

YENbriefs



The Youth Employment Network

Differential Effects of Vocational Training on Men and Women and the Challenge of Program Dropouts and Attrition

- ▶ ▶ ▶ ▶ An experimental impact evaluation of vocational training for vulnerable youth in Malawi provides evidence on labor market and broader socio-economic effects as well as lessons on both program and evaluation design

Key Messages

- Long term impact estimates are valuable provided the time program outcomes take to materialize. The vocational training program in Malawi successfully improved skills and business knowledge of trainees in the short run; however, it yielded no significant impact on labor market outcomes and risky sexual behavior.
- Program designs must wear a gender lens to anticipate and take into consideration the constraints women encounter to enter and stay in a program. This will help to minimize the chances of program dropout, an issue highly prevalent among young women.
- Program dropout is prevalent and significant. Understanding its causes will lead to better program designs and will reduce biases when measuring program impact.

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The Youth Employment Network



The Youth Employment Network (YEN) is an inter-agency partnership of the International Labour Organization (ILO), the World Bank and the United Nations set up in 2001 to provide new solutions to the youth employment challenge.

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The *YEN Briefs* is a note series developed by the Youth Employment Network to disseminate lessons learned from YEN's Monitoring and Impact Evaluation work.

Background

Providing decent jobs is arguably the most pressing policy objective in the developing world. Given the limited absorptive capacities of existing formal labor markets, self-employment is an alternative source of employment and livelihood. This is particularly relevant for low skilled, less experienced vulnerable youth who have little chance of finding jobs in wage employment.

In Sub-Saharan Africa (SSA), where the HIV/AIDS epidemic poses a major development constraint, the quest for decent jobs for youth should also be an opportunity to positively impact their health and minimize risky sexual behaviors. Studies indicate that orphans, vulnerable and affected youth (OVAY) are at greater risk of falling into risky sexual behaviors to meet basic economic needs.¹

Figure 1. Timeline of Activities

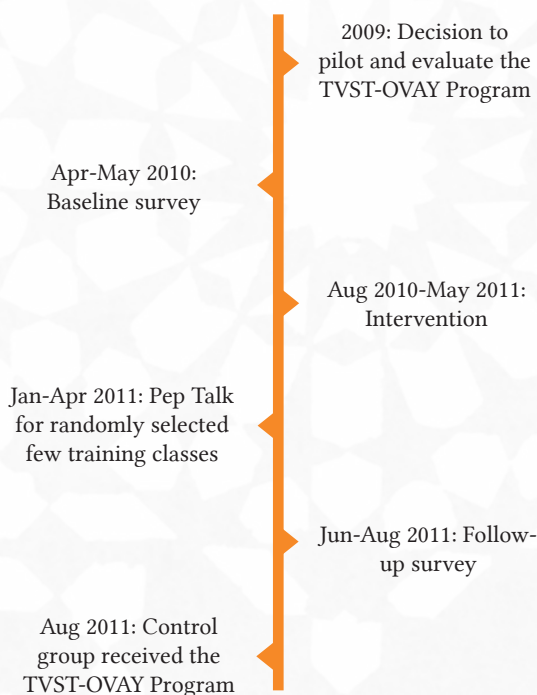


Figure 2. Logical Framework of TVST-OVAY Program



Therefore, promoting productive self-employment among vulnerable youth in the region and equipping them with relevant skills is crucial to foster their social capital and economic well-being.

In this context and seeking to address serious employability issues and promote productive self-employment among youth, in 2009 the Government of Malawi launched the Technical and Vocational Skills Training pilot program for OVAYs (TVST-OVAY). The pilot aimed at empowering OVAYs through training on marketable employment skills on various trades and supporting them to become entrepreneurs. Subsequently, the government decided to rigorously evaluate the program. The evaluation offered a unique opportunity to understand the effects of vocational training programs on youth's entrepreneurial activities and their welfare in the Sub-Saharan African context.

The TVST-OVAY Program

The objective of the TVST-OVAY program was to transfer marketable skills to OVAYs through vocational training, mentorship, and start-up support, as displayed in Figure 1. Vocational training and mentorship was directly provided by Master Craftsmen in their shops. About 164 Master Craftsmen from 23 districts in 17 different occupations were identified to train program participants. One to eight trainees were assigned to each Master Craftsman. The most common trades were carpentry and joinery, tailoring, auto mechanics, and metal fabrication. Each trade had a different curriculum and a length of training. For instance, training for auto mechanics lasted more than three months while hairdressing only lasted three weeks.

In addition to the vocational and mentorship program, a pep talk component was added aimed at improving self-esteem and goal identification. The "Pep talks" consisted of an unexpected visit from the research team and an inspirational discussion on their performance, reminding them of a better economic prospect after training and encouraging them to remain positive.

Impact Evaluation

Most self-employment and entrepreneurship programs focus on fostering skills and attitudes as well as relieving main constraints to entrepreneurship. There is, however, limited evidence on the effects of vocational training programs on youth's entrepreneurial activities and their welfare. Existing evidence on the impact of skills training programs on youth's labor market outcomes rarely looks into self-employment, offers mixed results, and is mostly based on programs from Latin America and the Caribbean. The TVST-OVAY program offers an opportunity to look into impact realms not often studied in SSA.

The impact evaluation followed an experimental pipeline design: Of the 1,900 vulnerable youth, identified and verified by TEVETA, two thirds of them were randomly assigned to receive the program first (the treatment group) while the remaining third received the intervention at a later point in time (the con-

trol group). The “Pep Talk” was randomly offered among the treatment group to study its additional impact over the vocational and mentorship program. Therefore, half of the Master Craftsmen were randomly selected and their respective training classes received the pep talk component. (See Figure 3)

Like many development programs, the TVST-OVAY program suffered from important setbacks. In addition to poor program implementation, results measurement of program effects was affected by high dropout and attrition rates.

Dropouts: There was a significant delay of one year between the selection of the 1,900 eligible youth and the implementation of the program. By the time training was offered, a total of 307 of selected youth chose not to participate. However, once enrolled, most youth completed the training. Only 106 youth left during the program.

Attrition: About one third of the 1,123 youth that participated in the baseline survey could not be found during the follow up (242 from the treatment group and 125 from the control). However, the evaluation found that the attriters are not statistically different from the drop-outs in terms of their baseline characteristics. This is encouraging as this indicates that the extra efforts in tracking drop-outs may have reduced some of the selection bias introduced by non-random attrition.

Findings

Participation in training led to short-term, positive effects on skills and business knowledge. Effects on labor market outcomes were not significant

The training component of the intervention resulted in increased self-assessed skills, subjective ability to calculate business profits and knowledge on starting a business. However, there were no positive impacts observed on general employment or business start-up in the short run. In fact, participants were almost 8 percentage points less likely (41 percent decrease) to start a business in the last 12 months. Moreover, about three fourths of the trainees reported that they resumed normal household chores and jobs after training, rather than trying to start a business or finding a job. This implies that trainees had to forego or delay setting up a new business due to training participation, and the training effect has not been materialized yet.²

Pep talk bolstered the confidence of male trainees and had benefits on risky sexual behavior of female trainees

The pep talk increased the likelihood that both boys and girls report seeing themselves as entrepreneurs. It was effective in improving satisfaction in life and building confidence, especially for male trainees. On the other hand, the pep talk was able to positively influence risky sexual behavior of female trainees through encouraging protected sex and reducing concurrent partnerships. The percentage of girls that almost always used condoms with their most recent partner increased from 21 to 44 percent.³

Definition

Attrition refers to the dropout of participants or survey respondents. This represents a problem for the evaluation because the dropouts are likely to be systematically different from those who can be found, thus skewing the results. Attrition can occur for any number of reasons, such as loss of interest in the program, migration, or simply the unwillingness to participate in the survey. A generally acceptable rate of attrition is 5-15 percent, meaning that at least 85 percent of youth in both the treatment and comparison group should be located.

Source: Hempel, K. and Nathan Fiala. 2011. Measuring Success of Youth Livelihood Interventions: A Practical Guide to Monitoring and Evaluation. Washington, DC: Global Partnership for Youth Employment.

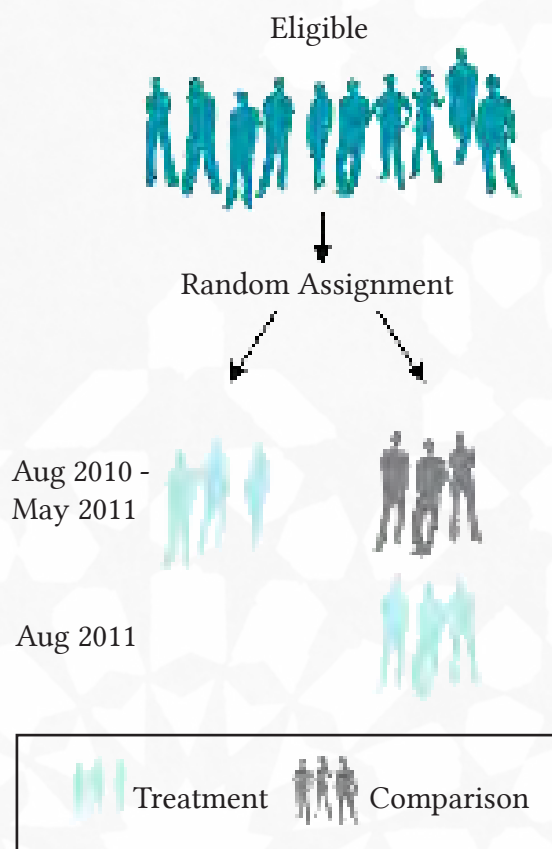


Figure 3. Impact Evaluation Pipeline Design

Definitions

Intent to Treat (ITT) measures the effect on the youth who were made eligible to be in the treatment group irrespective of their actual participation in the training.

Treatment on the Treated (TOT) measures the effect on those who actually took the treatment, in this case, the youth from the treatment group who actually participated in the training.

Instrumental Variable (IV) is a quasi-experimental research method used to estimate causal relationships when randomization is not applicable. It is used to control for confounding and measurement error.

Trainees continued to invest in human capital development in the post-training period

The most important consequence of the training program was continued investment in human capital after the training, mostly by male trainees. This is promising, because this may have significant and lasting implications for labor market opportunities in the long run. Training participation increased total hours spent on skill development (through school or other job training) by 6 hours (intent to treat or ITT) or 14-24 hours (treatment-on-the-treated or TOT) one month after the training.

Opportunity cost of participating in the program appeared substantial

Participating in the program displaced many hours of work in both paid labor and in self-employment among trainees (e.g. decreases of 32 hours and 76 hours respectively in the ITT estimate). Both the IV and ITT estimates suggest that about 30 percent of the hours in training came from displacing paid labor and self-employment hours. The result shows that the opportunity cost of attending the training in terms of both time and forgone earnings may be substantial.

This extra time spent on training comes at a financial cost to the trainees. Trainees have to draw down their savings by 1,600 - 3,000 Malawian Kwacha (about US\$10-20), which is a substantial amount in this sample. Importantly, this effect is largely driven by female trainees, who face even more drastic decreases in savings (of about US\$38). The stipend provided for the participants (of 4300 MWK, or US\$28 on average) was not sufficient to cover transportation and lodging costs.

The drop-out rate among youth randomly assigned to receive training was high

The program experienced drop-outs due to administrative errors as well as the decision of trainees not to attend or complete the program. Most of the drop-outs had more dependents and were less likely to be enrolled in school. Drop-out rates varied a little across occupations in which training was offered. Almost a third of all participants invited to training for auto mechanic jobs chose not to complete. Moreover, female trainees were more likely to drop out due to distance, illness, injury, or other external constraints.

In contrast, male trainees dropped out in order to take advantage of migration work opportunities. Drop-out rates were lowest (16-20 percent) in beauty care, electronics, metal work, and construction. The location, accessibility, and convenience of the training sessions as well as family support appeared to be important determinants of attendance. Having friends or relatives close to the training center was a very strong predictor of whether trainees can complete the training. In the case of female trainees lack of alternative opportunities increased their propensity to complete the program.

An analysis of the dropout group and further comparisons against the attriters showed there were no statistically significant differences as regards to baseline characteristics. Thus, data from dropouts helped to reduce some of the selection bias introduced by non-random attrition into the evaluation.

Overall effects of the intervention were more positive for male trainees than female trainees

Trained boys and girls reported very similar gains in self-assessed skills, but that is where the similarity ended. Women were unable to allocate the same number of hours and days for training and they experienced an extra depletion of personal savings. The positive gains in well-being and confidence through the pep talk component also accrued only to men. Female trainees were also more likely to drop-out due to distance, illness, or injury. This suggests that women participated in the training in a more constrained environment.

These gender differences also translated into better “real” experiences for boys: (a) MCs were more likely to help boys with food and money during the training period, (b) boys were less likely to report that the stipend is insufficient to meet their needs, and (c) boys were more likely to receive paid work from the MCs after the completion of training. However, one positive effect of the intervention on women was that they were less likely to have a child (13.7 percentage points in the treatment group versus 18.6 percentage points in the control group) in the last year.

Recommendations

Consider the specific constraints faced by female participants and adapt the program design to address such constraints

Disaggregated gender effects indicate men benefited more from the program than women. The difference results from the constraints women encounter to participate and stay in this type of programs which require time commitment, financial resources, and less family burden. According to the baseline statistics, women lived in households with fewer adults and more dependent children and had to spend almost twice as much time as men on household and agricultural chores. Moreover, the fact that men’s responsibilities are often more financial implies that they have had the opportunity to develop skills beforehand to make better use of the training. As shown by this study it might be useful for vocational programs to introduce and test innovative ways to make these programs work better for women.

Minimize biases in the evaluation by tracking and analyzing dropout reasons

By tracking a large fraction of program drop-outs at follow-up the study managed to examine and minimize biases. Examining whether people are forced to leave the program due to external factors like unanticipated adverse shocks or they choose to leave to take advantage of better opportunities will inform future program design. Furthermore, by comparing dropouts’ and attriters’ characteristics, the study reduced some of the selection biases introduced by non-random attrition.

Consider the limitations of a pipeline design

In a pipeline design, the intervention is delivered in several phases, giving each eligible person the same chance of receiving the program under each of the tranches. For the time that certain groups are waitlisted they serve as the comparison group until they receive the program. The assumption is that as they have been selected to receive the interven-



tion in the future they are similar to the treatment group, and therefore comparable. A pipeline design is used when (i) implementers request not having pure control groups (i.e. everyone that meets the criteria needs to get the program), and (ii) major implementation challenges are foreseen as unlikely, so the window between the first and the last cohorts are not affected.

However, an important limitation of this approach is the inability to estimate the long term impact of the intervention. As everyone eventually receives the program, there is no control group to compare against. Initially, the current impact evaluation aimed to study the program impact effects after 9 and 18 months. However, the delays in carrying out the intervention for the first cohort combined with the need to start the intervention for the last cohort due to ethical and programmatic requirements led to a very small interval. The evaluation therefore had only a little gap between the follow-up and the next phase of intervention delivery. The follow up survey was conducted only 4 months after the completion of the training program. It is essential to note that effects of the program may take more time to materialize and a long term impact estimate will be valuable.

Next Steps

Given the continued investments in skills development by the trainees, it would be valuable to follow this sample over a longer period to identify whether the additional human capital leads to improved labor market outcomes in the long run. The evaluation team is therefore seeking funding to conduct a second follow-up on the treated.

A final paper with detailed evidence from the evaluation has been published⁴ and further analysis will come up on the impact of non-technical skills training, such as the Pep talks, on youth.

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Additional Readings & Resources:

- ☞ Groupsite for YEN's Fund for Evaluation in Youth Employment
<http://yenclinic.groupsite.com>
- ☞ Youth Employment Network Marketplace
www.yenmarketplace.org
- ☞ Youth Employment Inventory
www.youth-employment-inventory.org
- ☞ Fund for Evaluation in Youth Employment
http://www.ilo.org/public/english/employment/yen/whatwedo/projects/evaluation_fund.htm

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Notes:

¹ Farmer, Paul, Shirley Lindenbaum and Mary-Jo Delvecchio Good. 1993. "Women, Poverty and AIDS: An Introduction". Culture, Medicine and Psychiatry. 17(4).

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² Note that average period since the completion of training and setting up a business was four months.

³ These are preliminary results and further discussion on the impacts of the pep talk component will be in a second paper.

⁴ Cho, Yoon Y. & Kalomba, Davie & Mobarak, Ahmed Mushfiq & Orozco, Victor, 2013. "Gender Differences in the Effects of Vocational Training: Constraints on Women and Drop-Out Behavior," IZA Discussion Papers 7408, Institute for the Study of Labor (IZA).