

Small Enterprise Employment Financial Assistance (SEEFA)

Pre-Analysis Plan

Morgan Hardy

Jamie McCasland

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Abstract

This project seeks to expand our knowledge of informal wage employment in low- and middle-income countries by observing how wages (and other employment variables) respond to (exogenous) income shocks to small firms and their workers.

1 Experimental Design

Sample: Our study sample consists of 438 firms from five skilled-craft trades all across Ghana, each with at least one paid worker who is anticipated at baseline to continue working at the firm over the next six months. Within these firms, we sample up to 3 paid workers, for a total of 677 workers. Among the firms, 201 of them have 1 eligible workers, 235 of them have 2 eligible workers, and 2 have 3 eligible workers.

Randomization: We stratify our randomization along four dimensions: skilled trade, gender, within/outside Greater Accra region, and whether the firm has one or more paid workers in our sample. Four of the five skilled trades have no gender overlap, so skilled trade by gender yields six groups. Firms and workers in Greater Accra region earn discontinuously higher profits and wages than firms and workers in other parts of the country, making it a natural dimension along which to stratify. The stratification exercise yields 21 groups, as some of the bins are empty. Each of these stratification criteria are dimensions along which it would be natural to test for differential treatment effects.

This stratified randomization at the firm level assigns firms owners and workers to treatment or control as follows. First, firms (and owners) are assigned to one of three treatment groups: cash transfer to firm owner (145 firms), cash transfer to sampled worker (144 firms), and control (149 firms). In worker-treatment firms

with more than one sampled worker, the treated worker is chosen randomly. This structure yields workers of four types: self-treated workers (144), peer-treated workers (78), employer-treated workers (225), and control workers (230).

Intervention details: Treated firm owners and workers each receive a one-time cash transfer of 700 Ghana Cedis. Control firm owners and workers each receive 20 Ghana Cedis. All treatments were implemented in early December 2021 after baseline surveys.

Data collection: In addition to a phone survey baseline collected immediately prior to the intervention, current plans include multiple phone survey follow-up rounds that could be stacked for analysis, pending funding and logistics. We will track attrition rates at followup and use Lee bounds if attrition imbalance is found across treatment groups.

2 Analysis

We are pre-specifying a limited number of outcome variables that attempt to directly measure basic characteristics of the firm/worker relationship. Given this structure, we do not think multiple hypothesis testing adjustments are necessary. However, in some cases our survey uses multiple questions for a single measured outcome, where we will use an index instead of any individual questions (e.g. consumption, mental health).

2.1 Key Outcomes of Interest

We are interested in three key outcomes: wages and retention, total income, and firm performance.

1. Wages and job retention:

- worker reported own wage
- owner reported worker's wage
- owner reported total wage bill
- worker and owner reported retention

2. Total income (of worker and firm owner), calculated as the sum of:

- wage (for worker) and profits (for firm owner) from reference business
- wage from other wage jobs (for both)

- profits from other self-owned business (for both)
- farming income (for both)

3. Firm performance, as measured by:

- firm exit/survival
- profits
- sales
- firm size

We plan to estimate impacts of cash transfers to firm owners and workers on the key outcomes of interest for each of our samples of interest by comparing outcomes for treated individuals with their control counterparts. The outcomes like wages, profits, sales, and total income can be analysed in a panel setting, while firm exit and worker retention will be analysed with a post specification.

2.2 Other Analyses

In addition to our primary outcomes of interest, we will test for potential mechanisms and well-being outcomes further down the causal chain. Any observed changes in wages could be driven by changes in profit-sharing (i.e. kin taxation or wage insurance). Alternatively, they could be driven by changes in labor supply or labor productivity, which we can test for directly using the following panel outcomes:

- labor supply: extensive and intensive
- productivity: drawn from a new measure detailed below

We are using a new measure of self- and owner-reported worker productivity, piloted in this setting for this survey, as follows:

Owner question: *Of the output your firm produced or services your firm rendered to customers [LAST MONTH], I would like to apportion the tasks on a scale from 0 to 100 across people doing work in the business. So for example, if a worker did not do any work that contributed (directly or indirectly) to customer orders, then that worker will get a zero. If you were away and a worker did all the work that was done last month for the business, then that worker will get a 100. If you and a partner split the work exactly evenly, then you will each get a 50. [For each sample worker:] What would you rate [WORKER]? What would you rate as a*

group, the rest of your staff? Ok, so that leaves XX for you? Does that sound right? (Numbers should add to 100)

Worker question: *Of the output the business produced or services the business rendered to customers in [LAST MONTH], I would like to apportion the tasks on a scale from 0 to 100 between you and other people doing work in the business. So for example, if you did not do any work that contributed (directly or indirectly) to customer orders, then that you would give yourself a zero. If your boss and any other workers were all away and a you did all the work that was done last month for the business, then you would give yourself a 100. If you and a partner split the work exactly evenly, then you would give yourself a 50. What would you rate yourself? Ok, so that leaves XX for your boss and all other workers in the business? Does that sound right? (Numbers should add to 100)*

Further, worker labor productivity or supply could respond to several levers related to the treatments, e.g. increases in firm capital, increases in owner productivity, or the relaxation of cognitive burdens associated with liquidity constraints. We plan to empirically explore proxies for such mechanisms. These outcomes are also independently of interest:

- consumption
- mental health conditions
- household income
- household labor supply