

Deferring Wages and Labor Supply in Malawi

Analysis Plan Part 2: Study Design, Empirical Strategy, and Survey Outcomes

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Abstract:

This document is the fourth portion of the analysis plan for a randomized controlled trial (RCT) evaluation studying the effects of a deferred wage payment option on workers' investments, consumption, well-being and labor supply. Between January and May 2017, the Lujeri Tea Estates will allow randomly selected workers the choice of deferring a portion of their bi-weekly wages into a savings account to be paid out at the end of the agricultural season. The present document specifies additional methods that we will use in our analysis, and also lists long-term survey outcomes that will be measured during the period when workers are saving money.

Overview:

This document is the fourth portion of the analysis plan for a randomized controlled trial (RCT) evaluation studying the effects of a deferred wage payment option on workers' investments, consumption, well-being and labor supply. For further details on our setting and analysis of labor supply outcomes, please see Part 1 of our pre-analysis plan. The present document specifies additional methods and outcomes that we will use in our analysis.

Addendum to Empirical Strategy:

- In Part 1 of our analysis plan, we described our main specification to capture the impact of deferred wages which included controlling for individual covariates. In addition to the previously listed covariates, we will explore specifications where we include the set of individual-level controls selected by the “double-selection” LASSO procedure outlined in Belloni et al. (2014).
- As part of our data collection, we have multiple rounds of surveys that take place during the period when workers are saving money as part of the deferred wages product. We will therefore have repeated measures for some outcomes. For the analysis of these outcomes, we will pool these repeated measures across survey rounds that take place during the period when workers are accumulating savings.
- We will explore seemingly unrelated regression as an alternative method of testing whether the deferred wages treatment was jointly significant for categories of outcomes.
- In our previous analysis plan documents, we outlined our approach for testing for treatment effect heterogeneity. We will add to the heterogeneity analysis by testing whether treatment effects vary based on whether the respondents had (1) any type of (exogenous) shock, (2) the number of (exogenous) shocks and (3) a PCA-based index measure of shocks. Our primary measure will be #3, the PCA-based index of shocks; the other measures will be sensitivity analyses. To measure shocks, we asked whether the respondent reported having experienced any of the following:
 - Drought
 - Irregular rains
 - Floods
 - Landslides
 - Unusually High Level of Crop Pests or Disease
 - Unusually High Level of Livestock Disease
 - Unusually Low Prices for Agricultural Output
 - Unusually High Costs of Agricultural Inputs
 - Unusually High Prices for Food
 - Serious Illness or Accident of Household Member(s)
 - Death of Income Earner(s)
 - Death of Other Household Member(s)
 - Theft of Money/Valuables/Assets/Agricultural Output
 - Conflict/Violence

- Starting from the second wave of high-frequency followup surveys, we record the education outcomes for children separately by boys and girls. Therefore, whenever possible, we will investigate whether any treatment effects on school attendance or enrollment differ by the gender of the children. Our main focus will be the main effect, so these additional analyses will not affect our multiple comparisons adjustments.
 - As a clarification to Part 2 of the analysis plan, the attendance and enrollment outcomes will all be measured as rates (number of kids attended or enrolled/total kids), rather than levels.

Long-term Outcome Variables Measured During the Season

We are conducting a second survey during the main harvest season, while workers are still accumulating savings. This survey contains repeated measures of some outcomes, as noted above, and also long-term outcomes that were not mentioned above. This section lists additional outcome variables for analysis that were not included in our previous analysis plan. These outcomes will all be analyzed separately from the short-run outcomes described in Part 2 of the analysis plan; all multiple comparisons adjustments will thus be done separately across the long-run and short-run outcomes.

We list two categories of outcomes; multiple comparisons adjustments will be done separately by category.

Financial Outcomes

- Total value of all money held in savings
- Total value of loans they owe to others
- Total value of loans owed to them by others
- Total value of stored food
- Total value of stored maize*
- Number of savings groups joined*
- Number of savings groups left*
- Net change in savings group membership (number joined minus number left)
- Total value of money lost from savings *

Large (“Lumpy”) Purchases

- Made any improvements to house
- Finished building unfinished house
- Started building new house