

Income-Based Rent and Earnings in Public Housing

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Abstract

Income-based rents, common in public housing, create an earnings disincentive. We study a policy designed to counteract this effect by returning part of the rent induced by higher earnings to residents. Importantly, this policy was accompanied by outreach to heads of household to make the changed payoff to working salient. Under automatic enrollment, we estimate that household-head earnings rose 17% ($\sim \$1,370/\text{year}$) and use of public assistance fell 7.5%. There is no evidence of spillover effects on non-household head earnings, providing evidence for the salience channel. Finally, we document a 6.4 percentage point increase in labor force participation among prior non-workers.

Keywords: public housing; labor supply; in-work benefits; salience

JEL codes: I38, J22, R38

1 Introduction

Housing costs have risen rapidly, outpacing wage growth and straining affordability. In the United States, more than 90% of Americans live in counties where housing costs have increased faster than incomes over the past two decades; from 2010 to 2022, home prices rose 74% while average wages grew 54% ([U.S. Department of the Treasury, 2024](#); [Federal Housing Finance Agency, 2023](#); [U.S. Bureau of Labor Statistics, 2023](#)). Across the European Union, home prices increased 53% between 2015 and 2024, a large acceleration from the more gradual increases seen in previous decades ([European Parliament, 2024](#)). Affordability

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pressures are widespread: 61% of Americans report being “very concerned” about housing costs, nearly 50% of renters spend more than 30% of their income on rent, evictions affect more than two million U.S. households annually, and a record high of 770,000 people experienced homelessness on a single night in 2024 ([Pew Research Center, 2025](#); [U.S. Census Bureau, 2024](#); [Collinson et al., 2024](#); [U.S. Department of Housing and Urban Development, 2024a](#)).

One of the primary policy tools to combat housing instability is public housing. In the U.S., 1.6 million people live in government-run public housing, with millions more living in voucher-supported housing and other forms of rental assistance ([U.S. Department of Housing and Urban Development, 2024b](#)). Rent in public housing is typically set at around 30% of income in order to make it affordable for low-income families ([U.S. Department of Housing and Urban Development, 2025](#)). However, this income-based rent structure creates an unintended consequence: it reduces labor force participation and earnings among residents. Randomized housing lottery studies have consistently documented these effects, finding 6% decreases in labor force participation and 10% decreases in earnings in the U.S. ([Jacob and Ludwig, 2012](#)), and 8% and 13% decreases respectively in the Netherlands ([Van Dijk, 2019](#)). Matching studies using the Survey of Income and Program Participation similarly find 5% decreases in labor force participation and 18% decreases in earnings ([Susin, 2005](#)).

What causes these effects? One reason is that when rent is fixed as a proportion of monthly income, every additional dollar of earnings effectively faces a 30% marginal tax rate through higher rent payments. Not only is this a work disincentive in its own right, but it also interacts with the income phase-outs of other means-tested programs, meaning that low-income residents may lose access to other public assistance benefits as they earn more (also known as “benefits cliffs”) ([Altig et al., 2020](#)). Recent work in economics studies how to mitigate this problem: two prominent suggestions include reducing the sensitivity of tenant payments to income ([Dauth, Mense and Wrede, 2024](#); [Zhang, 2025](#)), and increasing the awareness of these kinds of programs ([Chetty, Friedman and Saez, 2013](#); [Kleven, 2024](#)).

This paper examines whether a policy intervention that involves a salient approach to mitigating the work disincentive in income-based rents can be effective in public housing. Specifically, we study the Rent-to-Save Pilot Demonstration (henceforth, RTS) at the Cambridge Housing Authority in Cambridge, M.A. This program, which was heavily publicized to heads of household in the treated sites, returns a portion of rent increases to residents. This money is placed into an escrow account, which residents receive as a lump sum cash transfer at the end of the program period. All residents at two large family housing sites were automatically enrolled, removing the selection problem that complicates the evaluation of similar policy initiatives, which typically require individuals to actively opt in. We ex-

exploit this exogenous variation in program participation to compare earnings trajectories of automatically enrolled participants to non-participants across 40 housing sites.

We find that the program significantly increases earnings. Specifically, we estimate that automatic enrollment into RTS leads to a 17% increase in household head earnings, representing approximately \$1,370 in additional earnings per year relative to the control mean of \$8,000. These gains are accompanied by a 7.5% (\$650) decrease in income from public assistance benefits, resulting in a total 4% (\$700) increase in overall income relative to the control mean of \$16,700. We find no evidence of spillover effects on non-head of household earnings, providing evidence that the outreach efforts to make the program salient to heads of households are important. In addition, we find a 6.4 percentage point increase in labor force participation among prior non-workers. Finally, participants receive about \$4,200 in gross financial benefits; concurrently, rental revenue rises by \$1,300 and public-assistance payouts fall by \$2,600, suggesting sizeable welfare gains.

Our analysis contributes to several literatures. First, we add to the growing body of work on the causal effects of housing assistance on economic outcomes, which includes studies of the Moving to Opportunity experiment ([Kling, Liebman and Katz, 2007](#); [Ludwig et al., 2013](#); [Chetty, Hendren and Katz, 2016](#)), eviction effects ([Collinson et al., 2024](#)), and public housing voucher programs ([Jacob and Ludwig, 2012](#); [Van Dijk, 2019](#)). Second, we contribute to policy reform evaluations in housing, complementing structural analyses ([Keane and Moffitt, 1998](#); [Waldinger, 2021](#); [Zhang, 2025](#)) and reviews of housing assistance ([Olsen, 2003](#); [Collinson, Ellen and Ludwig, 2019](#)). Third, we provide evidence on the causal effects of income support on labor supply, joining research on lottery winners ([Imbens, Rubin and Sacerdote, 2001](#); [Cesarini et al., 2017](#); [Golosov et al., 2024](#)), cash transfers ([Banerjee et al., 2017](#); [Vivalt et al., 2024](#); [Bartik et al., 2024](#); [Balakrishnan et al., 2024](#)), and the Earned Income Tax Credit ([Eissa and Liebman, 1996](#); [Meyer and Rosenbaum, 2001](#); [Eissa and Hoynes, 2004](#); [Nichols and Rothstein, 2016](#); [Kleven, 2024](#)).

Finally, there remains sparse causal evidence on in-work benefits programs—programs that provide low-income individuals with additional money for working—with much of the earlier work dating to 1990s waiver-era programs ([Eissa and Liebman, 1996](#); [Eissa and Hoynes, 2004](#); [Meyer and Rosenbaum, 2001](#); [Card and Hyslop, 2005](#); [Grogger and Karoly, 2005](#)). While earlier evidence suggested that EITC-style programs were effective, recent work calls into question whether this was due confounding factors taking place at the same time, making it important to study a current-era program ([Chetty, Friedman and Saez, 2013](#); [Kleven, 2024](#)). Most importantly, there is very little causal evidence of in-work benefits programs in the context of public housing specifically ([Moulton, Freiman and Lubell, 2021](#); [Verma et al., 2017](#); [Freedman, Verma and Vermette, 2023](#)), representing a significant

gap given the importance of public housing and the unique work disincentives created by income-based rent. In addition, while the literature shows that awareness and simplicity are first-order determinants of participation in social benefits, this paper provides early evidence that an in-work benefit explicitly engineered for salience affects labor market behavior beyond initial program take-up (Currie, 2006; Bettinger et al., 2012; Herd and Moynihn, 2018; Finkelstein and Notowidigdo, 2019)

The findings of this paper suggest that a well-designed policy can help counteract work disincentives. We demonstrate that an earnings-return program can successfully change labor market behavior among public housing residents, a context with otherwise high behavioral inertia and administrative friction. These results provide guidance for the design of in-work benefits programs as well as a new tool for the design of housing policy.

2 Background

The Cambridge Housing Authority (CHA) launched the three-year RTS Pilot Demonstration in Cambridge, Massachusetts in 2016. CHA is a Moving to Work public housing agency, a status that provides selected public housing authorities with waivers of standard rules and funding flexibility to design and test new initiatives. CHA implemented the program in two large general-occupancy sites (i.e., that house families rather than elderly-only) that were chosen to be representative of the CHA housing portfolio. The program was embedded within routine public-housing operations, including with existing rent collection. It was launched in partnership with Compass Working Capital, a Boston-based non-profit that provides financial coaching. We collaborated with CHA and Compass on study implementation details, including running early focus groups, developing survey questions, coordinating door-to-door surveys, and designing behaviorally informed account statements and outreach.

2.1 *The Rent-to-Save Program*

The RTS program automatically enrolled all resident households at two housing sites, who each received an escrow account. This account accrued funds through two mechanisms. First, every household received a monthly credit equal to 1% of their rent contribution regardless of income changes. Second, households whose incomes increased during the demonstration period received funds equal to 50% of any rent increase. Residents could qualify for a waiver based on old age or disability. To access their accumulated escrow accounts at the end of the program, households at both sites had to complete an exit survey. In addition, residents at one site were also required to complete six months of financial coaching through Compass,

with the option to request a waiver.

2.2 Salience of the Program

The RTS program details and outreach were designed to promote awareness among the two automatically enrolled housing sites. First, automatic enrollment and the automatic 1% monthly credit meant that all study participants received funds, giving everyone an immediate stake in the program. Second, all heads of household received account statements every quarter for the study’s duration, with a design that was informed by behavioral science to be simple, easy to understand, and compelling. Since they all received 1% of their rent as a credit every month, these account statements showed a growing balance for all study participants. Third, we conducted other kinds of outreach: mailed postcards, flyers distributed at housing sites, on-site community meetings, and explanations of the program during standard income recertifications. Examples of the information sheets, account statements, and open house flyers can be found in Appendix C. Finally, universal enrollment inside housing sites encouraged spillover effects through social networks inside the buildings. Since this was a program that required follow-through action to be successful, the goal was to make program understandable and salient to residents.

Evidence shows that awareness and simplicity are key drivers of the take-up of in-work and other social benefits. Studies of the EITC repeatedly document limited knowledge of the program and frictions in claiming among eligibles (Smeeding, Phillips and O’Connor, 2000; Phillips, 2001; Maag, 2005; Jones, 2010; Chetty, Friedman and Saez, 2013; Bhargava and Manoli, 2015; Nichols and Rothstein, 2016; Linos et al., 2022). Complementary evidence from other policy initiatives demonstrates that making benefits salient and lowering hassle costs increases take-up: for example, for both university enrollment and SNAP participation, streamlined information and in-person assistance increases take-up (Bettinger et al., 2012; Finkelstein and Notowidigdo, 2019). These patterns are consistent with broader theories of administrative burden and classic reviews on benefit take-up that emphasize defaults, information frictions, and transaction costs (Currie, 2006; Herd and Moynihan, 2018; Dykstra, O’Flaherty and Whillans, 2023). In our setting, RTS coupled automatic enrollment with frequent, behaviorally informed communications; at exit, 92% of participants correctly identified at least one of the study’s goals, demonstrating high program understanding. Taken together, this paper offers early causal evidence that an in-work benefit designed for salience can affect labor-market behavior past initial take-up.

2.3 Comparison to the Family Self-Sufficiency Program

The RTS program builds on the federal Family Self-Sufficiency (FSS) program, which Congress created in the late 1980s and 1990s among a suite of programs to promote economic independence for public housing residents. The program operates through partnerships between local housing authorities and Program Coordinating Committees—typically city agencies, colleges, universities, or financial service providers—and has become a permanent fixture of federal housing policy. Today, HUD sponsors FSS programs in over 600 housing authorities. Yet despite this widespread availability, participation remains strikingly low: only about 3% of eligible households enroll.

RTS reimaged several key features of the traditional FSS model. Most fundamentally, it replaced FSS’s opt-in structure with automatic enrollment, eliminating the need for households to make an affirmative decision to participate. The savings mechanisms also differed significantly. While FSS deposits the full rent increase from earnings growth into escrow accounts, RTS took an approach that provided all enrolled residents with funding but still incentivized earnings: all households received a universal 1% monthly credit regardless of income changes, plus 50% of any rent increases. The programs also operated on different timelines, three years for RTS versus five for FSS. Finally, as detailed in Section 2.2, the RTS program focused heavily on outreach and awareness, including through the automatic 1% monthly credit, which is not a standard part of the FSS model.

3 Data and Empirical Strategy

3.1 Data

We estimate the effect of automatic enrollment into the RTS program using administrative data from CHA. This data covers the universe of households who live in a CHA housing site from 2012 to 2019 and includes basic income and demographic data for every household member. We also have descriptive data from two surveys conducted in the years 2017 and 2019.¹

In the administrative data, we observe 3,308 households living in 42 housing sites that appear at least once between 2012-2019. We make the following sample decisions: first, we keep households that are in our sample for at least one pre-treatment year and at least one post-treatment year. Second, we drop households that move between treated and control housing sites over the sample period due to potential selection into or out of treatment. Third, we drop households whose participation in the program was waived due to disability

¹For more information about these surveys, see Appendix B.

or old age. Fourth, we keep the 45 treated households (20% of the treated group) who do not ultimately access their escrow accounts, to measure the population-level effect of automatic enrollment rather than only on households that follow through with the program. The sample we use for the main analysis is an unbalanced panel with 15,207 household-year observations living in 40 housing sites. The sample size is 10,896 households if we balance the panel (i.e., if we keep only 1,362 unique households that appear every year). However, we also present the results using the balanced panel, which are statistically robust and show similar effect sizes.

Our analysis focuses on the head of households. This is for two reasons: first, the escrow account is registered in their name, they conduct the income recertifications, and they alone receive the account statements, program notifications, and financial coaching. Second, household heads' income as a share of total household income is large at 88%. We analyze spillover effects on non-head of household earnings in Section 4.1.2.

In 2015—the year before the RTS program started—CHA administrative data shows that the average head of household was 61 years old, lived in a two-person household, and paid \$424 in rent.² Their income was \$16,706, out of which \$8,256 was labor income. Using the 2017 survey data, we can also qualitatively characterize CHA residents' economic circumstances: using the Consumer Financial Protection Bureau's financial well-being score, most households cluster around scores of 45 to 55, which generally indicates limited liquid savings and difficulty making ends meet (see Appendix B.2 for the full distribution). Only 20% reported having saved during the preceding year, whereas 71% had not (the remaining 9% did not answer).³ Together, these figures indicate that CHA residents generally earn low incomes and face difficulty building up assets.

Full descriptive statistics by treatment and control group can be found in Appendix A.1. While there are differences in income levels between treatment and control groups at baseline, our difference-in-differences approach only requires that income follows a similar trend across groups before the treatment. Appendix A.2 allows us to visually assess the plausibility of the parallel trend assumption, which holds for the pre-treatment period.

3.2 Empirical Strategy

Economic theory offers guidance on how to consider what determines an individual's earnings and labor supply decisions. In the simplest models, an individual makes trade-offs between

²This rent is much lower than the median rent over 2012-2016 in the area of \$1,700 ([Opportunity Insights](#) and [U.S. Census Bureau, 2018](#)).

³Among those who failed to save, the main obstacles were medical expenses (33%) and day-to-day household bills (28%), followed by debt payments (21%), insufficient income (7%), and the cost of childcare (3%); 8% gave no specific reason.

leisure and work, subject to a feasibility constraint, based on their wage rate, the prevailing cost of goods, and their preferences. The RTS program enters this model by affecting the wage rate. Whereas unenrolled residents face an effective marginal tax rate of 30% on additional earnings, this rate is cut in half for residents who enroll. This makes additional work hours more attractive relative to leisure. Of course, many more factors are relevant to an individual making the choice to work more; perhaps most important in this context is whether they receive benefits from other social programs, and how earning more might affect their eligibility for those programs (e.g., [Murray, 1980](#); [Leonesio, 1988](#); [Moffitt, 2002](#); [Van Dijk, 2019](#)).

In order to estimate the average treatment effect of being automatically enrolled into the RTS program on income, we want to compare the income of enrolled households to the counterfactual where those same households were not enrolled. Since this counterfactual cannot be observed, we provide quasi-experimental evidence assuming that program assignment to housing sites is as good as random for any given household. We employ a dynamic difference-in-differences (DD) approach to analyze the relative evolution of outcomes while controlling for individual fixed effects and time trends. We estimate the following equation:

$$y_{ist} = \sum_{t=-P}^T \delta_t (Treat_s \times Time_t) + \gamma_t + \lambda_i + \epsilon_{ist} \quad (1)$$

where y_{ist} denotes the outcome of individual i in year t , living in housing site s . The variable $Treat_s$ equals 1 if individual i was living in a housing site s that automatically opened escrow accounts for residents. Indicator variables $Time_t$ measure the years relative to the start of the RTS program in 2016. The coefficients $\delta_0, \dots, \delta_T$ capture the dynamic treatment effects, with each δ_t representing the effect of the program in year t . The coefficients $\delta_{-P}, \dots, \delta_{-1}$ estimate the anticipation effects in the years leading up to the program's implementation. γ_t are year fixed effects, which control for time-varying factors that affect all individuals in the sample, while λ_i are individual fixed effects, controlling for time-invariant individual characteristics. The error term is denoted as ϵ_{ist} . We complement our event study analysis with static DD estimates that summarize the treatment effect across all post-treatment years. This approach uses the same specification but replaces the event study indicators with a single interaction term $Treat_s \times Post_t$, where $Post_t$ equals 1 from 2016 onward.

The main assumption underlying equation 1 is that individuals residing in control housing sites represent an accurate counterfactual trend of treated residents had they not participated in the RTS program. The coefficients $\delta_{-P}, \dots, \delta_{-1}$ in equation test for pre-treatment relative trends. If these estimates are economically small and statistically indistinguishable from zero, it suggests that there is no selection on trends that bias our results.

To address potential serial correlation in our outcomes, we cluster standard errors by housing site in our main results. However, because we have only two treated housing sites, cluster-robust standard errors may be too small and thus lead us to overreject the null (Conley and Taber, 2011; MacKinnon and Webb, 2018, 2020; MacKinnon, Nielsen and Webb, 2023; Alvarez, Ferman and Wüthrich, 2025). To assess the possibility of overrejection, we also generate p-values using a permutation approach that adjusts placebo estimates based on the variance of the residuals to account for heteroscedasticity due to differences in housing site size (Ferman and Pinto, 2019). We arrive to similar conclusions with both inference methods.⁴

4 The Effect of the Rent-to-Save Program on Income

This section evaluates whether automatic enrollment in the RTS program alters labor market behavior among public housing residents. We treat annual earnings as the principal margin through which the program can affect behavior and estimate both dynamic and average treatment effects.

4.1 Results

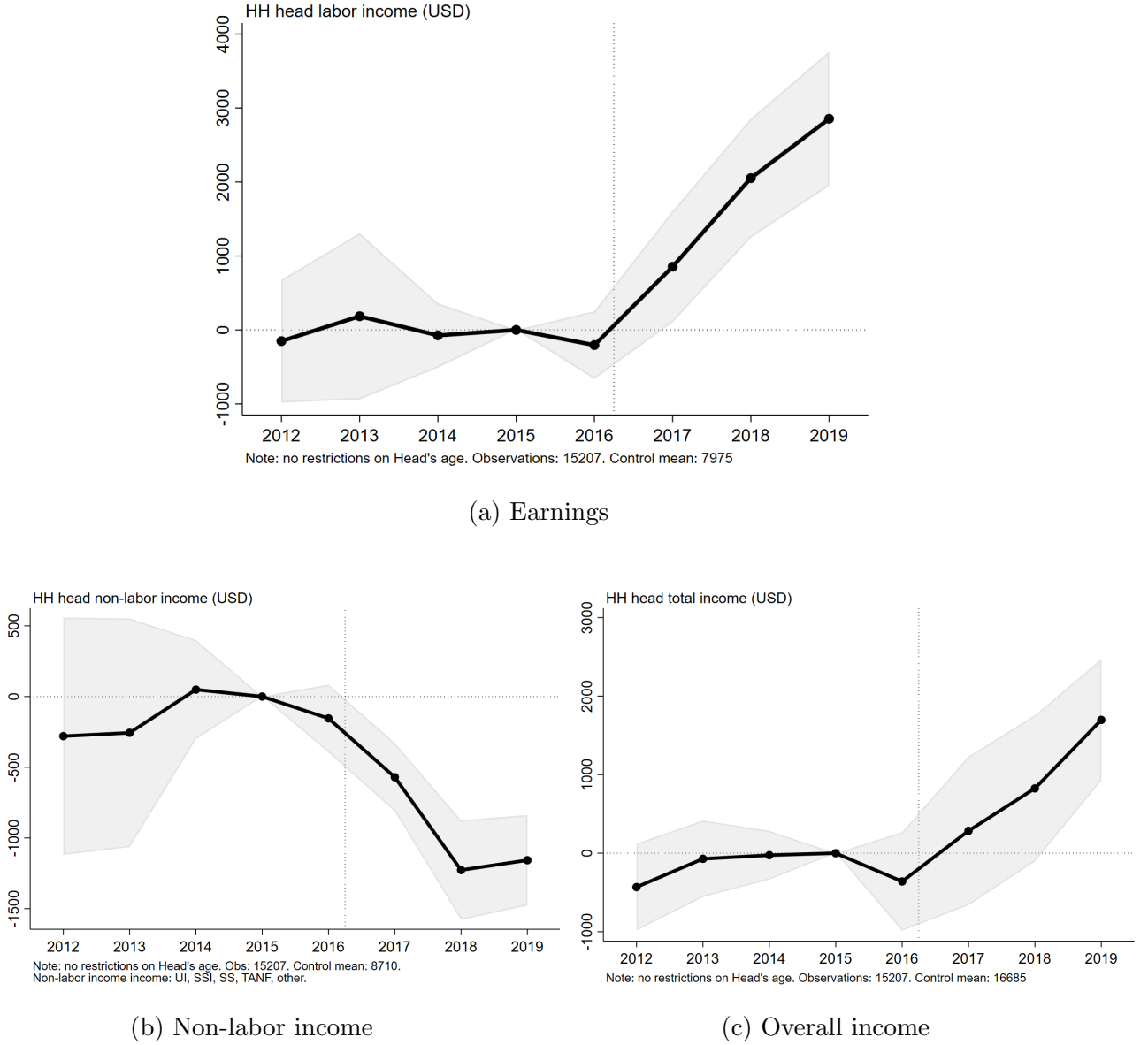
4.1.1 Effect on Head-of-Household Income

Figure 1 presents the main results for earnings (Panel 1a), non-labor income (Panel 1b), and overall income (Panel 1c). Each of these figures plot the estimated δ_t coefficients from Equation 1 and the associated 95% confidence intervals. The coefficients represent the change in outcomes for individuals automatically enrolled in the RTS program relative to individuals not automatically enrolled, with respect to the year immediately before the start of the program.

Prior to the RTS program, income trended similarly across the two groups: the coefficients δ_{-t} are close to zero and not statistically significant. Starting the first year post-treatment (2017), we observe earnings increase among individuals in treated housing sites relative to

⁴With many treated and many control groups cluster-robust variance estimators (CRVE) at the group level are appropriate to allow for unrestricted intragroup correlation (Bertrand, Duflo and Mullainathan, 2004). With a small number of groups, it may be possible to obtain reliable inference using methods such as Wild Cluster Bootstrap (Cameron, Gelbach and Miller, 2008). However, these methods do not perform well when the number of treated groups is too small (MacKinnon and Webb, 2018). There are alternative inference methods that are valid with very few treated groups, but rely on some sort of homoskedasticity assumption in the group \times time aggregate model (MacKinnon and Webb, 2020). This assumption would be too restrictive in our DD setting because the housings sites differ in size (see Appendix A.3). Thus, we implement Ferman and Pinto (2019)’s inference method that works in DD settings with few treated and many control groups in the presence of heteroskedasticity, e.g. variation in group sizes.

Figure 1: Effects of the Rent-to-Save program on head of household income



Notes: These figures plot the dynamic estimates of Equation 1 and the associated 95% confidence intervals. The coefficients represent the change in outcomes for individuals automatically enrolled in the RTS program relative to individuals not automatically enrolled, with respect to the year immediately before the start of the program. Panel (a) shows changes in earnings; panels (b) and (c) show non-labor and total income respectively. All values are in USD and reflect differences relative to 2015, comparing those automatically enrolled in the RTS program to those not enrolled.

non-treated housing sites. Post-treatment, earnings rise but this increase in income is partly offset by declines in non-labor transfers, leaving total household income higher overall.

Table 1 presents the average difference-in-differences estimates for the three outcomes.

We find a large increase in earnings associated with the RTS program with gains of about \$1,368 (17% relative to the control mean) each post-program year. We find that the increase in earnings is offset by a decline in non-labor income—Social Security, Supplemental Security Income, Temporary Assistance for Needy Families—of about \$653 (7.5%), with an overall positive effect on total income of \$715 (4.3%). These estimates are robust to the permutation-based inference procedure of [Ferman and Pinto \(2019\)](#); the main results remain statistically significant when accounting for site-level clustering with heterogeneous cluster sizes and a small number of treated clusters. We also present the results using the balanced panel, which are statistically robust and show similar effect sizes, in [Appendix A.4](#).⁵

Table 1: The effect of the Rent-to-Save program on head of household income

| | (1) | (2) | (3) |
|-------------------------|--------------------------|--------------------------|------------------------|
| | Earnings | Non-labor income | Total income |
| $Treat_s \times Post_t$ | 1367.924*** (443.459) | -653.180*** (216.847) | 714.744** (349.758) |
| Observations | 15207 | 15207 | 15207 |
| Control mean | 7975.031 | 8710.283 | 16685.314 |
| % control mean | 17.153 | -7.499 | 4.284 |
| Cluster Robust P-values | 0.004 | 0.005 | 0.048 |
| Ferman-Pinto P-values | 0.003 | 0.009 | 0.046 |

Notes: This table presents difference-in-differences estimates of the average treatment effect of the Rent-to-Save program on earnings (column 1), non-labor income (column 2), and overall income (column 3). All regressions include household head fixed effects and year fixed effects. Standard errors clustered at site level in parentheses. The last two lines present cluster robust p-values and p-values from the Ferman and Pinto (2019) permutation test, which adjusts placebo estimates based on the variance of the residuals to account for heteroscedasticity due to differences in housing site size.

4.1.2 Spillover Effects on Other Household Members

We next examine whether the RTS incentives spill over to other household members. Household heads generate the vast majority of their families' income—88% on average in CHA housing—and they alone conduct the income recertifications and receive the account statements, program notifications, and financial counseling. Does the program also affect the income of spouses and other adult members of the household, those who did not directly receive the program information?

⁵We also test for heterogeneous treatment effects across the two housing sites. As in our main results, both sites individually show statistically significant increases in earnings and total income, along with significant decreases in non-labor income. When we formally test whether the treatment effects differ between sites, we find no significant differences for earnings or total income, but with different effects on non-labor income. The full table can be found in [Appendix A.5](#).

Table 2 tests whether spouses or other adults in the households adjust their earnings or transfer receipt.⁶ We find little evidence of such spillovers: the effect sizes are small and imprecisely estimated. The overall change in other household adults income is also statistically indistinguishable from zero. These patterns reinforce the notion that the program’s financial incentives are internalized almost exclusively by the household head, providing evidence that the salience of the program is a key driver of the changes in labor market behavior.

Table 2: The effect of the Rent-to-Save program on income of other adults in the household

| | (1) Earnings | (2) Non-labor income | (3) Total income |
|-------------------------|----------------------|-------------------------|----------------------|
| $Treat_s \times Post_t$ | 101.213 (602.707) | 113.869 (123.531) | 215.082 (620.649) |
| Observations | 2799 | 2799 | 2799 |
| Control mean | 10864.959 | 2644.599 | 13509.558 |
| % control mean | 0.932 | 4.306 | 1.592 |
| Cluster Robust P-values | 0.868 | 0.364 | 0.731 |
| Ferman-Pinto P-values | 0.858 | 0.400 | 0.704 |

Notes: This table presents difference-in-differences estimates of the average treatment effect of the Rent-to-Save program on earnings (column 1), non-labor income (column 2), and overall income (column 3) from other adults in the household (excluding heads). All regressions include household head fixed effects and year fixed effects. Standard errors clustered at site level in parentheses. The last two lines present cluster robust p-values and p-values from the Ferman and Pinto (2019) permutation test, which adjusts placebo estimates based on the variance of the residuals to account for heteroscedasticity due to differences in housing site size.

4.2 Additional results

4.2.1 Extensive and intensive margin responses to the RTS program

The RTS program is associated with an increase in earnings among heads of household. A natural follow-up question is whether this increase reflects changes on the extensive margin (bringing non-earners into work), the intensive margin (increasing work hours), or both. Did the program lead more residents to enter the labor force? Did it encourage those already employed to work more hours? Although we do not directly observe employment status, we use positive annual earnings as a proxy. We separate our sample by whether by

⁶For this part of the analysis, we drop households whose only member is the head (8,502 household-year observations), and we add as a sample restriction that the other adults in the household appear in the sample as many years as the head of the households. We also exclude members under age 18 and full-time students. These restrictions result in a sample size of 2,799 household-member-year observations which correspond to 369 unique observations of spouses and other household adults.

whether residents ever had positive annual earnings in the pre-treatment years and analyze employment and earnings responses. These results are presented in Table 3.

Focusing first on those heads of household who never had positive earnings in the pre-treatment years, we observe that the program raises the probability of having any earnings by 6.4 percentage points. This effect represents more than a three-fold increase over the control mean. The corresponding gain in annual earnings for these new labor market entrants is \$1,313, roughly 4.4 times that of the control mean. The estimate is precise under cluster-robust inference and remains significant when we apply the Ferman–Pinto permutation procedure.

Table 3: The effect of the Rent-to-Save program on extensive and intensive margins

| | (1) Non-Workers Employment | (2) Earnings | (3) Workers Employment | (4) Earnings |
|-------------------------|----------------------------------|--------------------------|------------------------------|------------------------|
| $Treat_s \times Post_t$ | 0.064*** (0.018) | 1312.935*** (263.322) | 0.088*** (0.023) | 1429.405* (756.698) |
| Observations | 8967 | 8967 | 6240 | 6240 |
| Control mean | 0.018 | 297.363 | 0.790 | 19893.169 |
| % control mean | 361.712 | 441.525 | 11.174 | 7.185 |
| Cluster Robust P-values | 0.001 | 0.000 | 0.001 | 0.067 |
| Ferman-Pinto P-values | 0.002 | 0.015 | 0.002 | 0.148 |

Notes: This table presents difference-in-differences estimates of the average treatment effect of the Rent-to-Save program on extensive and intensive margin changes in earnings (columns 1 and 3, respectively) and employment (columns 2 and 4, respectively). As we do not directly observed employment status, we use having positive earnings as a proxy. All regressions include household head fixed effects and year fixed effects. Standard errors clustered at site level in parentheses. The last two lines present cluster robust p-values and p-values from the Ferman and Pinto (2019) permutation test, which adjusts placebo estimates based on the variance of the residuals to account for heteroscedasticity due to differences in housing site size.

Turning to the heads of households who did have positive earnings in the pre-treatment years, we observe that the probability of having any earnings increases by 8.8 percentage points, an 11.2% rise over the control mean. This effect is statistically robust across both inference procedures. Finally, their annual labor income rises by \$1,429, a 7% gain relative to the control mean of \$19,893. The estimate is marginally significant with cluster-robust inference ($p = 0.067$) and becomes imprecise under the Ferman–Pinto permutation test ($p = 0.148$), suggesting moderate but not definitive evidence of higher earnings per worker. The corresponding event studies, presented in Appendix A.6, suggest that both extensive and intensive margins may have contributed to the observed earnings gains. The dynamic estimates of the effect of RTS on earnings show no pre-trends. However, there appears to

be a pre-trend in the in probability of employment along for prior workers in the year 2012 (see panel [A.6c](#)). Hence, we cannot know whether the RTS program had an effect on labor force participation for those residents who were already working.

These results show increases in labor force attachment and earnings among those who had previously not worked, and positive but less definitive evidence about the likelihood of remaining employed and increasing earnings among those already attached to the labor market. Overall, this suggests that the increase in earnings we observe among heads of household is also accompanied by an increases in labor force participation. However, these results should be interpreted with caution given the indirect measure of employment, which prevent us from understanding the kind and quality of employment being obtained.

4.2.2 Results Restricted by Age

In our full sample, the average age of heads of households is 61 years old, with 30% being 70 or older. While we estimate our main results using the unrestricted sample, policymakers may also want to understand the effect of the RTS program on the traditional working age population.⁷ We thus also analyze our results using our main difference-and-difference specification on a sample restricted to heads of households under 70 years old in 2015.⁸ This reduces our sample size from 15,207 to 10,657.

In this restricted sample, we estimate a \$1,375 (12%) increase in labor income and a \$803 (12%) decrease in non-labor income. These estimates are statistically significant and similar in size to those using the full sample, though the percent changes are slightly different because the younger sample earns more in labor income and less in non-labor income. The estimated overall effect on total income is an increase of \$572 (3%), which is similar in size to the full sample treatment estimates but not significant. The table of results can be found in Appendix [A.8](#) and the event studies in Appendix [A.9](#).⁹

4.2.3 Heterogeneous Effects by Gender

In our full sample, 66% of head of households are female. Do the effects of the program differ by gender? To study this question, we presents separate difference-in-differences estimates for households headed by women and men.

⁷In 2024, the labor force participation rate among older Americans was 27.1% for U.S. workers 65-to-74 years old and 8.6% for 75 and older ([U.S. Bureau of Labor Statistics, 2025](#)). In addition, as described in [3.1](#), the households in our unrestricted sample are those who did not obtain a waiver for disability or old age.

⁸Appendix [A.7](#) shows the age distribution of the head of households in both samples.

⁹We also re-estimate these results on this restricted sample using a balanced panel, which shows similar results. This table can be found in Appendix [A.10](#).

Earnings rise similarly for both groups: about \$1,500 per year, which is 18% of the female control mean and 21.5% of the male control mean. Among women, however, this gain is accompanied by an \$823 (10%) fall in public assistance, so the implied \$669 increase in total income is small and not statistically distinguishable from zero. Male heads see a smaller, statistically insignificant reduction in non-labor income (\$445), leaving a net gain of roughly \$1,070 in total income (6.5%), significant at the one-percent level. In sum, the program expands earnings for both genders, yet the offsetting loss of transfer income is much larger for female heads, so their net improvement in total income is modest (and imprecisely estimated), whereas male heads retain most of their additional earnings and realize a substantially higher overall gain. The full table of these results can be found in Appendix [A.11](#).

4.2.4 Escrow Accounts and Exit Survey

The RTS program, in addition to mitigating the built-in disincentive on additional earnings in public housing, also builds up an escrow account using money that would have gone towards rent. The purpose of this account is to help residents build up assets and achieve more economic independence. Using administrative data and the RTS exit survey, we can provide descriptive information about the final amount in the accounts and the intended use of the money.¹⁰

The mean final escrow balance was \$1,360, which is equal to about one month's total income for residents in CHA housing. This represents a substantial amount of savings for this population. That being said, there was a wide distribution in final balances: the 90th percentile reached \$3,647 and the largest single balance was \$10,000, but half of all accounts closed with less than \$600 (the full distribution of amounts can be found in Appendix [A.12a](#)). Thus, while many participants accumulated a significant amount of savings, there was considerable heterogeneity in the final balance. Some of this could be due to the program ending after three years: we saw the strongest earnings growth in the last year of the program, suggesting that the escrow balances would have become larger if the program ended later.

Program participants planned to use this money in a variety of ways. In the exit survey, the largest share (37%) planned to use the money for everyday household bills such as food or medicine, indicating the financial precarity of some of the study participants. 22% intended to set aside the funds for debt repayment. Smaller but still notable groups hoped to create an emergency savings account (13%), cover children's school or college costs (12%), save toward home ownership (8%), purchase a car (6%), or add to retirement savings (2%).

¹⁰The exit survey was administered in 2019 as a program exit requirement. 79% of treated households completed it. More information about the survey can be found in Appendix [B](#).

Taken together, 37% planned on strengthening their financial position by reducing their debt or increasing their savings, while another 26% planned on using the escrow account to invest in education or a durable good.

Finally, participants wrote comments in the exit survey that provide insight into how they perceived the RTS program. Some participants stressed the program’s effortless, windfall quality: “Very good. I didn’t even have to think about it. I would never have been able to save that on my own.” Others described what they would do with the money: “The money was building up and, at the end of it all, it’s real! It’s going to go for my kids, which is huge.” Finally, some described how the program helped them save in spite of their financial hardships:

“I live paycheck to paycheck because I have a lot of bills. I don’t have any other savings. I don’t spend money on any other things. I never had the chance. It’s a good program. Plus they hold the money for you so you don’t spend it.”

Altogether, 157 participants described specific program features they appreciated; chief among these were the ease and automatic nature of the savings, that it comes in a lump sum, that the money is locked away, and that it helps them achieve their goals. Households valued the escrow not only for money itself but also for the sense of automatic, achievable savings. Notably, these comments also provide further evidence that study participants were aware of and understood the program: 92% of respondents were correctly able to identify at least one of the program’s goals.

4.2.5 Welfare Analysis

To assess welfare, we can use the Hendren–Sprung-Keyser MVPF, which compares beneficiaries’ willingness-to-pay (WTP) for the policy to its net cost to the government ([Hendren and Sprung-Keyser, 2020](#)). We use envelope-theorem logic to take the WTP as the average cash delivered via escrow plus the increase in total income over the four measured years of outcomes, equal to \$4,219 per person. On the fiscal side, the policy generated an average per person savings of \$3,931, including the sum of reduced public assistance outlays for four years plus higher net rent revenue to CHA after funding the escrow. We do not observe direct administrative costs, but they were low because the intervention was largely embedded in routine public-housing operations. The administrative costs therefore involved employee hours and program mailers. The largest potential cost is the financial coaching—in our setting, provided by a nonprofit at no cost to CHA—but this was offered at only one site, and we do not detect significant earnings differences across sites; if anything, labor-market

effects were directionally weaker where coaching was provided, suggesting the program can succeed without it (see Appendix A.5 for the table of results).

Therefore, RTS has an MVPF higher 1—meaning that the program delivers more beneficiary value than net government cost—if total administrative costs are less than \$8,150 per person (\$1.8 million in total for the three-year program). Given the low administrative costs, the MVPF is likely much higher. [Hendren and Sprung-Keyser \(2020\)](#) document that adult-targeted programs typically have MVPFs between 0.5 and 2, with cash and tax-credit transfers to low-income adults clustered near 1; by this yardstick, RTS compares very favorably. As a final measure, if the administrative costs are less than \$3,931 per participant, then the positive fiscal externality would even be large enough to offset the cost of the policy, resulting in a Pareto improvement.

5 Conclusion

Income-based rent in housing—which, in principle, makes rent affordable for low-income households—also creates an earnings disincentive: rent is set at about 30% of income, meaning that these households effectively face a 30 cent tax on each additional dollar of earnings. This paper delivers evidence that a salient, behaviorally informed earnings-return program that reduces this earnings disincentive can lead to improvements in labor market outcomes.

We use longitudinal data from the Cambridge Housing Authority and leverage quasi-random assignment to the Rent-to-Save program. This data allows us to compare residents automatically enrolled in the program and a comparison group of public housing residents not exposed to the program, finding that the RTS program increases annual head of household earnings by \$1,368 while reducing social assistance by \$653. Over the period of our study, the typical family received a gross financial benefit of about \$4,219, including escrow accounts and net increases in income. At the same time, the program provided a large fiscal benefit: CHA received an average increase in rental income of \$1,318 per person after funding escrow accounts, and use of public assistance decreased by \$2,613 per person over the study period. Since the program was embedded within routine public housing operations, the MVPF is likely much larger than 1, implying substantial welfare gains.

The RTS program, beyond altering the net return to work, also focused on outreach strategies informed by behavioral science: frequent account statements, reminders embedded in routine bureaucratic interactions, on-site communications, and encouraging spillover effects through social networks inside the buildings. By reducing information and hassle costs and keeping the reward visible over time, the outreach likely increased the perceived payoff to additional work relative to the default rent schedule. While we cannot isolate salience

as a mechanism, the exit surveys and the lack of effects on non-head of household members provide evidence that this channel was important. This suggests that policymakers should emphasize the implementation details of in-work benefit schemes and other programs that require follow-through on the part of individuals to be successful.

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Appendix

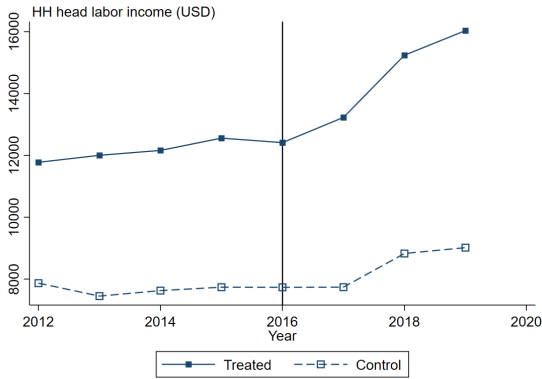
A Additional Tables and Figures

Table A.1: Descriptive statistics 2015

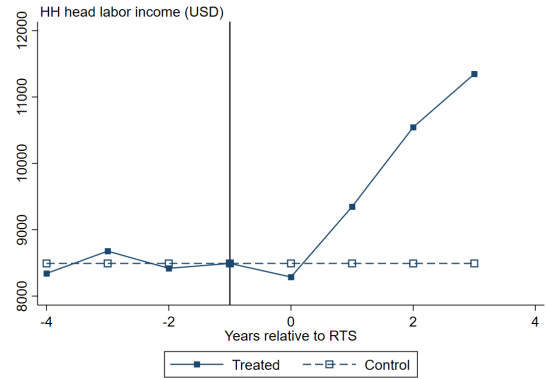
| | Control | Treatment | p-value |
|--|-----------------|-----------------|---------|
| HoH demographic characteristics | | | |
| Head of HH's age | 62 (15) | 51 (15) | <0.001 |
| Female | 0.65 (0.5) | 0.77 (0.4) | <0.001 |
| White | 0.51 (0.5) | 0.35 (0.5) | <0.001 |
| Head of household income | | | |
| Any earnings (dummy) | 0.32 (0.47) | 0.48 (0.50) | <0.001 |
| Total income | 16,420 (12,439) | 19,071 (14,696) | 0.003 |
| Earnings | 7,737 (14,535) | 12,557 (16,420) | <0.001 |
| Non-labor income | 8,683 (7,775) | 6,514 (8,243) | <0.001 |
| Share of HH income | 0.89 (0.24) | 0.83 (0.29) | <0.001 |
| Household characteristics | | | |
| Total income (Household) | 20,970 (20,374) | 25,776 (21,623) | <0.001 |
| HH members with income | 1.2 (0.54) | 1.4 (0.63) | <0.001 |
| Household size | 1.8 (1.3) | 2.8 (1.4) | <0.001 |
| Years lived in public housing | 11.3 (10) | 15.5 (11) | <0.001 |
| Rental Unit characteristics | | | |
| Bedrooms | 1.4 (1.1) | 2.4 (0.9) | <0.001 |
| Rent | 414 (314) | 506 (379) | <0.001 |
| Observations | 1,848 (89.2%) | 223 (10.8%) | |

Notes: This table presents descriptive statistics using the CHA administrative data from 2015, one year before the RTS program started.

Figure A.2: Visual pre-trends assessment



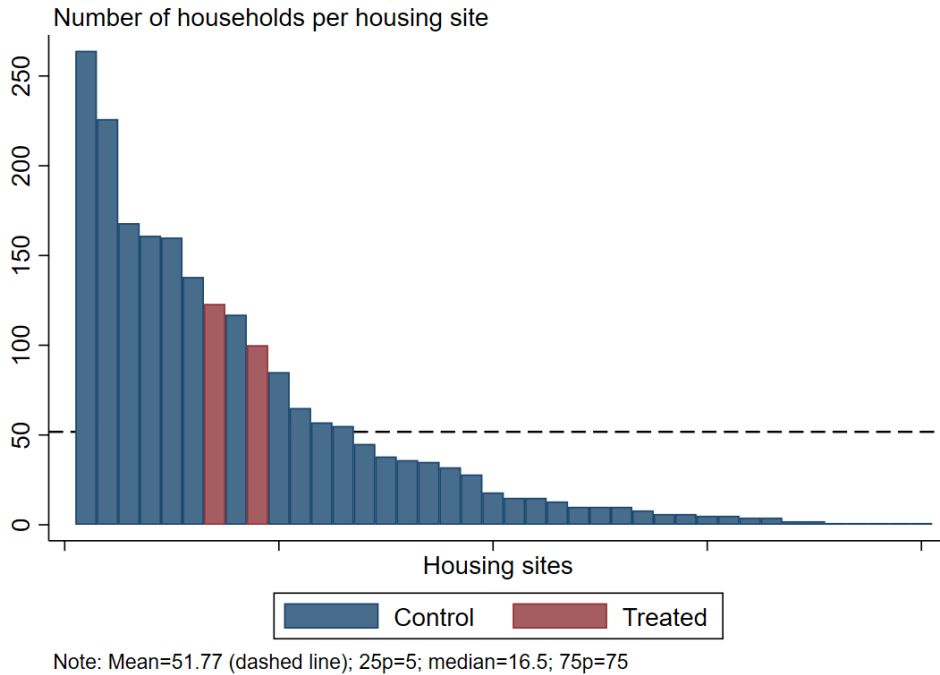
(a) Plotted means



(b) Predicted Values

Notes: This figure allows us to visually check the plausibility of the difference-in-differences parallel trend assumption. Panel (a) plots mean head of household earnings across treated and control groups. Panel (b) plots the predicted values.

Figure A.3: Distribution of cluster size



Notes: This figure shows the distribution of housing sites' size across treatment and control groups.

Table A.4: Effect of the RTS program on head of household's income - Balanced Panel

| | Earnings | Non-labor income | Total income |
|-------------------------|--------------------------|-------------------------|------------------------|
| $Treat_s \times Post_t$ | 1546.564*** (424.862) | -664.340** (266.198) | 882.225** (340.748) |
| Control mean | 9182.300 | 8306.813 | 17489.113 |
| % control mean | 16.843 | -7.998 | 5.044 |
| Cluster Robust P-values | 0.001 | 0.017 | 0.013 |
| Ferman-Pinto P-values | 0.001 | 0.000 | 0.020 |
| Observations | 10896 | 10896 | 10896 |

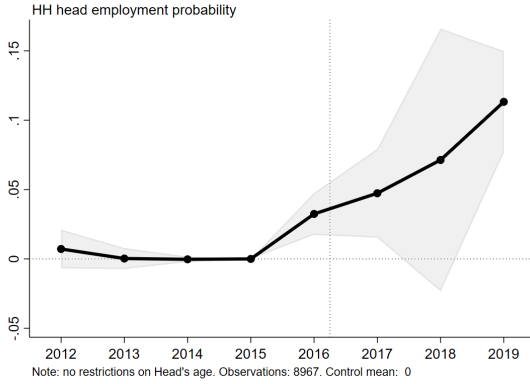
Notes: This table presents difference-in-difference estimates of the average treatment effect of the Rent-to-Save program on earnings (column 1), non-labor income (column 2), and overall income (column 3). All regressions include household head fixed effects and year fixed effects. Standard errors clustered at site level in parentheses. The last two lines present cluster robust p-values and p-values from the Ferman and Pinto (2019) permutation test, which adjusts placebo estimates based on the variance of the residuals to account for heteroscedasticity due to differences in housing site size.

Table A.5: The effect of the Rent-to-Save program on head of household income by housing site

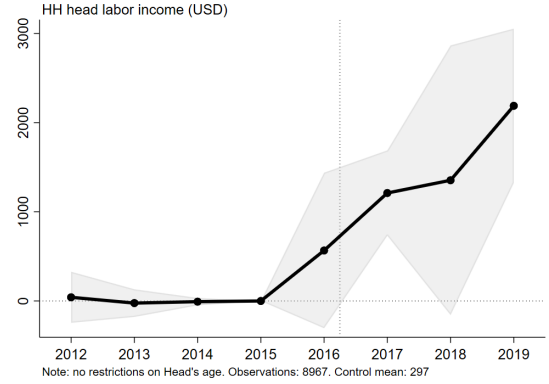
| | (1) Earnings | (2) Non-labor income | (3) Total income |
|---|--------------------------|--------------------------|------------------------|
| $HousingSite_1 \times Post_t$ | 1580.037*** (432.082) | -836.674*** (151.182) | 743.364** (353.284) |
| $HousingSite_2 \times Post_t$ | 1110.989** (445.342) | -430.913*** (131.235) | 680.077* (373.608) |
| Control mean | 7975.031 | 8710.283 | 16685.314 |
| % Housing Site 1 of control | 19.812 | -9.606 | 4.455 |
| % Housing Site 2 of control | 13.931 | -4.947 | 4.076 |
| P-value test Housing Site 1= Housing Site 2 | 0.155 | 0.006 | 0.732 |
| Observations | 15207 | 15207 | 15207 |

Notes: This table presents difference-in-differences estimates of the average treatment effect of the Rent-to-Save program on earnings (column 1), non-labor income (column 2), and overall income (column 3). This specification includes one dummy for each treatment arm: Housing Site 1 did not receive financial coaching; Housing Site 2 received financial coaching. All regressions include household head fixed effects and year fixed effects. Standard errors clustered at site level in parentheses.

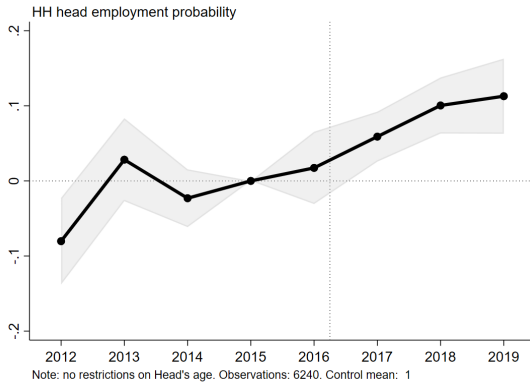
Figure A.6: Earnings and employment changes on the extensive and intensive margin



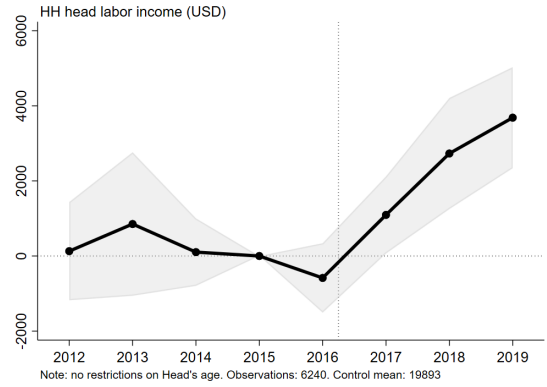
(a) Employment - prior non-workers



(b) Earnings - prior non-workers



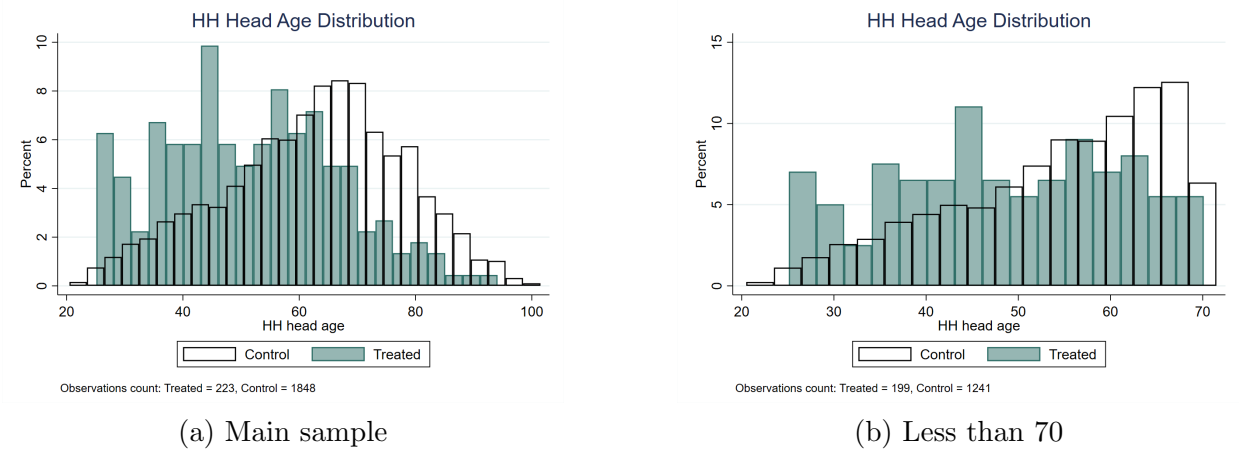
(c) Employment - prior workers



(d) Earnings - prior workers

Notes: These figures plot the dynamic estimates of Equation 1 and the associated 95% confidence intervals. The coefficients represent the change in outcomes for individuals automatically enrolled in the RTS program relative to individuals not automatically enrolled, with respect to the year immediately before the start of the program. Panel (a) and panel (b) show the change in employment probability and earnings, respectively, for those who were not working at baseline. Panel (c) and panel (d) show the change in employment probability and earnings, respectively, for those who were working at least one pre-treatment year. All values are in USD and reflect differences relative to 2015, comparing those automatically enrolled in the RTS program to those not enrolled.

Figure A.7: Age distribution across samples



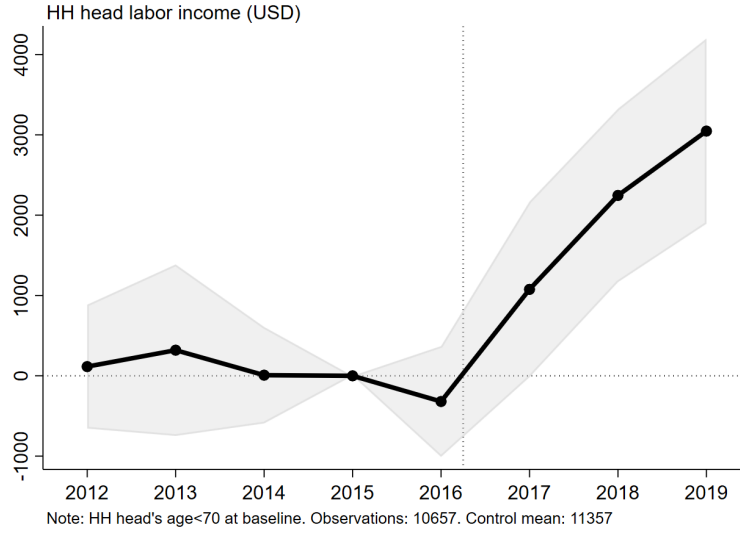
Notes: This figure shows the age distribution across treated and control groups in our main sample (panel a) and our restricted sample of younger head of households (panel b).

Table A.8: Effect of the RTS program on younger head of household's income (age<70)

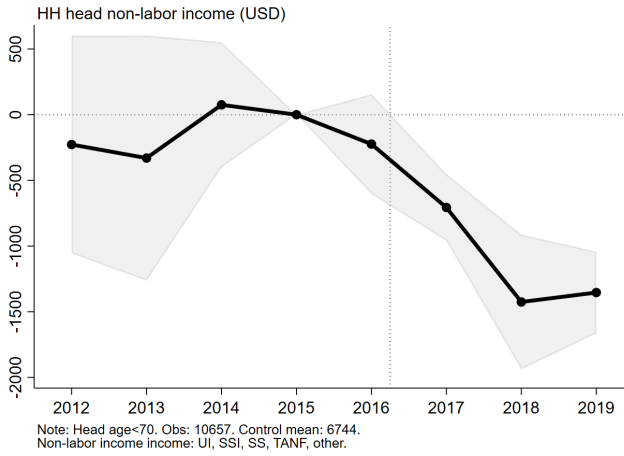
| | (1) | (2) | (3) |
|-------------------------|-------------------------|--------------------------|----------------------|
| | HH head labor income | HH head non-labor income | HH head total income |
| $Treat_i \times Post_t$ | 1375.044** (519.300) | -803.305*** (225.921) | 571.739 (427.723) |
| Control mean | 11357.409 | 6744.130 | 18101.539 |
| % control mean | 12.107 | -11.911 | 3.159 |
| Cluster Robust P-values | 0.001 | 0.017 | 0.013 |
| Ferman-Pinto P-values | 0.001 | 0.000 | 0.020 |
| Observations | 10657 | 10657 | 10657 |

Notes: This table presents difference-in-difference estimates of the average treatment effect of the Rent-to-Save program on earnings (column 1), non-labor income (column 2), and overall income (column 3). All regressions include household head fixed effects and year fixed effects. Standard errors clustered at site level in parentheses. The last two lines present cluster robust p-values and p-values from the Ferman and Pinto (2019) permutation test, which adjusts placebo estimates based on the variance of the residuals to account for heteroscedasticity due to differences in housing site size.

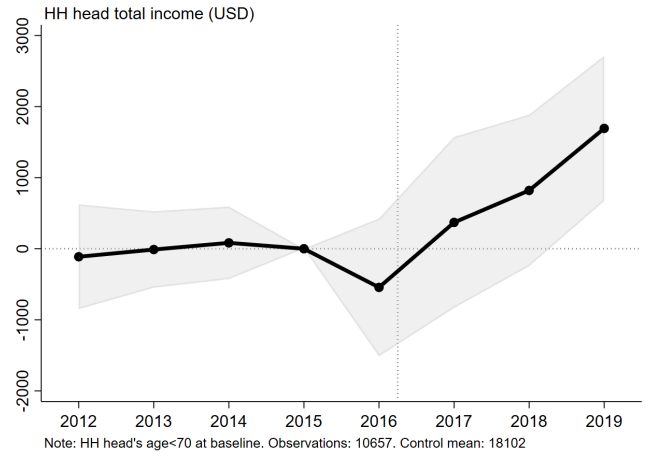
Figure A.9: Effect of the RTS program on younger head of household's income (age<70)



(a) Earnings



(b) Non-labor income



(c) Overall income

Notes: These figures plot the dynamic estimates of Equation 1 and the associated 95% confidence intervals for a restricted sample of younger workers at baseline. The coefficients represent the change in outcomes for individuals automatically enrolled in the RTS program relative to individuals not automatically enrolled, with respect to the year immediately before the start of the program. Panel (a) shows changes in earnings; panels (b) and (c) show non-labor and total income respectively. All values are in USD and reflect differences relative to 2015, comparing those automatically enrolled in the RTS program to those not enrolled.

Table A.10: Effect of the RTS program on younger head of household's income (age<70) - Balanced Panel

| | Earnings | Non-labor income | Total income |
|-------------------------|--------------------------|--------------------------|----------------------|
| $Treat_s \times Post_t$ | 1468.970*** (473.505) | -855.450*** (264.019) | 613.519 (407.087) |
| Control mean | 12858.714 | 6299.646 | 19158.360 |
| % control mean | 11.424 | -13.579 | 3.202 |
| Cluster Robust P-values | 0.001 | 0.017 | 0.013 |
| Ferman-Pinto P-values | 0.001 | 0.000 | 0.020 |
| Observations | 7792 | 7792 | 7792 |

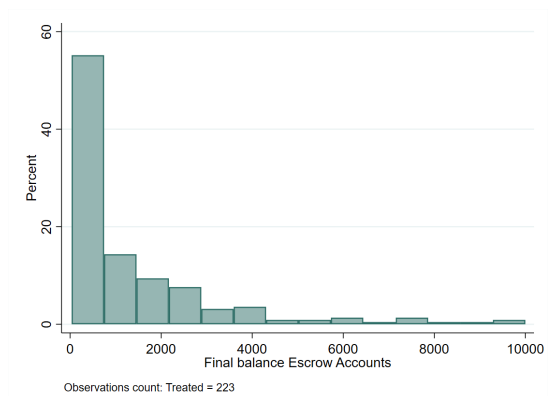
Notes: This table presents difference-in-difference estimates of the average treatment effect of the Rent-to-Save program on earnings (column 1), non-labor income (column 2), and overall income (column 3). All regressions include household head fixed effects and year fixed effects. Standard errors clustered at site level in parentheses. The last two lines present cluster robust p-values and p-values from the Ferman and Pinto (2019) permutation test, which adjusts placebo estimates based on the variance of the residuals to account for heteroscedasticity due to differences in housing site size.

Table A.11: The effect of the Rent-to-Save program on head of household income by gender

| | (1) | (2) | (3) |
|-----------------------------------|--------------------------|--------------------------|--------------------------|
| | Earnings | Non-labor income | Total income |
| Panel A: Female head of household | | | |
| $Treat_s \times Post_t$ | 1491.739*** (507.157) | -822.720*** (157.744) | 669.020 (450.097) |
| Observations | 10077 | 10077 | 10077 |
| Control mean | 8465.091 | 8333.193 | 16798.284 |
| % control mean | 17.622 | -9.873 | 3.983 |
| Cluster Robust P-values | 0.005 | 0.000 | 0.145 |
| Ferman-Pinto P-values | 0.004 | 0.011 | 0.123 |
| Panel B: Male head of household | | | |
| $Treat_s \times Post_t$ | 1517.422* (784.469) | -444.918 (679.141) | 1072.504*** (285.754) |
| Observations | 5102 | 5102 | 5102 |
| Control mean | 7065.442 | 9424.743 | 16490.185 |
| % control mean | 21.477 | -4.721 | 6.504 |
| Cluster Robust P-values | 0.063 | 0.517 | 0.001 |
| Ferman-Pinto P-values | 0.027 | 0.114 | 0.090 |

Notes: This table presents difference-in-differences estimates of the average treatment effect of the Rent-to-Save program on earnings (column 1), non-labor income (column 2), and overall income (column 3). Panel A shows estimates for female head of households and panel B for male heads. All regressions include household head fixed effects and year fixed effects. Standard errors clustered at site level in parentheses. The last two lines present cluster robust p-values and p-values from the Ferman and Pinto (2019) permutation test, which adjusts placebo estimates based on the variance of the residuals to account for heteroscedasticity due to differences in housing site size.

Figure A.12: Escrow accounts balance



(a) Escrow Accounts

Notes: This figure shows the distribution of escrow account balances at the end of the program.

B Survey data

Two household surveys were conducted during the program period. The first, carried out in 2017, was intended to serve as a “baseline” instrument but was fielded roughly one year after the intervention had already begun, meaning it does not capture true pre-treatment conditions. Its coverage is uneven: only 48 percent of treated heads of household (108 of 223) and 17 percent of control heads (314 of 1,860) responded, raising concerns about non-response bias and differential selection. Moreover, respondents in the 2017 survey cannot be reliably linked to the administrative panel used in the main analysis, so the survey cannot be used for longitudinal outcomes.

The second survey, administered in 2019 as an exit requirement, reached an 80% response rate among treated participants but provides no information for the control group. This survey can be matched to the administrative data.

Descriptive information from the 2017 data to characterize residents’ financial well-being can be found in Section 3.1. Information from the exit survey, including study participants’ planned use of money and comments on the program, can be found in Section 4.2.5. In the following section we show additional information from the 2017 survey. All descriptive statistics reported should be interpreted with the limitations mentioned in mind.

B.1 Descriptive Statistics from the 2017 Survey

Table B.1: Survey 2017 - Descriptive Statistics

| | Control | Treated | p-value |
|--|-----------------|-----------------|---------|
| <i>Demographics</i> | | | |
| Age | 63.815 (14.594) | 55.056 (15.121) | <0.001 |
| Female | 0.640 (0.481) | 0.694 (0.463) | 0.307 |
| <i>Awareness of other CHA programs</i> | | | |
| Accommodation policy | 0.732 (0.444) | 0.689 (0.465) | 0.404 |
| Hardship policy | 0.523 (0.500) | 0.624 (0.487) | 0.078 |
| <i>Financial behavior</i> | | | |
| Invested last year | 0.158 (0.366) | 0.284 (0.453) | 0.005 |
| Saved last year | 0.213 (0.410) | 0.227 (0.421) | 0.769 |
| Lowered debt last year | 0.370 (0.484) | 0.400 (0.492) | 0.604 |
| CFPB well-being score | 48.658 (14.869) | 46.419 (12.365) | 0.213 |
| Observations | 314 (74.4%) | 108 (25.6%) | |

Notes: This table shows descriptive statistics from the 2017 Survey done across treatment and control households.

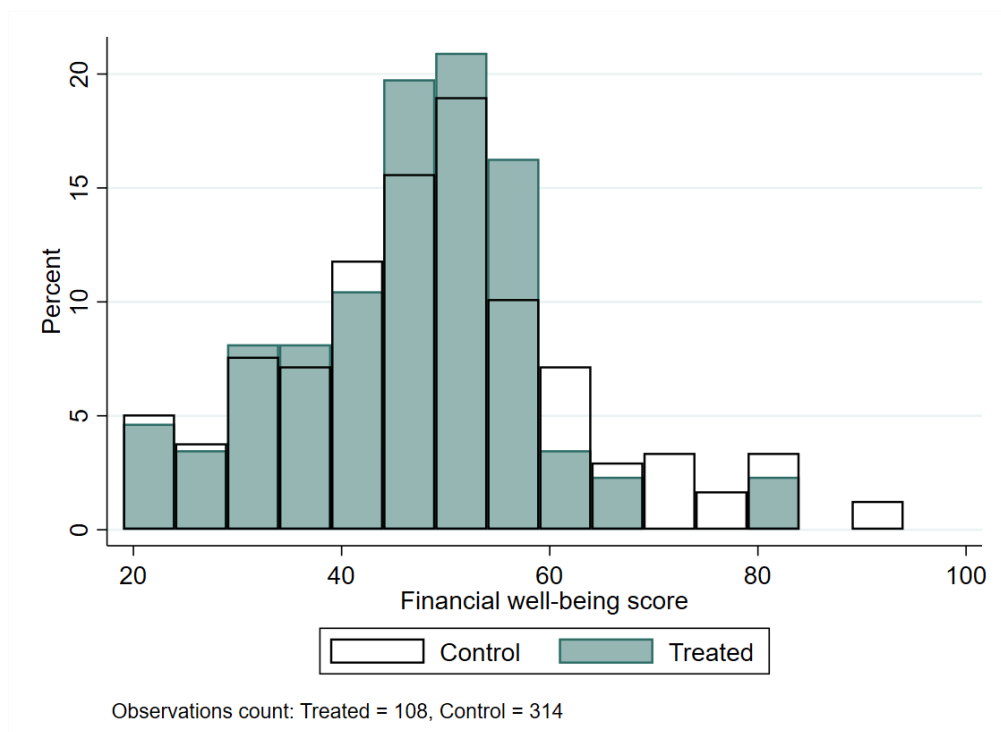
Given the low response rate of the 2017 survey—48 percent of treated heads of household and only 17 percent of control heads—the summary statistics in Table B.1 should be interpreted cautiously. Among those who did respond, treated participants are on average younger than controls, while the share of women is similar in both groups. Awareness of other Cambridge Housing Authority supports is broadly comparable: 69 percent of treated and 73 percent of control respondents know about the accommodation policy, and 62 percent vs 52 percent are familiar with the hardship policy. Self-reported financial behavior differs only on one dimension: investment activity is higher in the treated group (28 percent) than the control group (16 percent), whereas the proportions who saved (23 percent) or reduced debt (40 percent) in the prior year are statistically indistinguishable. Finally, average CFPB financial-well-being scores are similar—46.4 for treated households and 48.7 for controls—suggesting equivalent levels of financial resilience among survey respondents early in the program.

B.2 Financial Well-Being Scores from the 2017 Survey

Figure B.2 plots the CFPB financial-well-being score at the 2017 survey date for the 108 treated and 314 control respondents. In both groups the bulk of the distribution lies between the “medium-low” (38–49) and “medium-high” (50–57) CFPB ranges: most households cluster around scores of 45–55, indicating limited liquid savings and persistent difficulty making ends meet, but at least some automated saving among the higher scorers. Only a small share of either group registers below 30 (the “very low” category associated with acute hardship), and an equally small right-tail reaches into the “high” bracket (58–67) or beyond. Visually, the shapes of the treated and control histograms are similar—the treated sample shows a slightly thicker bar in the 50–55 bin, while the control sample has a few more observations above 70—but overall the two distributions overlap substantially. These patterns suggest that, despite differences in survey response rates, the financial well-being of respondents in the two arms was broadly comparable in 2017, with most households entering the programme in a financially fragile, though not extreme, position.¹¹

¹¹The information on the development of the ranges and the facts about typical experiences comes from the national Financial Well-Being Survey. For more information, see the CFPB’s website: consumerfinance.gov/practitioner-resources/financial-well-being-resources

Figure B.2: Financial well-being scores distribution 2017

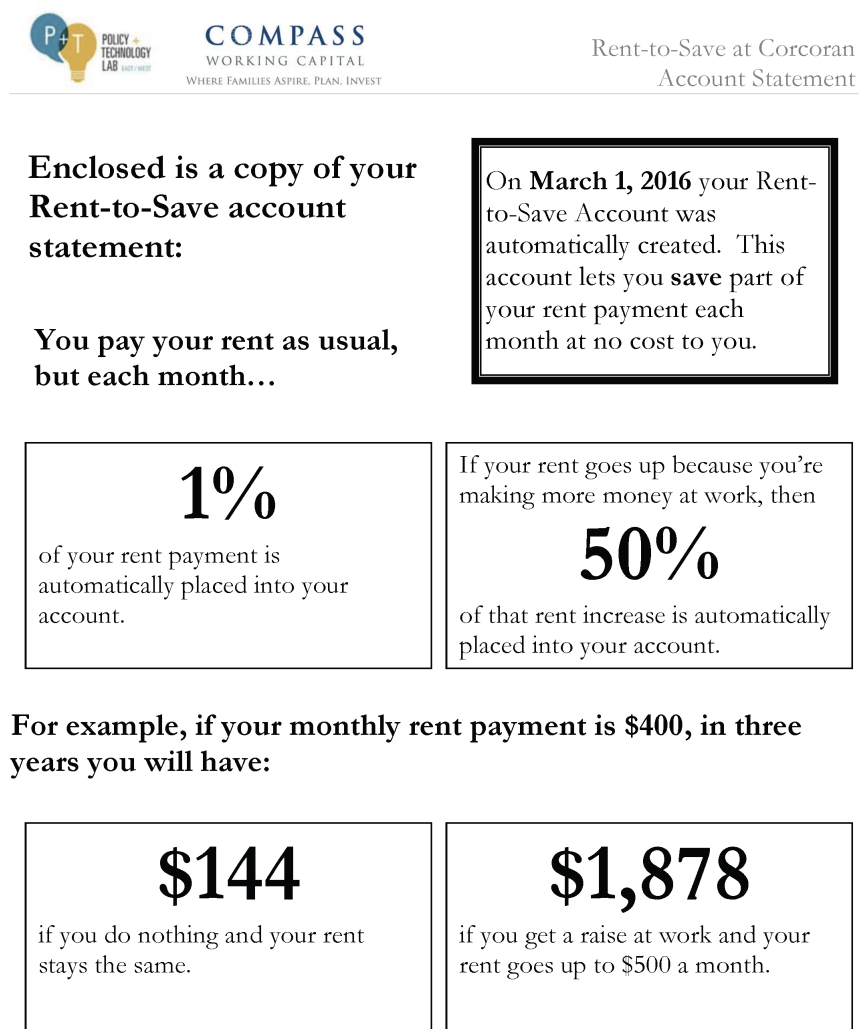


Notes: This figure plots the CFPB financial-well-being score at the 2017 survey date for the 108 treated and 314 control respondents. The information on the development of the ranges and the facts about typical experiences comes from the national Financial Well-Being Survey. For more information, see the CFPB's website: consumerfinance.gov/practitioner-resources/financial-well-being-resources

C Outreach Materials

A variety of outreach was conducted during the program period to promote awareness and understanding of the program, as described in Section 2.2. Below are examples of these materials, including the account statements sent monthly to residents.

Figure C.1: Information Sheet



To learn more about your account:
Call Lucia at 617-790- or
visit www.compassworkingcapital.com/Corcoran


Notes: This figure shows the information sheet sent to each household describing the program in an infographic.

Figure C.2: Letter



Notes: This figure shows the letter sent to each household describing the program.

Figure C.3: Account Statement



COMPASS
 WORKING CAPITAL
WHERE FAMILIES ASPIRE, PLAN, INVEST

Rent-to-Save at Corcoran
 Account Statement

Compass Working Capital
 89 South Street Suite 804
 Boston, MA 02111

DATE: JUNE 30, 2016
 QUARTERLY STATEMENT

TO First and Last Name
 Street Address
 Cambridge, MA

Customer ID 1829304

| BASELINE RENT | CURRENT RENT | OPENING BALANCE |
|---------------|--------------|-----------------|
| \$400.00 | \$500.00 | \$0.00 |

| MONTH | NOTES | DEPOSIT AMOUNT |
|-------------|---------------|----------------|
| March | | \$4.00 |
| April | | \$4.00 |
| May | Rent Increase | \$55.00 |
| June | | \$55.00 |
| | | |
| | | |
| TOTAL SAVED | | \$118.00 |

For more information about your financial goals account statement, please visit:

www.compassworkingcapital.com/Corcoran

Notes: This figure shows the account statement sent to each study participant that displays their escrow account history and current balance.

Figure C.4: Open House Flyer



COMPASS
WORKING CAPITAL
WHERE FAMILIES ASPIRE, PLAN, INVEST

**Have questions or concerns about your
Rent-to-Save Account?**

**Drop by the Jefferson Park Community Room
to discuss your account individually:**

**4:00pm-7:00pm
Wednesday, August 17th**

You can also find out how the Rent-to-Save program can help
you pay off debt, build credit, and prepare for homeownership
or retirement.

Financial coaching is provided by the non-profit Compass Working Capital and
any financial information you discuss is strictly confidential.

For more information about Compass visit www.compassworkingcapital.org or
call Lucia at 857-317-

www.Rent-to-Save.org

Notes: This figure shows an example of a flyer distributed at a treated housing site to advertise an information session about the RTS program.