

Search and Matching Frictions for Day Labourers in Pakistan

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In this pilot study, we demonstrate that low-skilled day labourers who are socially connected to their employers have significantly higher chances of securing jobs, irrespective of having lower productivity than their lesser connected counterparts in Pakistan. Our findings suggest that introducing interventions in employer's hiring practices such as monetary incentives, worker productivity information sharing, and altering employer onsite monitoring time, may lead to optimum productivity in the short-term day labour market.

Introduction to Research Question

In South Asia, 74% of workers state casual day labour as their primary form of income (Banerjee and Duflo, 2007). In urban Punjab, these short-term construction jobs are found by either going to labour stands, an intersection where low-skilled workers wait every morning for an employer to hire them for one to two days, or through social connections. This reliance on personal connections for employment is vital for low-income individuals and in high-poverty settings, with 60-70% of individuals finding work through their networks in South and Southeast Asia (Witte, 2021).

In order to understand why employers may rely heavily on hiring from their social networks, our study tests five hypotheses to explain employers' motives for hiring individuals with whom they have personal connections. The first hypothesis is designed to test whether connected workers are more productive than their counterparts. Further, we try to understand the role of information of worker productivity in employer's decision-making processes. The third aspect we explore is differences in labourer efficiencies with respect to contractors that they are connected to. In addition, we investigate whether employers derive personal gains or utility by hiring within their social network. Lastly, we test for occurrence of homophily.

Context and Methodology

We have partnered with large construction firms which operate residential construction sites across urban Lahore, Pakistan. As is common in this sector, the construction firms make use of managers (contractors) to serve as intermediaries between themselves and labourers, overseeing the hiring, management, and supervision of the workforce. Managers hire labourers on short-term contracts, typically lasting a week at a time.

In the first stage of our experiment, we measure the productivity for a set of labourers by hiring them for three days on the site and measuring daily productivity, followed by administering a survey with labourers and contractors. In the second stage, we administer information, incentive, and monitoring treatments with contractors. In the information treatment, for the subset of above-average productivity workers from baseline measurements, we randomly select a set of labourers and provide their information to their respective contractors, informing them about their high-performing labourers. In the incentive treatment, managers are provided an incentive payment for their team’s average productivity that week. Lastly, in the monitoring treatment, whether managers play a monitoring role for the team they hire on a given day is varied.

We used these interventions to test if such factors could re-direct employers towards hiring more high-productivity, marginalised labourers. Finally, we observed whether alterations to the labour-hiring process affect how workers act on the job. On these sites, we vary elements of employer-employee interactions using the aforementioned interventions and then measure hourly worker productivity and manager hiring decisions under these varied conditions. This allows us to understand which of the five hypotheses for hiring socially connected workers are present and to what extent. Finally, we observe which set of treatment conditions results in increased hiring of highly productive but poorly connected labourers.

Research Findings

Our pilot and baseline observation sample covering 923 worker-days found labourers to be working 6 hours on average, and contractors check on productivity 8 times per day. 87% of the labourers in our sample reported finding their last job through personal contact. We found those who are more socially connected to hiring contractors get significantly more days of work and income. Individuals with fewer connections are on average younger, less educated, of lower caste, and from more rural areas. This solidifies that there are workers with high productive potential who are marginalised in the market.

Figure 1: How labourers search for work

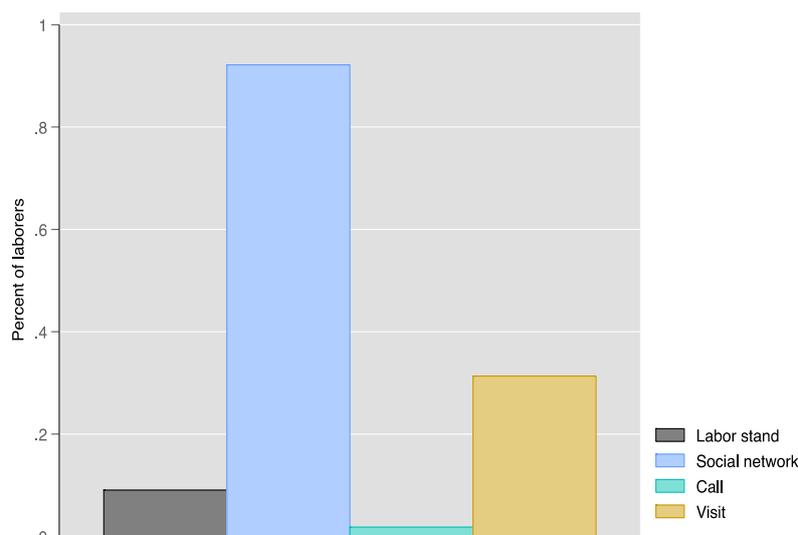
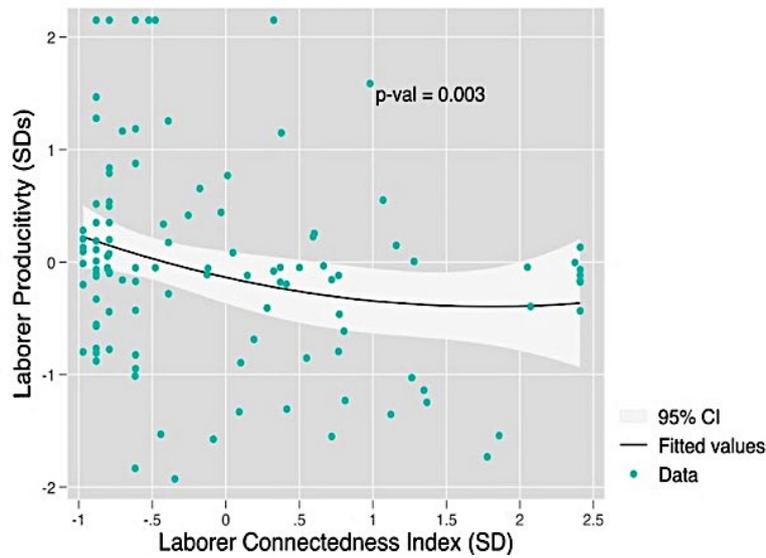


Figure 2: Relationship between labourer connectedness and labourer productivity



Using the pilot data, we are able to test for the existence of the five mechanisms (selection, information asymmetry, match-specific productivity, private utility from hiring, and homophily) on hiring decisions. We found evidence of a negative relationship between workers' social connectedness and productivity (Figure 2). We found evidence for employers' lack of information on workers to be a hiring barrier. After assessing 35 labourers to be above-average workers, we randomly provided information about half of them to contractors. Months later, these labourers were spending 30% less time job-searching each month, which was a significant cost-saving for them and allowed them to allot more of their time to working and earning.

A large difference was also noted in labour productivity when managers were present on-site. For connected workers, labourers were significantly less productive in managers' absence, but less-connected workers showed similar productivity regardless of the manager's presence. We also found suggestive evidence of managers receiving private utility by hiring within their social network, but this can be overridden when strong enough incentives are provided for hiring productive workers instead. Thus, employers respond strongly to incentive treatment. For control jobs without bonus treatments connected workers are 5 times more likely to be hired than those less connected, but this incidence is entirely removed for bonus treatment jobs.

Thus, we found an optimum combination of conditions to increase the hiring of productive and diverse workers. These include enticing incentives for managers which override private utility attained from hiring in their network and providing more information about less-connected workers. And finally, de-linking supervision from hiring to overcome match-specific productivity. Finally, we found changes in how labourers conduct their work under different controlled conditions. Those assigned to bonus treatment jobs spend 14% less time socialising with managers and co-workers.

Policy Impact

With the data collected from this project, policymakers will be better able to serve less-connected individuals who are primarily disadvantaged minority groups and low-income individuals. This study will impact the labour market with improved outcomes for those marginalised workers and improve the functioning of the labour market for low-wage workers. Another significant impact will be providing a dataset on employee search, matching, and productivity for a large sample of construction workers. This will be publicly accessible for use by the government, public and private construction firms, and any other individuals or organisations interested in researching on or hiring construction labour. This dataset along with a range of survey instruments will be unique and very useful to the provincial and federal governments, who have not yet compiled data in this field.

Since our target study population is low-skill labour in construction, manual labour, and agriculture and these individuals often live in extreme poverty, our study will be able to provide policy recommendations to eliminate the social network advantages in hiring. More broadly, our findings aim to optimise equitable hiring in the day labour market. It will inform and enable policymakers to cater to marginalised workers. This will increase the economic efficiency of the low-skill labour market, by shifting focus from developing only social capital to human capital. By developing partnerships with public and private organisations, our policy recommendations can enable the government to support both employers and employees from more marginalised backgrounds, so work both ways can be more equitable as well as more efficient. Better support for under-served employers will better enable them with the resources to hire similarly marginalised workers. Improving efficiency in the labour market may positively affect demand for it and thus increase jobs for day labourers. This would be a more effective way to increase employment without doing so artificially as it has been done in the past and which causes market distortions.

Moving Forward

Once our study sample is completed, we will be better able to see to what extent a trade-off exists between firm output and increased hiring of marginalised workers. We plan to carry out our policy recommendations starting with our partners worksites, potentially impacting thousands of labourers. We also plan to conduct multiple workshops for construction firms, managers, and architects to guide them in understanding these factors affecting their labour force. Eventually, we aim to collaborate with the government to set up a match-making platform for employers and labourers either by creating our own or merging with an existing platform. This would serve as a tool for employers to find labourers without the use of a middleman or contractor. It will be composed in a way that overcomes the hiring barriers we find to be the biggest hindrances to inequitable and productive hiring.

References

Banerjee, A. V., & Duflo, E. (2007). The Economic Lives of the Poor. *The Journal of Economic Perspectives*, 21(1), 141–168.

This note is based on research conducted as a part of PEDL [ERG 6842](#).