

# Denver Basic Income Project Research Methods

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## Nature of the Issue

The disparity in wealth continues to grow in the United States and globally. Disparities in wealth have been associated with a range of negative outcomes, including health (Zimmerman & Anderson, 2019), education (Braga, et al., 2017), crime and criminal justice (Sykes & Maroto, 2016), and child development (Hamilton & Darity, 2010). One visible example of growing poverty in the United States is the increase in homelessness in cities across the country. The true number of people experiencing homelessness in the United States is contentious, with reports ranging from 550,000 people to 1.5 million people (Kilduff & Jarosz, 2020; NAEH, 2020). This number is expected to grow, particularly in light of the COVID-19 pandemic (Moses, 2020).

## Addressing Poverty Globally

Universal Basic Income (UBI) is one approach to address poverty globally that has gained momentum in countries around the world. The main tenets of UBI are as follows: 1) It provides a sufficiently generous cash benefit to live on, without other earnings; 2) It does not phase out or phases out only slowly as earnings rise; 3) It is available to a large proportion of the population, rather than being targeted to a particular subset (Hoynes & Rothstein, 2019). Additionally, many UBI proponents argue that it will be funded by eliminating other government benefits, such as the Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF) (Castro Baker, et al., 2020; Kearney & Mogstad, 2019).

Guaranteed Basic Income (GBI) has been proposed as an alternative to UBI's demanding specifications (Castro Baker, et al., 2020). While GBI follows the UBI tenets of providing a continuous cash benefit without strings attached, GBI focuses on targeted populations, often individuals with lower socioeconomic status. Additionally, GBI studies have explored ways that a cash benefit could complement currently available government assistance programs, rather than eliminating those benefits (Castro Baker, et al., 2020).

Studies of GBI pilots show positive outcomes. A randomized controlled trial in Canada tested the impact of a \$7,500 CAD payment to individuals who had experienced homelessness and were living in transitional housing. The study reports that participants who received the cash benefit moved into stable housing faster than those in the comparison group, spent fewer days experiencing homelessness, and retained over \$1,000 in savings during the 12 months (New Leaf, 2020). The study also reports that participants in the treatment group had a 39% reduction in spending on alcohol, cigarettes, and drugs compared to when they began the program (New Leaf, 2020). GBI studies are currently being conducted in cities across the United States, and stakeholders are eagerly awaiting results.

## Denver Basic Income Project

The Denver Basic Income Project (DBIP) is a 12-month program providing unconditional cash transfers to unhoused people living in Denver. The aims of the program are to test the feasibility and impact of guaranteed income for unhoused people. We will know the program is successful if after the end of the 12-month program period people who are unhoused in Denver that receive cash transfers are more securely housed and experiencing improved outcomes compared to people who are unhoused and did not receive a cash transfer.

### Research Questions

#### HOUSING

1. Do people who are unhoused and receive a guaranteed basic income experience improved housing stability compared to a randomized control group of people who are unhoused?

#### FINANCIAL WELL-BEING

2. Do people who are unhoused and receive a guaranteed basic income experience improved financial well-being compared to a randomized control group of people who are unhoused?
3. Do people who are unhoused and receive a guaranteed basic income experience improved workforce involvement compared to a randomized control group of people who are unhoused?

#### PHYSICAL AND PSYCHOLOGICAL HEALTH

4. Do people who are unhoused and receive a guaranteed basic income experience improved physical and psychological health compared to a randomized control group of people who are unhoused?

#### FAMILY AND SOCIAL NETWORKS

5. Do people who are unhoused and receive a guaranteed basic income experience improved interpersonal relationships, family dynamics, social support, and social cohesion compared to a control group of people who are unhoused?
6. Do people who are unhoused with children receiving a guaranteed basic income report improved child well-being compared to a randomized control group of people who are unhoused with children?

## **PUBLIC SERVICE INTERACTIONS**

- How does the receipt of a guaranteed basic income impact public service interactions for people who are unhoused compared to a randomized control group of people who are unhoused and do not receive a guaranteed basic income?

## **EXPERIENCE AND IMPACT**

- Are there differences in outcomes between people who are unhoused and received a lump sum cash transfer compared to people who are unhoused and received 12 equal cash transfers?
- What do the stories and narratives of people who are unhoused and participating in DBIP tell us about the experience and impact of receiving a guaranteed basic income?

## **PROGRAM AND PROCESS**

- What do the stories and narratives of people who are unhoused and participating in DBIP tell us about the process of receiving a guaranteed basic income?
- What are the critical program elements to successfully delivering a guaranteed basic income to people experiencing homelessness?

## **Study Setting**

According to the annual Point-in-Time Count, there are 6,104 people experiencing homelessness in Denver (MDHI, 2020). However, McKinney-Vento data on homelessness in Denver metropolitan schools reports that 12,879 students experienced homelessness during the 2018-2019 school year (MDHI, 2020). Furthermore, the Homelessness Management Information System (HMIS) shows that 31,207 unique individuals accessed homelessness services in the Denver metropolitan area between July 1, 2019, and June 30, 2020 (MDHI, 2020). Looking at these estimates together, we can see that there are thousands, and likely tens of thousands, of people experiencing homelessness in the Denver area each year.

This study will test the impact of a Guaranteed Basic Income with individuals who are unhoused in Denver. Community-based organizations serving people experiencing homelessness (CBOs) will partner with researchers on this study. CBO staff will assist with participant recruitment and retention and will provide space for data collection.

## **Research Design**

The study will use a mixed methods randomized controlled trial (RCT) design to test the impact of receiving a guaranteed basic income compared to receiving typical care and services. CBOs will be recruited to partner on the study and individuals screened at CBOs

who meet study sample criteria will serve as study participants and be randomly assigned into one of three groups:

- Study Group A: Participants will receive 12 consecutive monthly cash transfers of \$1,000 on the 15<sup>th</sup> of each month. Participants enrolled in the study will begin receiving cash payments as early as November 15, 2022.
- Study Group B: Participants will receive a one-time cash transfer of \$6,500 during the initial enrollment month and then will receive 11 consecutive monthly cash transfers of \$500 on the 15<sup>th</sup> of each month. Participants enrolled in the study will begin receiving cash payments as early as November 15, 2022.
- Study Group C: Study Group C is an active control condition. Participants in Study Group C will receive 12 consecutive monthly cash transfers of \$50 on the 15<sup>th</sup> of each month and will continue to receive treatment as usual. Participants enrolled in the study will begin receiving cash payments as early as November 15, 2022.

The study has received approval from the University of Denver Institutional Review Board to ensure research methods meet ethical standards for human subjects research.

## Randomization

CBOs in Denver will be recruited to partner on the study. Partnering CBOs will sign an MOU and then assist with participant applications and enrollments. All DBIP applications will be verified to ensure participants meet eligibility criteria. For a detailed description of DBIP eligibility criteria please review the document “DBIP Inclusion Criteria Overview”.

Once application eligibility criteria have been verified, CHHR staff will create a stratified random sample of 820 DBIP participants into one of three groups. The three groups are as follows: 1) Study Group A, 12 consecutive monthly \$1,000 cash payments; 2) Study Group B, one initial lump sum payment of \$6500 and then 11 consecutive monthly payments of \$500; Study Group C (control group), 12 consecutive \$50 monthly cash payments. 260 participants will be randomly selected into Study Group A, 260 participants will be randomly selected into Study Group B, and 300 participants will be randomly selected into Study Group C. The study accounts for total attrition in Study Groups A and B of 60 participants and total attrition in Study Group C of 100 participants. Considering attrition assumptions, we will have 200 participants complete the study in each of the three study groups. All remaining eligible participants will be on a waiting list and could be randomly selected to a study group in the event that a randomly selected participant does not enroll in DBIP. For more information on the DBIP randomization process please review the document “The Denver Basic Income Project (DBIP) Stratified Random Sampling Process”. For more information on the DBIP stratification rationale please review the document “DBIP Stratification Plan”.

## Research Enrollment

At program enrollment participants will receive information about the DBIP research and if they choose to participate in the research participants will provide informed consent for research participation. DBIP Participants will then complete the DBIP self-administered long form survey. Long form survey responses at enrollment will serve as baseline data to assess participants' characteristics at entry into the study. At program enrollment participants will also receive a smart phone with a data plan and information about how to use the phone. CHHR staff will contact participants about research activities using the participant smart phone number. CHHR staff will also ask participants to complete biweekly text surveys on their smart phones.

No services will be required of any participant in DBIP. However, participants from each group are encouraged to engage in any services that they feel will be helpful.

## Sample

### Power analysis

A power analysis was conducted to determine the optimal number of participants in each study group with the goal of identifying statistically significant impacts of cash transfers. Results of the power analysis revealed that a treatment group of 200 participants will provide enough power to detect standardized effect sizes of .21 across hypothesized outcomes (housing stability, agency, mental health, employment, savings, and others). Alternatively, a treatment group of 50 participants will provide enough power to detect standardized effect sizes of .44 across outcomes. We therefore recommend a sample of 200 participants per study group to detect standardized effect sizes of at least .21.

### Participants

Individuals who are unhoused in Denver will be eligible for the DBIP. Potential participants will be recruited and offered the opportunity to apply to DBIP through CBOs in Denver. Additional study eligibility requirements are as follows: 1) not presenting with severe and unaddressed mental health or substance use needs; 2) over 18 years of age; 3) unsheltered. For more information on DBIP eligibility please see the document "DBIP Inclusion Criteria Overview".

## Data Collection

Following the structure of the Stockton Economic Empowerment Demonstration (SEED) study, data will be collected through surveys at enrollment into the DBIP program. This initial data collection point will serve as a baseline measure. Then, the same survey will be administered at six months following enrollment, and 12 months following enrollment. Study participants will be given a mobile phone to facilitate follow-up participation. The mobile phone will also be used to gather bi-weekly text-based data for metrics that are particularly fluid like housing

stability. Qualitative data will be collected through in-depth interviews with a subsample of 24 participants two months following enrollment and 10 months following enrollment.

## Surveys

The long form survey tool will consist of discrete response items and some open-ended items. Data will be collected at baseline, 6 months, and 12-months and will be administered by CHHR research staff. Participants will complete the baseline semi-structured interview when they enroll in the DBIP program. Participants will receive \$30 in compensation after each completion of the survey. To maintain consistency with other research, the survey will consist of several standardized scales that were used in the SEED study, and other GBI studies. These scales are described in the Measures section of this document.

## Text-based data collection

All participants will receive a mobile phone and will receive bi-weekly text prompts to report their housing situation and some other information. Participants will receive \$5 in compensation for each text-based survey they complete.

## In-depth interviews

Eight participants from Study Group A, eight participants from Study Group B and eight participants from Study Group C will be purposely selected and invited to participate in a qualitative interview at two months following receipt of the initial cash benefit and then at 10 months following receipt of the initial cash benefit.

The purpose of qualitative interviews will be to gather contextual data about the impact of DBIP. The first interview, at two-months following enrollment will be used to assess initial impact of DBI and the second interview, at 10-months following enrollment will assess overall program process and impact and future program planning. In-depth interview participants will receive \$40 in compensation for each in-depth interview completed.

## Measures

To address the specific aims of this study, we incorporate measures on an array of important concepts. Next, we provide a list of the concepts we will measure.

## Housing

Housing will be measured through questions on our long form survey and through biweekly text responses. Acknowledging the complexity of capturing a broad concept like “housing stability”, several measures of housing will be used, including changes in sheltering and housing situations, length of time between any changes in sheltering and housing situations, enrollment in housing waitlists and other housing options, number of nights unsheltered in the last week, and sleep location the previous night.

## Physical health and mental health

People experiencing homelessness are more likely than the general population to have physical health issues and greater likelihood of depression and anxiety (National Coalition for the Homeless, 2020). A growing body of literature has also identified the link between poverty and toxic stress (Brisson, et al., 2020). Indicators for physical and mental health will be measured through various standardized scales, many of which were also used in the SEED study. Our measures of physical and mental health also include measures of food security, sense of control and others.

*Physical health* will be measured using constructs from the Short Form Health Survey (SF-36). *Mental health* and substance use will be measured using items from the BASIS-24 and the Kessler-10. Food security will be measured using the Household Food Insecurity Access Scale. Sense of control, hope, and agency will be measured using the Snyder Adult Hope Scale. We also have a measure of safety.

## Financial health

Income volatility and spending were both explored in the New Leaf and SEED studies. *Income volatility* will be measured through income sufficiency, expenses, savings, and unsecured debt. This study will mirror the SEED study's methodology of using bi-weekly text message prompts (Martin-West, et al, 2019). In addition to the biweekly text data, *financial health* data will be collected in the long form survey including items measuring employment, banking, bills, savings and the Consumer Financial Protection Bureau's Financial Well-being Short Scale.

## Service use

In order to test how GBI interacts with existing programs and services, participants will be asked which services they engage with, the frequency of service engagement, and the duration of service engagement. For consistency, participants will be provided with a list of all participating service organizations in the Denver Metro area and participants will be encouraged to "write-in" any service organizations not explicitly listed on the data collection instrument.

## Social support and social networks

People experiencing homelessness are more likely than the general population to have limited or strained social connections (Van Straaten, et al., 2018). We are measuring connection to services with the Client Satisfaction Inventory. We also include indicators of social networks.



## Family dynamics

To understand the impact of DBIP on participating families, we include survey items on family dynamics. The survey includes the parental stress scale and self-reported indicators of child well-being.

## Data Analysis

Changes in indicators for the three study groups will be assessed to determine if there were outcome differences for participants in Study Groups A, B and C. Additionally, advanced statistical analyses will be used to test the impact of receiving a cash transfer on outcomes.

Qualitative interviews will be coded using a constant comparative method to determine themes related to receiving cash transfers.

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