The Impact of Deferred Wages on Labor Supply: Pre-Analysis Plan, Part 2

Lasse Brune, Eric Chyn and Jason Kerwin[*]

February 28, 2017

Abstract

This document is the second 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 the outcome variables of interest for survey outcomes, which will be the second type of data that we collect.

1 Overview

This document is the second 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 the outcome variables of interest for survey outcomes, which will be the second type of data that we collect.

2 Addendum to Heterogeneous Effects Analysis Plan

In Part 1 of our analysis plan, we described that we will test for heterogeneous effects whether the impact of deferred wages varies with pre-determined worker characteristics, measured at baseline. In addition to the list of characteristics that we previously specified, we will also examine effects based on occupational status of workers (plucker versus non-plucker).[1]

3 Outcome Variables

This section lists outcome variables for analysis by categories. Variables marked by an asterisk (*) will be excluded when applying multiple hypothesis testing adjustments. For further details on our approach to multiple hypothesis testing adjustment, see Part 1 of our pre-analysis plan. Note that variables marked by a dagger (†) are responses for which we sum up individual components related to the main category. For example, the survey asks for expenditures on maize grain, which is one component of storable food expenditures.[2]

---

[1]At present, we have not begun any analysis of labor supply outcomes (as specified in Part 1); we have not received this data.

[2]Note that we also ask about the respondents total expenditures for several of these variables. When there is a large discrepancy between the total expenditures and the sum of components, we prompt the respondent to confirm or provide a revised answer for total expenditures. When respondents supply a revised answer, we replace the total expenditure with the guess instead of using the sum of the individual components.

1. Expenditure levels

   (a) Total expenditures[†]

   (b) Storable food expenditures*[†]

   (c) Perishable food expenditures*[†]

   (d) Total food expenditures (=storable plus perishable)[†]

   (e) Expenditures on the sum of house improvements[†], big household items[†], and other large purchases*[†]

2. Expenditure composition (denominator is the total expenditure variable)[3]

   (a) Storable food expenditure as a share of total expenditure*

   (b) Perishable food expenditure as a share of total expenditure*

   (c) Total food expenditure (=storable plus perishable)[†] as a share of total expenditure

   (d) Expenditures on the sum of house improvements, big household items[†], and other large purchases[†] as a share of total expenditure*

3. Large ("Lumpy") Expenditures

   (a) Expenditures on items that cost more than MKW 5,000*

   (b) Bought anything that cost more than MKW 5,000

   (c) Expenditures on items that cost more than MKW 10,000*

   (d) Bought anything that cost more than MKW 10,000

4. Wasteful expenditures

---

[3]The denominator for the expenditure share variables is the total expenditure variable, which is defined above as the sum of the individual categories of expenditures. This is replaced with the respondent's revised answer if they provide one when prompted because of a discrepancy between the overall total and the sum of the components. To prevent shares from exceeding 100 percent, we will winsorize the data at the X and 1-X percentiles, where X is the fraction of the data with an expenditure share greater than 100 percent. If X is less than 1 percent, then we winsorize at the 1st and 99th percentiles instead.

5. Consumption

   (a) Total food consumption†

   (b) Perishable food consumption†

   (c) Storable food consumption†

6. Food security

   (a) Self

   (b) Household

7. Work and income

   (a) Total household income from survey (sum of components)

   (b) Non-Lujeri work participation*

8. Finances

   (a) Transfers received (cash and non-cash)

   (b) Transfers given (cash and non-cash)

   (c) Loans received (cash and non-cash)

   (d) Loans given (cash and non-cash)

   (e) Net flow into financial savings (formal and informal)

   (f) Net flow into financial + in-kind savings (formal and informal)*

   (g) Net additions into storable food (expenditure minus consumption)*

      • Note that consumption is measured in units of quantity. To convert consumption to its monetary equivalent, we will use the median prices for each storable food (e.g., the price of a KG of maize) that we obtain from our survey data

4

(h) Net additions into business inventory (savings module)

(i) Spending as a share of income[4]

(j) Participation in an informal savings group*

9. School investments

   (a) School Fees

   (b) School Attendance*

   (c) School Enrollment

---

[4]Spending is the total expenditure variable mentioned above. Income is the sum of the individual income questions on the survey (there is no total income question asked), plus the workers earnings from Lujeri in the same time window from the firms records (which is not asked on the survey due to the availability of the administrative data).