

Researchers

Morgan Hardy
New York University Abu Dhabi

Isaac Mbiti
University of Virginia

Jamie McCasland
University of British Columbia

Isabelle Salcher
New York University

Staff

Loïc Watine
Senior Director, Right-Fit Evidence

Yani Tyskerud
Research Coordinator

Madeleen Husselman
Country Director, Ghana

Anthony Mansaray
Senior Research Associate

Renaud Comba
Policy Manager

Timeline

2012-2017

Sample Size

3,928 youth, 1,087 firms

Research Implemented by IPA

Yes

Returns to Apprenticeship Training in Ghana

Abstract

Youth unemployment and underemployment are pressing policy challenges in Sub-Saharan Africa and job-training programs have not proven to be effective (or cost-effective) at improving youth labor market outcomes. In Ghana, researchers conducted a randomized evaluation to estimate the impact of a government program that placed young people in traditional apprenticeships and matched them with training providers. The study found that apprenticeships shifted youth out of wage work and into self-employment, but on average their earnings were lower in the short run. However, apprentices who trained with the most experienced trainers or the most profitable firms had higher earnings, suggesting that training programs can be made more effective through better recruitment of trainers.

Policy Issue

Youth unemployment is an acute problem in low-income countries, and especially in Sub-Saharan Africa.¹ Young people account for 60 percent of the unemployed in Sub-Saharan Africa, and 72 percent of young people between the ages of 15 and 24 live below the \$2 a day poverty line.² A lack of necessary skills is often cited as contributing to high unemployment. However, traditional job training programs, such as training through public vocational institutions, have been shown to provide low labor market returns on average.

Apprenticeship training with private-sector firms has the potential to cost-effectively expand labor market opportunities for young people by providing them with relevant on-the-job experience and market-ready skills. However, evidence on the impact of apprenticeship training is limited, and open questions remain about its effectiveness. In Ghana, as in other poor countries, productivity (and likely, training ability) varies greatly across businesses. In addition, providers of on-the-job training may focus on firm-specific, rather than general, skills. Firms may also seek to retain apprentices at a skill level that is profitable for the business but makes them less than employable elsewhere.

Context of the Evaluation

In 2012, when this study began, 26 percent of people in Ghana between the ages of 15 and 24 were unemployed.³ These employment challenges are driven in part by limited labor market skills among Ghanaian youth, which partly stems from an education system in which a large number of students fail to progress beyond junior high school. Access to senior high school is based on performance in national exams and places are limited: in 2011/2012 only 50 percent of qualified students transitioned to senior high school.⁴ Enrollment in public technical and vocational training institutions was just 4 percent. Limited capacities at schools and training institutions combined with costly fees prevent many young people from furthering their education and improving their skills.

The National Apprenticeship Program (NAP) is a training program initiated by the Council for Technical and Vocational Education and Training (COTVET), and implemented by district-level coordinators of the Ghana Education Service in close partnership with craft-specific trade associations.

Details of the Intervention

Researchers used a randomized evaluation to measure the impacts of a national apprenticeship program on labor supply, wages, skills, and employment, as well as consumption, fertility, migration, and other outcomes. The evaluation also examined whether characteristics and effort of the training firm made a difference in labor market outcomes.

In 32 nationally-representative districts across all regions of Ghana, researchers collaborated with COTVET and local district officials to randomize the selection of participants in the apprenticeship program from the pool of 3,928 applicants. Those applicants who were not

selected served as the comparison group. Program apprentices were then randomly assigned to master trainers' businesses that matched their trade and geographic preferences. Although training was designed to last for one year, most NAP apprenticeships lasted three years or longer, a timeline that is similar to traditional apprenticeships in Ghana. The program offered participants the opportunity to train in construction, garments, or cosmetology (hairdressing/beauty). This resulted in gender segregation with men training in construction and women in garments and hairdressing/beauty.

Participating businesses and their owners had a wide range of characteristics, which enabled researchers to measure whether certain business-level characteristics were associated with higher-quality training and higher labor market returns upon completion.

Researchers surveyed both treatment and comparison participants about four years after training began on topics including education, training history, labor market outcomes, socioeconomic status, and health.

Results and Policy Lessons

Preliminary results:

Take-up and completion: Access to the NAP program led to modest increases in the probability of starting an apprenticeship (13 percentage points), a higher probability of completing training (10 percentage points), and a longer duration of training (4 months).

Completion rates were higher for women, who mainly enrolled in apprenticeships in the cosmetology and garment trades. Male participants (mainly in construction trades) were still largely in their apprenticeships at the time of follow-up almost four years after training had started. This lag in completion likely explains much of the differential impacts by gender and occupation described below.

Employment: Access to the apprenticeship program shifted participants out of wage work and into self-employment. While the program reduced wage employment overall, the shift into self-employment was highest for women in the cosmetology sector, who were the first to graduate from their apprenticeships. Men were more likely to still be in training and less likely to be working in agriculture.

Earnings: Average total monthly earnings of participants went down by about 13 percent relative to the comparison group, as many participants moved from wage work to less-lucrative self-employment or had not yet transitioned out of their apprenticeships. This reduction in monthly earnings was highest for men in construction trades.

Migration: Access to the program increased the probability of migration by 4 percentage points compared with the control group. The probability of migration was higher in rural areas than in urban areas.

Trainer Characteristics: Training with high-quality trainers led to earning increases that were more than offset by the reductions in earnings observed for the entire sample. In particular,

apprentices who trained with the most profitable trainers had greater total monthly earnings than their peers who trained with less profitable trainers. Researchers found similar impacts for apprentices who trained with the most experienced trainers or trainers with the largest wage bills (a proxy for the size and skills of their wage workforce).

Policy Lessons

The main policy implication of this research is that governments can increase the efficacy of apprenticeship-placement programs by carefully screening and selecting training providers. In particular, the findings suggest that utilizing the expertise available in the large informal sector can increase the skills of young men and women, but that trainer characteristics play a key role. In this setting, increasing the skills of youth required identifying experienced trainers with booming businesses. While some procedures used in this study proved effective for identifying high-quality trainers, more research is needed to establish reliable and cost-effective ways of detecting high-quality training providers. Some techniques to consider include:

- Community-based identification of reputable trainers;
- Collection of survey data on firm and firm owner characteristics; and
- District-and-trade-level match meetings that bring together unemployed youth and prospective trainers and allow youth to identify their preferred training firms.

The findings also suggest that increasing the productivity of firms can also improve the effectiveness of apprenticeships.

Implementation Lessons

A major challenge faced by those implementing programs of this scale is ensuring the fidelity of implementation. This challenge can be even more pronounced when the implementation and monitoring are decentralized. Some of the main process lessons drawn from this evaluation are:

- *The importance of a strong information campaign to ensure proper targeting:* Carefully considering the program's goals can help policymakers and implementers identify the characteristics of the individuals they hope to reach with the program. While policymakers can seek help from local committees to screen individuals, monitoring and auditing is likely needed to ensure adherence to the identified targeting criteria.
- *The importance of identifying and recruiting training providers:* Developing a strategy to recruit motivated and qualified training providers is a major challenge that policymakers and implementers of training programs face – especially in informal sector settings.
- *The importance of monitoring:* Regular monitoring visits can help ensure that training is progressing as intended. Since regular monitoring visits could considerably add to the program's implementation costs, additional research is needed to explore cost-effective monitoring options.
- *Travel costs can reduce program participation among trainees:* While some programs

provide travel stipends to address this issue, doing so can be costly. A more cost-effective solution could be to recruit trainers who are in close proximity to trainees, as long as high-quality trainers are accessible.

Sources

[1] Africa Development Forum (2014). *Youth Employment in Sub-Saharan Africa*. Washington D.C.: The International Bank for Reconstruction and Development/The World Bank.[Online]. .

[2] World Bank. *Africa Development Indicators 2008/09. Youth and Employment in Africa: The Potential, the Problem, the Promise*. Washington D.C: World Bank .

[3] African Economic Outlook (2012). *Ghana 2012* Paris: OECD [Online].

[4] Ministry of Education (2012). *Education Sector Performance Report*. Accra: Ministry of Education.

June 03, 2019