The Effect of Housing Assistance on Intimate Partner Violence: Evidence from the Family Options Study*

K. Pun Winichakul†
Ning Zhang‡

Abstract

Intimate partner violence (IPV) affects individuals worldwide: one-third of women reported experiencing some form of violence from their intimate partners (WHO, 2021). While IPV affects all individuals, specific groups face a higher risk due to social and structural conditions in their living environments. This paper uses a novel panel dataset of homeless families to study the effect of housing assistance on the incidence of IPV in the United States. We find that housing assistance reduce IPV incidence, particularly a program that offers a potentially indefinite subsidy and greater individual choice over housing options, akin to a housing voucher. We also document improved mental health and reduced financial stress, as well as a higher likelihood of being single, as potential mechanisms behind the decrease in IPV. Our project has important policy implications for how housing support could reduce IPV incidence and contribute to improved gender equality.

JEL Codes: D10, D13, J16, J22, J31, K36

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†Smith College, kwinichakul@smith.edu

‡The Chinese University of Hong Kong, ning.zhang@cuhk.edu.hk

Disclaimer

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1 Introduction

In the United States, 41% of women are estimated to have experienced sexual violence, physical violence, and/or stalking by an intimate partner (Leemis *et al.*, 2022). The repercussions of intimate partner violence (IPV) extend beyond personal safety; it can have significant consequences for the well-being of women, including affecting their physical and mental health, labor market outcomes, and economic security. Further, these negative effects are not temporary and often persist throughout their lives.

Existing work on IPV in the economics literature has primarily examined how labor market outside options influence the incidence of domestic violence. One line of research focuses on the impact of gender-specific labor market shocks on the occurrence of physical violence (Aizer, 2010; Anderberg *et al.*, 2016; Bhalotra *et al.*, 2021b; Erten and Keskin, 2021; Sanin, 2021a). These studies generally find that improved labor market opportunities for women reduce the likelihood of experiencing physical violence. However, employment opportunities are only one form of outside option available to people facing IPV (Adams, 2025). Non-labor-market factors—such as housing access—are another category of outside options that could expand economic opportunity for women. Yet, there is limited evidence on whether these forms of non-labor-market outside options have the potential to reduce the incidence of IPV.

In this paper, we study the effect of housing assistance on IPV incidence. We also examine the underlying mechanisms through which housing support shapes IPV prevalence. First, housing assistance could decrease the incidence of IPV by reducing psychological and physical health issues that accompany the stress of unstable housing situations. This could reduce victims' reliance on abusive partners for support, or separately, lower tensions between victims and their partners that inflame physical and verbal aggression. Second, housing assistance could reduce IPV by providing independent living quarters for victims to break free from abusers and end abusive relationships. Third, housing subsidies could also empower victims to achieve self-sufficiency by increasing their attachment to the labor market and reducing their economic reliance on abusive partners. Altogether, these channels could contribute to the role of housing in reducing IPV

through the promotion of economic and social independence. We further supplement our analysis of how housing assistance affects IPV with an exploration of whether changes in incidence of IPV among adults due to housing support impacts children's outcomes.

To explore our question, we use restricted-use data from the Family Options Study (FOS), a randomized controlled trial (RCT) conducted by the U.S. Department of Housing and Urban Development that assigned homeless families to receive different housing assistance resources. Families were surveyed over multiple years; in a baseline survey at the time of random assignment, a 20-month follow-up survey, and a 37-month follow-up survey.[1]. The result of this endeavor is a novel panel dataset of U.S. homeless families, some of whom received greater housing support and services relative to others. Critically for our paper, to the best of our knowledge this dataset represents the first panel dataset that directly links the random assignment of housing support to the incidence of IPV.

The FOS dataset is an ideal resource to use for our research question due to several key factors. First, and as noted above, the FOS is an RCT. This study design gives us an ideal setting to test for the causal effect of housing assistance on the incidence of IPV. Second, much of the existing research on IPV relies on cross-sectional data. In contrast, the panel structure of the FOS and the rich information collected in each survey wave about respondents, nearly all of whom were women, enables us to examine dynamic channels through which housing assistance affects IPV—channels that are often overlooked or cannot be explored in the current literature due to data limitations. Third, the FOS includes information on both respondents and their children. This allows us to link adult respondents' experiences with IPV to a range of children's outcomes. That is, the dataset allows us to examine the effect of housing support on both potential IPV reduction and downstream impact on children's outcomes.

Families who participated in the FOS were randomized into one of four conditions. There were three forms of housing assistance that families could receive: (1) SUB, which granted families priority access to a permanent housing subsidy, such as a housing voucher; (2) CBRR, which granted families priority access to short-term community-based rapid re-housing; and (3) PBTH,

[1]There is currently a 120-month follow-up survey data collection in progress

which granted families priority access to short-term, project-based transitional housing. The fourth condition, "usual care" (UC), serves as the control group, as families accessed standard homeless and housing support services offered in the shelter but did not receive priority access to any specific assistance program. For our study, our main analysis exploits this random assignment of households into different housing support programs (treatment arms) to analyze the pooled treatment effect of any ("ANY") housing assistance program and the individual effect of the different forms of assistance, compared to usual care.

We find that enrollment in ANY type of housing assistance program reduces the incidence of IPV. Our local average treatment effect estimate indicates that participation in ANY housing assistance program (SUB, CBRR, or PBTH) reduces the incidence of IPV in the 6 months prior to the respective 20- or 37-month follow-up surveys by 5.6 percentage points (p.p.) relative to the control group. This effect is equivalent to a 62% reduction relative to the control group mean. When examining the effect of each type of housing assistance separately, we find that participation in SUB, which is designed to provide long-term housing resources, reduces the incidence of IPV by 6.6 p.p., a result that is statistically significant at the 1% level. We also find decreases in IPV among those who receive CBRR and PBTH, which provide relatively shorter-term housing support, ranging from a 3 p.p. reduction to an 8 p.p. reduction; however, these estimates are not statistically significant. In reviewing the separate effects of each housing program, the stronger and more precisely estimated effect of SUB suggests that long-term housing assistance is more effective in reducing the incidence of IPV. Further, we find that these principal results are robust to attribution bias, as we develop bounding estimators that are similar to our main estimates.

Next, we move beyond evaluating whether housing assistance reduces IPV to understanding *why* incidence of IPV falls. We examine three primary channels: (1) potential improvements in respondent psychological and physical health due to reduced stress; (2) the partnership status of respondents; and (3) potential improvements in labor market outcomes. Because our strongest effects are driven by SUB, we focus our mechanism analyses on the pooled treatment effect of assignment to ANY housing program and the SUB-specific program treatment effect. We approach this analysis in two ways. Our first approach uses the same empirical strategy as our main anal-

ysis, but replaces the IPV outcome with variables reflecting the channels described above as the outcomes of interest. Our second approach quantifies the effects of these channels using the causal mediation analysis framework described in Bhalotra *et al.* (2022), which takes advantage of the panel data structure of the FOS and the sequential timing of different events.

Our results highlight how housing assistance reduces economic stress. Further, we find that economic stress in particular can explain 10% of the overall effect of housing assistance on IPV. We also provide complementary evidence that housing assistance reduces general social or psychological distress and substance abuse. Next, we find evidence that housing assistance may help reduce unstable, short-run abusive relationships, contributing to a long-run reduction in IPV. However, our mediation analysis framework provides mixed evidence on the exact quantitative contribution of partnership status to the overall effect of housing assistance on IPV. We suggest that the latter mixed evidence may be due to the precise timing of when partnership status changes occur and its subsequent effect on the incidence of IPV. Finally, in our setting, we do not find that housing assistance reduces IPV by strengthening victims' labor market outcomes. If anything, we find that housing assistance reduces respondents' labor market attachment and working hours. Therefore, our evidence collectively shows that, compared to labor market outside options (the focus of most existing literature), non-labor market outside options such as housing are an important independent factor affecting IPV.

Finally, we explore the impact of housing subsidies on children's outcomes, complementing past work on this question (Bhuller *et al.*, 2024; Carrell *et al.*, 2018). We specifically focus on the spillover effects of decreases in IPV due to housing support. In line with past work, our results suggest that housing assistance can have a direct positive impact on children, particularly on their socioemotional and behavioral development. When using the causal mediation analysis framework described above, we find quantitative effects that are directionally consistent with the argument that improvements in children's outcomes can be partly attributed to the reduction in the incidence of IPV in the household; however, this quantitative effect is not statistically significant.

Our primary contribution is to the existing literature on the effect of women's outside options

on the incidence of domestic violence. Most existing studies focus on the availability of labor market outside options, and examine the impact of gender-specific labor market shocks on the occurrence of physical violence (Aizer, 2010; Anderberg *et al.*, 2016; Bhalotra *et al.*, 2021b; Erten and Keskin, 2021; Sanin, 2021b). These studies have consistently demonstrated that greater labor market opportunities for women reduces the likelihood of physical violence. In complement but in contrast to this work, we focus on the outside option of women's housing opportunities and examine the impact of housing assistance on domestic violence.

Second, we contribute to a complementary literature that explores the broader determinants of domestic violence. Past research in this space includes identifying factors such as educational attainment (Erten and Keskin, 2018), cultural dynamics (Tur-Prats, 2019, 2021), the tax and transfer system (Bobonis *et al.*, 2013), health innovations (Papageorge et al., 2021), gender ratios (Amaral and Bhalotra, 2017), homeownership (Lagomarsino and Rossi, 2024), and pandemic-related lockdowns (Leslie and Wilson, 2020; Bullinger *et al.*, 2021; Bhalotra *et al.*, 2021a). Most papers on both labor market outside options and other determinants of domestic violence use cross-sectional data and study short-run effects. Our paper builds on this work by using a novel U.S. household panel dataset to provide the first evidence on whether housing assistance affects IPV and to identify the underlying mechanisms through which housing support influences the incidence domestic violence.

Third, we add to the literature on policies that empower women to leave abusers and its related effect on the incidence of IPV. These studies show that IPV is closely related to social norms and institutions that determine whether women can leave their partners easily (Bhalotra et al., 2021; Alesina et al., 2021). Specifically, researchers note that the introduction of unilateral divorce can decrease domestic violence in the U.S., Spain, and Egypt (Stevenson and Wolfers, 2006; Brassiolo, 2016)(Corradini and Buccione, 2021). In contrast, Garcia-Ramos (2021) finds that the introduction of unilateral and no-fault divorce in Mexico increases IPV in the long run because IPV is used more often to prevent women from leaving the marriage. In our paper, we show that housing assistance policies can empower women to avoid entering abusive relationships and thereby reduce the incidence of IPV.

Finally, we connect to the literature that studies the repercussions of domestic violence (Bindler and Ketel, 2022; Adams *et al.*, 2024; Chang *et al.*, 2023). For example, Bindler and Ketel (2022) assess both the short- and long-term earnings costs of reporting domestic violence, while Adams *et al.* (2024) analyze the dynamic labor market costs of cohabiting with an abusive partner. Moreover, within this limited body of literature, a subset of studies focus on the dynamic impact of domestic violence and its repercussions on women's outcomes through the termination of relationships with abusers (Anderberg *et al.*, 2018; Adams *et al.*, 2024). Because our study identifies housing opportunities as a channel that can reduce the incidence of IPV, we present a way to reduce the costs and long-term negative repercussions associated with domestic violence.

Our paper is organized as follows. In Section 2, we provide contextual information about the prevalence of intimate partner violence, and institutional details about housing in the United States. Section 3 describes the FOS dataset and reports summary statistics. Section 4 outlines our empirical strategy. Sections 5 and 6 report the main results from our analysis of the impact of housing assistance on the incidence of IPV and the underlying mechanisms. Section 7 analyzes the contribution of reduced IPV due to housing support to improvements in children's outcomes. Finally, in Section 8, we discuss the policy implications of our results and conclude.

2 Institutional Background

Intimate partner violence (IPV) is highly prevalent in the United States, particularly among low-income individuals. According to data from the CDC's National Intimate Partner and Sexual Violence Survey (NISVS), approximately 41% of women have encountered instances of sexual violence, physical violence, and/or stalking perpetrated by an intimate partner, leading to substantial lifelong impacts associated with IPV (Leemis *et al.*, 2022). Rates of intimate partner violence are particularly pronounced within impoverished neighborhoods, low-income, and lower-educated households. For example, according to the National Intimate Partner Violence Survey (NIPV, 2010-2012), 53% of high school dropouts reported having experienced IPV. This is similar to the incidence of IPV reported by our sample of homeless families at the beginning of the FOS study period (50%, see Table 1 below).

At the same time, the U.S. housing market has seen a significant increasing in real estate prices over the past few decades. Between 2000 and 2020, residential housing prices in the U.S. increased by 42% in real terms, ranking among the highest globally over this period. This trend has contributed to an increase in homelessness rates and heightened susceptibility to homelessness (Meyer et al., 2021 NBER). Moreover, even households that are not categorized as homeless often allocate a significant portion of their income toward housing expenses. In 2020, 46% of American renters directed 30% or more of their income toward housing costs, with 23% allocating at least 50% of their income in this manner (U.S. Census American Housing Survey, 2020). And those who pay a higher proportion of their income toward housing expenses are often low-income households that live in neighborhoods characterized by high poverty rates and limited employment prospects (HUD, 2019).

Taken together, greater financial fragility and growing homelessness risk in the United States over the past couple decades has likely increased the susceptibility of individuals to intimate partner violence. This is likely to be the case since such housing risks have been documented to disproportionately affect single mothers with children, a group particularly vulnerable to domestic violence (Meyer et al., 2021). To avoid homelessness or cope with housing cost constraints, victims might be compelled to cohabit with abusers and depend on them for support. Moreover, issues such as substance abuse, alcohol-related problems, and psychological stress exacerbated by housing instability further contribute to domestic violence.

The primary target of U.S. housing assistance initiatives are exactly these populations who may now be experiencing heightened risk of becoming a victim of IPV due to U.S. housing market trends. Therefore, our study could have meaningful policy implications. It has the potential to speak about the extent to which housing support programs could affect the incidence of IPV, all while focusing on a population where the economic and social returns to reducing the costs and repercussions of experiencing domestic violence may be particularly large.

3 Data and Descriptive Statistics

Data. We use restricted-use data from the U.S. Department of Housing and Urban Development's Family Options Study (FOS). Much of the data description that follows is summarized from material available on the HUD website about the FOS (HUD, 2025).

The FOS is a multi-site RCT designed to investigate the effects of different housing and service interventions for homeless families. Between September 2010 and January 2012, 2,282 families (including more than 5,000 children) were enrolled in the study from emergency shelters in 12 communities nationwide (see Figure A.1 for locations).[2] Families were randomly assigned to either one of three treatment interventions or a control condition:[3]

1. Subsidy-only (SUB): families could receive a permanent housing subsidy without attached supportive services, often delivered through a Housing Choice Voucher (HCV). Beyond the housing subsidy, families did not receive further support services.

2. Community-based rapid re-housing (CBRR): families were offered temporary rental assistance for 2-6 months, which was potentially renewable for periods up to 18 months. Unlike PBTH, these families could use that assistance on conventional, private-market housing. Families assigned to this intervention received limited amounts of other housing-focused support services.

3. Project-based transitional housing (PBTH): families were offered temporary housing assistance for up to 24 months (with an average expected length of stay between 6-12 months) in transitional housing facilities. The transitional housing offer was combined with non-housing related support services, including: an assessment of family needs, social worker case management, and the provision of (or referral to) services to meet identified needs. Example services or resources that were provided or referred included those related to employment, child care, transportation, entitlements, medical access, behavioral health,

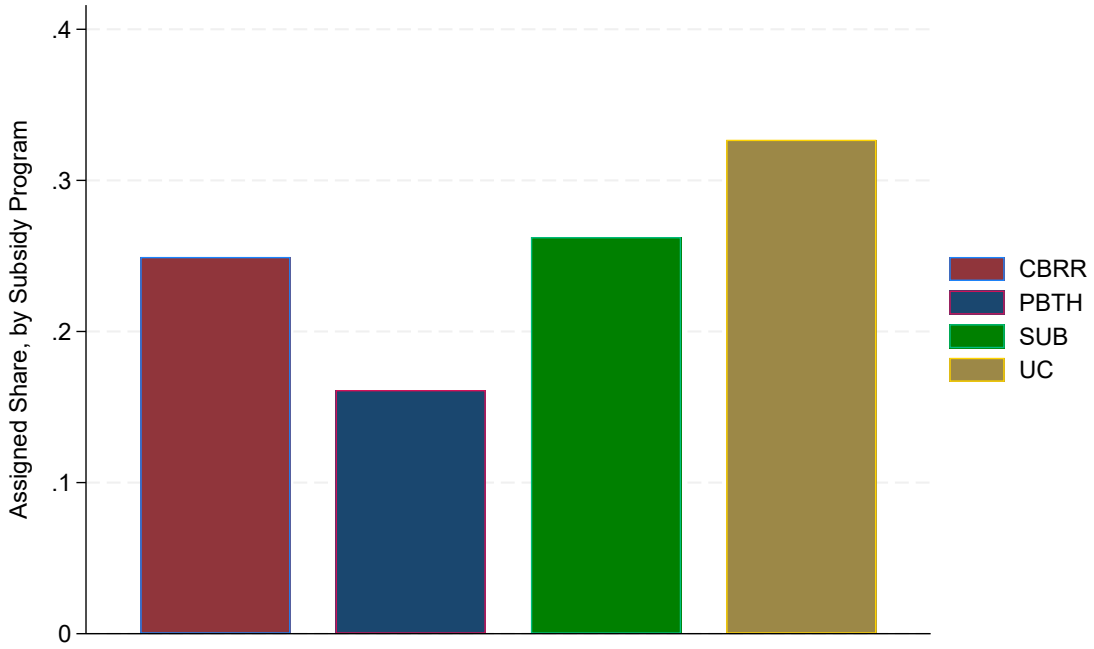
[2]We provide general background on the FOS in Appendix B.
[3]The random assignment process is presented in Figure A.2

trauma, safety, children's emotional, cognitive, and developmental needs, and child welfare and family preservation and reunification.

4. Usual care (UC): families could receive assistance that they would normally access on their own from a shelter in the absence of these other interventions. The type of usual care that families could access varied, but continued support from emergency shelters could include short-term shallow rental subsidies funded through the Homelessness Prevention and Rapid Re-housing Program (HPRP). These rental subsidies offered relatively lower levels of rental assistance, with some being accompanied by other non-housing support services and others without additional support.

To summarize, SUB and CBRR provided rental subsidies for private market apartments or single-family homes, whereas PBTH provided temporary housing in project-based facilities. The expected length of housing assistance differed across the SUB, CBRR, and PBTH interventions. SUB assistance was indefinite as long as tenants abide by the terms of the assistance; for example, they had to cooperate with annual recertification of income used to determine the tenant's share of the rent and continue to live in standard quality housing. The median expected length of assistance for families referred to CBRR programs was 4-6 months, while the median expected length of stay for families referred to PBTH was 13-18 months. In contrast, most UC shelters provided very short-term assistance; the median expected length of stay for families in UC shelters was 30-90 days. Finally, in terms of support services, SUB provided only very limited housing placement services, and CBRR provided relatively limited case management focused on housing and income growth. Those receiving UC in shelters and PBTH had the potential to receive more comprehensive assessments with intensive case management and formal linkages to internal agency and external services to address identified needs. The share of the families assigned to each of the programs is shown in Figure 1.

Figure 1: Share of Random Assignment by Housing Assistance Type



Notes: Figure depicts the share of the 2,282 families assigned to the different housing assistance programs. Data is from the Family Options Study public-use micro-level data.

Intervention takeup. Not all families who were assigned to an housing assistance program ultimately received the housing and non-housing services associated with the intervention. Families assigned to SUB, CBRR, or PBTH while staying in the shelter had to contact the housing assistance program provider to formally enroll in the program. Then, for families who enrolled in CBRR and most enrolled in SUB, their offer of rental assistance to be used in private market housing required them to subsequently find a housing unit with a willing landlord to lease the housing. For families assigned to PBTH and for a few families for whom the SUB offer was public housing or project-based assisted housing, enrolling in the program was close to synonymous with a guaranteed move into new housing. Not all families took these further steps; therefore, the "takeup" of the various housing assistance interventions is lower than 100 percent. As of September 1, 2012, SUB had the highest takeup rate at about 64 percent, likely reflecting its attractiveness as a potentially permanent subsidy that could allow families to have their own place in a location of their choosing (most of the SUB units offered to families in the study were housing

choice vouchers). The takeup rate for CBRR was about 46 percent, and the takeup rate for PBTH was 29 percent.

Survey timing. Families participating in the FOS were tracked for multiple years after random assignment to housing assistance programs. Comprehensive surveys were conducted at the time of random assignment (baseline) and subsequently at 20, 37, and 120 months (10 years) after assignment. The surveys capture extensive information about respondent demographics, health (both physical and mental), labor market outcomes (e.g., employment and earnings), welfare program participation, behaviors (including drug abuse and crime), location, neighborhood quality, and family behavior, including IPV. Additionally, detailed data on family composition and family members were collected, such as relationship status, family member demographics, health, labor market outcomes, and criminal behaviors. The 20- and 37-month surveys are available for approved researchers to access through the US Census Federal Statistical Research Data Centers (FSRDCs), while the 120-month survey is currently unavailable. Thus, in this project we use information from the baseline survey, as well as outcomes measured in the 20- and 37-month follow-up surveys.

As far as we know, the FOS dataset is the only U.S. panel dataset incorporating information on both housing assistance and IPV incidence, and its longitudinal nature offers us an ideal resource to investigate our research question. It permits analysis not only of the impact of housing subsidies on IPV for three years after study enrollment, but also facilitates exploration of the dynamic mechanisms influencing these outcomes. The FOS study population, which consists of homeless and low-income individuals, provides insights into the effect of housing subsidies on IPV and their enduring influence on household gender inequality for a particularly vulnerable demographic group.

Descriptive statistics. We use the FOS baseline survey to provide summary statistics on respondents by housing assistance program assignment. The means and Benjamini-Hochberg adjusted p-values for the differences in sample characteristics between each housing program treat-

ment group and UC are reported in Table 1.[4]

Overall, more than 90% of respondents are female, with an average age of approximately 30 years old. About 20% of the sample is white, and more than one-fourth have at least some college education, while less than 40% are high school dropouts. At the time of the baseline survey, 38% of respondents were married or cohabiting, and the average number of children in a household was two. On average, respondents reported more than one year of prior homeless experience. We do not find any statistically significant differences in demographic characteristics between the UC group and the housing treatment groups.

With respect to labor market characteristics, only 18% of the sample was working at the time of the baseline survey, although more than 95% had some prior work experience. Their average annual earnings were below $5,000, and only 15% earned more than $5,000. In terms of welfare program participation, 40% of respondents were receiving TANF benefits, 88% SNAP benefits, and 36% WIC benefits. As for their health status, around 10% of respondents self-reported their overall health status as "poor." More than 20% reported experiencing serious psychological distress, and a similar share reported substance abuse (drug or alcohol) at the time of the baseline survey. Again, we find no statistically significant differences in labor market, welfare program participation, or health variables between the control group and the housing treatment groups,.

The baseline survey also collected information on intimate partner violence (IPV) since adulthood. Strikingly, roughly 50% of respondents reported ever experiencing IPV—a higher rate than what had been estimated in other surveys, such as the NISVS.[5] The higher IPV prevalence among formerly homeless individuals in our sample highlights their vulnerability to domestic violence and underscores the importance of stronger policy attention to this issue. We find no significant differences in IPV experience in adulthood across treatment and control groups. Altogether, the lack of significant differences across these various treatment and control group characteristics at the time of the baseline survey supports the internal validity of the random assignment process.

[4]Since we have multiple treatments, we use Benjamini-Hochberg adjusted p-values to correct for multiple comparisons by controlling the False Discovery Rate (FDR). The means and unadjusted p-values are reported in Table A.1.

[5]It is worth noting that our sample is much younger compared to NISVS. The difference in incidence of IPV would be even larger if we accounted for the age difference between the FOS and the NISVS.

Table 1: Summary Statistics

	(1) UC	(2) ANY	(3) BH adj. p-value	(4) SUB	(5) BH adj. p-value	(6) CBRR	(7) BH adj. p-value	(8) PBTH	(9) BH adj. p-value
Demographic:									
Female	0.93	0.91	0.69	0.93	0.97	0.91	0.69	0.89	0.12
Age group	3.83	3.72	0.60	3.69	0.60	3.72	0.60	3.76	0.60
White	0.20	0.21	1.00	0.22	1.00	0.19	1.00	0.20	1.00
College	0.27	0.27	1.00	0.26	1.00	0.28	1.00	0.27	1.00
High school	0.33	0.38	0.08	0.39	0.08	0.39	0.08	0.36	0.29
Dropout	0.40	0.35	0.06	0.36	0.20	0.33	0.02	0.36	0.26
Married/Cohabited	0.38	0.38	1.00	0.36	0.99	0.38	1.00	0.42	0.96
No. of Children	1.97	2.01	1.00	1.93	1.00	2.02	1.00	2.13	0.20
Homeless years	1.38	1.29	1.00	1.35	1.00	1.27	1.00	1.26	1.00
Labor Market:									
Working now	0.18	0.17	1.00	0.13	0.12	0.19	1.00	0.19	1.00
Ever worked	0.96	0.96	1.00	0.96	1.00	0.98	0.76	0.95	1.00
Earnings Cat.	1.54	1.50	1.00	1.35	0.016	1.58	1.00	1.60	1.00
Earnings $5000+	0.16	0.15	1.00	0.11	0.016	0.18	1.00	0.18	1.00
Health:									
Poor health	0.09	0.09	1.00	0.10	1.00	0.09	1.00	0.07	1.00
SPD	0.24	0.21	0.18	0.23	0.64	0.18	0.04	0.20	0.32
Substance abuse	0.21	0.21	1.00	0.19	1.00	0.21	1.00	0.24	0.56
Welfare Takeup:									
TANF	0.40	0.42	1.00	0.45	0.28	0.40	1.00	0.39	1.00
SNAP	0.89	0.87	0.30	0.87	0.54	0.88	0.54	0.85	0.16
WIC	0.36	0.36	1.00	0.36	1.00	0.36	1.00	0.38	1.00
Violence:									
IPV	0.50	0.49	1.00	0.50	1.00	0.49	1.00	0.47	1.00
N	746	1536	2282	599	1345	569	1315	368	1114

Notes: This table reports the summary statistics for respondents by assignment types. The age group variable is defined in 5-year bins: 1=under 20, 2=20-24, 3=25-29... and the final bin 8=above 50. "Earnings Cat." refers to the categories of earnings, using $5000 bins: 1=no earnings, 2=below $5000, 3=$5000-$9999...and the final bin 8=above $20000. The IPV variable refers to *ever* experiencing intimate partner violence as an adult. SPD refers to "Serious psychological distress." IPV and substance abuse are calculated from the restricted-use FOS data and are part of disclosure clearance number 12783. All other estimates are calculated from the public use FOS data. All sample size numbers are calculate from the public use FOS data.

4 Empirical Specification

To investigate the impact of the three housing assistance programs, our empirical specification makes use of the random treatment assignment mechanism of the FOS. Since treatment assignment does not map one-to-one with intervention takeup, our preferred specification is a two-stage least squares (2SLS) empirical strategy. In the first stage, we estimate:

$$HS_{ijt} = \gamma_0 + \gamma_1 R_{ijb} + \mathbf{X}_i \Gamma + \mu_t + \mu_r + \epsilon_{it} \tag{1}$$

where HS_{ijt} is a dummy variable indicating whether respondent i uses housing assistance program type j in period (calendar year) t, where $j =$ SUB, CBRR, or PBTH, i.e., our takeup measure. This takeup measure is recorded in the survey as the actual housing support program enrollment status in the corresponding survey year.[6]

The term R_{ijb} is the random assignment of respondent i into housing assistance program type j at the baseline b. To increase our statistical power, we also estimate this specification where $j =$ ANY housing assistance program. In other words, we estimate whether a respondent uses any of the housing support programs, given random assignment to any of them.

The terms μ_t and μ_r represent time (survey wave) and region (city/county community) fixed effects, respectively. The term ϵ_{it} is the error term. We discuss the control variables included in vector $\mathbf{X}_i$ when describing Equation 2 below.

The parameter of interest in the first stage is γ_1, which measures the effect of the random assignment of a respondent to an assistance program on the actual use of that program. This parameter can inform us of the takeup rate of a housing assistance program due to the random treatment assignment mechanism.

Using the first-stage predicted value of HS_{ijt}, we estimate the second-stage equation to un-

[6] In our first-stage estimates using the public-use FOS dataset reported in Section 5, we use the takeup variable as measured in the 37-month follow-up survey. For formal 2SLS estimates, our first stage uses the takeup variable at the time of the baseline survey to ensure we include the broadest sample of respondents who has some amount of housing treatment "exposure." We discuss our rationale for reporting the first stage estimates from the FOS public-use dataset in greater detail in Section 5.

derstand the impact of housing subsidies on the incidence of IPV:

$$Y_{ijt} = \beta_0 + \beta_1 \hat{HS}_{ijt} + \mathbf{X}_i\Gamma + \mu_t + \mu_r + \epsilon_{it} \tag{2}$$

In Equation (2), Y_{ijt} represents the outcome of interest for an individual i who is utilizing housing assistance program j at time t. In our main results, this outcome is measured by a dummy variable indicating whether the respondent reported experiencing IPV during the past six months (prior to the current follow-up survey month).

To explore mechanisms, we also run specifications where Y_{ijt} is a variable related to mental and physical health, family and cohabitation status, and labor market outcomes. To examine mental health, we generate an indicator for serious psychological distress, which can be, for example, symptoms of post-traumatic stress disorder (PTSD) or emotional and mental health issues. We also explore whether respondents report experiencing financial stress. Regarding physical health, we use an indicator for whether respondent's report abusing substances (alcohol or drugs) over the prior year before the survey date. We also use an indicator variable that captures whether the respondent reports that they are in poor health. We analyze these outcomes to examine whether general improvements in psychological and physical well-being reduce victims' reliance on abusive partners for support; or separately, whether lower tensions between victims and their partners eliminate conditions that often inflame physical and verbal assaults.

Second, to explore family and cohabitation status, we consider whether the respondent reports being single (without married or cohabiting partner) in the current survey. We analyze this outcome to explore whether any potential effect of housing assistance on IPV is connected to the dissolution or avoidance of relationships that may have been abusive.

Third, we also consider the following labor market and economic variables as outcomes. We use a dummy variable denoting the respondent's employment status, a continuous variable indicating the average weekly hours worked at the respondent's primary job, and a continuous variable representing the respondent's labor market earnings. These variables are examined to discern the influence of housing subsidies on the respondent's labor market outcomes and eco-

nomic autonomy.[7]

The term X_i in both Equations 1 and 2 represents a broad set of individual-level control variables. We consider two sets of control variables. Our first set includes individual-level characteristics such as age, race, gender, and education level, total number of children at the time of the baseline survey, and total number of years the respondent has been homeless at the time of the baseline survey. Our second set of control variables includes all of the variables described above, but also includes baseline measures of our outcomes of interest. In particular, we also add baseline measures of experience with intimate partner violence, marital status, employment status, annual earnings, receiving welfare program benefits, social and psychological distress, and alcohol or drug dependence. All of our reported results use the second set of controls, but our results are robust to using the smaller set of controls, as described in the first set.

5 Results

5.1 Effects of assignment on takeup

We use publicly available FOS Program Use and Living Situation survey data to estimate the first-stage effects of random assignment on program takeup. We use the data from the 37-month follow-up version of this survey, as it includes information on whether respondents were assigned to ANY of the housing assistance programs and whether they ever participated in their respectively assigned housing support program, from the time of random assignment to the 37-month survey date. Table 2 reports our first-stage estimates.[8]

We find that respondents assigned to ANY of the three types of housing assistance are 65% more likely to take up housing support resources. For program-specific takeup rates, we find that SUB has the highest takeup rate at 81%, compared to 59% for CBRR and 51% for PBTH. The

[7] In related analyses, we also explore potential changes in respondent reliance on social safety net programs. For this analysis, we use a series of dummy variables indicating the respondent's use of welfare programs, including the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) as outcomes. This analysis aims to understand the connection between housing subsidies and participation in welfare initiatives.

[8] We report results using the public use data as means to reduce the publication of estimates using restricted-use data, particularly estimates that could be produced nearly identically with public use information. Our approach is motivated by, and follows, Census recommendations around disclosure avoidance.

differences in coefficients suggest that, relative to short-term assistance, respondents are more likely to take up long-term housing resources.[9]

Table 2: First Stage: Impact of Random Assignment on Housing Assistance Program Takeup

	(1) ANY takeup	(2) SUB takeup	(3) CBRR takeup	(4) PBTH takeup
ANY assignment	0.655***			
	(0.0121)			
SUB assignment		0.805***		
		(0.0162)		
CBRR assignment			0.591***	
			(0.0206)	
PBTH assignment				0.511***
				(0.0261)
N	2282	1345	1315	1114
F statistic	2912	2464	819	383

Notes: This table uses the public available FOS program use data to show the first stage results of ANY and different types of housing assistance program assignments on the corresponding program takeups. We define individual-level characteristics included as controls in the following way. For race, we use three groups: white, black, or other race; education level is a categorical variable indicating the highest educational attainment of the respondent. We characterize the education level into three categories: high school dropout, high school graduates, and some college or above. Region is a categorical variable indicating which community the respondent currently lives in. Age is defined in five-year intervals. Total number of children is categorized by respondents having two or more children versus one or none; total number of homeless years is categorized by respondents who have been homeless for less than one year versus one or more years. The baseline measure of intimate partner violence included as a control is measured as any past experience with this form of violence. The control variable for earnings is a indicator for respondents with annual earnings greater than $5,000. Robustness standard errors is reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$

5.2 Effects of housing assistance on IPV

In this subsection, we present the effects of different housing assistance programs on the incidence of IPV. In particular, Table 3 reports the results of the 2SLS estimates of the impact of housing assistance on IPV, for ANY housing support program and for each assistance program separately. We find that participation in ANY of the housing assistance programs reduces the incidence of IPV experienced in the past six months by 5.6 percentage points, a reduction that is statistically significant at the 1% level. Because 50% of respondents report ever experiencing

[9]These rates are higher than those reported in Section 3 largely due to takeup being measured 37-month following study enrollment, rather than just a few months after the last student enrollment date.

IPV since adulthood at the time of the baseline survey, this reduction is equivalent to a 11.2% reduction relative to the baseline mean. However, it is important to note that the baseline survey asks about experiencing IPV in adulthood, while the follow-up survey asks about experiences of IPV in the past six months. As an alternative comparison, we document the reduction in IPV relative to the control group (UC) mean in the 20- and 37-month follow-up surveys. On average, 9% of respondents in the UC group reported experiencing IPV in the past six months. Thus, our estimate is equivalent to a 62% reduction relative to the control group mean.

Next, we examine the effects of each program type separately. Participation in SUB reduces the incidence of IPV by 6.6 percentage points, a result that is statistically significant at the 1% level. For CBRR and PBTH, we also find negative impacts on IPV, although these estimates are not statistically significant. Comparing across program types, the stronger effect of SUB suggests that long-term housing assistance that takes the form of a housing choice voucher may be more effective in reducing the incidence of IPV.

Table 3: Impact of Housing Assistance on IPV

	(1) ANY vs. UC	(2) SUB vs. UC	(3) CBRR vs. UC	(4) PBTH vs. UC
ANY takeup	-0.0561***			
	(0.0209)			
SUB takeup		-0.0660***		
		(0.0180)		
CBRR takeup			-0.0306	
			(0.0314)	
PBTH takeup				-0.0795
				(0.0539)
N	3600	2200	2000	1700

Notes: This table uses the restricted-use FOS data from the 20- and 37- month adult follow-up surveys to estimate the impact of different types of housing assistance program assignments on the incidence of IPV. All estimates are from 2SLS specifications. All regressions control for the full set of variables discussed in Equations 1 and 2 and further detailed in the footnotes of Table 2. Standard errors are clustered at the individual level and reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$ Estimates and sample sizes are part of disclosure clearance number 12603. Sample sizes are rounded according to Census disclosure avoidance methods requirements.

Because our main results show that participation in ANY housing assistance program has a

significant negative impact on IPV, and that these effects appear to be strongest in SUB, our subsequent analysis will focuses on the effects of participation in ANY housing assistance program and in SUB in particular.

5.3 Robustness: Attrition bias

Respondents may stop responding to follow-up surveys for multiple reasons. This may generate attrition that varies by treatment and control groups. Further, if attrition varies in a systematic way by baseline characteristics between our treatment and control groups, it may bias our main estimates.

To examine the role of attrition bias, we first compare the overall attrition rates in the 20- and 37-month follow-up surveys for assignment to ANY treatment, SUB treatment, and our control group, UC, in Table A.2. We find that the attrition rate is higher for the control group. Specifically, the attrition rate for the UC group is 14% while the attrition rate for those assigned to ANY is 10% and SUB is 6%. The higher attrition rate in the UC condition could be because the usual care provided to the control group is not as generous as the assistance provided to treatment groups. The lower attrition rate in the SUB treatment also indicates that respondents are less likely to drop the experiment in the follow-up survey if the housing assistance is long-term.

Next, we examine whether the baseline characteristics of the attritors are significantly different than non-attritors. We also test whether such characteristics differ within the control group and treatment groups. For this exercise, we compare the baseline characteristics between attritors vs. non-attritors within the UC and ANY assignment groups, respectively.[10] The results are reported in Table 4. We see that within UC, attritors are more likely to be white, have less substance abuse issues, and are less likely to participate in other welfare programs that non-attritors; within ANY treatment assignment, attritors are more likely to be white, have less number of homeless years, are less likely to participate in other welfare programs.

[10] An alternative approach would be to run a logit regression with an indicator variable for being an attritor as the outcome variable, and regress it on all the baseline characteristics and the interactions between treatment and all the baseline characteristics. However, it is extremely difficult to output this type of result involving a binary dependent variable and a significant number of binary independent variables, due to Census rules around required reporting of disclosure statistics.

For our main analysis, one potential concern is whether the difference in baseline IPV experiences between attritors and non-attritors in the UC is different from the same gap between attritors and non-attritors among the treatment group. What we see is that attritors in the UC group have lower baseline experiences IPV compared to compared to non-attritors, while attritors in ANY treatment have higher baseline IPV that their non-attriting counterparts. If we think baseline IPV (ever experience IPV in adulthood) is positively correlated with IPV in the 6 months prior to a follow-up survey, this attrition bias will cause us to overestimate the negative impact of housing assistance on IPV. To address this concern, we construct Lee bounds to develop a bounding estimator that brackets the true effect of housing assistance on IPV.

Specifically, we follow the methods outlined in Lee (2009) to randomly trim the excess 0.044 (0.085) proportion in the ANY (SUB) treatment group with no previous baseline IPV experience. We then use the trimmed sample together with the control group sample to re-estimate the effect. We believe this estimate serves as the lower bound (in absolute terms), given that we are trimming the sample directly on values of the outcome of interest; namely, removing observations with the most extreme values that contribute to the estimated effect. We also follow Duflo *et al.* (2007) to use our main estimates in the above section as the upper bound (in absolute terms). To reduce simulation error and produce statistical inference for our lower bound estimator, given that we have "ties" among the observations that could be trimmed, we repeat the random trimming process 100 times, where we create a distribution for the lower bound estimator, and take the mean as the lower bound estimate and standard error as the S.E. for this estimate. As reported in Table 5, we find that the lower bound of the effect of ANY housing treatment on IPV is -0.0513; the lower bound of the effect of SUB treatment on IPV is -0.0585. This suggests that our main results are robust to attrition bias in the follow-up survey sample.

Table 4: Baseline Characteristics: Attritors vs. Non-attritors

	(1)	(2)	(3)	(4)	(5)	(6)
		UC			ANY	
	Attritor	Non-attritor	p-value	Attritor	Non-attritor	p-value
Demographic:						
Female	0.91	0.93	0.49	0.84	0.92	0.00
Age group	1.61	1.69	0.38	1.69	1.63	0.37
White	0.27	0.19	0.08	0.29	0.20	0.01
College	0.27	0.27	0.93	0.25	0.27	0.64
High school	0.32	0.33	0.77	0.35	0.39	0.35
Dropout	0.42	0.40	0.72	0.40	0.34	0.17
Married/Cohabited	0.42	0.38	0.49	0.43	0.38	0.19
No. of Children	2.05	1.94	0.37	1.93	1.99	0.48
Homeless years	1.31	1.40	0.75	0.94	1.34	0.02
Labor Market:						
Working now	0.14	0.18	0.26	0.21	0.16	0.12
Ever worked	0.97	0.96	0.66	0.94	0.97	0.07
Annual Earnings Category	1.47	1.56	0.51	1.65	1.48	0.08
Earnings $5000+	0.14	0.17	0.47	0.18	0.15	0.30
Health:						
Poor health	0.11	0.08	0.40	0.12	0.09	0.19
Serious psychological distress	0.23	0.24	0.73	0.22	0.21	0.72
Substance abuse	0.15	0.22	0.08	0.22	0.21	0.77
Welfare:						
TANF	0.43	0.40	0.62	0.36	0.43	0.11
SNAP	0.84	0.90	0.07	0.78	0.88	0.00
WIC	0.24	0.38	0.01	0.27	0.37	0.01
Violence:						
IPV	0.416	0.510	0.077	0.522	0.482	0.34
N	101	645	746	161	1375	1536

Notes: This table summarizes baseline characteristics for attritors vs. non-attritors within UC and within ANY assignment, respectively. IPV and substance abuse estimates are calculated from the restricted-use FOS data and are part of disclosure clearance number 12783. All other estimates are calculated from the public use FOS data. All sample size numbers are calculated from the public use FOS data.

Table 5: Lee Bounds: Impact of Housing Assistance on IPV

	(1) ANY vs. UC Upper	(2) ANY vs. UC Lower	(3) SUB vs. UC Upper	(4) SUB vs. UC Lower
ANY takeup	-0.0561***	-0.0513***		
	(0.0209)	(0.0000452)		
SUB takeup			-0.0660***	-0.0585***
			(0.0180)	(0.0000981)
N	3600	3500	2200	2100

Notes: This table uses the restricted-use FOS data from the 20- and 37-month adult follow-up surveys to estimate the impact of different types of housing assistance program assignments on the incidence of IPV. All estimates are from 2SLS specifications, with the final analytical sample trimmed following procedures described in Lee (2009). All regressions control for the full set of variables discussed in Equations 1 and 2. Standard errors are clustered at the individual level and reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Estimates are part of disclosure clearance number 12783. Sample size numbers in columns 1 and 3 are part of disclosure clearance number 12603. Sample size numbers are calculated using attrition number based on public use FOS data and sample size estimates from columns 1 and 3. Sample sizes are rounded according to Census disclosure avoidance methods requirements.

6 Potential Mechanisms

Next, we examine the effects of housing assistance on respondents' health, partnership status, and labor market outcomes. By analyzing these outcomes, we provide suggestive evidence on the channels through which housing subsidies may influence IPV.

6.1 Health

First, we examine the effects of housing assistance on individual mental and physical health. We use Equation 2 but replace the outcome variable with measures of economic stress, serious psychological distress (SPD), substance abuse (including drug and alcohol use), and self-rated overall health (covering both physical and mental health). Table 6 reports the 2SLS estimates from this exercise.

We find that participation in ANY housing assistance program and SUB in particular reduces economic stress. Since the baseline survey does not include a measure of economic stress, and because this variable is normalized to a range between -1 and 1, we interpret the effects in terms of

standard deviations relative to the control group average across follow-up surveys. Specifically, in the 20- and 37-month follow-surveys, the mean of economic stress in the control group is -0.142 and the standard deviation is 0.49. Thus, the estimated reduction for ANY (SUB) participants corresponds to approximately a 0.22 (0.32) standard deviation reduction.

We also find that both ANY housing treatment and SUB participation reduce social and psychological distress and substance abuse, although only the effect of SUB on SPD is statistically significant. In addition, both treatments have a positive, though statistically insignificant, impact on self-rated overall health.

Taken together, the evidence suggests that housing assistance substantially reduces economic stress and may improve general mental health to some extent. These improvements could contribute to reducing reliance on abusive partners for support, or separately, decrease tensions among partners and thus reduce the incidence of IPV.

Table 6: Impact of Housing Assistance on Health

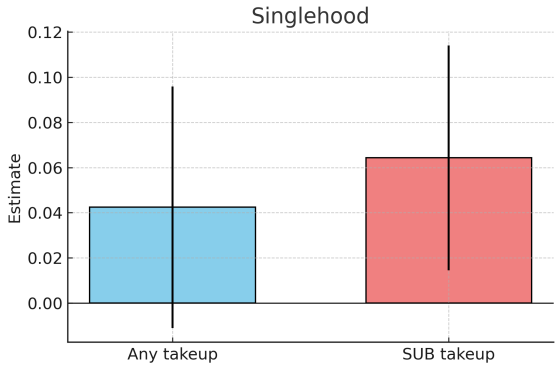
	(1) Economic stress	(2) SPD	(3) Substance abuse	(4) Self-rated health
Panel A: ANY vs. UC				
ANY takeup	-0.108***	-0.508	-0.0242	0.0257
	(0.0330)	(0.375)	(0.0219)	(0.0319)
N	3600	3600	3600	3600
Panel B: SUB vs. UC				
SUB takeup	-0.156***	-0.907***	-0.0287	0.0144
	(0.0291)	(0.342)	(0.0203)	(0.0288)
N	2200	2200	2200	2200

Notes: This table uses the restricted-use FOS data from the 20- and 37-month adult follow-up surveys to estimate the impact of different types of housing assistance program assignments on mental health and self-rated health. All estimates are from 2SLS specifications. All regressions control for the full set of variables discussed in Equations 1 and 2. Standard errors are clustered at the individual level and reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Estimates are part of disclosure clearance number 12603. Sample sizes are rounded according to Census disclosure avoidance methods requirements.

6.2 Partnership

Next, we examine the impact of housing assistance on partnership status. In the 20 and 37 month follow-up surveys, respondents were asked about their marital and partnership status. Specifically, they reported whether they were currently single (i.e., not married or living in a marriage like situation). The effects of participation in ANY program and in SUB on being single are reported in Figure 2. We find that housing assistance increases the likelihood of respondents being single. For example, SUB participation increases the likelihood of being single by 6.4 p.p ($p < 0.05$).[11] This evidence suggests that housing assistance, particularly long-term assistance, could empower women to live independently. In turn, this mechanism may help reduce IPV by reducing unstable and abusive relationships.

Figure 2: Impact of Housing Assistance on Partnership



Notes: This Figure uses the restricted-use FOS data from the 20- and 37- month adult follow-up surveys to estimate the impact of different types of housing assistance program assignments on the a indicator variable of being currently being single. All regressions control for the full set of variables discussed in Equations 1 and 2. Standard errors are clustered at the individual level and reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Estimates are part of disclosure clearance number 12603.

6.3 Labor market outcomes

Another potential channel through which housing subsidies may affect IPV is the labor market. If housing assistance improves respondents' labor market outcomes, it could empower women to live independently and avoid abusive relationships, or increase their bargaining power within

[11] The estimated increase in singlehood to participation in ANY housing assistance program is 4.2 p.p but not statistically significant.

relationships, thereby reducing IPV (Aizer, 2010; Adams *et al.*, 2024). The effect of labor market outside options on IPV is the focus of much of the prior economic literature (Aizer, 2010; Anderberg et al., 2016; Bhalotra et al., 2021; Erten and Keskin, 2021; Sanin, 2024).

We estimate the impact of ANY type of housing assistance and SUB on individual employment, working hours, and annual earnings, with results reported in Table 7. We find that receiving long-term housing assistance, such as a housing voucher (SUB), reduces employment by 5.6 percentage points. The point estimate is also consistent with findings from other studies that document a negative impact of housing vouchers on women's employment (Jacob and Ludwig, 2012; Zhang, 2025). We also find a negative, though imprecisely estimated, effect of housing assistance on annual earnings.

Taken together, this evidence does not support the hypothesis that housing assistance reduces IPV by strengthening women's labor market position. If anything, housing assistance reduces women's employment and earnings. These effects may increase IPV according to the previous economic literature, which finds that stronger labor market outside options can decrease IPV. Instead, our results suggest that the reduction in IPV due to housing assistance is not driven by improvements in labor market outside options.[12]

[12]In a related but separate channel, we also explore whether housing assistance may also affect the use of other welfare programs. The effect of housing assistance on other welfare program participation is ex-ante ambiguous. Housing assistance and other welfare benefits may act as substitutes or complements. Second, housing assistance may serve as an information channel, encouraging respondents to learn about and apply for other social safety net programs. For example, the PBTH intervention explicitly incorporates support services related to the broader safety net, making it likely to be combined with other welfare programs as a bundled treatment. Because of these ambiguous effects, we report these results in Appendix Table A.4.

We find evidence that participation in ANY housing assistance program and in SUB increases takeup of TANF and SNAP. Such increases in access to complementary benefits may, in turn, contribute to reductions in IPV by improving respondents' economic resources, and relatedly, feeling of financial stress.

Table 7: Impact of Housing Assistance on Labor Market Outcomes

	(1) Working	(2) Usual hours worked per week	(3) Annual earnings
Panel A: ANY vs. UC			
ANY takeup	-0.0159	-0.141	-103.2
	(0.0318)	(0.979)	(474.4)
No. of Obs.	3600	3600	3600
Panel B: SUB vs. UC			
SUB takeup	-0.0558*	-2.099**	-534
	(0.0285)	(0.961)	(424.4)
N	2200	2200	2100

Notes: This table uses the restricted-use FOS data from the 20- and 37- month adult follow-up surveys to estimate the impact of different types of housing assistance program assignments on individual labor market outcomes. All estimates are from 2SLS specifications. All regressions control for the full set of variables discussed in Equations 1 and 2. Standard errors are clustered at the individual level and reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Estimates are part of disclosure clearance number 12603. Sample sizes are rounded according to Census disclosure avoidance methods requirements.

6.4 Mediation analysis: Effects through economic stress and partnership

In this section, we further explore the mediating effect of economic stress and partnership status on the impact of housing assistance in reducing in IPV. Instead of simply using the mediating variables as outcomes for our main empirical strategy as is done above, we take advantage of the panel data structure of the FOS and apply the mediation analysis framework proposed by Bhalotra *et al.* (2022). In particular, this framework leverages the sequential timing of treatment assignment, the mediators of interest, and the incidence of IPV, to quantify the effect of the underlying mechanisms. Below, we explain the framework using economic stress as the example mediator; we will also report results with partnership status (i.e., being single) as the mediator.

Gelbach Mediation Analysis: Econometric framework. To conduct the Gelbach Mediation Analysis used in Bhalotra *et al.* (2022), we exploit the sequential timing of the treatment assignment (ANY or SUB) during the baseline survey, the mediator (e.g., economic stress) measured in

the 20-month survey, and the outcome (IPV) measured in the 37-month survey. We estimate the following equations:

$$Y = T\tau + Z\beta + X\lambda + \nu, \tag{3}$$

$$Z = T\gamma + X\lambda + \epsilon, \tag{4}$$

where Y is the incidence of IPV measured in the 37-month follow-up survey, T is the treatment indicator (ANY or SUB), Z is a dummy for economic stress measured in the 20-month follow-up survey, and X is a vector of baseline covariates. The contribution of mediator Z to the treatment effect is quantified as $\hat{\delta} = \hat{\gamma}_z\hat{\beta}_z$, where $\hat{\gamma}_z$ is the estimated effect of the intervention on the mediator from Equation (4), and $\hat{\beta}_z$ is the estimated association between the mediator and the outcome from Equation (3). We compare this product to the total treatment effect of T on Y (from our main specification) to estimate the share of the effect of housing assistance on IPV transmitted through economic stress.[13]

Gelbach Mediation Analysis: Economic stress. We report estimates from Equations (3) and (4) using economic stress as the mediator in Table 8. Column (1) shows that receiving any housing assistance reduces economic stress in the 20-month survey by 15 percentage points. Column (2) shows that economic stress measured in the 20-month follow-up survey is positively correlated with IPV in the 37 month-survey. The implied contribution of the economic-stress channel is $\hat{\delta} = \hat{\gamma}_z\hat{\beta}_z = 0.006$, which accounts for approximately 10% of the overall effect of ANY housing assistance on IPV.

Columns (3) and (4) report the corresponding estimates when exploring the mediating effect of SUB housing assistance on IPV. The implied contribution of the economic stress channel in this specification is $\hat{\delta} = \hat{\gamma}_z\hat{\beta}_z = 0.005$, representing about 8% of the total effect of SUB on IPV.

[13]The vector of baseline covariates included in X is identical to the set of controls described in Section 4.

Table 8: Gelbach Mediation Analysis on Economic Stress

	(1) Econ stress 20-mo	(2) IPV 37-mo	(3) Econ stress 20-mo	(4) IPV 37-mo
ANY takeup	-0.153***	-0.0487*		
	(0.0422)	(0.0288)		
Econ stress 20-mo		0.0362**		0.0273
		(0.0176)		(0.0240)
SUB takeup			-0.189***	-0.0424
			(0.0374)	(0.0263)
N	1600	1600	950	950

Notes: This table uses the restricted-use FOS data from the 20- and 37- month adult follow-up surveys to equations (3) and (4) for being single as mediators. All estimates are from 2SLS specifications. All regressions control for the full set of variables discussed in Equations 1 and 2. Columns (1) and (2) shows the effect of any treatment, and columns (3) and (4) shows the effect of SUB treatment. Robust standard errors clustered at the household level are reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Estimates are part of disclosure clearance number 12783. Sample sizes are rounded according to Census disclosure avoidance methods requirements.

Gelbach Mediation Analysis: Partnership. Next, we quantify the mediating effect of partnership status, specifically if respondents report being single, on the impact of housing assistance in reducing IPV. Table 9 reports the results from this mediation analysis.

First, unlike our prior results in Section 6.3, we do not detect a significant effect of treatment on being single at the 20-month survey. This difference is driven by differences in sample construction: the earlier result reflects an average effect of housing assistance on partnership status across both follow-up surveys, as we pool data from the 20- and 37-month follow-up surveys. In contrast, the mediation analysis isolates the 20-month survey measure of partnership status. In other words, the mechanism through which housing assistance affects partnership status appears to unfold gradually and only becomes salient in the longer run.

Second, Columns (2) and (4) show a positive association between being single during the 20-month follow-up survey and the incidence of IPV reported in the 37-month survey, conditional on treatment status. Because the IPV measure in the 37-month follow-up survey captures incidents occurring in the preceding six months, this pattern is consistent with the following interpretation:

1. Respondents who are single at the time of the 20-month follow-up survey appear more

likely to enter short-term or unstable partnerships between months 20 and 37;

2. These short-run, less-established partnerships may be higher risk for IPV to occur, which is then captured in the 37-month survey.

As a result, 20-month singlehood functions less as a protective state and more as a marker of relationship instability during the intervening period.

Crucially, this interpretation does not contradict the finding that housing assistance both increases singlehood (when measured at 37 months) and reduces IPV. Rather, the results could suggest that housing assistance alters the trajectory of partnerships over time. While singlehood at 20 months is associated with subsequent entry into unstable relationships, housing assistance appears to help respondents avoid or exit precisely these types of unstable partnerships. This effect shows up as:

1. Higher rates of singlehood at 37 months, and

2. Lower incidence of IPV in the six months prior to 37 months for those who receive housing assistance.

Taken together, we believe the evidence from the mediation analysis is consistent with an interpretation that housing assistance reduces IPV by supporting respondents in maintaining singlehood status over the long run, thereby reducing their exposure to particularly unstable, short-duration partnerships that are disproportionately associated with IPV.

Table 9: Gelbach Mediation Analysis on Partnership

	(1) Single 20-mo	(2) IPV 37-mo	(3) Single 20-mo	(4) IPV 37-mo
ANY takeup	-0.00902	-0.0492*		
	(0.0308)	(0.0269)		
Single 20-mo		0.0428**		0.0520**
		(0.0194)		(0.0249)
SUB takeup			0.00984	-0.0469**
			(0.0287)	(0.0238)
N	1800	1800	1100	1100

Notes: This table uses the restricted-use FOS data from the 20- and 37- month adult follow-up surveys to equations (3) and (4) for being single as mediators. All estimates are from 2SLS specifications. All regressions control for the full set of variables discussed in Equations 1 and 2. Columns (1) and (2) shows the effect of any treatment, and columns (3) and (4) shows the effect of SUB treatment. Robust standard errors reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Estimates are part of disclosure clearance number 12783. Sample sizes are rounded according to Census disclosure avoidance methods requirements.

7 Effects on Children

Housing assistance may affect children's outcomes, either directly or indirectly through its impact on IPV. A large literature has shown that IPV imposes substantial harm on children and their peers (Bhuller *et al.*, 2024; Carrell *et al.*, 2018). In our analysis, we focus specifically on the indirect effect of housing assistance on children, operating through its impact on IPV.

For this analysis, we link respondents to their children's baseline, 20-, and 37-month follow-up survey responses. Summary statistics for children at the time of the baseline and follow-up surveys are presented in Table A.3. We apply the same mediation framework used above, but now treat IPV measured at 20 months as the mediator and children's Strengths and Difficulties Questionnaire (SDQ) total behavioral problems score at 37 months as the outcome.[14] The results

[14]The SDQ total score (in z-score units) aggregates children's responses to a range of social and behavioral development categories, including conduct, emotion, hyperactivity, pro-sociality, and peer-relations problems. We focus on this measure because it is the only child outcome for which we find statistically and economically meaningful effects of housing assistance. We provide the results of this analysis in Appendix Table A.5; specifically, we report the sign and significance results from an exercise where we run the 2SLS specification noted in Section 4, but where we use the children's sample and where we replace the main IPV outcome variable with children's outcomes, including the child's total SDQ score, whether the child is currently enrolled in school/childcare, has repeated a grade since

are reported in Table 10.[15]

Consistent with our main results, we find that both ANY and SUB housing assistance significantly reduce IPV at the time of the 20-month survey. We also find that both measures of housing assistance treatment have a direct benefit for children's SDQ scores: children in households receiving housing assistance have a 0.20 standard deviations lower SDQ score relative to the control group, reflecting better overall behavioral development. We also find that IPV at 20 months is positively associated with children's SDQ score at 37 months when only looking at the sample of households in SUB or UC, though the association is not statistically significant. This is directionally consistent with existing literature that shows the negative impact of IPV on children's outcomes (Bhuller *et al.*, 2024; Carrell *et al.*, 2018).

Altogether, our results suggest that the reduction of IPV is a channel through which housing assistance, particularly a housing choice voucher provided in SUB, affects children's behavioral outcomes. If we follow the mediation analysis framework to quantify its contribution, the effect is $\hat{\delta} = \hat{\gamma}_z \hat{\beta}_z = 0.011$, equivalent to 6% of the overall impact of housing assistance on children's behavioral outcomes.

the the study began, has a disability (either physical, emotional, or mental health-related), or currently lives with a parent.

[15]With this sample of children, we include additional child-level demographic controls, in addition to those described for the adult sample in Section 4. These additional control variables include baseline survey measures of their age, gender, whether they were currently living with a parent, currently in school, and had a disability (physical, emotional, or mental health-related).

Table 10: Gelbach Mediation Analysis on Children's Outcomes

	(1) IPV 20-mo	(2) Child SDQ score	(3) IPV 20-mo	(4) Child SDQ score
ANY takeup	-0.0405*	-0.197**		
	(0.0235)	(0.0962)		
IPV 20-mo		-0.00464		0.173
		(0.104)		(0.146)
SUB takeup			-0.0660***	-0.196**
			(0.0204)	(0.0890)
Observations	2000	2000	1200	1200

Notes: This table uses the restricted-use FOS data from the 20- and 37- month adult follow-up surveys to equations (3) and (4) for being single as mediators. All estimates are from 2SLS specifications. All regressions control for the full set of variables discussed in Equations 1 and 2. In addition, all regressions include additional controls for children's characteristics, including their age, gender, whether they were currently living with a parent, currently in school, and had a disability (physical, emotional, or mental health-related) at the time of the baseline survey. Columns (1) and (2) shows the effect of ANY treatment, and columns (3) and (4) shows the effect of SUB treatment. Robust standard errors reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Estimates are part of disclosure clearance number 12783. Sample sizes are rounded according to Census disclosure avoidance methods requirements.

8 Conclusion and Policy Discussion

There are severe consequences for victims of intimate partner violence. The physical, psychological, and economic costs can be large in magnitude and persist over the long term (Leemis *et al.*, 2022). These costs have prompted important economic and policy-relevant research on the value of improved outside options in the labor market in reducing the incidence of IPV. Our paper looks to other forms of economic opportunity beyond the labor market. In particular, we find that outside options in the form of housing assistance also have the potential to significantly reduce the incidence of IPV. Further, we document how the reduction in IPV due to housing assistance operates through lower economic stress, better mental health, and increasing the likelihood of singlehood and the avoidance of entering abusive partnerships.

Our results introduce a novel solution toward addressing costly IPV experiences for individuals and for the broader public. In doing so, our paper also highlights the multidimensional

value of housing policy. Not only can housing solutions address larger societal goals of advancing economic opportunity for families and in particular children (e.g. Chetty *et al.*, 2016; Chetty and Hendren, 2018; Chyn, 2018), but also can directly benefit women who face disproportionally higher risk of experiencing IPV. In conducting a benefit-cost analysis to determine the value of similar forms of housing programs and policies, we believe that our findings emphasize a critical benefit that should be considered.

By identifying a novel approach to reducing experiences with IPV, our paper simultaneously invites a broader discussion of how to design policy most effectively to address the incidence of IPV. Our finding that housing assistance, particularly support in the form of a potentially indefinite housing choice voucher, highlights the effectiveness of policies that offer in-kind assistance to families. However, one might consider whether alternative approaches, such as an income transfer of equivalent value, may be equally (if not more) effective in reducing IPV. It is possible that an income transfer could allow families to better optimize the allocation of those resources. At the same time, there may be reasons to believe that abusive partners may take advantage of such funds; or, there may be institutional or political constraints that may make such solutions less feasible. Ultimately, a comparison of effectiveness of different policies is an empirical question that warrants further exploration.

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Online Appendix

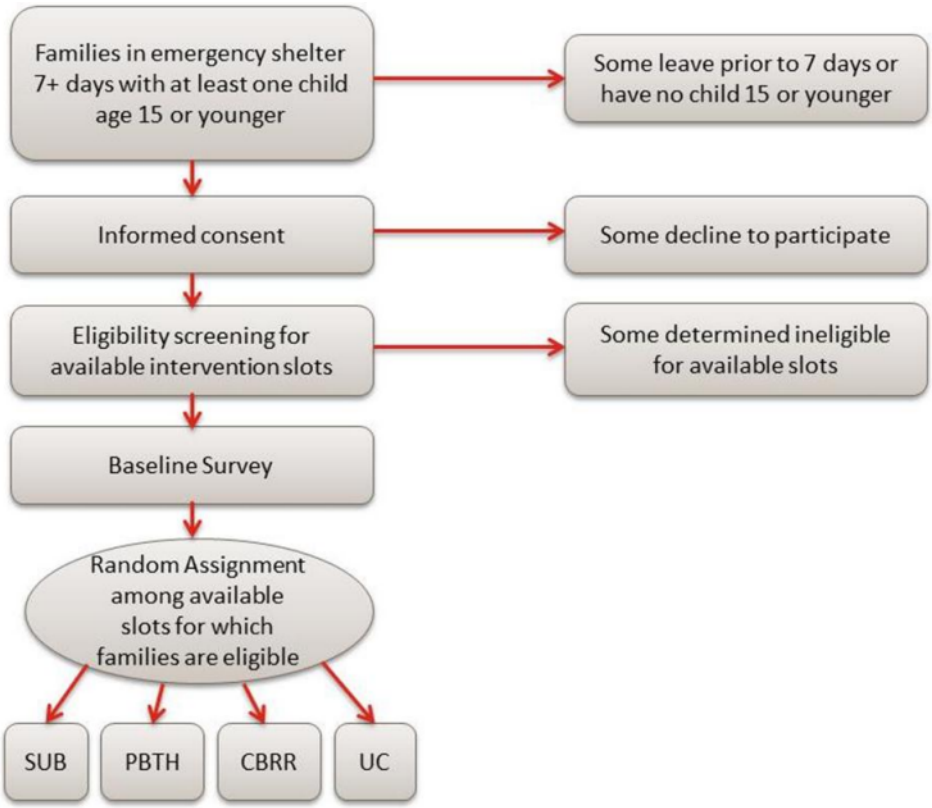
A Additional Figures and Tables

Figure A.1: Sites of Random Assignment



Notes Figure depicts the distribution of the 12 sites where a total of 2,282 families (including over 5,000 children) were enrolled in the study from emergency shelters. Data is from HUD The Families Option Study: https://www.huduser.gov/portal/family_options_study.html#pdr-research-design

Figure A.2: Random Assignment Process



Notes: Figure depicts the research design of the random assignment process.
Source: https://www.huduser.gov/portal/publications/pdf/HUD_501_family_options_Data_Collection_Analysis_Plan_v2.pdf

Table A.1: Summary Statistics: Adult Respondents

	(1) UC	(2) ANY	(3) p-value	(4) SUB	(5) p-value	(6) CBRR	(7) p-value	(8) PBTH	(9) p-value
Age group	3.83	3.72	0.15	3.69	0.15	3.72	0.26	3.76	0.57
Female	0.93	0.91	0.23	0.93	0.97	0.91	0.30	0.89	0.03
White	0.20	0.21	0.88	0.22	0.42	0.19	0.57	0.20	0.96
College	0.27	0.27	0.98	0.26	0.62	0.28	0.73	0.27	0.90
High school	0.33	0.38	0.02	0.39	0.03	0.39	0.02	0.36	0.29
Dropout	0.40	0.35	0.02	0.36	0.10	0.33	0.01	0.36	0.26
No. of Children	1.97	2.01	0.50	1.93	0.46	2.02	0.47	2.13	0.05
Homeless years	1.38	1.29	0.36	1.35	0.76	1.27	0.34	1.26	0.40
IPV	0.50	0.49	0.95	0.50	0.97	0.49	0.97	0.47	0.34
Married/Cohabited	0.38	0.38	0.86	0.36	0.33	0.38	0.80	0.42	0.24
Working now	0.18	0.17	0.54	0.13	0.03	0.19	0.65	0.19	0.55
Ever worked	0.96	0.96	0.90	0.96	0.81	0.98	0.19	0.95	0.37
Earnings Cat.	1.54	1.50	0.41	1.35	0.00	1.58	0.58	1.60	0.46
Earnings $5000+	0.16	0.15	0.49	0.11	0.00	0.18	0.45	0.18	0.44
TANF	0.40	0.42	0.47	0.45	0.07	0.40	0.98	0.39	0.63
SNAP	0.89	0.87	0.10	0.87	0.27	0.88	0.33	0.85	0.04
WIC	0.36	0.36	0.85	0.36	0.94	0.36	0.92	0.38	0.61
Poor health	0.09	0.09	0.83	0.10	0.31	0.09	0.96	0.07	0.35
SPD	0.24	0.21	0.06	0.23	0.64	0.18	0.01	0.20	0.16
Substance abuse	0.21	0.21	0.96	0.19	0.36	0.21	0.90	0.25	0.14
N	746	1536	2282	599	1345	569	1315	368	1114

Notes: This table reports the summary statistics for respondents by housing assistance program treatment assignment. IPV refers to ever experiencing intimate partner violence as an adult. SPD refers to "Serious psychological distress." IPV and substance abuse are calculated from the restricted use FOS data, and are part of disclosure clearance number 12783. All other estimates calculated from the public use FOS data. All sample size numbers are calculated using the public use FOS data.

Table A.2: Attrition Rate for UC and Housing Assistance Program Treatment Conditions

	(1) UC	(2) ANY	(3) p-value	(4) SUB	(5) p-value
Attrition Rate	0.14	0.10	0.03	0.06	0.00
N	746	1536	2282	599	1345

Notes: This table reports the attrition rate for UC, ANY assignment, and SUB treatment and the p-values for the difference between UC and ANY assignment, between UC and SUB. Attrition is calculated using the public use FOS data.

Table A.3: Summary Statistics: Children Sample

	(1) UC	(2) ANY assign.	(3) p-value	(4) SUB	(5) p-value	(6) CBRR	(7) p-value	(8) PBTH	(9) p-value
Panel A (Baseline)									
Age	5.73	5.57	0.38	5.33	0.07	5.76	0.91	5.68	0.84
Boy	0.51	0.53	0.41	0.53	0.51	0.52	0.76	0.54	0.28
In school	0.95	0.94	0.26	0.94	0.38	0.95	0.95	0.91	0.05
Disabled	0.11	0.11	0.79	0.11	0.71	0.12	0.79	0.10	0.54
Living w/ respondent	0.95	0.95	0.65	0.95	0.85	0.96	0.64	0.96	0.67
Months apart	29.25	21.68	0.23	29.00	0.98	14.79	0.06	18.94	0.31
N	807	1822	2629	738	1545	654	1461	430	1237
Panel B (Follow-up)									
Highest grade	6.08	6.03	0.70	5.91	0.28	6.21	0.42	5.95	0.48
Repeat a grade	0.91	0.92	0.54	0.92	0.34	0.92	0.23	0.89	0.29
Excellent health	0.45	0.48	0.05	0.52	0.00	0.48	0.10	0.42	0.08
Emotional problems	0.33	0.25	0.03	0.22	0.02	0.24	0.07	0.30	0.60
Prosocial behavior	-0.16	-0.11	0.17	-0.09	0.11	-0.10	0.19	-0.15	0.92
Total behavior	0.56	0.44	0.00	0.41	0.00	0.44	0.01	0.51	0.35
N	1548	3470	5018	1395	2943	1256	2804	819	2367

Notes: This table reports the summary statistics for children of the respondents by housing support program assignment. All estimates and all sample sizes are calculated use public use FOS data.

Table A.4: Impact of Housing Assistance on Other Safety Net Takeup

	(1) TANF	(2) SNAP	(3) WIC
Panel A: ANY vs. UC			
ANY takeup	0.0587**	0.0542**	0.0405
	(0.0293)	(0.0247)	(0.0299)
N	3600	3600	3600
Panel B: SUB vs. UC			
SUB takeup	0.0658**	0.0463**	0.0303
	(0.0277)	(0.0225)	(0.0277)
N	2200	2200	2200

Notes: This table uses the restricted-use FOS data from the 20- and 37- month adult follow-up surveys to estimate the impact of different types of housing assistance program assignments on individual labor market outcomes. All estimates are from 2SLS specifications. All regressions control for the full set of variables discussed in Equations 1 and 2. Standard errors are clustered at the individual level and reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Estimates are part of disclosure clearance number 12603. Sample sizes are rounded according to Census disclosure avoidance methods requirements.

Table A.5: Impact of Housing Assistance on Children's Outcomes

	(1) In School	(2) Repeat Grade	(3) Disability Diagnosis	(4) Health Scale	(5) SDQ Score	(6) Lives with Parent
Panel A: ANY vs. UC						
ANY takeup	-	-	-	+	-**	+
Panel B: SUB vs. UC						
SUB takeup	-	+	+	+**	-***	+

Notes: This table uses the restricted-use FOS data from the 20- and 37-month follow-up surveys to estimate the impact of different types of housing assistance program assignments on children's outcomes. Outcomes include, whether the child is currently enrolled in school/childcare, has repeated a grade since the the study began, has a disability (either physical, emotional, or mental health-related), the child's total SDQ score, and whether the child currently lives with a parent. The table only reports the sign of the coefficient estimate and the statistical significant of that corresponding estimate, following Census "Sign and Significance" disclosure guidelines. All estimates are from 2SLS specifications. All regressions control for the full set of variables discussed in Equations 1 and 2. In addition, all regressions include additional controls for children's characteristics, including their age, gender, whether they were currently living with a parent, currently in school, and had a disability (physical, emotional, or mental health-related) at the time of the baseline survey. Standard errors are clustered at the household level and reported in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Estimates are part of disclosure clearance number 12718.

B Background on the Family Options Study

The Family Options Study (F)S) evaluates different forms of housing assistance and services across multiple sites. The study focused on identifying which approaches most effectively supported outcomes such as housing stability, family preservation, child and adult well-being, and self-sufficiency. Eligible families were randomly assigned to specific interventions to provide evidence of their impact. The study was conducted in twelve communities, enrolling a total of 2,307 families between September 2010 and January 31, 2012, making it the largest experimental study on homelessness to date (HUD, 2025).[16]

Study participants were recruited from twelve communities. In particular, the study used families who were seeking assistance from an emergency shelter and who had been in the shel-

[16]It was commissioned by the US Department of Housing and Urban Development (HUD) to assess the impact of housing and service interventions on homeless families. The commission was in response to Congress's 2006 Fiscal year Appropriations Bill. HUD awarded a contract to Abt Associates in 2008 to conduct the study (HUD, 2025).

ter for at least seven days prior to the study recruitment and enrollment period. Participation in the study was voluntary; families who declined to participate were not denied usual emergency shelter assistance and services based on their decision. Families who agreed to participate completed a baseline survey and were assigned at random to one of the four housing and services intervention conditions. Families were subsequently tracked and contacted to complete follow-up surveys, approximately 20-, 37-, and 120-month post random assignment (HUD, 2025).