# The Impact of Wages on Labor Supply in Rural Malawi

**Researchers:**

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**Sector(s):** Labor Markets, Social Protection

**Location:** Malawi

**Sample:** 529 adults

**Target group:** Job seekers Rural population Informal workers

**Outcome of interest:** Earnings and income Employment

**Intervention type:** Targeting Employment

**Partner organization(s):** University of Michigan - Rackham Graduate School

Public cash-for-work programs are an important social protection measure for millions of people worldwide. Yet, there is limited evidence on how to set wages for this type of program. Researchers partnered with a local organization in Malawi to randomly vary the wages offered in a rural cash-for-work program, and evaluate the impact of wages on participants' willingness to work. They found that nearly three-quarters of participants were willing to perform agricultural work even at very low wages and that wages had a limited impact on most participants' decision to work.

## Policy issue

Most working adults in developing countries are self-employed or participate in casual day labor[1]., Cash-for-work programs, in which participants are compensated in cash for simple day labor, and other public workfare schemes are thus an important part of the social safety net in many developing countries. In sub-Saharan Africa, 29 countries have cash-for-work programs[2].

Understanding how low-income individuals decide when to work and for what wage is crucial for the design of effective public employment programs. Cash-for-work programs usually rely on self-targeting to reach the people who need them most—governments set wages that are high enough to help people in need of work, but low enough to discourage people not in need of support from participating. However, we have little understanding of how wages affect people's willingness to work, and what that means for targetting of such programs, especially in low-income settings.

## Context of the evaluation

Agriculture is the largest income source for low-income households in rural Malawi. However, during the dry season, which is the period between planting and harvesting seasons, non-agricultural labor takes on greater importance. As of 2004, 28 percent of those living in rural areas reported doing some day labor, or "ganyu", within the last year and 21 percent reported doing some *ganyu* in the previous seven days[3]. Wages for one day of labor vary by time of the year and region, but are very low in general. At the lowest end, these wages were roughly 40 Malawian Kwacha (MK) per day, equivalent to US$0.29 at the time of the study. At the highest end, these wages were approximately MK 135 per day, or US$0.96.

In Lobi, the rural area where this evaluation took place, day labor is common during dry seasons and is offered by both private and public employers, including the national Public Works Program. In this study, participants were mostly married women,

attended on average four years of school, and owned 1.8 acres of land. They had worked an average of 2.7 days in the month before the start of the program.



Farmers selling potatoes, Malawi.

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### Details of the intervention

Researchers partnered with the Lobi Horticultural Association (LHA) and government agricultural extension agents to evaluate the impact of wages on people's decision to work on community agricultural development programs.

This study involved 529 adults from 298 households across 10 villages, and took place over 12 weeks in June, July, and August, during the dry season. Together, the research team, the LHA's extension agents, and local leaders identified a different agricultural development project for each of the 10 study villages. Overall, projects were labor-intensive and did not require specific skills, such as irrigation, building compost systems, or clearing communal land. Participants worked on the same project for the full duration of the study.

Participants in each village were offered one day of labor per week and, each time, researchers randomly varied the value of the wage offered. Wages ranged from MK 30 (US$0.21) to MK 140 (US$1.00) per day and were announced one week in advance. For example, on week 1, researchers randomly assigned the wage in one village, Chimowa, to be MK 100 (US$0.71), while wages in another village, Manase, were MK 60 (US$0.43). The total earning potential for all 12 weeks of work was the same in each of the 10 study villages, equal to MK 1,020 (US$7.14).

Participants could either accept the offer to work at the set wage or not work at all. Participants were paid in cash immediately after they finished working. LHA extension agents monitored the program to ensure workers were asked to do the same amount

of work each week. They used an objective measure, such as number of cubic feet dug or number of linear feet hoed, to keep track of the work assigned.

The research team used administrative and survey data to collect information on tasks performed, wages received, and demographic characteristics. There was one baseline survey, followed by three follow-up surveys at weeks four, eight, and twelve of the evaluation.

## Results and policy lessons

Even at the lowest wage offered, most participants chose to work. The predominant reason given for working was to earn money to spend immediately, and the main reasons people chose not to work at a specific wage were illnesses or funerals. Increasing wages had a limited impact on willingness to work.

*Wage increases had little effect on willingness to work:* A ten percent increase in wages resulted in a 1.5-1.6 percent increase in a participant's probability of working. The authors explain this limited impact by noting that 74 percent of participants chose to work at the lowest wage offered, possibly because there are relatively few options available in Malawi's labor market during the unproductive dry season.

*In general, participants did not differ in their willingness to work given their personal characteristics:* Characteristics such as gender and income had limited impact on the probability that a person would work at a given wage. There were two notable exceptions. At the lowest wage offered, women were 6-7 percentage points more likely to work than men, with the average person choosing to work at that wage 74 percent of the time. Participants were also 4-7 percentage points more likely to work at the lowest wage offered for each acre of land owned. At the highest wages offered, participants' individual characteristics seem to have had no impact on a participants' likelihood of working.

*Reasons for working (or not):* At all wage levels, earning money to spend immediately was the primary reason given for working (70 percent of participants), while illness and funerals were the dominant reason given for not working at a certain wage level.

The results of this study suggest that further research into the labor market decisions of low-income individuals, especially women, in low- and middle-income countries (LMICs) with distinct wet and dry seasons is needed in order to improve the design of public works and other social protection programs.

Goldberg, Jessica. 2015. "Kwacha Gonna Do? Experimental Evidence about Labor Supply in Rural Malawi." American Economic Journal: Applied Economics, forthcoming.

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