Pre-analysis Plan for "Unconditional Cash Transfers and Housing Instability: Evidence from a Randomized Controlled Trial in Illinois"

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Abstract

This study evaluates the impact of the third round of the Illinois Stability Investment for Family Housing (SIFH), an unconditional cash assistance program that provides one-time cash assistance to families with school-aged children experiencing homelessness in Illinois. The program adopts a more inclusive definition of homelessness and serves both families living doubled-up and those experiencing literal homelessness. We will evaluate how the cash transfer impacts future homelessness and housing stability more broadly. We will also study how the assistance affects recipients' well-being and mental health, labor market participation, use of other government programs, and children's school engagement and educational outcomes. After recruiting families through school districts, we randomly assign participants to a treatment group that received an unconditional $6,500 cash transfer, a control group that received $500, and a pure control group that did not receive cash. This pre-analysis plan focuses on outcomes up to two years after the cash transfer.

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1 Introduction

In recent years, cash transfers have garnered attention for their potential to provide direct and flexible support to individuals experiencing homelessness, particularly those underserved by traditional housing assistance programs. Some research suggests that substantial one-time cash transfers can potentially enhance housing stability and well-being, especially among vulnerable populations (Dwyer et al., 2023; Pilkauskas and Michelmore, 2019; Pilkauskas et al., 2024). However, evidence specifically addressing the effects of cash transfers on homeless families with children remains limited. This study seeks to bridge this gap by evaluating the impact of the third round of the Illinois Stability Investment for Family Housing (SIFH), an unconditional cash assistance program that provided a one-time payment of $6,500 to families with school-aged children experiencing homelessness in Illinois. The study recruited families primarily through school districts, targeting both those living in doubled-up situations and those experiencing literal homelessness.

In collaboration with the Illinois Office of Preventing and Ending Homelessness (IOPEH) at the Illinois Department of Human Services (IDHS), this study will use a randomized controlled trial (RCT) design to examine the causal impact of unconditional cash transfers on families' housing stability, children's educational outcomes, and overall well-being. This study will assess whether timely and substantial cash transfers enable families to overcome immediate housing barriers, secure stable living conditions, and reduce the risk of future homelessness. By enhancing housing stability, increasing family resources, and potentially strengthening parental involvement during critical stages of child development, these cash transfers may also foster improved school engagement and educational outcomes in the longer-run for children.

1.1 Research questions

1. Do one-time cash transfers to homeless families with school-age children reduce current and prevent future episodes of homelessness and increase housing stability?
2. Do one-time cash transfers to homeless families affect children's school engagement and academic outcomes?
3. Do one-time cash transfers to homeless families with school-age children affect other measures of children and family well-being, including family income and employment, financial health, and government assistance use?

2 Research strategy

2.1 Recruitment

All families who met the eligibility criteria could apply to participate in SIFH Round 3 through an online application system that was available between January and March 2025. We recruited families experiencing homelessness primarily through school district partnerships, supplemented by additional outreach channels. First, we partnered with school staff who worked directly with homeless families in Chicago Public Schools (CPS), East St. Louis, and Harvey school districts to share the program with families. Second, we conducted direct outreach to inform parents in Chicago via email and text messages using the contact information provided by CPS. Finally, we shared program information through school newsletters, parent network organizations, and with staff at shelters and community-based organizations. The program also received coverage from local news outlets. In total, we received 5,600 applications, with 1,779 families verified to be eligible for the program.

2.2 Eligibility criteria

To be eligible for SIFH Round 3, applicants were required to meet all of the following criteria:

- The individual must be 18 years or older;
- The individual must have at least one child (aged 17 or younger) enrolled in public school in Illinois;
- The above child must be enrolled in the McKinney-Vento program at their school (verified through school data) or be experiencing literal homelessness (verified through Homeless Management Information System data [HMIS] or letters signed by homeless service providers);
- The individual or the child must be enrolled in an eligible IDHS benefit (SNAP, TANF, VTTC Cash, or State Food);
- The individual must be willing to consent to participate in the program;
- The individual must not currently receive any housing subsidy from the city, state, or federal government, such as permanent supportive housing, rapid rehousing, and housing vouchers.
- The individual must not have participated in the previous rounds of SIFH (Round 1 or Round 2)

Eligibility was determined through a three-part screening process. First, applicants submitted self-attestations that they met all the criteria as part of the online

application. Second, the implementation partner, GiveDirectly, conducted manual verification and reviewed documents submitted by applicants to verify age and proof of guardianship, as well as letters signed by homeless service providers for applicants whose eligibility was based on experiencing literal homelessness. Third, the research team conducted administrative data checks to verify eligibility for children's enrollment in the McKinney-Vento program at their school, the applicant's engagement with literal homeless services as recorded in HMIS, and the applicant or children's enrollment in IDHS benefit programs. Applicants needed to meet all aspects of eligibility to participate in the SIFH Round 3 pilot.

2.3 Consent

Consent for the program and research was collected at the time of the application. Program participation required consent to share their and their children's past and future interactions with continua of care as recorded in the HMIS with the research team. The program also requires consent to share the children's educational records in school administrative data. Additional optional research consent was collected for (1) surveys (2) linking to other administrative data for the applicant and (3) linking to other administrative data for the children. These additional administrative data sources include, but are not limited to, public benefits enrollment, criminal legal involvement, and wage and employment records. Initial information on age and demographics were collected as part of the application process. Data on contact information for payment purposes was also collected. In addition, applicants were offered an incentivized baseline survey that could be taken directly after the application was complete. $20 incentive was offered for completion of the baseline survey and $50 incentives are provided for completing follow-up surveys. We give incentives to participants through a virtual debit card.

2.4 Assignment to treatment

We conducted randomization stratified by geography (whether the family has children attending schools in or outside Chicago) and by payment route (whether the family is paid through IDHS or an alternative payment vendor).

- Among the eligible families, 750 were randomized into the treatment group to receive $6,500, and 750 into the control group to receive $500.
- The rest of the eligible families (279) were randomly assigned to a "pure" control group, in which families did not receive any cash transfer.

The overall take-up rate for the program is 95.7 percent, with similar rates between

the treatment group (96.8 percent for the $6,500 group) and the control group (94.7 percent for the $500 group).

2.5 Randomization Checks

We performed balance tests to ensure the randomization procedure was working as expected. Table 1 reports overall balance. The treatment ($6,500) and control ($500) groups are highly balanced on a set of pre-treatment characteristics collected as part of the application.

Table 1: Treatment assignment balance

	Treatment Mean (n=750)	Control Mean (n=750)	Difference	Diff. SE	Diff. p-value
Age	36.075	35.884	0.008	(0.367)	0.983
Currently Pregnant	0.055	0.048	0.008	(0.011)	0.468
Currently Employed	0.316	0.296	0.015	(0.022)	0.498
Ever Had Lease or Mortgage	0.481	0.461	0.023	(0.024)	0.345
Number of Moves (last year)	2.016	2.123	-0.084	(0.093)	0.368
Received Eviction Notice (last 3 months)	0.195	0.195	-0.001	(0.019)	0.943
Landlord Asked to Move Out (last 3 months)	0.175	0.189	-0.018	(0.019)	0.337
Applied to Stay at Shelter (last 3 months)	0.400	0.443	-0.026	(0.024)	0.273
Ever Stayed in Shelter	0.567	0.595	-0.005	(0.024)	0.836
Living Situation - Literally Homeless	0.295	0.311	-0.016	(0.022)	0.461
Living Situation - Doubled Up	0.705	0.689	0.016	(0.022)	0.461
In McKinney-Vento Program	0.880	0.879	0.001	(0.016)	0.940
Ethnicity - Hispanic	0.241	0.259	-0.003	(0.018)	0.848
Race - American Indian/Alaska Native	0.021	0.012	0.006	(0.007)	0.369
Race - Asian	0.004	0.011	-0.005	(0.004)	0.266
Race - Black or African American	0.724	0.697	0.013	(0.02)	0.508
Race - Two or More Races	0.039	0.044	-0.01	(0.01)	0.300
Race - White	0.120	0.131	-0.006	(0.016)	0.694
Race - Other	0.089	0.104	0.001	(0.014)	0.970
Gender Identity - Female	0.949	0.937	0.005	(0.011)	0.653
Joint test					0.6704

Notes: This table reports summary statistics of applicant characteristics by treatment assignment. The first two columns report means for the treatment and control groups. The third column reports the treatment-control difference from a regression with strata fixed effects. The last column presents the p-value for the null of equality of the treatment-assigned and control means. The last row presents the p-value for the null of equality of all differences to zero.

2.6 Intervention and Payment

The treatment group received $6,500 and the control group received $500. No other services were provided as a part of the intervention. As mentioned above, we conducted randomization stratified by geography (whether the family has children attending schools in or outside Chicago) and by payment route (whether the family is paid through IDHS or an alternative payment vendor). Payments were distributed through

two channels: 1,200 participants received funds directly from the Illinois Department of Human Services (IDHS) via Link Card or direct deposit; the remaining 300 participants received funds through a vendor, GiveCard, either via a debit card or direct deposit. We partnered with the IDHS payment team to monitor the first payment route and ensure cash was delivered to the recipients. GiveDirectly, the program administrator, also supported payment distribution through GiveCard and provided recipient support to ensure successful delivery of cash assistance. All payments were issued by the end of June 2025, three months after the application closed in March 2025.

3 Data collection and survey instruments

This project uses a mixture of administrative and survey-based data. Below, we describe each in more detail.

3.1 Administrative data collection

Participating in the program required consent for sharing data with the Inclusive Economy Lab on future CoC contact, including shelter stays, as recorded in the HMIS for the purpose of this study. The program also requires consent to share the children's educational records in school administrative data. Additional consent was requested for two other broad areas of administrative data, but was not a requirement for participation:

1. Parental consent for linking their data to other administrative data sources, such as criminal legal involvement, public benefits, and employment records (90.4% of participants).
2. Consent on behalf of their children to release other administrative records of their dependents, such as criminal legal involvement, public benefits, and employment records (86.9% of participants).

3.2 Follow-up surveys

We additionally collected consent for future contact from the research team for follow-up surveys or any other type of research activities such as qualitative interviews.

Those consenting to and completing the baseline survey were offered a $20 incentive at or soon after application completion. For those who consented to being contacted for follow-up surveys (83%), follow-up surveys were administered at 90 and 180 days, with a plan for continued follow-up surveys every six months for the next two years (i.e. 12 months, 18 months, and 24 months post randomization). Participants receive a $50 incentive for each completed follow-up survey.

While the team has continued to collect survey data, at the time this pre-analysis plan was drafted, the research team had not used or analyzed any follow-up survey data.

3.3 Data processing

Data processing, storage, retention, and steps taken to keep data confidential will follow the protocol included in the IRB for this project: IRB24-1293 at the University of Chicago.

4 Empirical Analysis

4.1 Outcomes

We organize outcomes into the following levels:

1. **Topic.** E.g. housing instability and homelessness; adult income and employment; children's outcomes; government assistance; crime, safety, and victimization; mental health, well-being, and life satisfaction; addressing needs and priorities.
2. **Family.** These are groups of outcomes within a specific topic, such as "homelessness and housing instability". We will adjust for multiple comparisons within each family. We also pre-specify which families of outcomes we see as primary, and which we see as secondary.
3. **Outcome.** These are the specific outcomes we will study within each family. For example, this could include the number of additional CoC contacts, self-reported homelessness, and self-reported housing instability.
4. **Outcome measures.** Some outcomes may be composites of multiple outcome measures, such as an index of multiple survey questions designed to measure mental health.

4.2 Topic 1: Housing instability and homelessness

4.2.1 Family 1: Housing instability *[primary]*

1. Answered indicating a short-term expected stay in response to the survey question, "How long do you expect to stay in your current living situation?" *[primary]*
2. Scale of stability/comfort of current living arrangement (treated as linear on z-scored version of 1-10 scale) *[primary]*

3. Number of observed addresses or zip codes from administrative data in the medium or longer term *[primary]*
4. To the question "Have you moved in the last month?" answered "Yes, once" or "Yes, twice or more". *[secondary]*
5. Moved to a new town or city recently, based on the survey question *[exploratory]*
6. Any recent eviction filing records *[exploratory]*

4.2.2 Family 2: Homelessness *[primary]*

1. Any CoC homeless service use while experiencing literal homelessness in the last 90 days (based on HMIS records). We will take into account the recruitment window for the first 90 days outcome window. *[primary]*
2. Any survey-based measure of recent homelessness within the most recent month. *[primary]*
3. Number of years of student enrolled in McKinney-Vento program (normed by number of years enrolled in school since treatment). *[secondary]* We will also explore reweighting index outcome inputs differently by baseline housing characteristic.
4. Number of nights spent in CoC homeless services since the cash transfer (based on HMIS records). *[secondary]* Outcomes defined on 90-day intervals.
5. Number of nights spent in CoC homeless services or any other housing provided through the CoC since the cash transfer (based on HMIS records). *[secondary]* Outcomes defined on 90-day intervals.
6. Any CoC engagement in the last 90 days (based on HMIS records). *[secondary]* Outcomes defined on 90 day intervals. We will take into account the recruitment window from shelters for the first 90 days outcome window.
7. Any CoC homeless service re-entry in the last 90 days (based on HMIS records). *[exploratory]*
8. Indicator of homelessness in IDHS benefits data in the past year *[exploratory]*

The study sample includes families experiencing two different forms of homelessness: those living doubled-up with friends or family and those experiencing literal homelessness. Because families may have different levels of risk of experiencing future doubled-up or literal homelessness, we will explore reweighting index outcome inputs differently by baseline housing characteristic.

4.2.3 Family 3: Self Assessment of Living Situation *[secondary]*

1. How satisfied are you with your current housing situation? (treated as linear on z-scored version of 1-10 scale) *[primary]*
2. Scale of the importance to leave current living situation (treated as linear on z-scored version of 1-10 scale) *[secondary]*
3. We will also explore other measures of quality of living situations that will be informed from qualitative interviews and added to surveys in subsequent waves. *[exploratory]*

4.2.4 Family 4: Neighborhood quality *[exploratory]*

1. Point-in-time neighborhood/zip poverty level
2. Point-in-time neighborhood/zip crime rates
3. Point-in-time measure of neighborhood opportunity

4.3 Topic 2: Income and employment

4.3.1 Family 1: Wage income *[primary]*

1. Wage earnings from administrative data (IDES) *[primary]*
2. Answer to "Over the last month, how much money did you make from working?" (continuous variable set to the mid-point of each bin) *[primary]*

4.3.2 Family 2: Employment *[primary]*

1. Answer yes to "Do you currently have a job or work you do for pay?" *[primary]*
2. An indicator for any positive earnings reported to IDES. *[primary]*
3. Job stability (defined as reporting positive wage earnings in each of three consecutive quarters in IDES) [exploratory]

4.3.3 Family 3: All income sources *[secondary]*

1. Total income from all sources over the last 30 days (continuous variable set to the mean of each bin). *[primary]*
2. Do you have any money saved up? *[primary]*

4.4 Topic 3: Children's outcomes

4.4.1 Family 1: School stability and attachment *[primary]*

1. Percent of days absent from school in the last semester (relative to standard follow-up dates based on surveys) *[primary]*
2. School switches since treatment (relative to standard follow-up dates based on surveys, normed by the number of semesters enrolled in school since treatment). *[primary]*
3. Student was enrolled in an Individualized Education Program (IEP) in the medium or longer term. *[secondary]*
4. Student was chronically absent (percent of days absent greater than 10%) in the prior semester, relative to the follow-up date) *[secondary]*
5. Grade retention (being in the same grade in the following year as the current year)*[secondary]*
6. Enrolled in or graduated from school *[exploratory]*

4.4.2 Family 2: Disciplinary issues and juvenile criminal legal involvement *[secondary]*

1. Any misconduct or disciplinary issues in school *[primary]*
2. Any arrest of the child since the start of the program (measured at follow-up dates) *[primary]*
3. Any arrest of the child for a violent offense since the start of the program (measured at follow-up dates) *[primary]*
4. Number of misconduct or disciplinary issues in school since the start of the program *[secondary]*
5. Number of arrests since the start of the program *[secondary]*
6. Number of arrests for a violent-offense since the start of the program. *[secondary]*

4.4.3 Family 3: Academic achievement*[secondary]*

1. Reading test score standardized by grade-year *[primary]*
2. Math test score standardized by grade-year *[primary]*
3. Credits earned as a share of the modal number of credits attempted*[secondary]*
4. GPA *[secondary]*

4.4.4 Family 4: Child Welfare Involvement *[secondary]*

1. Any child maltreatment allegation *[primary]*
2. Any child maltreatment investigation *[primary]*
3. Any child maltreatment substantiation *[primary]*
4. Number of allegations *[secondary]*
5. Number of investigations *[secondary]*
6. Number of substantiations *[secondary]*
7. Exploratory outcomes will include protective custody (temporary protective custody removal), removal (child removal to foster care, kinship care, or guardianship), and reunification (time to reunification after removal)

4.4.5 Family 5: Early-childhood education *[exploratory]*

1. Think about your child or children under the age of 5: Were any enrolled in childcare, daycare, or educational programs at any time in the last month? (conditional on having children under the age of 5)
2. Enrolled in any CPS-based pre-k or childcare program in the past year

4.5 Topic 4: Government assistance

4.5.1 Family 1: Government assistance outcomes *[primary]*

1. Received SNAP or TANF benefits *[primary]*
2. Selected yes to receiving "Government aid for families or for buying food (such as TANF, Illinois Link, EBT, SNAP, or food stamps)", "Disability payments (such as Social Security Disability Insurance (SSDI) or Supplemental Security Income (SSI)", or "Unemployment benefits" *[primary]*
3. Selected yes to receiving "Government aid for families or for buying food (such as TANF, Illinois Link, EBT, SNAP, or food stamps)" *[secondary]*
4. Selected yes to receiving "Disability payments (such as Social Security Disability Insurance (SSDI) or Supplemental Security Income (SSI)" *[secondary]*
5. UI claims in IDES *[exploratory]*
6. Selected yes to receiving "Unemployment benefits" *[exploratory]*

4.6 Topic 5: Crime, Safety, and Victimization

4.6.1 Family 1: Criminal Justice Involvement *[primary]*

1. Any arrest since the start of the program (measured at follow-up dates). *[primary]*
2. "Over the last 30 days, did you sleep or rest in any of the following places?": selected (1) jail or police custody. *[secondary]*
3. Number of arrests since the start of the program. *[secondary]*

4.6.2 Family 2: Safety and Victimization *[secondary]*

1. "How satisfied are you with how safe you feel?" (treated as linear on z-scored version of 1-10 scale). *[primary]*
2. Answered yes to "Were you a victim of a crime in the past 90 days?" *[primary]*
3. Answered yes to: "Was someone else in your household a victim of a crime in the past 90 days?" *[primary]*

4.7 Topic 6: Financial health

4.7.1 Family 1: Debt and collections *[primary]*

1. Total balance of delinquencies and collections *[primary]*
2. Revolving balance *[secondary]*
3. Total auto loans *[secondary]*

4.7.2 Family 2: Access to credit *[secondary]*

1. Credit score *[primary]*
2. No open revolving account *[primary]*
3. Credit limit *[secondary]*
4. Trades per inquiry (approval rate) *[secondary]*
5. Revolving utilization *[secondary]*

4.8 Topic 7: Mental health, well-being, and life satisfaction

4.8.1 Family 1: Material hardship and food insecurity *[primary]*

1. For the question "In the past 30 days, how often were you or your children hungry because you didn't have enough food? (Choose the best answer.)", we

will construct a binary indicator corresponding to the split that gives closest to a 50/50 split in the control group starting with "Almost Always" and working down the options *[primary]*

2. Answered Yes to the question, "During the last month, were there any times that you did not take your child to a doctor or get their medicine because it was too expensive, or you couldn't take time off of work to take them to an appointment?" *[primary]*
3. Answered Yes to the question, "During the last month, were there any times that you yourself did not go to a doctor or get medicine because it was too expensive, or you couldn't take time off of work?" *[primary]*
4. Answered yes for the question "Sometimes people have unexpected emergency expenses. If you needed to cover an unexpected $400 expense today, would you be able to pay it?" *[secondary]*

4.8.2 Family 2: Mental Health *[secondary]*

1. The total score on the PHQ-4 questionnaire for anxiety and depression. Following standard practices for the PHQ-4, scores will be assigned to each question ranging from 0 (Not at all) to 3 (Nearly every day) and the total score will be the sum of the scores assigned to each question. *[primary]*
2. Over the last 30 days, would you say your health is: Binary which is 1 if responded "Excellent" or "Very good" *[primary]*
3. Over the last 30 days, would you say your child or children's health is: Binary which is 1 if responded "Excellent" or "Very good" *[primary]*
4. Total score on perceived stress questions where "never" is assigned a score of 0 and "very often" is assigned a score of 4. The individual questions are:
   - In the last month, how often have you felt that you were unable to control the important things in your life?
   - In the last month, how often have you felt confident about your ability to handle your personal problems?
   - In the last month, how often have you felt that things were going your way?
   - In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

   [primary]

4.8.3 Family 3: Well being *[secondary]*

1. Index made from life satisfaction scales:

- All things considered, how satisfied are you with your life as a whole these days?
- How satisfied are you with your standard of living?
- How satisfied are you with your health?
- How satisfied are you with your future financial security?
- How satisfied are you with the amount of time you spend with your family, children, or people you care about?

[primary]

4.9 Topic 8: Addressing needs and priorities

In addition to the domain-specific outcomes, We will also construct a Needs and Priorities (NAP) index following Abdul-Razzak et al. (2025). In the baseline survey, applicants were asked to rank their needs and priorities from most important to least important, using a list of provided categories. To evaluate the extent of families' progress in meeting their individual needs and priorities, we will use an ex-ante ranking to weight the outcomes accordingly. Specifically, we will combine components associated with each NAP to form indices, and then combine indices using the top 3 NAP listed by the respondent.

The following is the list of ex-ante needs and priorities and corresponding outcomes:

1. Get my own place (e.g., my own apartment or home) [*survey only*]
   - To the survey question: "Please select all of the places where you have slept or rested over the last month" selected "Your own house, apartment, or room".
2. Help pay the rent or other bills of the family/friend I am staying with [*survey only*]
   - Answered Yes to the question "Does your family share resources, such as food, clothes, toiletries, money for bills etc. with the people you are staying with?" (only available for those who reported living doubled-up in the follow-up survey)
3. Avoid staying in a homeless shelter [*HMIS + survey*]
   - All primary outcomes in Topic 1 Family 2: Homelessness
4. Find a more stable place to live (e.g. move less often) [*Admin + survey*]
   - All primary outcomes in Topic 1 Family 1: Housing instability
5. Live in a better neighborhood (such as a safer community or a neighborhood with better schools) [*Admin + survey*]

- Point-in-time neighborhood/zip poverty level
- Point-in-time neighborhood/zip crime rates

6. Move to a different city or town [*Admin + survey*]
    - Answered yes to "Have you moved to a new town or city in the last 3 months?"
    - Zip of address observed in a different city from baseline
7. Save money [*survey only*]
    - Answered yes to "Did you put any money into savings (e.g. in a saving's account, in cash, etc.) in the past month?"
    - Answered yes to "Do you have any money saved up (in a saving's account, in cash, etc.)?"
    - Amount of money saved up
8. Pay my bills on time or pay back past debt [*Experian*]
    - Primary outcomes from Topic 6: Financial health
9. Buy a car or get my car repaired or in better condition [*Experian + survey*]
    - Do you have access to a car you can use regularly?
    - Car loans/lease from Experian
10. Buy necessary items for myself or my family (food, clothing, school supplies, mobile phone, computer, etc.) [*survey only*]
    - For the question "In the past 30 days, how often were you or your children hungry because you didn't have enough food? (Choose the best answer.)"
    - Reported using SIFH funds on the items listed
11. Finish my education or get more education or training [*survey only*]
    - Answered yes to "Have you and/or another adult in your household taken part in any school, training, or education activity in the past 3 months?"
12. Pay for childcare [*survey only*]
    - Answered yes to "Think about your child or children under the age of 5: Were any enrolled in childcare, daycare, or educational programs at any time in the last month?"
13. Find a new job, work more, or try for a better job/promotion [*IDES + survey*]
    - Primary outcomes from Topic 2 Family 1: Wage income
    - Primary outcomes from Topic 2 Family 2: Employment
    - Job stability [exploratory]

14. Get health care, dental care, or mental health care [*survey only*]

    - Answered No to "During the last month, were there any times that you yourself did not go to a doctor or get medicine because it was too expensive, or you couldn't take time off of work?"
    - Answered No to "During the last month, were there any times that you did not take your child to a doctor or get their medicine because it was too expensive, or you couldn't take time off of work to take then to an appointment?"
    - Over the last 30 days, would you say your health is: Binary which is 1 if responded "Excellent" or "Very good"
    - Over the last 30 days, would you say your child or children's health is: Binary which is 1 if responded "Excellent" or "Very good"

15. Spend more time with family (including my children) or friends [*survey only*]

    - How satisfied are you with the amount of time you spend with your family, children, or people you care about? (treated as linear on z-scored version of 1-10 scale)

One challenge in constructing the needs and priorities index is attrition in the survey measures. To address this, we will create an index that uses both survey and administrative data, as well as an index that relies solely on administrative records. Because not all of the needs and priorities listed above correspond to outcomes available in the administrative data, we will remove the items that map only to survey-based outcomes (items 1, 2, 7, 10, 11, 12, 14, and 15) when constructing the index that relies exclusively on administrative data.

We will also conduct heterogeneity analysis with respect to these ex-ante stated needs. For example, if at baseline 40 percent of the sample stated avoiding shelter was their top goal, we would look to see if we can detect differential effects on shelter use for those who claimed avoiding shelter was a priority at baseline. We will do this for each of the respective outcomes/stated needs at baseline.

Finally, we plan to conduct qualitative research by interviewing participants to explore the mechanisms of impact. We also plan to include additional exploratory outcomes on housing stability and living situations using survey-based measures iteratively developed and informed by insights from the qualitative research.

4.10 Other covariates

We have information on other covariates from four sources: (1) the application, (2) prior HMIS records, (3) the baseline survey, and (4) prior school records. We will

group these into the set of covariates we observe for all participants (1 and 2), and those we only have for participants who completed the baseline survey.

From the application we observe: household size, number of children, age, female, Hispanic/Latinx, Asian, Black/African American, white, reported SSN, payment method, mailing address (if available), and consents to two other administrative linkages. We also observe children's age, gender, and other demographics. The program application includes a set of questions designed to replicate the Risk Assessment Questionnaire (RAQ), a screening tool used by New York City's Homebase homelessness prevention program to assess families' risk of homelessness and level of service need (Shinn et al., 2013; Mullen et al., 2022; Farrell et al., 2023). This includes questions that asked about the number of times they moved in the past year, whether they have been evicted or have applied to stay in shelters in the past 3 months, and whether they have ever stayed in shelters. From past HMIS records we observe total prior recorded days in HMIS records, current days in current shelter stay, shelter of residence, CoC, and other types of HMIS contact. From past school records, we observe student's demographics such as age and race and ethnicity, school enrollment history, past school mobility, McKinney-Vento program enrollment, grade attending, and indicators for speech and learning disabilities (IEP) and free and reduced lunch.

From the baseline survey we observe detailed information on past homelessness, duration of current homelessness, how long they they expect to stay in current living situation, where respondents have stayed over the past month, if they were ever homeless as a child, current physical disability, current psychiatric or emotional condition, if any child has a health condition, measures of stress and anxiety, past work in the last month, time last employed full time, if they would like a job (if currently unemployed), sources of income, total income in the last month, total income from work in the last month, and total income from work in the last year. We additionally asked respondents to assess how important it is to leave their current living situation. For those living doubled-up, we also asked them to score how comfortable or stable their living situation was at baseline.[1]

4.11 Treatment effects

The program is set up as a randomized controlled trial (RCT). Given the high take-up rate (95.7%), we will estimate the average treatment effect by comparing outcomes between families and students randomly assigned to the treatment group ($6,500) and those in the control group ($500). While this estimates the intent-to-treat (ITT) effect, the high take-up rate implies that the local average treatment effect (LATE) will be

[1] We asked all families this question in the follow-up surveys.

nearly identical to the ITT. We will estimate the following equation at the family level i:

$$Y_i = \beta_0 + \beta_1 T_i + \mathbf{X_i}'\gamma + \alpha_s + \epsilon_i$$

We observe family or applicant-level outcome Y for family or applicant i. The indicator variable T equals one if family i is assigned to the treatment group, and zero if the family is assigned to the control group. The treatment effect is estimated by β_1 . To improve precision, we will include a set of baseline characteristics, X_i, collected during the application. Potential covariates include variables such as race, ethnicity, family size, previous housing stability, and lagged outcomes. More details on covariate selection are provided in Section 4.13. We will also include strata fixed effects α_s.

For student-level outcomes such as school engagement and academic achievement, we will estimate the following equation at the student level j:

$$Y_{ij} = \beta_0 + \beta_1 T_i + \mathbf{X}'_{ij}\delta + \mathbf{X_i}'\gamma + \alpha_s + \epsilon_{ij}$$

We will include baseline characteristics at the family level, X_i, and at the student level, X_{ij}, to improve precision. Strata fixed effects α_s will also be included. We will cluster standard errors at the family level to adjust for correlation within the family.

Our primary analysis will estimate the average treatment effect of cash assistance by comparing outcomes between the treatment group ($6,500) and the control group ($500). In addition, because the number of applicants exceeded available program slots, we are also able to construct a "pure" control group of 279 families who did not receive any transfer during randomization. As an exploratory analysis—contingent on statistical power—we will compare the $500 control group to this pure control group to assess whether a modest transfer of $500 yields measurable effects.

4.12 Heterogeneous effects

All heterogeneity analysis will be treated as secondary outcomes. We will consider the following splits of the data when conducting heterogeneity analysis:

1. Self-reported living situation at the time of application (doubled-up vs. experiencing literal homelessness).
2. Families with young children vs. families with older children.
3. Black vs Non-Black families (defined by self-identified race of the applicant).
4. Hispanic vs non-Hispanic families (defined by self-identified race/ethnicity of the applicant).
5. If respondents identified this as their first homeless spell or not.

6. Risk of experiencing future homelessness based on risk score from Risk Assessment Questionnaire administered at baseline.
7. Self-reported importance of leaving current living situation at the time of application.
8. For doubled-up families subgroup: Self-reported stability and comfort level of living situation at the time of application.
9. Self-reported need and priority by outcome (e.g. if people listed finding a new job or better job as their top priority, we would look to see if there is heterogeneity in employment effects by those that listed this is a top priority. We would do this for each relevant need/priority/outcome)

4.13 Regression adjustment to increase precision

We will report regression-adjusted treatment effects following Belloni et al. (2014), which use LASSO to select among baseline covariates to use for regression adjustment, and then include the selected covariates as controls in the regression as specified in Section 4.11. We will report these estimates and standard errors as our main estimates.

4.14 Adjusting for multiple comparisons

We will follow Anderson (2008) in correcting for multiple comparisons. As described in Section 4.1, we ex-ante categorize outcomes into Topic and Family. We will construct index outcomes for each family. This reduces the number of outcomes and tests for general evidence of an effect within a family of outcomes. Following Anderson (2008), we will control for the familywise error rate (FWER) when testing across family indexes within the same topic. We will then compute the sharpened false discovery rate (FDR)-adjusted p-values that control for the rate of false positives within the family of tests to be no more than the nominal level. We will additionally report comparison-specific p-values and standard errors.

For each outcome, we flag it as primary, secondary, or exploratory. In addition, we flag families of outcomes as primary or secondary. The index outcomes for each family will be constructed using the primary outcomes. FWER adjustments will first be conducted across all primary families, and then again using primary and secondary families. FDR adjustments for primary outcomes will be run across primary outcomes within a family. FDR adjustment for secondary outcomes will be applied across the number of primary and secondary outcomes (Allcott et al., 2020).

4.15 Attrition

Eighty-three percent of the sample consented to be surveyed, with the consent rates balanced between the treatment and control groups (83 percent and 82 percent, respectively). $20 incentive was offered for completion of the baseline survey and $50 incentives are provided for completing follow-up surveys. We anticipate that response rates to follow-up surveys may differ across groups. We therefore will randomize the number of follow-ups or reminders for surveys, giving us an instrument for survey response. We will use this randomized survey follow-up intensity as an instrument to correct for differential attrition, following DiNardo et al. (2021). We will also monitor balance across respondents based on pre-intervention characteristics across treatment arms. Finally, because consent for administrative linkages was balanced across treatment status, we plan to use observations from the administrative databases to characterize selection into the surveys.

5 Conclusion and known limitations

While the research design and setup as an RCT will allow us to rigorously study the causal impact of the cash assistance, we may be limited by the sample size to conduct heterogeneity analysis. Whenever possible and if powered, we will examine the impact for different subgroups.

Given the heterogeneity of the study population and the different needs across families, it may be challenging to fully measure and capture the impact of the intervention. To address this, we will use the Needs and Priorities Index to weight the outcomes based on ex-ante needs and priorities. We will also incorporate open-ended survey questions to better understand the mechanisms through which the cash transfer may—or may not—support improvements in housing stability and broader family well-being.

References

Abdul-Razzak, Nour, Alexander Bartik, Sarah Miller, Elizabeth Rhodes, and Eva Vivalt, "Design for "The Causal Effects of Unconditional Cash Transfers: Experimental Evidence from a Large U.S. County"," AEA RCT Registry 2025.

Allcott, Hunt, Luca Braghieri, Sarah Eichmeyer, and Matthew Gentzkow, "The Welfare Effects of Social Media," *American Economic Review*, March 2020, *110* (3), 629–76.

Anderson, Michael L., "Multiple Inference and Gender Differences in the Effects of Early Intervention: A Reevaluation of the Abecedarian, Perry Preschool, and Early

Training Projects," *Journal of the American Statistical Association*, 2008, *103* (484), 1481–1495.

Belloni, Alexandre, Victor Chernozhukov, and Christian Hansen, "Inference on treatment effects after selection among high-dimensional controls," *Review of Economic Studies*, 2014, *81* (2), 608–650.

DiNardo, John, Jordan Matsudaira, Justin McCrary, and Lisa Sanbonmatsu, "A Practical Proactive Proposal for Dealing with Attrition: Alternative Approaches and an Empirical Example," *Journal of Labor Economics*, 2021, *39* (S2), S507–S541.

Dwyer, Ryan, Anita Palepu, Claire Williams, Daniel Daly-Grafstein, and Jiaying Zhao, "Unconditional cash transfers reduce homelessness," *Proceedings of the National Academy of Sciences*, September 2023, *120*, e2222103120.

Farrell, Daniel C., Alexis Kuerbis, Ashwin Parulkar, Matthew Preda, Marisol Toledo-Liz, and Renee Fuller, "Reassessing measures of risk for homelessness among families with children in New York City," *Cities*, 2023, *137*, 104319.

Mullen, Erica Jade, Angela Ghesquiere, Kinsey Dinan, Molly Richard, Edith Kealey, Sara Zuiderveen, and Marybeth Shinn, "Periodic Evaluations of Risk Assessments: Identifying Families for Homelessness Prevention Services," *Housing Policy Debate*, 2022, *32* (6), 915–939.

Pilkauskas, Natasha and Katherine Michelmore, "The Effect of the Earned Income Tax Credit on Housing and Living Arrangements," *Demography*, August 2019, *56*.

_ , _ , and Nicole Kovski, "The Effects of the 2021 Child Tax Credit on Housing Affordability and the Living Arrangements of Families With Low Incomes," *Demography*, 2024, *61* (4), 1069–1096.

Shinn, Marybeth, Andrew L. Greer, Jay Bainbridge, Jonathan Kwon, and Sara Zuiderveen, "Efficient Targeting of Homelessness Prevention Services for Families," *American Journal of Public Health*, 2013, *103* (S2), S324–S330.