

**A Randomized Controlled Trial of Unconditional Cash Transfers to Address Poverty as a  
Fundamental Cause of Child Welfare Involvement**

Protocol and Analysis Plan

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Study Team

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## **A. Introduction**

Poverty has been identified as a powerful predictor of child maltreatment and child welfare involvement. Recent research shows that even modest economic and concrete supports are associated with reduced child maltreatment and involvement with child welfare. Toward that end, the New York State Office of Children and Family Services (OCFS), in partnership with the Office of Temporary Disability Assistance (OTDA) and the Center for Guaranteed Income Research (CGIR), University of Pennsylvania is conducting a randomized controlled trial of unconditional cash transfers among families with prior child welfare referrals in three New York counties in 2023.

## **B. Treatment**

The project will enroll approximately 150 households in Monroe, Onondaga, and Westchester counties in New York state to receive \$500 per month, unconditionally, via a debit card over a one-year period, totaling \$6,000 per family. Another 300 will be assigned to the control group and will not receive the unconditional cash transfers but will be eligible to participate in research activities. Families will be eligible if they have a recently closed case managed by OCFS through their differential response system, called Family Assessment Response (FAR) in New York State. FAR is used for CPS reports that have been accepted by the New York State Central Register for Child Abuse and Maltreatment (SCR) where there is no safety concern that rises to the level of immediate or impending danger for the child and/or family. Often, families served in the FAR track have been referred for poverty-related social needs.

## **C. Randomization and Participant Eligibility**

Households referred and determined eligible for Family Assessment Response (FAR) will be invited to participate in a randomized controlled trial of unconditional cash transfers. Approximately 150 individuals will be randomly assigned to the treatment group and will receive monthly \$500 unconditional cash transfers for one year. Another 300 will be assigned to the control group and will not receive unconditional cash transfers but will be eligible to participate in compensated research activities. We will randomly select 50 individuals per county into the treatment arm, and 100 individuals per county into the control arm.

Youth Research Inc. (YRI), an agency contracted by the New York Office of Child and Family Services (OCFS), will disburse treatment funds on a debit card. Longitudinal repeated measures will be collected through online surveys conducted before treatment begins, at 6 months after treatment begins, 12 months after treatment begins, and 18 months (6 months after treatment ends). Future maltreatment reports and case outcomes handled by OCFS will be measured using agency administrative data.

### **Eligibility Criteria:**

To participate in this pilot, caregivers must meet the following eligibility criteria:

- Received an invitation from an OCFS caseworker to apply
- Have met the state eligibility requirements for the Family Assessment Response (FAR) program within the previous six months
- Live in Monroe, Onondaga, or Westchester County, New York
- Be 18 years of age or older at the time of application.

## **D. Data, Study Sample, Outcomes, and Other Variables**

### **D.1. Data and Study Samples**

The study sample will be recruited from the population of eligible households in Monroe, Onondaga, and Westchester counties, New York. We will randomly select 50 households per county into the treatment arm, and 100 households per county into the control arm.

Data will be obtained from two sources:

1) A web-based survey for all study participants at baseline, at 6 months after treatment begins, at 12 months after treatment begins, and at 18 months after treatment begins (6 months after treatment ends). This survey will collect information on caretaker and child demographic, health, behavioral, educational, and social characteristics. All variables will be collected at baseline. We will repeat data collection for all time-varying variables at each post-baseline wave of the survey.

2) OCFS administrative records linked to the study participants and their children using the DOB and name of the study participant and all minor children in the participant's household. Data will be provided by OCFS as family-specific and child-specific counts of a series of events related to child maltreatment reports and agency interventions.

### **D.2. Planned Outcomes**

#### **Primary Outcomes:**

Primary outcomes are measured as event counts between baseline and 18 months after the beginning of study interventions using OCFS administrative data. We will treat all primary outcome events as integer count variables, with the exception of preventive services which will be treated as binary (services delivered / no services delivered). In the event that observed study outcomes are rare in the sample, we will treat primary outcomes as binary (occurred / did not occur) instead of treating rare outcomes as event counts.

The primary study outcomes (and variable class) are:

- Investigative Track OCFS maltreatment cases: event count
- Family Assessment Response (FAR) track OCFS cases: event count
- Total OCFS cases: event count as sum of investigative track and FAR track cases
- Indicated OCFS maltreatment investigations: event count
- Substantiated OCFS maltreatment investigations: event count
- OCFS foster care placements: event count
- Preventive services for families at risk of foster care: binary

## Secondary outcomes:

Secondary outcomes are related to child and family health, well-being, and stability. All outcomes are measured during each wave of survey data collection [baseline, 6 months, 12 months, 18 months]. For all measures derived from additive indices, we will treat measures as continuous. If the empirical distributions of additive indices are roughly symmetric, we will treat them as continuous real numbers. If the empirical distributions of additive indices are skewed, we will treat them as non-negative integers.

- Parental self-reported general health (19 physical health items derived from SF-36): items scored following RAND Corporation SF-36 scoring instructions for included questions. Additive index
- Mental health (Kessler 10 plus) Each item is scored from one 'none of the time' to five 'all of the time'. Scores of the 10 items are then summed, yielding a minimum score of 10 and a maximum score of 50. Additive index
- Stress and coping (Perceived Stress Scale - 4): Each item is scored from "never" to "all of the time" on a 5-point scale. Scores of 4 items are then summed, yielding a minimum score of 0 and a highest score of 16. Higher scores are correlated to more stress. Additive index
- Family dynamics and parenting (CHAOS): Each item is scored "yes" or "no". Scores of the items are then summed. The higher the score the higher the level of environmental chaos in the home. Additive index
- Parental Stress Scale: 18-item questionnaire assessing parents' feelings about their parenting role, exploring both positive aspects (e.g. emotional benefits, personal development) and negative aspects of parenthood (e.g. demands on resources, feelings of stress). Each item is scored on a 5-point Likert scale. Parental stress scores range from 18 to 90, with lower scores indicating lower levels of parental stress. Additive index
- Food insecurity: In the past four weeks, did you worry that your household would not have enough food? Binary
- Adult Hope Scale: 12 items scored on an 8-point ordinal scale. Additive index
- Child missed medical care: Parental yes/no report of any child in home with missed medical care in preceding 6 months. Binary
- Child truancy: Parental report of day of missed school for each child in the home aged 6-17 in the preceding 6 months. Ordinal [no missed days; 1-3 days; 4-6 days; 7-10 days; 11 or more days; child not enrolled in school]
- Hours per week of relative childcare: Parent-reported number of hours each week each child 0-5 spends receiving care from a relative other than a parent or guardian.
- Hours per week of non-relative child care: Parent-reported number of hours each week each child 0-5 spends receiving care from a non-relative. Non-negative continuous
- Hours per week of formal childcare: Parent-reported number of hours each week each child 0-5 spends receiving care in a day care center, preschool, or prekindergarten. Non-negative continuous
- Financial-well being (CFPB Financial Well-Being Scale: Each item is scored 0 to 4 and summed to a total following CFPB scoring instructions. Additive index.
- Housing instability: 3-items counting number of moves, rating home quality, and rating neighborhood quality. Additive index.

### D.3. Participant Characteristics

We will collect the following demographic and socioeconomic information from participants:

- Age
- Gender
- Self-reported race
- Self-reported ethnicity
- Number of adults in household
- Number of children in household
- Educational attainment
- Monthly income from employment
- Monthly income from other government benefits
- Employment
- Health Insurance Status (Insured versus uninsured)
- Child Health Insurance Status (If any child in home is uninsured)
- Housing status

In the event that there are high levels of missingness for any key covariate (i.e., >2%), multiple imputation methods will be used.

## **E. Statistical Analysis**

### **E.1. Evaluation of randomization, balance, and attrition**

We will test for balance between treatment and control based upon observable baseline characteristics for the overall study population.

Because differential attrition correlated with treatment could introduce bias into our results, we will also evaluate the attrition rate and assess for balance between treatment and control based upon both baseline characteristics for the final analytic sample (and attriters) and potential causes of attrition.

### **E.2. Statistical specification**

Our primary analytic approach is an analysis based on the intent-to-treat principle that compares outcomes for those randomized into the treatment group to those who were randomized into the control group.

Our models account for time-stable heterogeneity across individuals and treatment sites using random intercepts for each individual enrolled in the study, for each time period during which surveys are collected, and for the county from which their qualifying OCFS case originated. These random effects adjust for correlation induced by repeated measurements of individuals over time, time period effects, and clustering of outcomes within counties.

Our regression models for outcome variable  $y$  take the following general form:

$$\mu = E(y|T, X) = \alpha_i + \delta_j + \gamma_k + \beta T_i + c_j T_i + \theta X_{ij}$$

$$\begin{pmatrix} \alpha \\ \delta \\ \gamma \end{pmatrix} \sim N(0, \Sigma)$$

Where  $T$  indicates selection into the treatment group,  $X$  is a matrix of demographic characteristics,  $i$  indicates an individual participant,  $k$  indicates county of residence at the time of study enrollment,  $j$  indicates survey time period,  $\alpha$  is a vector of individual-level intercepts,  $\delta$  is a vector of time period intercepts,  $\gamma$  is a vector of county-level intercepts,  $\beta$  is the time-stable component of the treatment effect,  $c$  is a vector of time-varying components of the treatment effect, and  $\theta$  is a vector of coefficients for demographic predictors.

The relationship between the treatment and outcomes of interest may vary as a function of time. We treat temporal relationships as potentially nonlinear, and model the relationship between time, treatment, and outcomes of interest using a series of time-period intercepts. We estimate a unique intercept for each treatment period as well as an interaction between treatment status and treatment period to capture time-varying effects of treatment.

For all continuous (additive index) outcomes with a roughly symmetric distribution, we treat the outcome as following a linear model where

$$y \sim N(\mu, \sigma^2)$$

For all binary outcomes, we treat the outcome as following a Bernoulli model

$$y \sim \text{Bernoulli}(p)$$

$$E(p|T, X) = \text{logit}^{-1}(\mu)$$

And for all count outcomes and additive index outcome with a non-symmetric distribution, we treat the outcome as following a negative binomial model

$$y \sim \text{NB}(\mu, \psi)$$

$$E(y|T, X) = e^{\mu}$$

where  $\psi$  is a shape parameter.

The average treatment effect is identified as

$$\text{ATE} = E(y|T = 1, X) - E(y|T = 0, X)$$

### E.3. Subgroup analyses

Families involved with OCFS have varying levels of exposure to structural racism. Because of this we expect that treatment effects may vary as a function of participant race/ethnicity. We examine possible treatment heterogeneity by modifying our general regression model as follows:

$$\mu = E(y|T, X) = \alpha_i + \delta_j + \gamma_k + d_l(\beta T_i + c_j T_i) + \theta X_{ij}$$

where  $d$  is an interaction coefficient for participant race  $l$  on both the time-stable and time-varying components of the treatment effect.

#### E.4. Alternative specifications and sensitivity analyses

We evaluate the sensitivity of all analyses to the specification of informative priors derived from prior studies of the impacts of guaranteed income in a Bayesian framework by estimating all models specified above using MCMC. Prior parameter distributions will be specified within conservative bounds based on established empirical research.

#### E.5. Statistical significance and adjustments for multiple comparisons

Statistical significance was defined as two-sided  $P < 0.05$  for the primary outcome. We will use the Benjamini-Hochberg or similar procedures to calculate adjusted p-values that account for testing of multiple outcomes.