

A conversation with GiveDirectly, October 1, 2014

Participants

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Note: These notes were compiled by GiveWell and give an overview of the major points made by GiveDirectly.

Summary

GiveWell spoke with GiveDirectly about the results of a survey on the return on investment (ROI) from iron roofs.

Estimating the ROI from cash transfers

To estimate the ROI of GiveDirectly cash transfers, it is best to use a holistic approach that includes the returns from purchasing iron roofs as well as making other investments (e. g. in livestock and businesses). Other outcomes that may have indirect impacts on income or no income effects at all—such as mental health improvements, reductions in domestic violence, or improvements in nutrition—should also be considered if evaluating the impact of cash transfers holistically. Cash transfers have very diffuse impact because they can be used in a wide variety of ways—this is why GiveDirectly's randomized controlled trial measured so many types of outcomes.

Overview of ROI from iron roofs

The benefits of iron roofs include:

- Cost savings on repair and replacement of grass roofs.
- Increased longevity of mud walls and floors
- Cost savings on walls, as the mud used to construct walls needs to be refreshed (“smeared”) less often.
- Reduced travel to collect rainwater for drinking, cooking, cleaning, etc.
- Possessions and food are less exposed to the elements, less likely to be spoiled by a weather event.
- Mental health impacts: decreased stress about whether one's house is still standing, possessions are still intact; improved ability to sleep (especially during weather events).

Results of ROI survey on iron roofs

The survey data show that the costs of grass roof replacement and repair are roughly the same. This is due to the relatively uniform rate of decay for grass roofing. People with grass roofs replace them between 2 and 3 times per year.

The cost estimates related to roofs given in the policy brief based on the randomized controlled trial of GiveDirectly's program (<http://files.givewell.org/files/DWDA%202009/GiveDirectly/UCT%20Policy%20Brief.pdf>) differ from the estimates in the full paper by Johannes Haushofer and Jeremy Shapiro (http://www.princeton.edu/~joha/publications/Haushofer_Shapiro_UCT_2013.pdf). GiveDirectly was not responsible for calculating stats for either the policy brief or the full paper, which were written by the academic team of Haushofer and Shapiro.

Based on the anonymized individual-level survey data, an iron roof costs \$418 USD PPP on average, thatch roof replacement (including the cost of grass for making the roof and the labor) costs \$95 USD PPP on average, and thatch roof repair (including the cost of grass for making the roof and the labor) costs \$107 USD PPP on average. These numbers appear to conflict with the full paper and the policy brief. It may be that the results were from a different survey.

Longevity of iron roofs

Very few people in these communities have ever needed to replace an iron roof. This is due to two factors:

1. Iron roof sheeting lasts 20-30 years.
2. Very few people inherit homes because there is a cultural expectation that young people will move out and set up their own homes.

Variable cost of grass

The cost of grass roofing varies widely depending on the proximity of villages to sources of suitable grass. Costs are much higher in villages far from grass sources.

Cost of iron roofs

The data on the cost of iron roofs collected in the survey is reliable because the survey was conducted shortly after respondents had purchased roofing materials. The range of costs reported for iron roofs are concentrated within a narrower range than the costs for grass roofing.

Survey sampling method

GiveDirectly conducted a survey of 20 random CT recipients from 20 different villages. The sampling method entailed calling one person at random in each of the randomly selected villages until someone answered the phone and was able to provide answers to the survey questions.

Follow up data collection

It would be easy to conduct a follow up survey with a much larger sample size. Such a survey may be worthwhile because questions about smearing and other costs were not included in the original survey. If GiveWell is interested in conducting a follow up survey, GiveDirectly has an independent translator it could recommend.

All GiveWell conversations are available at <http://www.givewell.org/conversations>