Why Don’t Jobseekers Search More? Barriers and Returns to Search on a Job Matching Platform

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Nivedhitha Subramanian    Kate Vyborny
Motivation

- Job search is central to many labor economics questions
  - Specific search frictions influence aggregate unemployment, matching efficiency, distribution
  - Returns to search inform policies like search requirements and subsidies
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  - Returns to search inform policies like search requirements and subsidies
- Job search & matching platforms are useful setting to study this: increasingly common, very low search costs, sometimes very low activity by users
- This paper: how non-pecuniary application costs influence search and the returns to reducing them
Economic Environment
Context & Sample

- Work in Lahore, Punjab, Pakistan
  - Adult employment 10% for women & 83% for men
  - Relatively low unemployment & formal search
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- Sample
  - Representative listing of $\approx 50,000$ households
  - $\approx 9,000$ people sign up for Job Talash platform
  - Sample includes marginal jobseekers missing from studies that recruit only active jobseekers (J-PAL, 2022)
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▶ Jobs on the platform
  ▶ ≈ 1,350 job ads from ≈ 650 firms, recruited from firm listing
  ▶ Wide range of job ads: computer operator, intern, HR manager, makeup artist, salesperson, sweeper
Job Matching Process

1. Jobseekers register, provide CVs & occupation preferences
2. Firm post ads
3. Jobseekers match to ads based on education, experience, preferences
4. Jobseekers receive batches of matches
5. Jobseekers choose whether to apply
6. Platform sends applications to firms
7. Firms invite jobseekers to interviews
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Sending Matches

- Sent by text message, facilitating lower-SES access
- Jobseekers only see matched jobs
- SMS contains title, firm, salary, location of and distance to job
- ≈ 1.1 million matches
Sending Matches

Differences from most platforms:

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Job Search on the Platform

- Job search on our platform
  - Mean matches per month: 3
  - Mean applications per month: 0.03 (not uniquely low)
  - 6% of applications yield interviews
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- Applications are directed to better-than-average vacancies
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- What would happen if users applied more?
Research Design
Experimental Design

- Design
  - Randomize jobseekers into receiving matches by **text message only** or **text message + phone call**
  - Firms are blind to jobseeker treatment assignment
  - Outcomes of interest: job applications and interviews
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  - Cost = time and/or psychic
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- **Experimental design holds roughly constant**
  - Pecuniary costs
  - Incentives or pressure to apply
  - Information content
Search & Returns to Search
## Treatment Increases Job Applications

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<thead>
<tr>
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Coefficients in non-IV columns are from regressing each outcome on treatment assignment and stratification block fixed effects. Coefficients in IV columns are from regressing each outcome on application, instrumented by treatment treatment assignment, and stratification block fixed effects. Heteroskedasticity-robust standard errors shown in parentheses, clustering by jobseeker ID. Mean outcomes are for the control group.
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# High Returns to Marginal Applications

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- We can test and reject that treatment changes
  - Which types of jobseekers apply
  - Where jobseekers direct applications
  - Rate of receiving communication about job matches
  - Beliefs about job quality or offer probability
- Instead, treatment induces ‘more of the same’ search
Understanding Barriers to Search

- Given high returns to search, why don’t control group users apply more?
- Answers appears to be fixed cost of applying for each batch of matches
  - Cost is not pecuniary
  - Might be time or psychic - experiments in progress
  - Might occur at evaluation stage or communication stage - difficult to separate due to anticipation
Other Search Outcomes
Off-Platform Outcomes

- Treatment effects effects on off-platform search and employment $\approx 0$, using survey data
- This result isn’t obvious *ex ante*
  - Substitution effect predicts lower off-platform search
  - Belief-based mechanisms can increase off-platform search
  - Magnitude of job offer effect is unclear and largely unknown from existing literature
- Caveats: low power, some survey non-response
Spillover Effects

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  - Other jobseekers: crowd-out effects
  - Firms: larger applicant pool, allowing better match quality and/or congestion costs
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  - Increases vacancy-level # applications
  - No spillover effects on competing jobseekers
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- Major results
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  - Similar returns to marginal & inframarginal job applications
  - No evidence of negative spillovers for firms or jobseekers
  - Suggests sub-optimally high search cost
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▶ Broader implications
  ▶ Optimal level & type of search costs & incentives on platforms & in public policy
  ▶ Importance of understanding which frictions constrain search