

# Workplace Attributes and Women's Labor Supply Decisions

## Evidence from a Randomized Experiment

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# Gender Gap in Education and Labor Supply in Pakistan

- ▶ GPI in secondary education is **0.81** as of 2017
- ▶ GPI in tertiary education is **0.87** as of 2017
- ▶ ratio of female to male LFP is **29%** as of 2018
- ▶ FLFP is **24%** as of 2017

ILOStat

# Costs for women working

- ▶ Stigma for women working outside the home (Field et al 2015, World Bank 2012)
  - ▶ **75%** of women in urban Punjab say that **other household members make their labor supply decisions** for them
  - ▶ **25%** of those not working say it is because their **husband or father has not given permission**

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  - ▶ **25%** of those not working say it is because their **husband or father has not given permission**
- ▶ Costs from specific workplace attributes
  - ▶ Cultural norm of social segregation of women and men  
**20%** of job postings won't accept applications from women

# Low Information Environment

- ▶ Beliefs about salary impact labor supply decisions (Jensen, 2010; Stinebrickner and Stinebrickner, 2013; Wiswall and Zafar, 2013; Zafar, 2013; Delavande and Zafar, 2018)

# Low Information Environment

- ▶ Beliefs about salary impact labor supply decisions (Jensen, 2010; Stinebrickner and Stinebrickner, 2013; Wiswall and Zafar, 2013; Zafar, 2013; Delavande and Zafar, 2018)
- ▶ Other workplace attributes also matter: gender composition, gender of supervisor, flexible working hours (Akerlof and Kranton 2000, McKinnish 2007, Svarer 2007, Levanon et al 2009, Artz and Taengnoi 2016, Flory et al 2015, Mas and Pallais 2017)

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- ▶ Other workplace attributes also matter: gender composition, gender of supervisor, flexible working hours (Akerlof and Kranton 2000, McKinnish 2007, Svarer 2007, Levanon et al 2009, Artz and Taengnoi 2016, Flory et al 2015, Mas and Pallais 2017)
- ▶ Women who want to work **don't have enough information to sort into firms** that are a good fit

# Research Questions

1. **How does information about gender-related workplace attributes impact women's job application decisions?**
2. **Does family involvement in job search impact job application decisions?**
3. How do women update their beliefs about workplace attributes in different occupations?
4. How do these beliefs impact occupational choice?



# Context

- ▶ Job Asaan
- ▶ Job Matching: education, experience, interest in occupation, and gender
- ▶ Data on firms, jobseekers, and job search



# Job Postings

## 64 Job Postings

- ▶ Median salary: 18000 PKR/month
- ▶ 74% of firms have majority male employees
- ▶ 77% of jobs have a male supervisor
- ▶ 17 occupations

# Job Seekers

- ▶ All women
- ▶ 4081 jobseekers, 988 actively searching for jobs
- ▶ 22 years old on average
- ▶ 58% are currently enrolled in high school or college
- ▶ 90% are at least in their final year of college
- ▶ About 1 year of work experience, on average
- ▶ 7% are married
- ▶ About 50% are most interested in becoming a teacher

# Cross-Randomized Experiments

## Information Experiment

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  - ▶ **gender composition of the firm**
  - ▶ **gender of the supervisor**

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  - ▶ **gender of the supervisor**

## Priming Experiment

- ▶ Prime jobseeker to think about **family job search involvement** before job application decisions
- ▶ Control group job application rate: **5%**
- ▶ Control group job application rate among active jobseekers: **7%**

# Information Experiment: Sample SMS

## Control SMS

3:18 PM

JOB AD for Fatima Jinnah  
Management Trainee, First  
Consultancy  
Salary: 15000  
Gulberg, Lahore  
Company accepting female  
applicants.  
FLEXIBLE work hours.  
Apply by: 2nd April '19  
Apply by calling the Job Asaan  
helpline  
Call XXXX-XXXXXX

C

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## Gender Composition SMS

3:18 PM

JOB AD for Fatima Jinnah  
Management Trainee, First  
Consultancy  
Salary: 15000  
Gulberg, Lahore  
MOSTLY MALE employees  
Company accepting female  
applicants.  
FLEXIBLE work hours.  
Apply by: 2nd April '19  
Apply by calling the Job Asaan  
helpline  
Call XXXX-XXXXXX

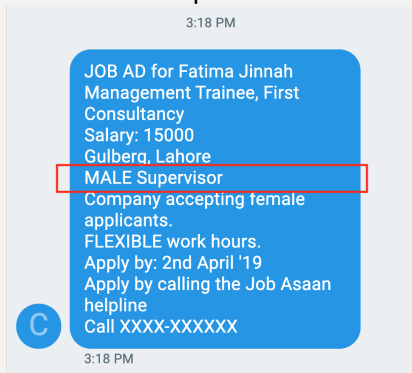
C

3:18 PM



# Information Experiment: Sample SMS

## Gender Supervisor SMS



# Information Experiment: Sample SMS

## Gender Supervisor SMS

3:18 PM

JOB AD for Fatima Jinnah  
Management Trainee, First  
Consultancy  
Salary: 15000  
Gulberg, Lahore  
MALE Supervisor  
Company accepting female  
applicants.  
FLEXIBLE work hours.  
Apply by: 2nd April '19  
Apply by calling the Job Asaan  
helpline  
Call XXXX-XXXXXX

C

3:18 PM

## Gender Composition and Gender of Supervisor SMS

3:18 PM

JOB AD for Fatima Jinnah  
Management Trainee, First  
Consultancy  
Salary: 15000  
Gulberg, Lahore  
MOSTLY MALE employees  
MALE Supervisor  
Company accepting female  
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FLEXIBLE work hours.  
Apply by: 2nd April '19  
Apply by calling the Job Asaan  
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Call XXXX-XXXXXX

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## Empirical Strategy - Any Information

$$Y_{ijk} = \alpha_0 + \alpha_1 T_i A_j + \alpha_2 T_i + \alpha_3 A_j + \Gamma W_{ijk} + \varepsilon_{ijk} \quad (1)$$

$\alpha_1 > 0$ : Receiving information about workplace attribute increases job application rate

$W_{ijk}$ : natural log salary, flexible working hours, FE for occupation, FE for location of the job, received call to apply for jobs, number of matches in that round, education, experience

# Results - Information about Gender of Supervisor

VARIABLES	(1) Applied to job	(2) Applied to job
Treat Info X Info Exists Gender Sup	0.0457** (0.0220)	0.0647* (0.0369)
Treat Info Gender Sup	-0.0465** (0.0220)	-0.0660* (0.0371)
Info Exists Gender Sup	-0.0300 (0.0471)	0.00617 (0.0674)
Observations	20,650	8,110
Job Covers	Yes	Yes
Strata FE	Yes	Yes
Sample	All	Active

# Results - Information about Gender Composition

VARIABLES	(1) Applied to job	(2) Applied to job
Treat Info X Info Exists Gender Comp	0.00652 (0.00718)	0.0143 (0.0131)
Treat Info Gender Comp	-0.00322 (0.00685)	-0.0142 (0.0131)
Info Exists Gender Comp	0.0268* (0.0163)	0.0302 (0.0251)
Observations	20,650	8,110
Job Covers	Yes	Yes
Strata FE	Yes	Yes
Sample	All	Active

## Empirical Strategy - Information

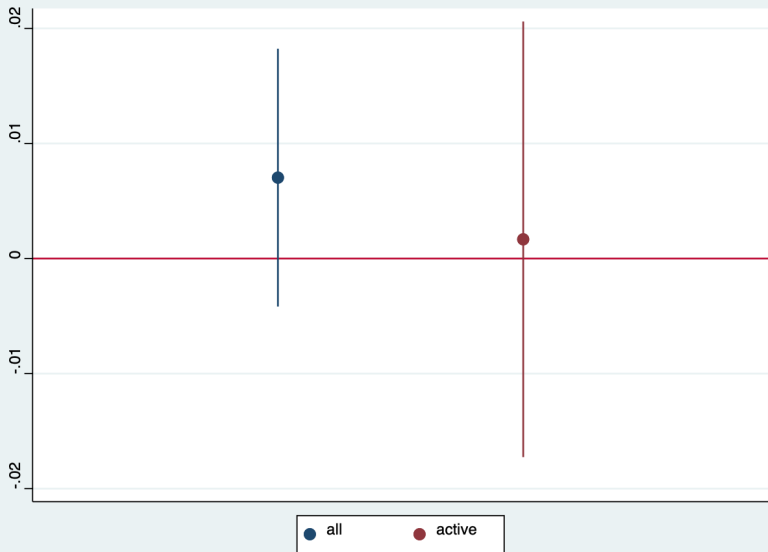
$$Y_{ijk} = \beta_0 + \beta_1 F_j T_i + \beta_2 M_j T_i + \beta_3 F_j + \beta_4 M_i + \beta_5 T_i + \Gamma W_{ijk} + \varepsilon_{ijk} \quad (2)$$

$\beta_1 - \beta_2 > 0$ : Receiving information that job is female- vs male-dominant increases the application rate, versus not receiving that information

# Results - Information about Female vs Male Supervisor



# Results - Information about Female vs Male Gender Composition





# Empirical Strategy - Priming

$$Y_{ijk} = \gamma_0 + \gamma_1 P_i + \Gamma W_{ijk} + \varepsilon_{ijk} \quad (3)$$

$\gamma_1 < 0$ : Priming about family job search involvement decreases the job application rate

Priming Question Text

## Results - Prime

VARIABLES	(1) Applied to job	(2) Applied to job
Treat: Prime	-0.0119** (0.00571)	-0.0184* (0.0103)
Observations	12,503	5,877
Job Covars	Yes	Yes
Strata FE	Yes	Yes
Sample	All	Active

# Heterogeneity - Priming

Panel A: All Jobseekers			
VARIABLES	(1)	(2)	(3)
	employed_preround1	info_female_supervisor	info_women
Treat: Prime	0.193*** (0.0540)	-0.000496 (0.0105)	0.000410 (0.0122)
Observations	2,260	12,503	12,503

# Heterogeneity - Priming

Panel B: Active Jobseekers			
VARIABLES	(1)	(2)	(3)
	employed_preround1	info_female_supervisor	info_women
Treat: Prime	0.379*** (0.120)	0.0196 (0.0158)	0.0379** (0.0185)
Observations	1,263	5,877	5,877

# Conclusions

- ▶ Providing information about gender of the supervisor **nearly doubles** the job application rate
- ▶ Women are more likely to apply to a job when they learn that it has a female supervisor than a male supervisor
- ▶ No significant impact of information about gender composition on job application rate

# Conclusions

- ▶ Providing information about gender of the supervisor **nearly doubles** the job application rate
- ▶ Women are more likely to apply to a job when they learn that it has a female supervisor than a male supervisor
- ▶ No significant impact of information about gender composition on job application rate
- ▶ Family job search involvement decreases women's job application rates by **24-36%**
- ▶ Women who are already working are more likely to apply for a job when primed about family job search advice than their counterparts

# Policy Implications

- ▶ Information about gender of the supervisor allows women to sort and increases the job application rate
- ▶ Promoting women to supervisory roles could have a multiplier effect and increase women's employment
- ▶ There is a threshold cost to working outside the home that women must first overcome with their family

# Thank You!

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# Priming Experiment: Treatment

We are also interested in understanding how women make decisions about their jobs. Have you discussed your job search with your family in the last week?

[Responses: Yes, No, I do not wish to answer]

Empirical Strategy: Priming