ABDUL LATIF JAMEEL POVERTY ACTION LAB

Matching Small Firms with Apprentice Workers in Ghana

Researchers:

Morgan Hardy

Jamie McCasland

Sector(s): Education, Firms, Labor Markets

Location: Ghana

Sample: 755 firms and 621 apprentices

Target group: Job seekers Small and medium enterprises Youth

Outcome of interest: Profits/revenues

Intervention type: Apprenticeships and on-the-job training Employment

AEA RCT registration number: AEARCTR-0000297

Data: openICPSR

Research Papers: Are Small Firms Labor Constrained? Experimental Evidence from Ghana

Encouraging small firms to hire more young people is a key policy concern in sub-Saharan Africa, where youth unemployment is high. In Ghana, researchers evaluated the effects of a national apprenticeship training program on the firms that received apprentices through this program. The national program contrasted with existing systems of traditional apprenticeship by removing the fees paid by young workers to the small firms hosting their training. Firms that hired apprentices through the government program increased their profits as well as employment.

Policy issue

Encouraging small firms to hire more young people is a key policy concern in sub-Saharan Africa, where youth unemployment is high. Firms often lack tools to screen young workers' skills, while young workers may face financial barriers to securing entry-level employment. Understanding and easing these constraints young workers face is important for the well-being of future workers in these regions. Can improving how employers and potential young workers are matched increase youth employment as well as small firms' growth?

Context of the evaluation

Informal apprenticeships are a common pathway for young people in Ghana to access their first jobs. In this context, young people customarily pay a fee to become an apprentice at a firm, usually with a small manufacturing or service sector enterprise, to learn the trade. The informal apprenticeship system heavily characterizes Ghana's private-sector employment practices. In 2000, apprentices accounted for 34 percent of wage employees in manufacturing. The percentage of wage employees who were apprentices was higher for small firms, where the most common worker was an apprentice. Apprentices in Ghana traditionally work on fixed contracts lasting several years, where they learn craft-specific skills while being paid relatively low wages. The apprentice entrance fee could be as high as three to twelve months of training wages.

In 2013, the government of Ghana introduced the National Apprenticeship Program (NAP), a training program initiated by the Council for Technical and Vocational Education and Training (COTVET), and implemented by the Ghana Education Service, which targeted unemployed young people who typically could not pay the customary entry fees for informal apprenticeships. The program recruited both firms and unemployed youth and placed the young people as apprentices with small firms across Ghana. The NAP was distinct from customary apprenticeship in that it did away with the typical entry fees.

Firms and apprentice candidates attend a matching meeting in Ghana.

Morgan Hardy | J-PAL

Details of the intervention

Researchers evaluated the impact of apprentice placement on the profits and revenues of firms in the government program to shed light on labor market constraints faced by small firms in this context. This study took place in 32 districts across Ghana; these districts included the two largest cities in Ghana, Accra, and Kumasi, in addition to rural districts across the country. Researchers invited 2,360 participants in the NAP to attend matching meetings with firms.

Researchers worked with trade organizations and local governments in the 32 study districts to recruit firms in five target industries (garment making, hair and beauty, welding, carpentry, and blocklaying) to attend the matching meetings. At these matching meetings, firms interested in hiring apprentices introduced their businesses in front of potential apprentices. After the meetings, each apprentice candidate made a list of firms that they were willing to join and train in.

Using the lists of firms produced by apprentices, researchers randomly assigned apprentices who listed at least two firms to one of the firms from their list, such that an apprentice would have an equal chance of being paired with any of the firms on their own list. For firms, apprentice placement ranged from receiving zero apprentices (comparison group firms) to receiving between one and five apprentices (intervention group firms), depending on how they were listed by apprentice applicants. Firms that received no interest from apprentices and firms that received interest from only one apprentice at the matching meetings (and therefore automatically hired the single apprentice who listed them) were dropped from this study.

The randomized apprentice placement happened in October 2013 and January 2014, and researchers conducted two rounds of follow-up surveys over the course of two years

Results and policy lessons

Matching with apprentice workers through the NAP increased small firms' size and profits.

Firm size and take-up: Each assigned apprentice increased firms' workforce by 0.58 workers, relative to the comparison group firms' average workforce size (including apprentices and all other workers besides the firm owner) of 3.18. Implied program take-up was 47 percent, meaning that the firm accepted the apprentice placement and the apprentice then reported to their assigned jobs for 47 percent of the intervention group firms. While applicants did not have to pay the customary apprentice entry fee, they instead completed a long application process involving application documents, interviews, attending meetings, and also experienced many delays in the rollout of the program. Researchers interpreted this program characteristic, combined with the moderate take-up rate, to mean that apprentice candidates had effectively paid an entrance fee with time and effort rather than money. Apprentice candidates who scored higher on cognitive measures before the intervention tended to be more likely to follow through with the application process, suggesting that the process matched firms with more qualified apprentices.

Firm revenues and profits: With each additional apprentice placement, firm profits increased by 40 Ghana cedis (US$21). This amounted to around 10 percent of the average profits of sampled firms, which was at 401 Ghana cedis (US$206). Because other labor and capital inputs (such as other hiring or investment in equipment) did not change significantly with the treatment, hiring apprentice workers likely drove the impacts on revenues and profits at the firms in the intervention group.

Results from this study suggest that alternative screening mechanisms that link job seekers with small firms could allow young potential workers with limited financial resources to enter employment, and also help small firms grow profitably

https://pubs.aeaweb.org/doi/pdfplus/10.1257/app.20200503