Measuring and Understanding Affirmative Action in Developing Countries

Joseph Vecci
University of Gothenburg

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Introduction

- We know that there is a low proportion of women and minorities in leadership positions
- **AA** and in particular quotas are a common policy to aid these groups
- In this presentation I will discuss
  1. Discrimination and the effect of AA in India using lab in the field experiments
  2. Offer and test a model describing why AA may or may not effective in certain contexts

Study 1

Social Norms and Governance: The Behavioral Response to Female Leadership with Lata Gangadharan, Tarun Jain and Pushkar Maitra (Partially funded by UNU-WIDER)

Research questions

- We examine the existence of discrimination directed towards women as leaders
  1. Do men and women respond differently to women as leaders?
  2. Is behavior towards leaders influenced by experience with female leaders as a result of a quota?

Our research

- **What we do**
  - Lab-in-the-field experiment specially designed to answer these questions
  - Set in context of a natural policy experiment (quotas for women in village council head positions)
- **What this approach offers**
  1. Examine *behavioral response* to women as leaders, as distinct from impact of female leaders
     - Examine channels by which quotas effects behavior in this context
     - Observe behavior of both men and women towards leaders

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Experimental design
Leadership experiment

- A modified one-shot public goods game- measures cooperation
- Contribute towards a public good or private account
- Group composition (2 women and 2 men per group, public information)
- Group leader randomly chosen, Non-leaders are citizens
- Two stage experiment
  - **Stage 1**
    - Leader proposes non-binding contribution towards group account (Cheap talk)
    - Leader's proposal communicated to group members
  - **Stage 2**
    - All group members, including leader, contribute towards group account
    - Payoffs are calculated and each member receives their earnings

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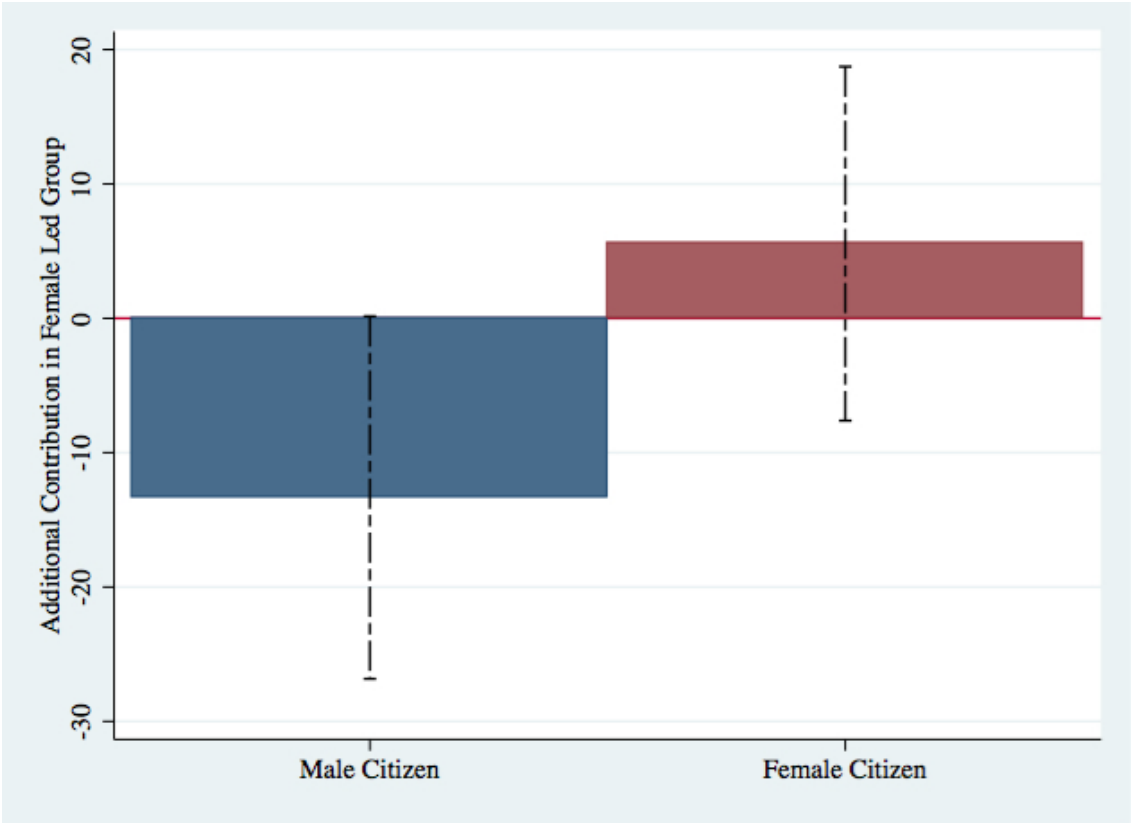
Experimental design
Treatments

- **Gender revealed**
  - Leader's proposed amount and gender communicated to group
- **Gender not revealed**
  - Only leader's proposed amount communicated to group

Village government (Gram Panchayats)

- Village councils responsible for administration of local services, dispute resolution.
- 73^{rd} Constitutional Amendment (in 1992) reserved one third of all village head positions for women
- In 2005, Bihar state government increased this fraction to 50%
- Bihar local govt elections held in 2001, 2006 and 2011
- Reservation of female village head positions randomly determined each election cycle

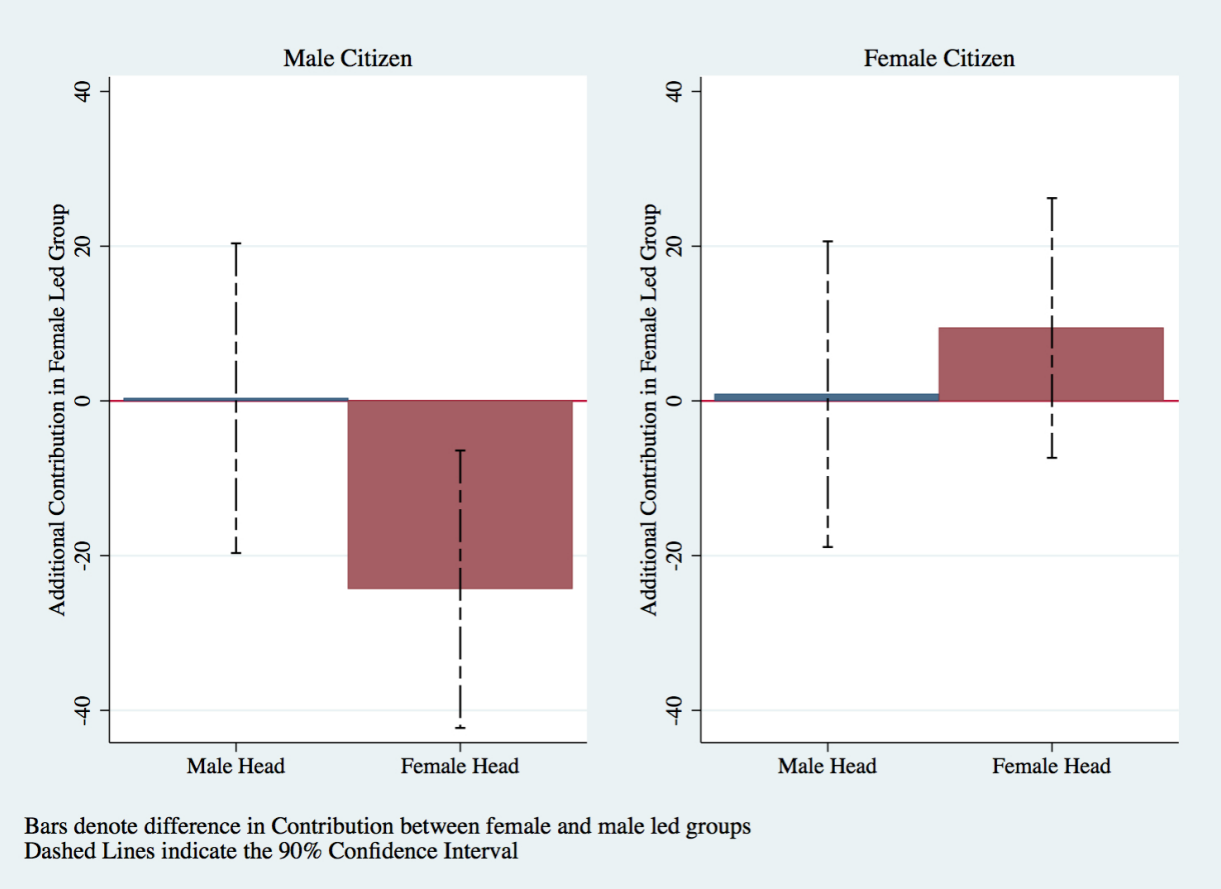
Figure: Result 1: Male citizens contribute significantly less in female led groups



- Men contribute Rs 13 (or 7% of their endowment) less in female led groups
- Backlash

- Now account for (randomized) gender of village head

Figure: Result 2: Male citizens contribute less in female headed villages



- Men contribute Rs 24 (or 12% of their endowment) less in female led groups in female headed villages

Study 2

Leader Identity and Coordination with Sonia Bhalotra, Irma Clots-Figueras and Lakshmi Iyer

This paper

1. The impact of a leader's identity on overcoming coordination failure (discrimination).
   - Muslim led groups vs. Hindu led groups
2. Examine whether coordination behaviour towards leaders is impacted by
   i. **Affirmative Action**- a quota reserving leadership positions for minorities
   ii. **Intergroup contact**- contact hypothesis
3. Examine the impact of historical inter-group conflict on the effectiveness of quotas and contact policies
   - Religious conflict

Our research

- **What we do**
  1. Lab-in-the-field experiment in 44 different locations in UP, India with 1028 individuals.
  2. Uttar Pradesh: India's most populous state (200 million); 19% Muslim
  3. Single session per town, 24* in each session
  4. Four tasks- randomly select one task for payment- 2.5 days wage
  5. Three treatments (across subjects design)
  6. Weakest link game with a "leader"
  7. AEA, RCT Registry

Experimental design: Task 3

Task 3:Control

- 6 period- weakest link game similar to Brandts et al (2006); Brandts et al (2015);
- Group composition (2 Hindu and 2 Muslims per group)
- Two parts- Period 1-4 and 5-6
- **Period 1-4**
  - Subjects are employed at a firm
  - They must decide how many hours (**decided effort**) to devote to the firm between **0-20**
  - Payoffs depend on own effort and the **minimum effort of others.**
  - Informed of the the minimum effort after each period
  - Coordination is very difficult- more then likely result in coordination failure

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Experimental design

Table: Payoff Table

		Min. Hrs spent by other Employees				
		0	5	10	15	20
My Hrs	0	₹500	₹500	₹500	₹500	₹500
	5	₹375	₹575	₹575	₹575	₹575
	10	₹250	₹450	₹650	₹650	₹650
	15	₹125	₹325	₹525	₹725	₹725
	20	₹0	₹200	₹400	₹600	₹800

Effort is costly

Subjects payoff is an increasing function of the minimum effort chosen by the group members.

Experimental design: Task 3

- **Period 5-6**
  1. Group leader randomly chosen
  2. Each period group leader must suggest the number of hours to work (non-binding)
  3. Citizens informed of leaders suggestion
  4. Citizens informed of the leaders characteristics from the initial questionnaire including religion.
     - **Treatment:** Half assigned Hindu leaders and half Muslim leaders
  5. All subjects decide the number of hours they will allocate to the firm

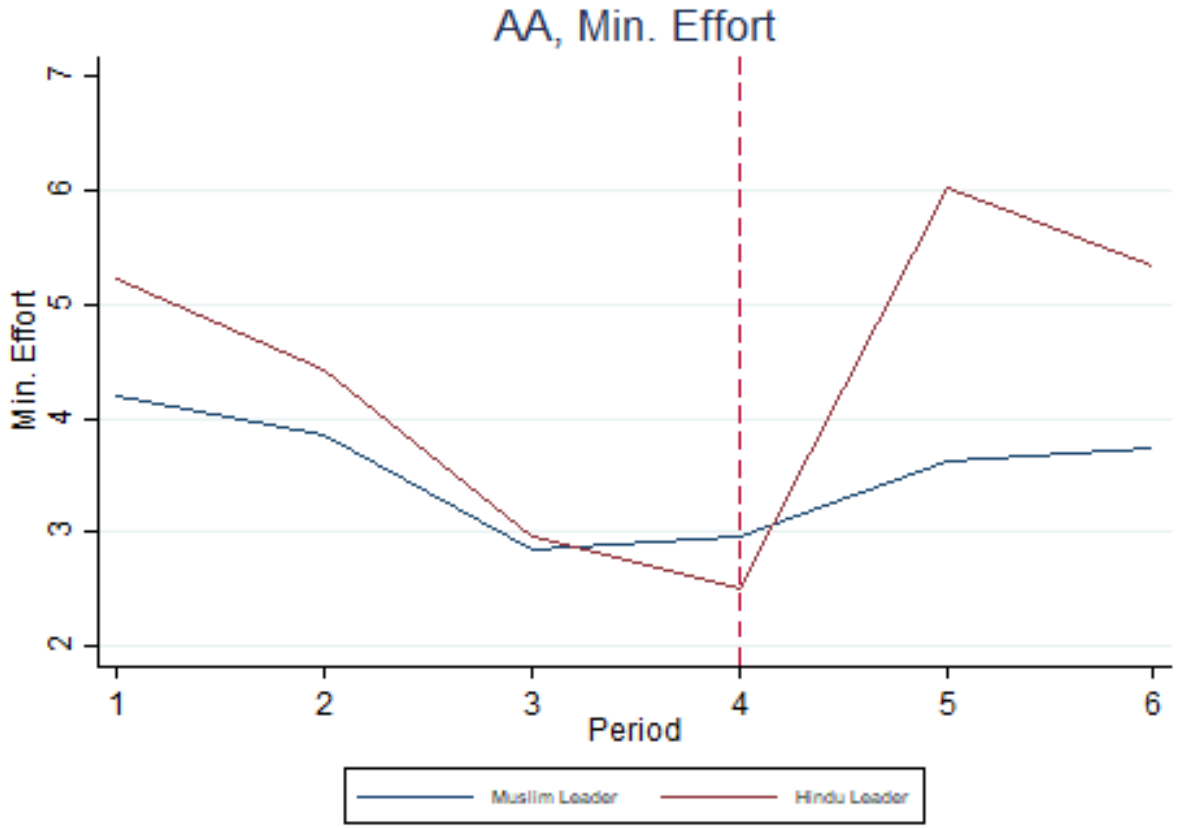
Experimental design

- Test two policies

1 **Affirmative Action**

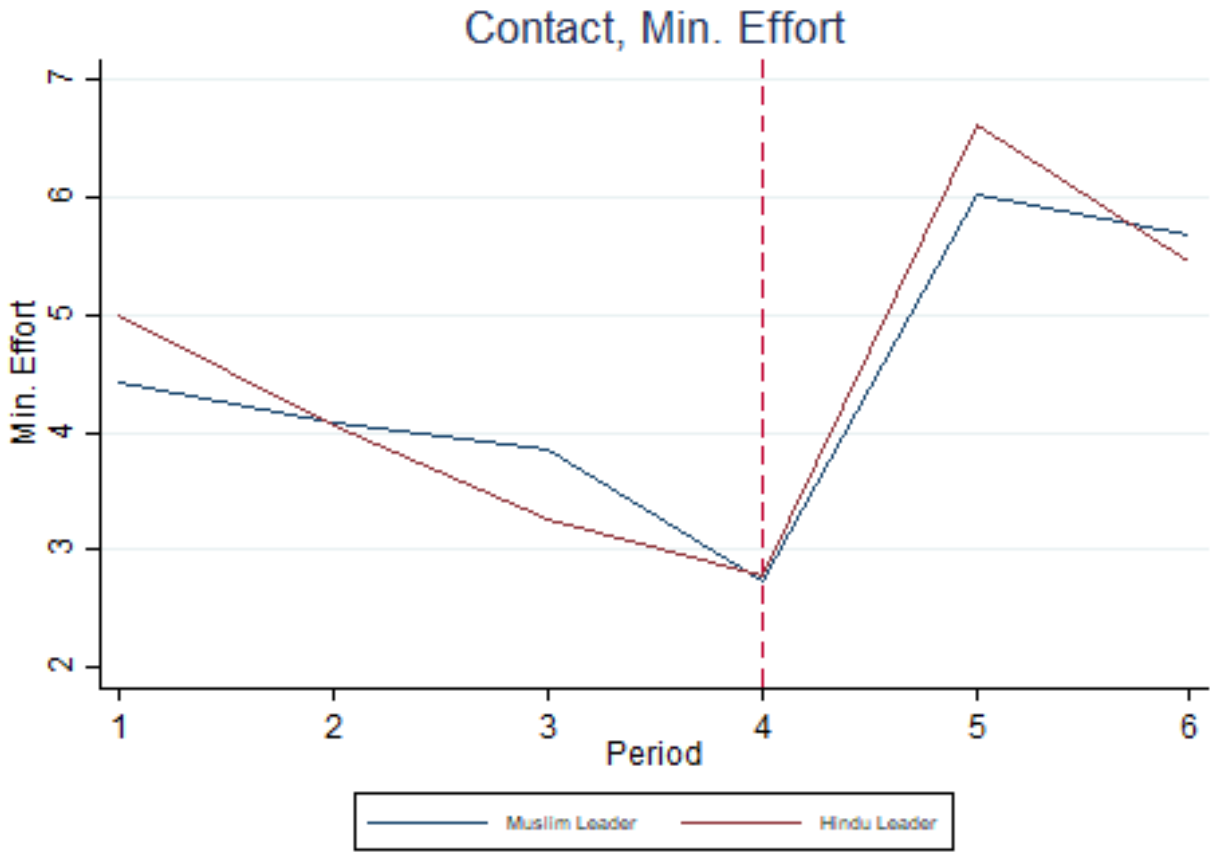
- After round 4, when the presence of a leader is announced, participants are told in addition that there leader position is reserved (if they have a Muslim leader) or unreserved (if they have a Hindu leader)

Results
AA: All Periods



- 2 units lower Min. Effort in Muslim led groups relative to Hindu (p=0.00, ttest). Robust to fixed effects w/controls (p=0.00)

Results
Contact: All Periods



- No diff in Min. effort in Hindu led groups vs Muslim (p=0.83, ttest)

Study 3

Do Gender Quotas Improve or Damage Hierarchical Relationships? with Edwin Ip, Andreas Leibbrandt

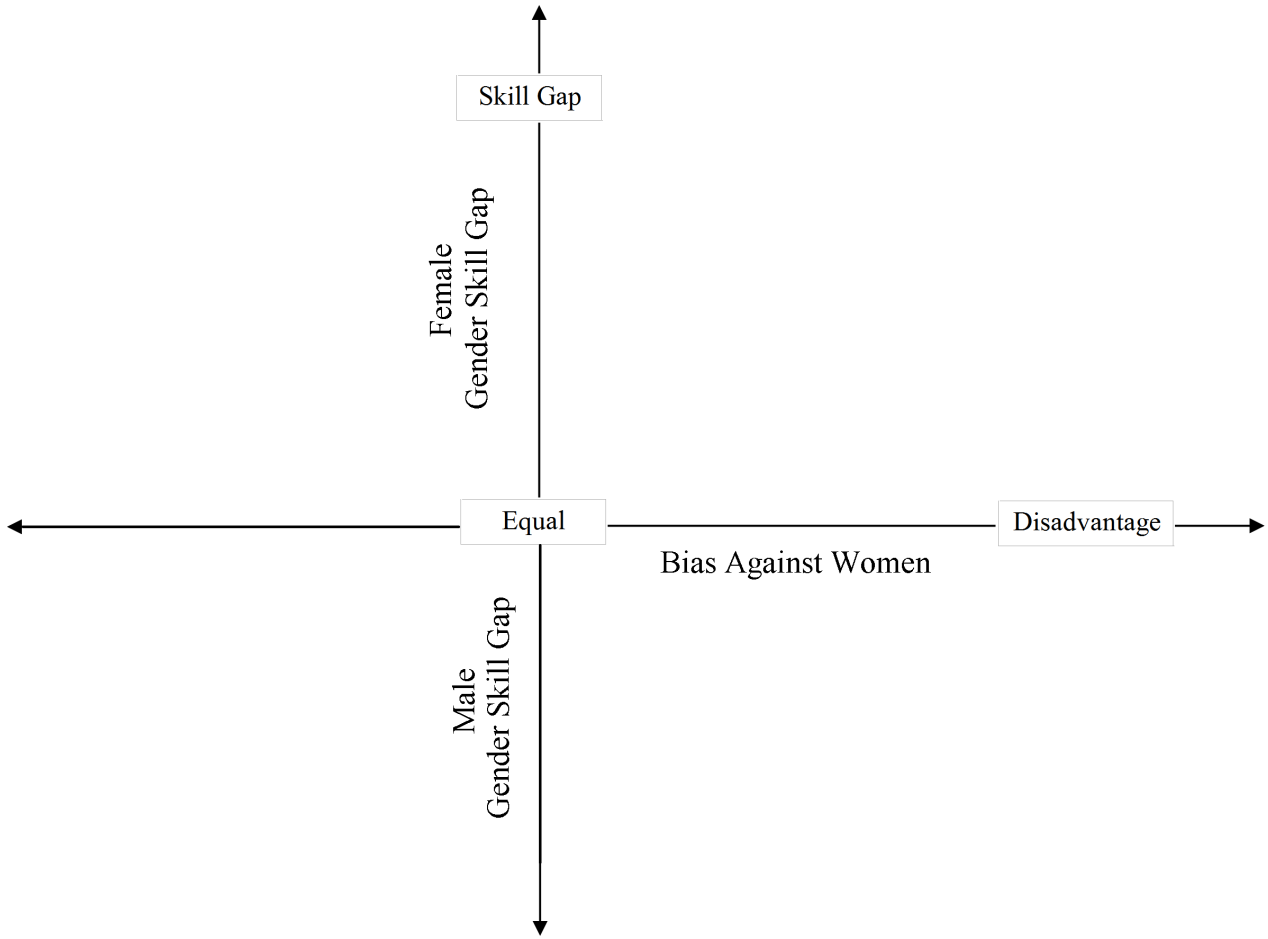
Research questions

1 We examine why gender quotas may work in some situations but not others

Opinions on Gender Quotas

1. Gender quotas are controversial, opinions are divided
2. Opponents claim that they are unfair: not the best person gets the job/position. (Similar arguments raised in India)
3. Proponents claim they are necessary: females/minorities have to go the extra mile to get the same recognition
4. Quotas are required to correct for the unfair disadvantage
5. **These arguments revolve around "best person for the job" (meritocracy)**
6. We propose that whether quota is meritocratic depends on the perception of the environment

Meritocracy

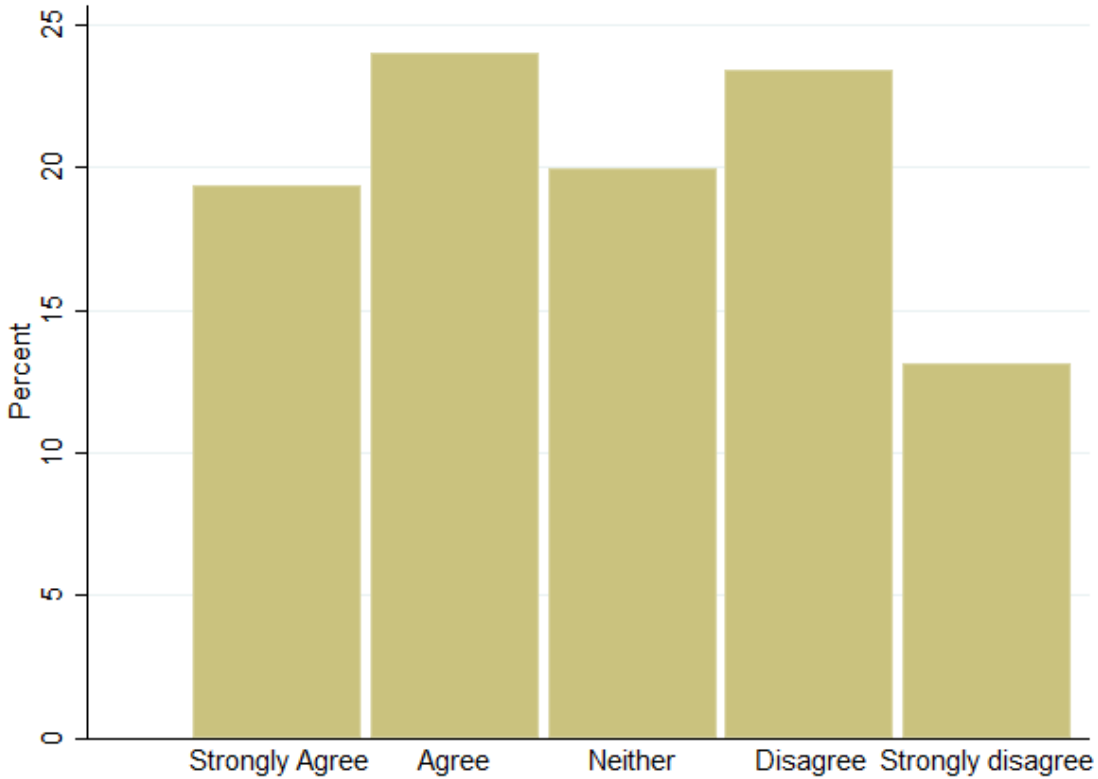


- Meritocratic nature of quota vs no quota varies in these 3 environments

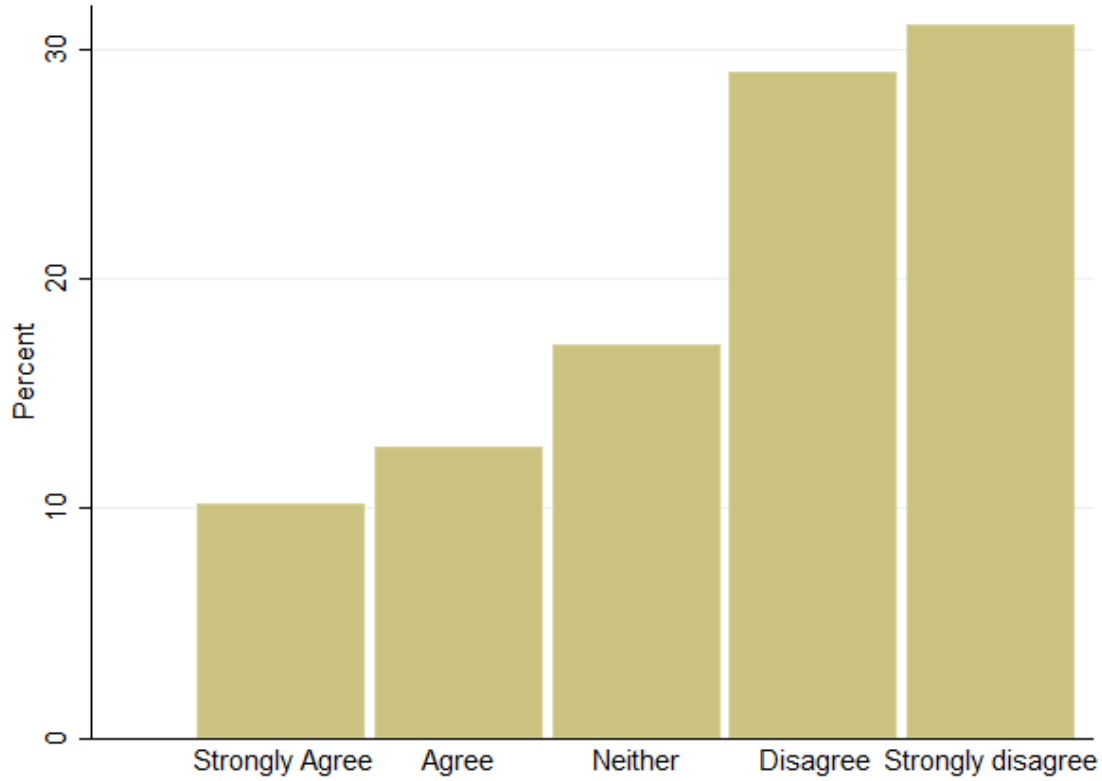
Attitude towards Quota

1. If people's attitude towards gender quota depends on its meritocratic nature and its meritocratic nature depends on the environments,
2. Then attitude towards gender quota should depend on the environments
3. We survey 1,011 US residents (representative sample undertaken by Qualtrics)

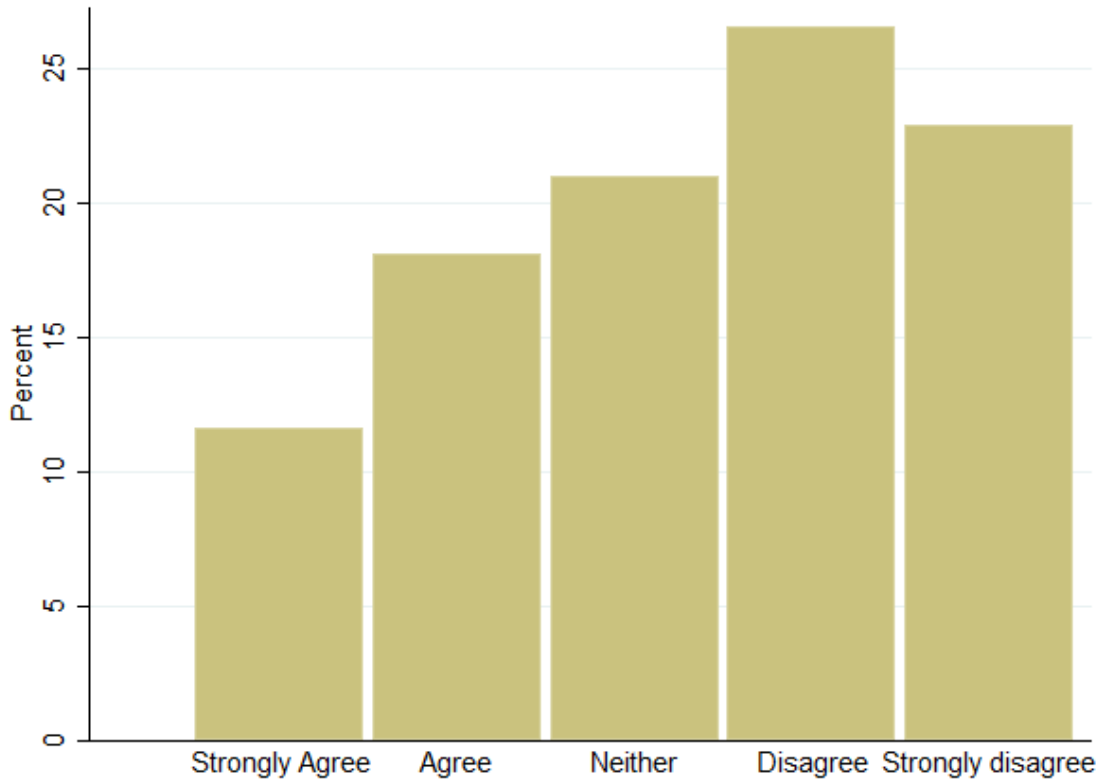
Gender quota should be used to increase the number of women in leadership positions



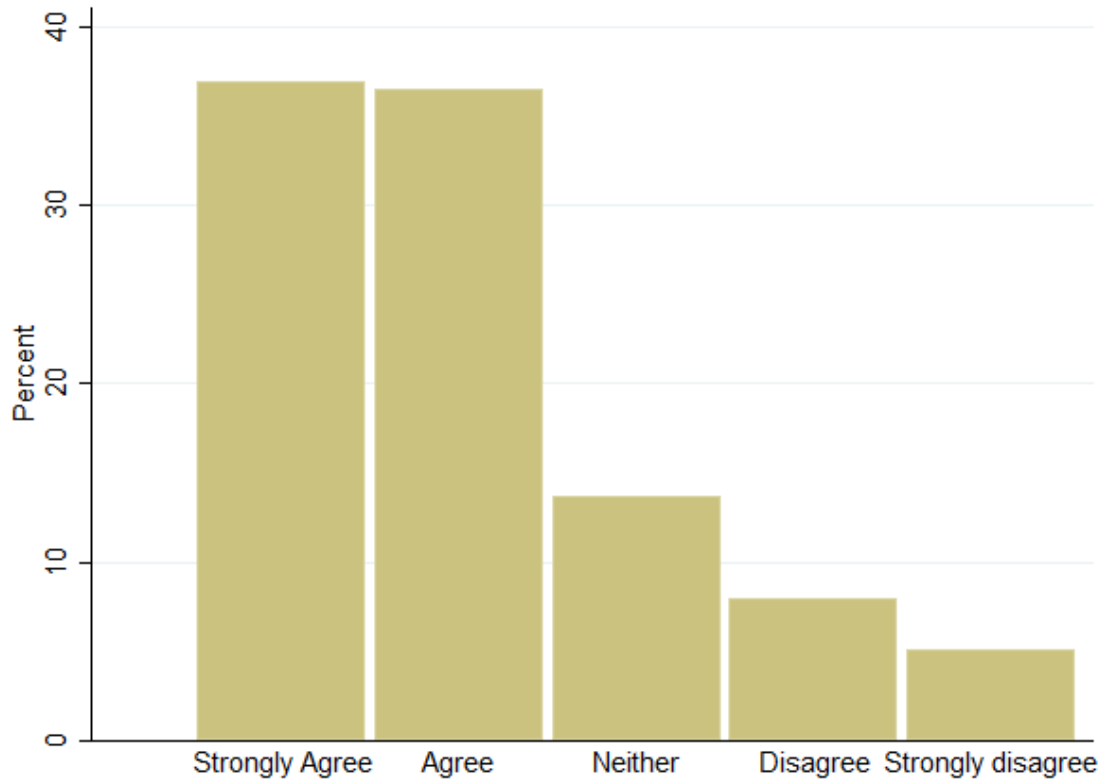
Suppose female candidates are on average less qualified for a certain leadership position and there is no bias, gender quota should be used



Suppose female candidates are on average equally qualified for a certain leadership position and there is no bias, gender quota should be used



Suppose females are on average equally qualified but there is a bias against female candidates in the selection process, gender quota should be used



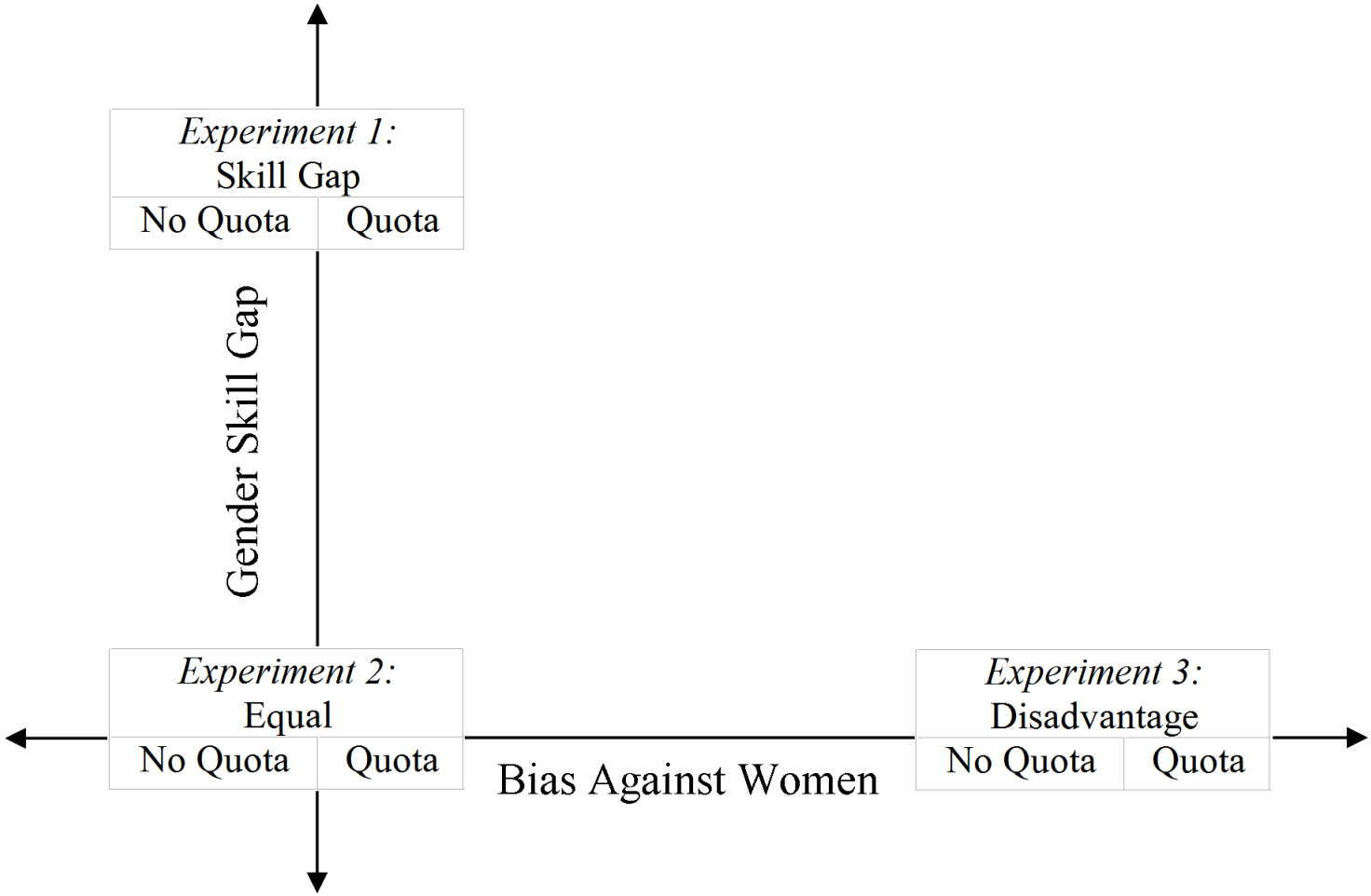
Attitudes towards Quota

- Opinions about quotas in general are divided
- When we specify the environment, there is more consensus
- Attitude towards quota is reflected by the degree of meritocracy
- **What are the economic impacts?**
- We hypothesise that hierarchical relationships may be reflected by attitude towards quota, which depends on the perception of the environment

Lab Experiment

- Implement 3 gift exchange lab experiment
  - One experiment for each of the three environments
- For each experiment we have two treatments- quota and merit (principal agent style game)

3 Experiments



- Experiments vary in 1) the level of disadvantage and 2) the information given to the subjects

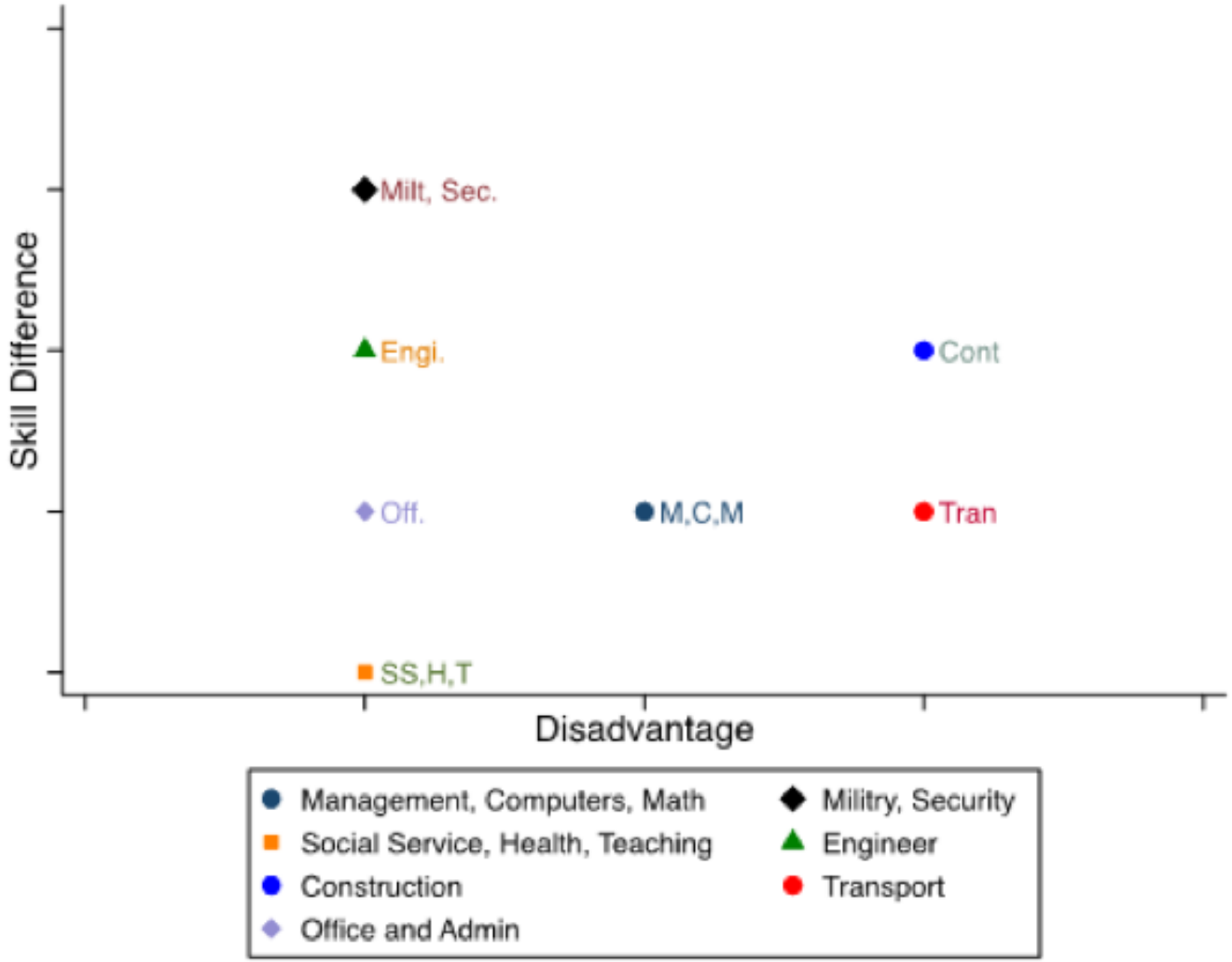
Lab Experiment

- We find that quotas have lower welfare outcomes in the skill gap and no gap experiments
- **Quotas have better outcomes relative to no quota in the disadvantage experiment**

Skill Gap vs. Disadvantage

- Societies or occupations may be at different points on the skill/disadvantage axis

Skill Gap vs. Disadvantage



Conclusion

- Examined the impacts of AA policy on outcomes in India using lab in the field experiments
- AA can have negative beahvioural effects
- Lab experiment suggests negative behavioural effects driven by beliefs about meritocracy