[d]Family share is the family's contribution toward its gross rent. It may be higher than the TTP if the family rents a unit with a gross rent that exceeds the payment standard.
[e]Housing subsidy is the full subsidy amount paid by the housing agency and includes any utility allowance payments made to the tenant in addition to rent paid to the owner by the housing agency.

Notes: HCV = Housing Choice Voucher. TTP = total tenant payment. n/a = not available. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. Differences between the new rent rules group and the existing rent rules group were assessed using a two-tailed t-test for continuous variables and selected outcomes expressed as proportions. For categorical variables, a chi-square test was used to determine whether there is a difference in the distribution of related outcomes for the new rent rules group compared with the existing rent rules group. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. When categorical variables are part of a distribution, the statistical significance levels, which apply to the distribution, are shown above the distribution. Sample sizes for specific outcomes may vary because of missing values. Outcomes shown in italics are nonexperimental. Statistical significance tests are not conducted on nonexperimental outcomes. Nonexperimental measures exclude the Louisville sample members who declined to participate in the study (or opt-outs). Nonexperimental measures looking at the month preceding the year 3 or 6 recertification include households that had an identifiable year 3 or 6 recertification within the followup period, respectively, and that received HCV in that month. Square brackets indicate that the chi-square test may not be valid due to small sample sizes within the cross-tabulation distribution. The variation across the four PHAs in estimated impacts on total housing subsidy in the full period is not statistically significant based on an H-statistic test.
Source: MDRC calculations using public housing agency data

Exhibit C.2. Impacts on Public Housing Agency Actions Within First 78 Months of Followup, by Public Housing Agency:

Outcome (%)	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Lexington					
Ever Had Type of Action (%)					
Any action that requires staff response[a]	87.6	91.3	-3.7	*	0.058
Regularly scheduled recertification[b]	77.1	87.3	-10.3	***	0.000
Year 3 regularly scheduled recertification[c]	75.4	69.9	5.5	*	0.055
Year 6 regularly scheduled recertification[c]	58.4	52.8	5.6	*	0.076
Move/change of unit[d]	41.6	38.9	2.7		0.393
Interims[e]					
Decreased income	35.2	65.7	-30.5	***	0.000
Restricted interim	16.2	n/a	- -		- -
Hardship exemption[f]	20.9	2.1	18.9	***	0.000
Household composition change[g]	10.1	19.8	-9.7	***	0.000
Increased income	9.2	53.2	-44.0	***	0.000
Any household composition change	32.3	30.4	1.9		0.514
Contract rent change[h]	51.5	51.4	0.1		0.977
Other action[i]	24.7	15.6	9.2	***	0.000
Number of Actions					
Average number of actions	4.1	8.2	-4.0	***	0.000
Average number of actions during full period, if enrolled in HCV program in month 78	5.8	11.5	- -		- -
Any action that requires staff response[a] (%)				***	0.000
None	12.4	8.7	3.7		
1-2	18.4	10.3	8.1		
3-4	26.7	8.0	18.7		
5-6	23.4	10.0	13.5		
7-9	15.6	22.1	-6.5		
10 or more	3.5	41.0	-37.5		
Any action that requires staff response, if enrolled in HCV program in Month 78[a]					- -
None	0.0	0.0	- -		
1-2	4.8	0.4	- -		
3-4	28.4	0.5	- -		

Outcome (%)	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
5-6	34.3	4.8	- -		
7-9	26.8	26.4	- -		
10 or more	5.8	67.9	- -		
Sample size (total = 979)	486	493			
Louisville					
Ever Had Type of Action (%)					
Any action that requires staff response[a]	93.3	93.2	0.1		0.933
Regularly scheduled recertification[b]	81.5	86.4	-4.9	***	0.004
Year 3 regularly scheduled recertification[c]	75.9	65.3	10.6	***	0.000
Year 6 regularly scheduled recertification[c]	60.8	50.0	10.8	***	0.000
Move/change of unit[d]	41.4	40.3	1.1		0.616
Interims[e]					
Decreased income	49.4	63.5	-14.1	***	0.000
Restricted interim	12.4	n/a	- -		- -
Hardship exemption[f]	24.7	0.0	24.7	***	0.000
Household composition change[g]	14.8	21.0	-6.2	***	0.000
Increased income	29.3	72.7	-43.5	***	0.000
Any household composition change	31.3	33.7	-2.5		0.242
Contract rent change[h]	67.2	18.1	49.1	***	0.000
Other action[i]	61.2	33.2	28.0	***	0.000
Number of Actions					
Average number of actions	7.0	7.2	-0.2		0.329
Average number of actions during full period, if enrolled in HCV program in month 78	9.1	10.5	- -		- -
Any action that requires staff response[a] (%)				**	0.024
None	6.7	6.8	-0.1		
1-2	11.1	12.8	-1.7		
3-4	11.0	12.5	-1.6		
5-6	11.0	10.1	0.9		
7-9	30.7	23.6	7.1		
10 or more	29.6	34.2	-4.6		
Any action that requires staff response, if enrolled in HCV program in month 78[a]					- -
None	0.6	0.0	- -		

Outcome (%)	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
1-2	0.7	0.4	- -		
3-4	1.0	0.6	- -		
5-6	8.5	2.4	- -		
7-9	44.8	33.8	- -		
10 or more	44.5	62.8	- -		
Sample size (total = 1,908)	947	961			
San Antonio					
Ever Had Type of Action (%)					
Any action that requires staff response[a]	83.2	86.2	-3.1	*	0.065
Regularly scheduled recertification[b]	75.6	83.9	-8.3	***	0.000
Year 3 regularly scheduled recertification[c]	72.4	68.5	3.9	*	0.062
Year 6 regularly scheduled recertification[c]	53.4	50.9	2.4		0.288
Move/change of unit[d]	32.5	22.3	10.2	***	0.000
Interims[e]					
Decreased income	30.5	48.4	-17.9	***	0.000
Restricted interim	11.6	n/a	- -		- -
Hardship exemption[f]	16.6	0.1	16.4	***	0.000
Household composition change[g]	7.9	14.7	-6.7	***	0.000
Increased income	1.4	8.3	-6.9	***	0.000
Any household composition change	25.8	23.6	2.2		0.266
Contract rent change[h]	40.1	21.0	19.1	***	0.000
Other action[i]	14.7	3.0	11.7	***	0.000
Number of Actions					
Average number of actions	3.3	5.3	-1.9	***	0.000
Average number of actions during full period, if enrolled in HCV program in month 78	4.8	7.7	- -		- -
Any action that requires staff response[a] (%)				***	0.000
None	16.8	13.8	3.1		
1-2	23.8	13.6	10.2		
3-4	28.6	8.6	20.0		
5-6	19.8	19.6	0.2		
7-9	10.4	37.2	-26.8		
10 or more	0.7	7.3	-6.6		

Outcome (%)	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
Any action that requires staff response, if enrolled in HCV program in month 78[a]				- -
None	0.6	0.6	- -	
1-2	12.7	0.3	- -	
3-4	35.9	0.8	- -	
5-6	31.9	21.2	- -	
7-9	17.7	64.1	- -	
10 or more	1.2	13.0	- -	
Sample size (total = 1,869)	935	934		

[a]Certification actions that require staff interaction or other notable effort from staff include annual reexaminations, interim reexaminations (except for end-of-grace-period and end-of-hardship records), and change-of-unit actions.

[b]Regularly scheduled recertifications reflect actions recorded as "Action code 2: annual reexamination" on the 50058 form. PHAs record all regularly scheduled reexaminations under this action code regardless of the frequency of reexaminations: Annual, biennial, and triennial reexaminations are recorded under this action code.

[c]Year 3 and year 6 recertifications are the 'triennial' for the program group, excluding opt-outs, and the third and sixth annual recertification for the control group and opt-outs. Its effective date is approximately 36 and 72 months after the date the new rent rules went into effect (the 'initial' recertification), respectively, although the exact timing ranges for some households. For the program group, the triennial includes "2: annual reexamination" actions as well as other actions that may have substituted as the triennial, such as a "3: interim reexamination" or "7: change of unit." Some households did not have a triennial identified because they exited the program or did not have a triennial for other reasons. For the control group and opt-outs, if a household did not have a clearly identifiable regularly scheduled recertification in the third year, the record closest to the expected recertification date was chosen as an approximation.

[d]Move/change of unit actions reflect actions recorded as "Action code 7: other change of unit" on the 50058 form. If a move was recorded through an annual or interim action, it is not reflected in this outcome.

[e]Interims reflect all actions recorded as "Action code 3: interim reexamination" on the 50058 form, except interim reexaminations to end a grace period or hardship rent. Types of interim actions are not mutually exclusive. Any action counts as each action once. At the same interim certification event, a household may have reported changes in its situation that fell into more than one of the categories displayed in this table.

[f]Households in the existing rent rules groups in Louisville were not subject to a minimum rent. Thus, there was no hardship exemption available to them. This only includes hardships received through an interim recertification.

[g]This outcome indicates a decrease in income that occurred at the same time that household composition changed. When household members are removed, so is their income.

[h]The "existing rent rules" group often has contract rent changes included in their annual reexamination, and in that case the contract rent increase is not included in this category.

[i]Other actions include interims (or some other reason but not end of grace or hardship), which are difficult to classify from the available data.

Notes: n/a = not available. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences. Differences between the new rent rules group and the existing rent rules group were assessed using a two-tailed t-test for continuous variables and selected outcomes expressed as proportions. For categorical variables, a chi-square test was used to determine whether there is a difference in the distribution of related outcomes for the new rent rules group compared with the existing rent rules group. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. When categorical variables are part of a distribution, the statistical significance levels, which apply to the distribution, are shown above the distribution. Sample sizes for specific outcomes may vary because of missing values. Outcomes shown in italics are nonexperimental. Statistical significance tests are not conducted on

nonexperimental outcomes. Nonexperimental measures exclude the Louisville sample members who declined to participate in the study (or opt-outs).
Source: MDRC calculations using PHA data

Appendix D
Supplementary Materials for Chapter 4

Exhibit D.1. Impacts on Household Benefits Receipt Within First 78 Months of Followup: Heads of Households

Outcome	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
Lexington				
TANF receipt				
Full period (quarters 3-28)				
Ever received (%)	9.6	8.4	1.2	0.496
Average quarterly receipt (%)	1.2	1.2	0.0	0.968
Amount received ($)	179	230	-51	0.354
Last quarter (28)				
Ever received (%)	0.3	1.5	-1.1*	0.062
Amount received ($)	0	30	-29**	0.044
SNAP receipt				
Full period (quarters 3-28)				
Ever received (%)	88.7	89.8	-1.1	0.575
Average quarterly receipt (%)	55.4	58.3	-2.9	0.172
Amount received ($)	18,777	19,178	-401	0.683
Last quarter (28)				
Ever received (%)	43.1	47.0	-3.9	0.210
Amount received ($)	804	813	-9	0.890
Sample size (total = 979)	486	493		
Louisville				
TANF receipt				
Full period (quarters 3-28)				
Ever received (%)	5.6	5.2	0.4	0.705
Average quarterly receipt (%)	0.8	0.8	0.0	0.976
Amount received ($)	134	137	-3	0.927
Last quarter (28)				
Ever received (%)	0.5	0.6	-0.1	0.745
Amount received ($)	4	4	0	0.971
SNAP receipt				
Full period (quarters 3-28)				
Ever received (%)	92.8	90.8	2.0*	0.094
Average quarterly receipt (%)	58.5	56.1	2.4	0.113
Amount received ($)	18,586	18,395	191	0.786
Last quarter (28)				
Ever received (%)	45.4	44.6	0.8	0.714
Amount received ($)	765	772	-7	0.881
Sample size (total = 1,908)	947	961		

Outcome (%)	New Rent Rules	Existing Rent Rules	Difference (Impact)	P-Value
San Antonio				
TANF receipt				
Full period (quarters 3-28)				
Ever received (%)	7.4	7.7	-0.3	0.836
Average quarterly receipt (%)	1.1	1.6	-0.5	0.108
Amount received ($)	165	252	-87*	0.080
Last quarter (28)				
Ever received (%)	0.2	0.7	-0.5*	0.081
Amount received ($)	1	3	-2	0.261
SNAP receipt				
Full period (quarters 3-28)				
Ever received (%)	92.4	91.7	0.7	0.559
Average quarterly receipt (%)	64.8	66.2	-1.5	0.300
Amount received ($)	21,730	21,893	-163	0.825
Last quarter (28)				
Ever received (%)	43.9	44.7	-0.8	0.724
Amount received ($)	683	673	10	0.817
Sample size (total = 1,869)	935	934		

Notes: TANF = Temporary Assistance for Needy Families. SNAP = Supplemental Nutrition Assistance Program. Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. A two-tailed t-test was applied to the differences between research group outcomes. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Rounding may cause slight discrepancies in sums and differences. Dollar averages include zero values for sample members who did not receive TANF or SNAP.
Source: MDRC calculations using administrative records data

Exhibit D.2. Impacts on Use of Homelessness Services Within First 78 Months of Followup: Heads of Households in Lexington, Louisville, and San Antonio

Outcome	Program Group	Control Group	Difference	P-Value
Lexington				
At least one night stay[a] (%)				
Full period (quarters 3-28)	1.6	2.1	-0.5	0.529
Last quarter (28)	0.2	0.2	0.0	0.923
Any stay in an emergency shelter (%)				
Full period (quarters 3-28)	1.6	2.1	-0.5	0.529
Last quarter (28)	0.2	0.2	0.0	0.923
Any use of services[b] (%)				
Full period (quarters 3-28)	1.4	1.1	0.3	0.638
Last quarter (28)	0.0	0.0	0.0	
Any stay or use of services (%)				
Full period (quarters 3-28)	3.0	2.5	0.5	0.662
Sample size (total = 979)	486	493		
Louisville				
At least one night stay[a] (%)				
Full period (quarters 3-28)	2.3	1.7	0.5	0.402
Last quarter (28)	0.4	0.1	0.3	0.200
Any stay in an emergency shelter (%)				
Full period (quarters 3-28)	2.2	1.5	0.7	0.275
Last quarter (28)	0.1	0.0	0.1	0.350
Any use of services[b] (%)				
Full period (quarters 3-28)	2.1	2.3	-0.3	0.674
Last quarter (28)	0.0	0.4	-0.4*	0.052
Any stay or use of services (%)				
Full period (quarters 3-28)	2.9	3.2	-0.3	0.736
Sample size (total = 1,908)	947	961		
San Antonio				
At least one night stay[a] (%)				
Full period (quarters 3-28)	2.4	2.5	-0.1	0.859
Last quarter (28)	0.4	0.2	0.2	0.400
Any stay in an emergency shelter (%)				
Full period (quarters 3-28)	1.6	1.6	-0.1	0.893
Last quarter (28)	0.2	0.2	0.0	0.995
Any use of services[b] (%)				
Full period (quarters 3-28)	12.8	13.4	-0.6	0.704
Last quarter (28)	1.8	1.3	0.4	0.435
Any stay or use of services (%)				
Full period (quarters 3-28)	13.0	13.4	-0.4	0.777
Sample size (total = 1,869)	935	934		

[a] A stay is defined based on the individual's use of any of the following types of housing assistance: emergency shelter, transitional housing, safe haven, or various forms of permanent housing, such as permanent housing without services, permanent housing with services, permanent supportive housing, or rapid re-housing.
[b] Use of a service is defined based on the individual's use of any of the following services: street outreach, day shelter, homelessness prevention, coordinated assessment, services only, or other project type. "Services only" and "other" project types indicate that the project only provides services, not including street outreach. "Services only" projects have associated housing outcomes while "other" projects provide "stand alone supportive services" (U.S. Department of Housing and Urban Development, 2018). Any records without a project type or with a retired project code are also included as a service, except in the few cases where project type was inferable from the associated provider name.
Notes: Estimates were regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. A two-tailed t-test was applied to the differences between research group outcomes. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent. Rounding may cause slight discrepancies in sums and differences.
Source: MDRC calculations using Homeless Management Information System data

Appendix E

Supplementary Materials for Chapter 5

Exhibit E.1. Policy Reminder Letter

Lexington Housing Authority ○ 300 West New Circle Road ○ Lexington, KY 40505 ○ Phone: (859) 281-####

October 1, 2020

Dear [Housing Choice Voucher Participant Name],

Know your rent rules! Here are a few reminders about your rent policies as part of the ongoing Rent Reform Demonstration.

If your income goes DOWN ⇩

Submit a change of income packet and hardship request form to LHA to find out if you qualify to get your rent lowered. **If your household loses income and can no longer afford to pay the rent, you may be able to receive:**

- A temporary "hardship rent"
- A reduction in rent each year that could last until your next recertification

If your income goes UP ⇧

Save yourself the hassle – you don't need to report income increases until your recertification.

The Rent Reform Demonstration lets you increase your income without getting a rent increase.

- **Your rent will NOT go up before your next recertification if you or any other household member:**
  - ✓ Start a new job
  - ✓ Start working more hours
  - ✓ Start working a second job
  - ✓ Get a raise

Sincerely,

The Lexington Housing Authority

Contact the Housing Authority for More Information

(859) 281-####
300 West New Circle Road
Lexington, KY 40505

Appendix F
Supplementary Materials for Chapter 6

Data, Methodology, and Sensitivity Tests for the Cost Analysis

This appendix provides additional information about the data, analytical methods, and assumptions used in the cost analysis presented in chapter 6. It also offers a sensitivity analysis testing how the analysis results respond when key measured outcomes and assumptions are changed.

Data and Methodology

Administrative Costs Per Sample Member

The administrative costs addressed by this first component of the cost analysis involve the recertification process through which families' Total Tenant Payments (TTPs) and housing subsidies under the Housing Choice Voucher (HCV) program are determined and modified. The process, which accounts for close to 40 percent of the total administrative cost of providing vouchers, is the only HCV administrative function that is directly affected by the new rent reform rules.[168] Other core functions in administering the voucher program, notably those including program intake, eligibility determination, and apartment inspections, are indirectly affected by the new rules, and are an important part of the second component of the analysis discussed below.

This component of the cost analysis is based on impacts estimated for pertinent PHA administrative actions, which were reported in exhibit 3.9 of chapter 3. The costs associated with each of these actions were estimated by (1) making estimates of the staff time needed to carry out each type of action for the families in the research sample, and (2) applying unit cost estimates to each staff-time estimate.

Staff Time Estimates. The time-per-action estimates, which were presented in exhibit 6.2, are based on interviews with housing specialists, supervisors, and program managers from the three PHAs in the demonstration.[169] The housing specialists provided estimates of the average time spent on different types of actions. For example, the estimates for scheduled recertifications took into account any time spent on recertification-related activities from the time the recertification

[168] In the Housing Choice Voucher Administrative Fee Study, conducted by Abt Associates, Inc., administrative costs were divided into the core functions—intake, eligibility, and lease-up; ongoing occupancy, inspections, monitoring, and supervision; and support services—and non-core functions (Turnham et al., 2015). Ongoing occupancy accounted for 39 percent of administrative cost. The results of the impact analysis supported earlier MDRC estimates that three-quarters of the activities in this function were affected by the new rent rules. Supervision and non-core functions accounted for 11 and 19 percent, respectively, and MDRC estimates that about 40 percent of activities in these function categories were affected by the new policy.

[169] At two points during the followup period, the research team spoke with the primary staff members with extensive experience with the new rent rules group. In some cases, these staff worked exclusively with new-rules families, and in other cases, the staff worked with existing-rules families as well. In addition, the team spoke with staff who worked primarily with existing-rules families and with other staff who supervised and oversaw recertifications and related activities for both the new-rules and the existing-rules groups.

began until the time the documentation for the action was submitted. These activities included preparatory work for an income review, the recertification interview, reviews of documents supplied by the tenant or by others, income verification and calculation, utility allowance calculation, total tenant payment calculations, housing assistance payment (HAP) calculations, sending the recertification notice with any HAP changes to the family, and any other time spent on the recertification. In speaking with specialists and their supervisors, the research team distinguished between cases that were time-consuming (notably, households with multiple employed adult members) and "regular" cases, developing average-time estimates that accounted for the proportion of all cases that were especially time-consuming at a particular site.

The estimates also take into account the additional time that staff spent working with families that did not result in a formal action and, thus, was not recorded in the PHAs' rent subsidy software system. For example, housing specialists spent time determining whether families in the new rent rules group who requested restricted interims or hardship remedies qualified for those safeguards. When the family did not qualify, no formal recertification action was taken, and nothing was recorded in the software data systems. Specifically, hardships that were requested but not granted were estimated as the percent of families that received a grace period minus the percent of families that actually received a hardship. The amount of time for a hardship recertification was applied to these cases.[170]

Housing specialists across all three sites consistently indicated that a triennial recertification for the new-rules family took longer than an annual recertification for an existing rules sample member. The additional time was needed primarily because of the retrospective income calculation done for the new rent rules group. The need to spend extra time is greater in cases when more adults are on the lease, because it means that more income needs to be tracked over the 12-month retrospective period.

The staff time-use estimates also were informed by the PHAs' Moving to Work (MTW) annual reports to HUD. These reports provided general time estimates to which the interview results could be compared. They also offered specific estimates that were useful in instances where the housing specialists interviewed were uncertain. It is worth noting that, if multiple items were changed during an interim recertification, the time estimate applied for the interim is the one corresponding to the most time-consuming action (this action also is shown as the primary reason for the recertification).[171]

Unit Cost Estimates. The unit cost estimates, which were used to value the staff time needed for each action, were based on frontline staff salary and fringe benefits, per hour, at the three demonstration sites. Appendix exhibit F.1 shows these compensation costs per hour for the three

[170] In Louisville, it is assumed that all hardships requested were granted because the percent of families with a hardship granted is greater than the percent of families with a grace period.

[171] For the sensitivity analysis that assigned the control group time estimates to the new rent rules, interim recertifications with multiple items changed during the recertification were based on the type with the longest length of time based on the new rent rules.

sites. The staff time estimates were valued using salary and fringe benefit information obtained from the demonstration's three PHAs.[172] The compensation costs per hour, which ranged from $26.91 to $29.37 among the three sites, were highest in Louisville.[173]

Exhibit F.1. Compensation and Agency Mark-Up Rates, by Public Housing Agency

	Lexington	Louisville	San Antonio
Staff hourly rate for salary and fringe benefits ($)	26.91	29.37	29.28
Supervision mark-up ($)	4.23	4.61	4.60
Support labor mark-up ($)	6.32	6.90	6.88
Non-labor and agency overhead ($)	14.23	15.53	15.49

Note: Supervision and support labor mark-ups are 15.7 percent and 23.5 percent of personnel costs, respectively. Non-labor and agency overhead is 38 percent of all labor costs.
Source: MDRC calculations using PHA fiscal records and data from the Housing Choice Voucher Administrative Fee Study conducted by Abt Associates (Turnham et al., 2015)

These estimates of the hourly cost of staff compensation for housing specialists were used to calculate the associated costs for supervision, support labor, and agency overhead. Support labor covers certain types of activities within the operations unit (for example, staff meetings) as well as many pertinent activities within the HCV segment of the agency (for example, general customer support and overall HCV program administration), while overhead covers both non-labor inputs (office space, equipment, supplies, etc.) and a variety of agency functions (including agency management, accounting, and human resources).

The rates used to calculate these costs were estimated using time-study and cost data from the Housing Choice Voucher Administrative Fee Study (Turnham et al., 2015). The rate for supervision and monitoring is 15.7percent; that is, the cost of supervision and monitoring for the ongoing operations function estimated in the administrative fee study was 15.7 percent of the

[172] The three Rent Reform Demonstration sites, like all MTW PHAs in MTW, include in their MTW reports estimates of baseline and current staff time required for activities where policy changes are expected to affect administrative staff time (cost-effectiveness objective CE-2 is staff time savings). For the current cost analysis, the three PHAs' MTW reports were used as a starting point for MDRC's discussions with staff about their time use. Those discussions focused on refining and modifying the MTW estimates. The PHAs' MTW report estimates also provide some assurance that revised estimates MDRC used in the cost analysis are reasonable approximations.
[173] The staff salary and fringe benefits costs are 2019 estimates that were inflation-adjusted to 2022 dollars.

cost of frontline tasks in ongoing operations. The rate is 23.5 percent for support labor, and for non-labor inputs and agency overhead is 38.0 percent.[174]

The cost of supervision and monitoring, as well as part of the cost of non-labor inputs (for example, the cost of office space for housing specialists and their supervisors), are elements of the direct labor cost of carrying out pertinent administrative activities affected by the new rent rules. The costs of support labor and agency overhead, together with related non-labor expenses, may be viewed as more indirect effects of the new rules on administrative costs. Other indirect effects cannot be dealt with in the per-sample member analysis, but some are addressed in the per-voucher-slot analysis described below.[175]

Administrative Costs Per Voucher Slot

The second component of the cost analysis also addresses the effect of the new rent rules on administrative costs. However, because the analytical perspective is widened from RRD sample members to housing voucher slots, the costs attributable to families that replaced sample members in those slots are considered in addition to the costs for the sample members themselves.

Replacement Family Sample. A critical aspect of this component of the analysis is identifying the supplementary sample of replacement families. These are the families that were given vouchers freed up when sample members left the HCV program during the 79 months following random assignment. The replacement sample is intended to include all eligible families that filled voucher slots after the departures of sample members. Thus, the RRD sample includes the families that initially held the vouchers under examination in this analysis, while the supplementary sample of replacement families are those that held the vouchers during the remainder of the 79-month followup period. It is important to recognize both that most voucher slots were only filled by sample members (i.e., the sample members did not leave HCV during the followup period) and that the proportion of slots that included replacement families was significantly higher for the existing-rules group.

The process by which replacement families were identified for inclusion in the supplementary sample is intended to mirror the process followed by PHAs when vouchers were freed up to be used by new families. However, there are two noteworthy restrictions to our ability to accomplish this. First, each replacement family in the cost analysis needs to meet the eligibility

[174] The pertinent staff time and administrative cost estimates needed for supervision support labor and non-labor inputs are presented in Chapters 4 and 5 of Turnham et al. (2015), notably exhibits 4.17 and 5.2. All figures used in MDRC calculations are mean values from these tables. For agency overhead, financial reports from the three demonstration sites were used.

[175] One noteworthy type of indirect effects—those that occur as resources are freed up when less PHA staff time is devoted to activities such as recertification—cannot be addressed in any of the analyses presented here. However, the use of such freed-up resources by PHAs in the Moving to Work demonstration (including the PHAs in RRD) is discussed in Levy, Edmonds, and Long (2020).

requirements for the demonstration, something that the PHAs were not obligated to do.[176] Second, the replacement family for the cost analysis needs to be added to the supplementary sample at approximately the same time as a voucher became available—so that initial HCV experience of the replacement family lines up with the time the pertinent voucher became available. This restriction meant that, in a small number of cases, there were insufficient replacement families to take the places of all departing sample members; as a result, a single replacement family could be added to the replacement sample multiple times (that is, the family was used as a replacement for more than one departing sample member).

When a family in the RRD sample left the HCV program,[177] another family was added to the replacement sample. The replacement family was identified from HUD records for the HCV households as meeting RRD eligibility requirements at the pertinent demonstration site. The choice of this family, which was random, was made from the eligible families first leased up by the sample member's PHA in the month after the sample family's departure.[178]

In cases where this initial replacement family left HCV at any point in the remaining followup period, another family was identified and added to the replacement sample. This replacement family also was chosen randomly, in this case from the eligible families leasing up in the month after the initial replacement family's departure month. This and subsequent replacement families who left HCV before the end of the followup period were replaced in the same way. All families selected in this way to fill a voucher slot after the RRD sample member family left the HCV program are included in the replacement family sample. The replacement sample includes 2,950 families, while the RRD sample includes 4,756 families.

Administrative Costs for Replacement Families. Administrative costs were estimated for the supplementary sample in the same way as for sample members—using staff time and unit cost estimates. However, nearly all administrative activities—not just those associated with the ongoing operations function—are relevant for replacement families. As explained earlier, the rent policy changes tested in RRD had an impact only on administrative in the ongoing operations function; thus, this is the only pertinent HCV administrative function. However, the significant impact of the new rent rules on departures from the HCV program led to a substantial difference between the new and existing rules groups in the number and timing of replacement families; thus, there are also differences in administrative costs across other administrative activities related to family entries and departures.

The assessment of administrative costs for the supplementary sample estimates these costs for the families that replaced sample members in the new rules group to those for families replacing

[176] However, it is likely that the pool of families from which we selected replacement families had a similar proportion meeting RRD eligibility requirements to the pool of families that potentially were randomly assigned to the RRD sample.
[177] Families in some cases received little or no subsidy in the months just before a program departure. Indeed, the month of departure was sometimes unclear from the records data. MDRC sought to apply the same rules for judging these cases as were used with RRD sample members (for which more detailed data were available).
[178] If an eligible family was not available in the same, previous, or earlier month, an existing replacement family was reused, as indicated above.

sample members in the existing rules group. In addition to the outcomes assessed for sample members in the component described above (for example, scheduled recertifications), the key outcome is the timing of any departure from HCV. For the replacement families in the new-rules group, the analysis assumes that the families that took the vouchers freed by treatment group members responded to the new rules in the same way sample members did (replacement families encountered the existing rules in most cases). Thus, the outcomes were generally estimated by adjusting each measured outcome using the average impact for the pertinent outcome.[179]

As a result, the base estimates of costs per voucher slot presented in chapter 6 depend on an important assumption—namely, that new rules replacement families would have responded to the new rules, on average, in the same way that the RRD sample families did. Behaving in the same way is a virtual certainty for some outcomes—notably, scheduled recertifications—because they are dictated by program rules for the new- and existing-rules groups. This is nonetheless a key assumption, and the sensitivity of our results to this assumption is tested later in this appendix.

The outcomes for the existing rules replacement families could be directly measured because this is the PHA treatment they received in virtually all cases. Thus, no adjustments in measured outcomes were necessary.

These outcomes for new- and existing-rules replacement families were valued using the staff time and unit cost estimates described above for administrative actions directly affected by the new rules. In addition to these directly affected actions, a wide range of actions are affected due to the new rules' impact on the length of time families remain in the HCV program. Because families spent longer in the program under the new rules, there was less turnover in families per voucher. As a result, substantially less staff time was devoted to issuing new vouchers, the lease-up process, initial apartment inspections, and many other administrative activities and actions.

The average staff time needed for these various activities and actions affected because of the impact on HCV program duration was estimated using data collected in the Housing Choice Voucher Administrative Fee Study. The categories of affected activities and actions (in addition to those directly that were directly impacted) included intake and eligibility determination,

[179] Scheduled recertifications were assumed to occur at 3-year intervals. Other outcomes were assumed to occur in numbers and at intervals dictated by observed behavior and measured impacts on sample members. For example, interims observed were adjusted to reflect measured impacts on those actions for sample members. For subsidy amounts and observed actions, this was achieved by multiplying the observed values by the factor of the adjustment factor, determined as described above. For program length, additional months were added to replacement households based on the impact factor. For additional months, the last observed HAP was carried over, and additional interim and move actions were assigned according to how often they occurred to the impact sample new rent rules group every month. Recertification actions were assigned based off the triennial schedule prescribed in the new rent rules.

voucher issuance, initial inspection of apartments, termination and end of participation and port-in intakes.[180]

Total Costs Per Voucher Slot

The third component of the cost analysis considers the larger budgetary cost implications of the new rules on voucher slots over the course of the followup period by taking into account housing voucher subsidy costs as well as administrative costs. The estimated impacts on housing subsidies were presented in chapter 3, and these results were used for the sample members in computing subsidy costs. The only change in the impact results presented in exhibit 3.3 is that results for each month were adjusted to reflect 2022 dollars.

For the replacement families, the subsidy amounts were measured for the existing rules group and measured and adjusted for the new rules group in the same manner as for other outcomes. As for administrative costs per voucher slot, the analytical approach is intended to provide simulation estimates of net subsidy costs per slot based on data assembled for replacement families who filled the voucher slots.

Sensitivity Analysis

There is uncertainty about a number of the measured outcomes and the assumptions used in the cost analysis. The analysis presented in chapter 6 developed base estimates of the administrative and subsidy costs using our best measures of key outcomes as well as what we regarded as the most appropriate assumptions. Here we test the sensitivity of the base results to some alternative outcomes and assumptions. The results, not surprisingly, are more sensitive to some of the changes than to others.

Staff Time. The first set of sensitivity tests involve our estimates of the average staff time required to complete administrative actions. The estimates, which were presented in exhibit 6.3, help drive the administrative cost findings, per family and per voucher slot, presented in chapter 6. The time-per-action estimates are based on interviews with site staff, and consequently are subject to measurement error. Alternative staff-time estimates are available thanks to the Housing Choice Voucher Administrative Fee Study (Turnham et al., 2015)—estimates covering a representative sample of 60 public housing authorities nationwide and using random moment sampling data collection to measure staff time devoted to specific functions and activities. The first set of sensitivity tests indicate the effect on our administrative cost results per family of using median time estimates from that study for three types of actions—regularly scheduled recertifications, interim recertifications,

[180] The pertinent staff time estimates are presented in Chapter 4 of Turnham et al. (2015). For intake and eligibility and for voucher issuance, the estimates come from exhibit 4-7. For initial inspection, we use half of the estimates for the initial inspection (from exhibit 4-16) and for driving to/from that inspection (from exhibit 4-15). For termination and the end of participation, the estimates are from exhibit 4-9. For port-in intakes, the estimate, which covers the full amount of port-in processing, comes from exhibit 4-8. All estimates are mean values from those tables. Costs for these actions, including the termination or end of participation of the sample member, are included in the administrative costs for the replacement families.

and actions required when families move or change their housing units—instead of the estimates made based on interviews with staff from the three demonstration sites.

The time estimates for the four PHAs in the Rent Reform Demonstration are consistently lower than estimates made in the Administrative Fee Study. The time estimates for annual recertifications, interim recertifications, and moves and changes of units in Louisville and Lexington are within the ranges reported by Abt Associates for these types of transactions based on its sample of 60 PHAs. The estimates for San Antonio are near or below the lowest estimates in the ranges for these transactions.

To test the sensitivity of our results to the staff time estimates made at the three demonstration sites, we substituted estimates from the Administrative Fee Study for some of the RRD estimates. The estimates from the Administrative Fee Study are shown in exhibit F.2, while the effects of using those estimates (instead of the RRD estimates) are shown in exhibit F.3. Two of the sensitivity analyses use the median time estimates reported by the Abt Associates researchers as the existing-rules time estimates. Another sensitivity test is based on the means and confidence intervals that were reported.

Exhibit F.2. Alternate Time Estimates from HUD's Administrative Fee Study

Type of Action	Median Time Estimate (Hours and Minutes)
Annual recertifications[a]	3:07
Interim recertifications[b]	2:03
Moves[c]	3:07

[a] Annual recertifications include preparing for and scheduling annual recertifications, conducting interviews, verifying income and household composition, reviewing Enterprise Income Verification system, and calculating total tenant payment and HAP.
[b] Interim recertifications include receiving and processing requests for interim recertifications, conducting interviews and verifying income, calculating total tenant payment and HAP, and processing vendor changes and notifications.
[c] Moves include receiving and processing move requests, determining eligibility for a move, and conducting move briefings.
The estimated administrative costs pertain only to the costs of PHA activities that were potentially affected by the new rent policy.
Source: Housing Choice Voucher Administrative Fee Study conducted by Abt Associates (Turnham et al., 2015)

In the first test, it is assumed that the time frontline staff took to complete each type of action for the existing-rules group is the same as the median amount of time estimated by the

Administrative Fee Study for other PHAs, and that the percentage change in time spent on those activities for the new rules group is accurately measured by the current study. The rationale behind this test is that staff members interviewed by MDRC researchers may have erred more in estimating the average amount of time they spent per action for each research group than in estimating the relative difference in effort required per action between the two groups.[181] As exhibit F.3 shows, the administrative cost savings increase to $100 per family over the 79-month followup period for the three sites.

Exhibit F.3. Differences in Administrative Cost per Family of the New Rent Rules Versus the Existing Rules

Base	Sensitivity Test			
Estimate	1	2	3	4
-53	-100	-224	-221 to 114	-105

Notes: The first and second sensitivity tests assume that the time frontline staff took to complete each type of action for the control group is the same as the median amount of time estimated by the Administrative Fee Study for other public housing agencies. They vary in that the first test assumes that the *percentage change* in time spent on those activities for the new rules group is accurately measured by the current study, while the second test assumes that the *absolute difference* in time spent is accurately measured. The third sensitivity test assumes that the staff erred in their estimates of how much time they spent on each activity, for both research groups, by 22 percent. The fourth sensitivity test assumes that the new rent rules group recertifications take the same amount of time as the existing rent rules group recertifications. The estimated administrative costs pertain only to the costs of PHA activities that were potentially affected by the new rent policy.
Source: MDRC interviews of housing specialists and their supervisors and data from the Housing Choice Voucher Administrative Fee Study conducted by Abt Associates (Turnham et al., 2015)

In the second sensitivity test, it is assumed that the time frontline staff took to complete each type of administrative action for the existing rules group is the same as the median amount of time estimated by the Administrative Fee Study for a national sample of 60 PHAs, and that the absolute difference in time spent on those activities for the new rules group is accurately measured by the current study. This sensitivity test differs from the first one by postulating that staff members interviewed by the MDRC team were better able to estimate absolute rather than relative time differences per type of action when comparing their efforts with the two research groups.[182]

Under this alternate set of assumptions, the costs per family for both the new rent rules and existing rules group increased compared with estimates under the base assumptions. The overall

[181] For this sensitivity test, the time spent for each action for the new rent rules group was calculated by multiplying the relevant Abt time estimate (which was assumed for this sensitivity test to reflect staff time use for the control group) by the percentage change in the amount of time that staff said they spent for the new rules group.
[182] For this sensitivity test, the time spent for each action for the new rent rules group was calculated by adding to the relevant Abt estimate for the control group the difference in minutes per action that site staff said they spent for the new rules group.

administrative costs for the new rent rules were lower under this sensitivity test compared with the first sensitivity test. With these alternate assumptions, there were larger cost savings across the three RRD sites.

In the third test, it is assumed that the staff erred in their estimates of how much time they spent on each activity, for both research groups, by 22 percent—this represents the 95 percent statistical confidence interval around the mean time estimate for all interim recertifications measured in the Administrative Fee Study, with the interval expressed as a percent of the mean (Turnham et al, 2015; Table 4.10). In this sensitivity test, therefore, measurement error could be in either direction—increasing or decreasing the base estimate—and it could have any number of causes.

Under this set of alternate assumptions, the results show administrative cost savings of $221 to an increase in the net cost of $114 per family over the 79-month followup period for the three sites.

In the last of these tests, it is assumed that the new-rules group recertifications take the same amount of time as the existing-rules group recertifications. This sensitivity test explores what would happen if the true difference in the time for recertifications between the new and existing rent rules groups is zero. If the new rent rules were adopted, it is likely that over time PHAs would become more efficient in administering vouchers under the new policy, and that some aspects of the policy that are the most time consuming to complete (for example, calculating retrospective income) may be streamlined to decrease the amount of time needed. Under this set of alternate assumptions, the cost savings across the three sites was moderately higher than the base estimates.

Replacement Families. The second set of sensitivity tests address our estimates of costs for housing voucher slots, which depend on our selection and analysis of replacement families. The first sensitivity test does not modify assumptions for the replacement families, but rather applies a three percent real discount rate in addition to the inflation adjustments applied to all per-slot cost estimates. Discounting is routinely done in benefit-cost and cost-effectiveness analyses, where the return on investment is being evaluated. This is particularly important because public programs and policies typically have benefits that extend for years beyond the period in which all or most costs are incurred. Discounting is not necessary for this analysis, which looks only at costs, but it is useful to do this sensitivity test anyway, particularly because policymakers could think about the cost results in a larger investment context. A three percent real discount rate amounts to a nominal discount rate of approximately six percent per year over the course of the followup period given that the annual inflation rate from 2015 to 2023 averaged nearly three percent.

Exhibit F.4 shows that, when the real discount rate was applied to our results across the 79-month followup period, the base estimate of total net costs per voucher slot barely changed across the three sites. Indeed, the change of $15 is less than three percent of the base estimate due to the relative costs to the new- and existing-rules groups at different times during the followup period.

Exhibit F.4. Differences in Net Budget Cost per Slot of the New Rent Rules Versus the Existing Rules

	Base	Sensitivity Test			
	Estimate	1	2	3	4
All PHAs ($)	758	743	731	190	204

Notes: PHA=Public housing agency. The base estimate includes adjustments to the new rent rules replacements, based on the observed differences in the evaluation sample by site, along with adjustments for inflation, but does not include an additional discount. The first sensitivity test applies a 3 percent discount rate in addition to the inflation adjustment included in all estimates. The second sensitivity test assumes that length of stay is not affected by new rent rules for the replacement families but does include all other adjustments for these families. The third sensitivity test assumes that subsidy amount is not affected by new rent rules for the replacement families but does include all other adjustments for these families. The fourth sensitivity test assumes that new rent rules group replacements behaved exactly as families under the existing rent rules, therefore, no adjustment were made to the new rent rules group replacement families. All costs are shown in constant 2022 dollars. The estimated administrative costs pertain only to the costs of PHA activities that were potentially affected by the new rent policy.
Source: Inventory Management System/Public and Indian Housing Information Center (IMS/PIC) data, MDRC interviews of housing specialists and their supervisors and data from the Housing Choice Voucher Administrative Fee Study conducted by Abt Associates (Turnham et al., 2015)

The second sensitivity test assumes that length of replacement families' stay in the HCV program is not affected by new rent rules in the same way it affected sample members (the impact on sample members was large, statistically significant, and consistent across sites and time periods). In other words, replacement families in the new- and existing-rules groups are assumed to have the same expected length of stay in the program. This is a noteworthy change in a key assumption given the importance of the program-duration impact in driving the overall cost analysis results presented in chapter 6.

The total cost base estimate did not move much in response to this assumption change, dropping by only $27 over the 79-month followup period. The sensitivity of the base estimate to the change is clearly constrained by the length of followup.

The third sensitivity test assumes that the voucher subsidy amount is not affected by new rent rules for the replacement families in the same way it was for sample members. This again is a meaningful change in the assumptions used in the analysis, because the subsidy amounts were measured as higher for new-rules families than existing-rules families (the statistical significance of the subsidy difference between the groups could not be tested because it involves a nonexperimental comparison).

In this case the change of a key assumption had a more substantial effect on the base total cost estimate. As shown in exhibit F.4, the base estimate is reduced from $758 to $190.

The last sensitivity test assumes that new-rules group replacements behaved exactly as families did under the existing rent rules. In other words, no adjustments were made to the observed

outcomes (including length of stay, subsidy amount, or administrative actions) of new-rules group replacement families.

The effect of this change in assumptions was to reduce the base estimate from $758 to $204. This is a consequential reduction, but again not large enough to change the conclusions of the analysis.

Appendix G
Supplementary Technical Materials

Exhibit G.1. Regression Coefficients for Estimated Impacts on Total Housing Assistance Payment Within 78 Months of Followup, New Rent Rules Group, Lexington, Louisville, and San Antonio Combined

Variable	Parameter Estimate	P-Value
Intercept	25,904	<.0001
Assigned to New Rent Rules Group (impact)	3,480	<.0001
Head of household characteristics		
African American head of household	1,447	0.127
Hispanic/Latino head of household	8,520	<.0001
Female head of household	4,894	0.001
Age of head of household		
18-24	-4,607	0.024
25-34	2,729	0.007
35-44	1,622	0.068
Household characteristics		
Young child (age 5 or younger) in household	7,475	<.0001
Household has 2 adults	-489	0.545
Household has 3 or more adults	492	0.711
No earned income	3,134	<.0001
Receives TANF	2,950	0.083
Receives Social Security or SSI	3,487	<.0001
Received HCV for less than seven years	-2,471	0.001
Family share		
$1-249	-624	0.685
$250-599	-5,527	0.001
$600 or more	-17,152	<.0001
Gross rent is greater than payment standard	534	0.450
Enrollment		
PHA		
Louisville Metropolitan Housing Authority	3,609	<.0001
San Antonio Housing Authority	-2,214	0.067
R-squared (0.114306)		
Sample size (total = 4,756)		

Note: HCV = Housing Choice Voucher. PHA = public housing agency. SSI = Supplemental Security Income. TANF = Temporary Assistance for Needy Families.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires, public housing agency data, and baseline survey data

Exhibit G.2. Regression Coefficients for Estimated Impacts on Total Earnings, New Rent Rules Impact Sample, Lexington, Louisville, and San Antonio Combined

Variable	Parameter Estimate	P-Value
Intercept	4,732	0.155
Assigned to New Rent Rules Group (impact)	-7	0.994
Head of household characteristics		
African American head of household	5,121	<.0001
Hispanic/Latino head of household	50	0.977
Female head of household	1,666	0.408
Age of head of household		
18-24	3,521	0.191
25-34	9,143	<.0001
35-44	7,284	<.0001
Household characteristics		
Youngest child in household age 0-5	-2,125	0.037
Household has 2 adults	1,504	0.158
Household has 3 or more adults	750	0.669
Receives TANF	133	0.961
Missing TANF flag	-983	0.365
Income from Social Security/SSI/Pensions	-872	0.434
No earned income	18	0.987
Received HCV for less than 7 years	80	0.931
Family share		
$1-249	-1289	0.526
$250-599	-402	0.858
$600 or more	1,008	0.717
Gross rent is greater than payment standard	1,984	0.034
Employment		
Employed in quarter before RA	5,860	<.0001
Employed two quarters before RA	-825	0.603
Employed three quarters before RA	2,948	0.041

Variable	Parameter Estimate	P-Value
Earnings		
Missing earnings in quarter before RA	-2,664	0.875
Total earnings in quarter before RA	5	<.0001
Total earnings in second quarter before RA	2	<.0001
Total earnings in third quarter before RA	2	<.0001
Enrollment		
PHA		
Louisville Metropolitan Housing Authority	1,584	0.185
San Antonio Housing Authority	-693	0.666
R-squared (0.466594)		
Sample size (total = 4,756)		

Notes: HCV = Housing Choice Voucher. PHA = public housing agency. RA = random assignment. SSI = Supplemental Security Income. TANF = Temporary Assistance for Needy Families.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires, public housing agency data, and baseline survey data

Exhibit G.3. Unadjusted and Adjusted Impacts on Total Earnings and Housing Subsidy Outcomes Within 78 Months of Followup: Lexington, Louisville, and San Antonio Combined

	Adjusted Impacts					Unadjusted Impacts				
Outcomes	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value	New Rent Rules	Existing Rent Rules	Difference (Impact)		P-Value
Average total earnings, quarters 3-28 ($)	79,205	79,302	-97		0.956	79,946	78,565	1,381		0.537
Total housing subsidy, months 2-79 ($)	39,841	36,362	3,480	***	0.000	39,752	36,450	3,303	***	0.000
Sample size (total = 4,756)	2,368	2,388								

Notes: Rounding may cause slight discrepancies in calculating sums and differences. A two-tailed t-test was applied to differences between research groups. The p-value indicates the likelihood that the difference between the new rent rules group and the existing rent rules group arose by chance. Statistical significance levels are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.
Source: MDRC calculations using quarterly wage data from the National Directory of New Hires and public housing agency data

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