Leveraging Employment Agencies to Reduce Search Frictions for Firms

Authors: David Qihang Wu, UC Berkeley; Sam Wang, UC Berkeley

We collect hiring data from 799 private formal firms in Addis Ababa, Ethiopia, and leverage employment agencies to help firms match with more college-educated applicants. We find that firms actually become less optimistic of college graduates' productivity and less likely to hire college graduates, but potentially increase their profit. Our findings suggest that employment agencies may facilitate information exchange in the labor market and improve hiring efficiency.

Introduction

Search frictions are prevalent in low- and middle-income countries. Many burgeoning cities in these countries have few search platforms for a large number of firms and job seekers to meet and share information. Researchers find that the difficulty of learning about job opportunities leads to low job search effort and inaccurate beliefs for job seekers. While such reasoning may also apply to firms, we know very little about how search frictions affect firm hiring due to the lack of firm data in low-income countries, and the common belief among scholars and policymakers that private firms may possess more information of the labor market.

In this project, we collect hiring data from 799 private formal firms with an active job vacancy in Addis Ababa, Ethiopia, between May 2022 and April 2023. We sample from a wide range of sectors, including manufacturing, construction, and hospitality. We then design a randomized controlled trial which reduces search frictions for a random subset of firms by providing subsidized access to a new search platform – employment agency (EA).

Employment Agency: A new platform for college-educated job seekers

Responding to the high unemployment rate among college graduates and high demand for college graduates, many previously informal job brokers started to tailor their recruitment service to college graduates. These EAs are strategically located at the city center where many unemployed college graduates go and seek for jobs. Currently, most of these EAs collaborate with a few international hotels and match college graduates to white-collar jobs such as receptionists and accountants, and not yet known to most firms in other sectors. We thus collaborate with 11 such new EAs in Addis Ababa, randomly match them with 326 vacancies collected from our sample, and request each EA to recommend 1-2 additional applicants to the vacancy.

Search frictions for firms in Addis Ababa

The demand for college graduates in our sample is high. 35% firms in our sample require applicants to have at least a college-level diploma, compared to only an estimated of 12% young people aged 18-23 attending any college in 2018 (Ethiopian Socioeconomic Survey). Yet, one surprising fact from our data is the low number of job applicants. Over the course of five months, the median number of total applicants for our sampled vacancies is only one. When it comes to college graduates, 65% of vacancies receive zero applicant. These facts suggest a high level of search frictions for firms to match with college applicants. EAs thus increase firms'

access to college-educated applicant by a large extent: 80% applicants provided by EAs have a college diploma or degree, significantly higher than that of applicants from other hiring channels (42%).

Not a simple story of reduced search cost

We first examine whether our intervention helps firms fill the vacancy faster. One month after baseline (midline), treated firms are 10.1 percentage points more likely to hire at least one applicant, a 14% increase compared to that of control firms, suggesting faster hiring decision and lower cost of waiting. However, this effect is not driven by hiring from the EA. Although mechanically, treated firms interview and hire more agency applicants, the majority of new hires come from non-agency hiring channels. The findings cannot be explained by a simple decrease in search cost.
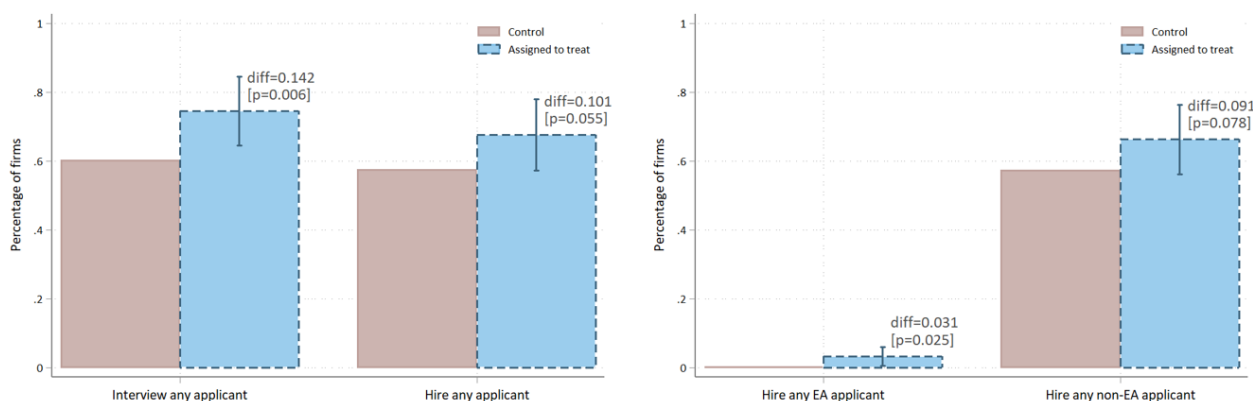

Less optimistic perceptions of college graduates

We hypothesize the following: Treated firms update on the productivity of college graduates. To test this hypothesis, we directly measure firms' perceptions in two ways: i) Five months after the baseline (endline), we ask each firm whether an average college graduate is more productive than a non-college educated worker; ii) for each applicant, we elicit firm's perception of the productivity if the applicant were hired on the job. We find significant, negative updates on both measures of college graduates' productivity, suggesting treated firms may observe additional signals from reading the resumes from the college graduates or interacting with college-educated applicants during interview, but what they learn makes them less optimistic of college graduates' productivity in general.

Such a negative update manifests itself in the hiring of college graduates. Among firms requesting a college graduate at baseline, treated firms are less likely to interview or hire a college graduate; instead, they are more likely to interview or hire a non-college educated worker. Among firms that do not request a college graduate at baseline, we observe no such treatment effects. Results are consistent with the fact that firms become less optimistic of college graduates after the intervention. Such treatment effects are particularly stronger among firms with less exposure to hiring college graduates in the past.

Comparing college applicants to non-college educated applicants for the same vacancy, we do not find significant differences regarding experience or outside options. This suggests firms may not observe signals of high college premium from the applicants, potentially explaining the negative update on their productivity.
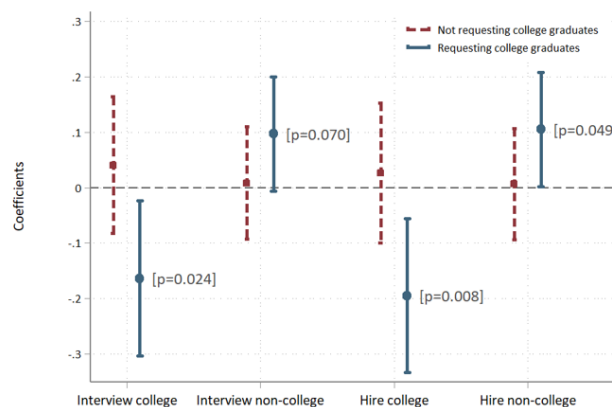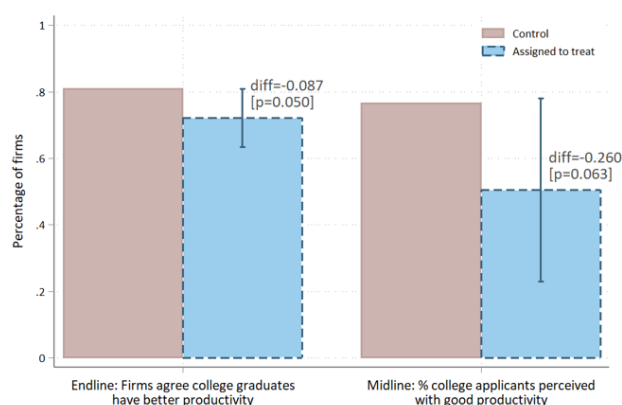
Last, we do not find quality trade-off by hiring a non-college educated worker. For the workers hired for the posted vacancy, we collect endline information on turnover, performance, absenteeism, and overtime work. We find no treatment effects on any of the measures. Instead, complier firms may take advantage of the existing salary ladder for non-college educated worker and pay a lower salary. Our findings thus suggest a net increase on profit for the complier firms.

Policy implications

Our findings suggest that firms also face high uncertainty of worker's productivity in low- and middle-income countries. Many firms may use college education as a heuristic to find skilled workers, but search frictions in the labor market prevent firms from developing accurate beliefs of college graduates' productivity, potentially rendering such a heuristic not optimal. Our collaboration with employment agencies suggests policymakers may leverage the existing labor market intermediaries to facilitate information exchange. Properly incentivizing employment agencies with good credibility may effectively increase the interaction between different labor market participants, leading to lower information frictions and more efficient matching.

On the other hand, the fact that college graduates are considered less productive echoes with the anecdotes of decreasing quality of college education in Ethiopia. Despite the rapid growth in tertiary education, many newly-built private colleges are poorly funded and may not provide useful skill training to students.

Moving forward

We plan to conduct an information experiment to further pin down firms' learning mechanism. In particular, we plan to design information interventions regarding college graduates' productivity and outside options, in hope to alleviate information asymmetry of the labor market more effectively. In addition, we plan to further understand the general-equilibrium implications of decreasing quality in tertiary education in low- and middle-income countries with a more structural economic framework.

References

Wu and Wang (2024). Search Frictions, Belief Formation, and Firm Hiring in Ethiopia. *Working Paper*.

This note is based on research conducted as a part of PEDL ERG 9036*.*