

Policy Brief

Are public works working in Malawi?

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Abstract

We partnered with the Government of Malawi to study the impact of their large public works program, including the introduction of budget-neutral design features. Our results did not find that the public works program was effective in achieving its aim of improving food security during the 2012/2013 agricultural season. Also, offering this income opportunity during the planting season did not result in greater use of fertilizer, despite this intention. It was difficult to say how the extra income from this work was spent or saved, perhaps because the amount of earnings from the program was not sufficiently large.

Labor-intensive public works programs (PWPs) are common social protection tools in low-income settings (*Grosh et al. 2008*). These programs require that beneficiaries work in order to receive a cash payment or in-kind transfer (*Besley & Coate 1992*). They have been widely promoted as tools to protect poor households in the face of large macroeconomic or agroclimatic shocks, due to their relatively rapid rollout (*Ravallion 1999*). They are recently getting attention in fragile states as tools to quickly restart local economic activities or target the employment of high risk groups (*Blattman & Ralston 2015*).

There are several well-known and large-scale examples: the Employment Guarantee Scheme in

Maharashtra (*Ravallion, Datt & Chaudhuri 1993*), the National Rural Employment Guarantee Act (NREGA) in India (*Dutta et al. 2014*), and the Productive Safety Net Project in Ethiopia (*Hoddinott et al. 2012*). Such programs are also widespread in Sub-Saharan Africa – albeit not on as large a scale – where 39 of 48 countries have government-supported PWPs (*World Bank 2015*). They have been increasingly used as a building block of national social protection portfolios. In Malawi, the public works program has grown; it doubled in size in 2012 to cover about 500,000 households each year throughout the country.

While many studies of cash-for-work programs

focus on the potential crowding out effect of the program on labor market outcomes or the extent of self-targeting for a given wage rate or participation requirement (*Alatas et al. 2013, Murgai, Ravallion & van de Walle Forthcoming*), there is (perhaps) surprisingly limited evidence about the first order effects of the programs in increasing or smoothing consumption for beneficiaries. How it impacts consumption and food security will depend on design features such as the size of the transfer (a combination of the days work and wage rate), the season when it is operational (and associated with opportunity costs especially in rural areas when it may compete with small holder farming), and the mode of payment (lump sum payment or multiple payments in smaller amounts which is becoming increasingly feasible with mobile money).

In this project support by the GLM|LIC and in collaboration with the government of Malawi, we implemented a randomized controlled trial to evaluate the Malawi public works program. A randomized evaluation of this at-scale program is possible because it is oversubscribed: more villages request PWP activities than can be accommodated given the government's budget. Even in villages that have projects, not all able-bodied poor households are included. The study introduced two variants relative to the "standard" model of the public works program as implemented in 2012/2013: the timing (planting season versus planting and added lean season) and payment schedule (lump sum versus smaller, more frequent payments). The evaluation includes two levels of randomization: across villages and across households in participating villages. Here we report on results testing the hypothesis that changes to the timing of the program could increase its effect on food security, potentially at the cost of investment in fertilizer.

While Malawi's PWP offers households the opportunity to earn approximately \$22 at planting season and an additional \$22 later in the year (in a country with a per capita GNI of only US\$320), it does not have a measurable short-term effect on lean season food security for treated households. Our results show that Malawi's PWP was not effective in achieving its aim of improving food se-

curity during the 2013 lean season. Even improving the structure of the program by rescheduling the second work cycle from the harvest season to the lean season does not generate measurable improvements in the food security of treated households. Treated households do not have better food security than households in control villages, and we can rule out even moderate positive effects on a summary measure of food security.

The failure of the PWP to improve food security in either the short run (through consumption support) or longer run (because of increased use of fertilizer) is especially troubling because the MASAF PWP is the largest social protection scheme in one of the world's poorest countries. Programs in other countries differ in some elements of their structure, and have been more effective. Relative to the MASAF PWP, Ethiopia's PSNP has both a longer duration and higher-intensity transfers. These design features are likely important determinants of the impacts of PWPs on consumption and food security. Our results do not speak directly to the effect of a more generous program, though comparison with results in other countries like Ethiopia suggests total potential earnings as a margin for increasing the impact of the program. Perhaps because of the low daily wage in MASAF's PWP, 24 extra days of work during the lean season do not significantly improve food security, but longer duration and more flexible schedules are avenues for future investigation.

In Malawi, the PWP is designed with an additional goal: it is timed to coincide with the planting season to promote take-up of the country's fertilizer subsidy scheme. However, our results do not support the hypothesis that the two programs are complementary. While households included in PWP are more likely to receive fertilizer coupons (consistent with the policy of interlinkage with the fertilizer subsidy) and hence pay less for the fertilizer they use, they do not use more fertilizer.

The program also did not increase the ownership of durable goods. We do not find evidence that the program affected prices by injecting cash into the economy, nor any evidence of labor market tightening induced by reduced labor supply or increased

reservation wages.

Households may have spread consumption across the four- to eight-month (depending on treatment group) PWP period or saved for even longer durations. Then, changes in weekly spending (the interval captured in our survey period) may be too small to detect, especially since extra spending may have been spread across many different categories of goods. While we can rule out significant improvements in the two outcomes specifically targeted by the program, food security and the use of fertilizer, there may have been small, diffuse increases in these or other outcomes that are too small to detect. This interpretation allows for the possibility that the PWP was welfare-improving for households that chose to participate and thus is consistent with their revealed preferences, while still ineffective in achieving its main policy objectives.

The indirect effects of the PWP are small and, surprisingly, negative. In Northern and Central Malawi, food security of untreated households in villages with PWP programs is not only lower than food security among their treated neighbors, but also lower than food security in control villages without PWP activities. This is in contrast to expectations and to the effects of other large-scale transfer programs. For example, Oportunidades, the conditional cash transfer program in Mexico, generated positive effects on the consumption of treated households and positive externalities to non-beneficiary households (*Angelucci & DeGiorgi 2009*). An explanation for this unexpected finding has proven elusive.

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