

## Pre-Analysis Plan

This project evaluates the effectiveness of the Show Up to Grow Up program (SUGU). SUGU is a 5-month behaviorally informed texting intervention addressed to parents of preschool children with the goal of reducing absenteeism. We will carry out a randomized controlled trial with approximately 1400 parents from different preschools, where half of the parents will be assigned to the treatment group who will receive the SUGU program, and the other half will be in the control (business as usual) group.

We will estimate an intent-to-treat model comparing the treatment and control groups:

$$Y_{i,t} = \beta_0 + \beta_1 T_i + \alpha Y_{i,t-1} + \varepsilon_i$$

Where  $Y_{i,t-1}$  and  $Y_{i,t}$  are the outcome measure for parent  $i$  before and after the intervention period, respectively.  $T_i$  is a binary variable indicating if parent  $i$  was part of the treatment group. The treatment effect will be estimated by the coefficient  $\beta_1$ , which according to our hypothesis should be negative and significant for all outcomes.

We will estimate this model using two variables as outcomes:

- Absence rate (number of absent days divided by total preschool days) of parent  $i$ 's child during the intervention period.<sup>1</sup>
- Binary variable indicating if parent's child  $i$  was unenrolled from preschool during the intervention period.
- Binary variable indicating if, during the intervention period, the absence rate of parent  $i$ 's child was over 10% (which is the definition of chronic absenteeism).

We will also run the regressions separately for each month of the intervention to estimate treatment effects over time. Additionally, we will run quantile regressions for both outcomes.

The same intent-to-treat model will be used for our secondary survey outcomes, with the exception that we will not control for the baseline measure.<sup>2</sup> The survey will measure parents' opinions about preschool effects on children's skills, parents' reciprocity with the child's teacher/preschool, parents' and children's habit formation and planning, parents' sense of belonging, parental identity. These are all themes that the intervention messages

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<sup>1</sup> The original PAP included as the main outcome variable the absent days instead of the absence rate. However, after looking at the baseline data, we realize that some children are not necessarily enrolled throughout the entire preschool period. Therefore, the number of days may vary, and we propose that the absence rate will be a more accurate outcome. We will still run the regression for absent days and report its results. Based on this baseline data finding, we also add as an additional outcome if the child was unenrolled from preschool during the intervention period.

<sup>2</sup> The original PAP did not include these secondary outcomes because the inclusion of a survey was decided and funded mid-intervention. The late inclusion of the survey also means that we will not have a baseline measure for these outcomes, so the specification won't have this as a control variable.

address, so we expect these are potential mechanisms for the treatment effects we could find.

Heterogeneous treatment effects will be estimated for the following baseline characteristics:

- child's gender
- whether the parent has a BA degree
- whether the parent pays for preschool
- whether the family's primary language is Spanish
- baseline absenteeism of the child (both as the absence rate and as a binary variable indicating chronic absenteeism)
- baseline parental beliefs about the importance of preschool.