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The Abdul Latif Jameel Poverty Action Lab (J-PAL) at the MIT Department of Economics is dedicated to fighting poverty by ensuring that policy decisions are based on scientific evidence. We achieve this objective by undertaking, promoting the use of, and disseminating the results of randomized evaluations of poverty programs. If you would like to be added to our mailing list, please contact us at povertyactionlab@mit.edu or 617 324 0108.

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Ain't No Stopping Us Now—Women As Policy Makers

Women are massively underrepresented in political leadership positions around the world, but does it matter? In democracies, women make up half the electorate, so male leaders need women's votes and should represent their views and their policy preferences.

So would the world look any different if women were better represented in the world's decision making bodies? This question is not easy to answer because the places that have more women in leadership roles, such as Sweden and California (in the U.S. Senate), are different in so many other dimensions from those that have fewer women leaders. Disentangling the impact of women leaders from all the other possible factors is highly complex. For example, do U.S. Senators Dianne Feinstein and Barbara Boxer, both Democrats of California, have more liberal voting records than other senators because they are women, or do their liberal policy stances reflect the preferences of their liberal constituency, which elected two women Democrat senators in the first place?

And even if we knew that women leaders better understood women's needs, it would not necessarily follow that the most effective way of achieving better representation would be to adopt political reservations



(policies designed to guarantee greater representation by women), as have been adopted in 81 countries around the world. If, for example, women leaders are politically weaker, they may find it difficult to influence actual decisions even once they are elected.

This briefcase presents hard evidence on these complex issues from studies of a unique randomized experiment in India. The studies—Chattopadhyay and Duflo (2004a, 2004b) and Duflo and Topalova (2004)—were conducted by researchers at the Abdul Latif Jameel Poverty Action Lab at MIT (J-PAL) in collaboration with researchers at the India Institute of Management in Calcutta.

SUMMARY OF RESULTS

A 1992 amendment of the federal constitution of India required states to both devolve power over expenditure for local public goods to rural village councils and to reserve a third of all council seats and council presidencies for women. As a result, the political representation and participation of women has increased.

Formal complaints brought to the council, analyzed by gender and type of good requested, clearly show that men and women have different preferences over public goods. A comparison of the type of public goods provided in reserved and unreserved village councils showed that the gender of the council president impacts investments. Women invest more in infrastructure that is directly relevant to the expressed development priorities of women. In West Bengal, where women complained more often than men about water and roads, reserved councils invested more in water and roads. In Rajasthan, where women complained more often about drinking water but less about roads, reserved councils invested more in water and less in roads.

This result is in sharp contrast to the commonly held view that positions reserved for women usually go to the wife of the previous male leader who effectively continues to decide policy through his wife. (In some parts of India the belief is so prevalent that people sometimes refer to “Pradhan Prati,” or husband of the pradhan, as if it were a semi-official post.) If women pradhans did simply reflect the views of their husbands we would see no difference between villages formally run by women and others.

While the research found that women in reserved seats are less experienced, have less ambition and lower prospects in politics, and are of lower socioeconomic status, there is no evidence that these differences are driving the results. It appears that it is the gender of the local leader that explains the different investment decisions in villages reserved for women. In other words, a world run by women would look decidedly different, and for whatever reason, women leaders do seem to better represent the needs of women. This is true even in an environment such as rural Rajasthan, where women traditionally have very little power, where female literacy is very low, and where many believe women leaders simply implement the wishes of their husbands. But don't underestimate these women, this research shows they are in fact changing realities on the ground.

Institutions and political reservations

Rural Village Councils in India

Village councils, called Gram Panchayats or GPs, form the grassroots of the Panchayat Raj, India's three-tiered system of rural councils. Each GP encompasses 10,000 people. Councilors, village representatives in the GP, are elected from among the villagers, and in turn, the councilors elect from among themselves a council president, called a pradhan. Council decisions are by majority voting. The pradhan has no veto power, but as the only councilor with a full-time appointment, wields effective power. While the system has been in existence since the 1950s, it was only in the 1990s that its present role as India's vehicle for decentralized provision of public goods in rural areas was formalized.

In 1992, India devolved power over expenditure for local public goods to the GPs

To improve the delivery of essential services, India amended its federal constitution to devolve power over expenditure for rural public works and welfare services from the states to GPs. Funds are still provided by the state and federal government but are no longer earmarked for specific uses. Instead, they are allocated through development schemes implemented by the GP—welfare programs (widows, the elderly, maternity, etc.) and public works (drinking water, roads, housing, community buildings, electricity, irrigation, education).

Two sets of mandates ensure that expenditures reflect the needs of the whole community

India is a very diverse country. Policy preferences and political voice (the ability to articulate preferences), vary by class, caste, religion, income, and gender. For this reason, the 1992 amendment complemented GP control of the budget with two sets of measures designed to ensure that budget decisions are representative of the preferences of a community as a whole.

The first secures the input of the community; it allows the people to articulate their policy preferences. GPs are required to hold a general assembly every six months to report on activities in the preceding period and submit the proposed budget to voters for ratification. In addition, pradhans are required to set up regular office hours to allow villagers to formally request services and lodge complaints.

The second secures the influence of all groups in the community; it ensures that historically disadvantaged groups—scheduled castes (SCs), scheduled tribes (STs), and women—are represented in the council, the policy making body. States are required to reserve seats and pradhan positions for SCs and STs in proportion to their share of the population, and to reserve a third of all council seats and pradhan positions for women.

GPs to be reserved are chosen at random

In most states, including West Bengal and Rajasthan, where the studies were conducted, electoral rules ensure that GPs to be reserved for women are selected randomly and that reserved seats cycle among GPs evenly. Random selection is based on a table of random numbers in the Panchayat Electoral Law. The table is first used to determine the seats reserved for SCs and STs. GPs are then placed in three separate lists (by legislative serial number): the first consists of GPs reserved for SCs, the second, GPs reserved for STs, and the last, unreserved GPs. Then, in the first election, every third GP in each list starting with the first is reserved for a woman pradhan; in the second election, every third GP starting with the second is reserved for a woman, and so on. Thus, some villages are reserved for an SC woman, some for an ST woman, and some for a woman in general.

Evaluating the effects of mandated political reservations on policy

Evaluation strategy

The random selection of GPs to be reserved for women means that, on average, reserved and unreserved GPs will share the same characteristics, at least before the policy is introduced. This is very different from the normal case where countries or communities that opt to adopt quotas for women are, by that very fact, manifesting underlying differences in attitudes to women compared to communities that do not have quotas.

Human development and infrastructure data from the 1991 national census indicate that indeed, reserved and unreserved GPs in both Rajasthan and West Bengal, on average, had comparable levels of public infrastructure before the 1992 devolution and reservation policy was introduced. Thus, any difference in infrastructure investment observed after the devolution can be confidently attributed to the effect of the reservation policy.

Data collection

A survey covering 265 village councils—165 in West Bengal and 100 in Rajasthan—was carried out by the Abdul Latif Jameel Poverty Action Lab at MIT in collaboration with the India Institute of Management in Calcutta, Vidya Bhawan Society, and SRG Consulting in Rajasthan and West Bengal respectively. Data were collected on policy preferences, the political representation and participation of women, and infrastructure investment (Box 1).

Box 1: Data used in this study were collected in the states of West Bengal and Rajasthan on policy preferences, on the political representation and participation of women, and on infrastructure investments.

Distribution of preferences. Formal requests and complaints brought to the pradhan in the six months preceding the survey, sorted by the gender of the petitioner and the type of good petitioned for, were used to assess the policy preferences of men and women.

Political representation and participation of women. By comparing the number of women holding office in reserved and unreserved GPs, it was possible to measure the impact of reservation on political representation of women. Similarly, the effect on political participation of women was measured by comparing the fraction of women among attendees of the biannual general assemblies in reserved and unreserved GPs and by comparing the fraction of women among those who had brought complaints to the pradhan in the six months preceding the survey.

Investments decisions. Data on infrastructure investments made by reserved and unreserved GPs in the two years following the most recent elections—1998 to 2000 for West Bengal and 2000 to 2002 for Rajasthan—were collected. In West Bengal, data collection comprised, first, an interview of the pradhan, and second, a comprehensive survey of village infrastructure. The interview covered the pradhan's socioeconomic background—family, education, previous political experience and ambitions—and official activities since their election, in May 1998, supported by written records. The infrastructure survey covered two randomly selected villages in the GP and the village where the pradhan lived. It had two stages: First, with the help of 10 to 20 residents of each village, researchers drew a map of all available infrastructure, such as water pumps, wells, roads, irrigation equipment, and schools. For each item mapped, researchers asked whether it had been built or repaired since the May 1998 election. Second, with the help of the most active participants in the mapping exercise, researchers detailed further the investments in various public goods in the village. In Rajasthan, the same village infrastructure data were collected, but there were no pradhan interviews.

TABLE 1: Women and men have different preferences

PUBLIC WORKS ISSUES RAISED	WEST BENGAL			RAJASTHAN		
	WOMEN	MEN	DIFFERENCE	WOMEN	MEN	DIFFERENCE
Drinking water	31%	17%	+13	54%	43%	+9
Road improvement	31%	25%	+6	13%	23%	-11
Housing	11%	5%	+5	3%	4%	-1
Electricity	8%	10%	-1	3%	2%	+1
Education	6%	12%	-6	5%	13%	-9
Irrigation and ponds	4%	20%	-17	2%	4%	-2

TABLE 2: Women invested more in public goods preferred by women

	WEST BENGAL			RAJASTHAN		
	MEAN RESERVED GP	MEAN UNRESERVED GP	DIFFERENCE	MEAN RESERVED GP	MEAN UNRESERVED GP	DIFFERENCE
(A) VILLAGE-LEVEL						
Number of drinking water facilities (repaired or built)	23.83	14.74	+9.09	7.31	4.69	+2.62
Road condition (1 if good)	0.41	0.23	+0.18	0.90	0.98	-0.08
Number of council-run education centers	0.06	0.12	-0.06			
Irrigation facilities (repaired or built)	3.01	3.39	-0.38	0.88	0.90	-0.02
(B) GP-LEVEL						
1 if new tubewell was built	1.00	0.93	+0.07			
1 if metal road was built or repaired	0.67	0.48	+0.19			
1 if there is informal education center in GP	0.67	0.82	-0.16			
1 if at least one irrigation pump was built	0.17	0.09	+0.07			

Key findings—women invest more in goods preferred by women

Reservation increased representation of women

In both West Bengal and Rajasthan, all pradhans in GPs reserved for a woman were women—in other words, the policy was actually implemented. Only 6.5% of the pradhans in unreserved GPs in West Bengal were women, and only one woman was elected in an unreserved seat in the second cycle in Rajasthan. That so few women are elected in unreserved seats suggests that women would be under-represented in the absence of reservations. That GPs reserved for a woman are held by women and unreserved GPs are held predominantly by men means

that the GP's reservation status is a good predictor of the pradhan's gender.

Reservation increased participation of women

In West Bengal, having a female pradhan significantly increased the fraction of women participating in the biannual general assembly from 6.9% to 9.8%. Since reservation has no effect on the proportion of voters attending the assembly, this proportionate increase means there was a net increase in the number of women attending and a decrease in the number of men. This is consistent with the idea that political communication is facilitated when the citizen and the leader are of the same gender. Women in reserved GPs were

twice as likely to have petitioned their pradhan: 20% of female pradhans compared to 11% of pradhans of unreserved GPs had fielded a complaint from a woman in the six months preceding the survey.

But in Rajasthan, having a female pradhan increased neither the fraction of women in attendance at the bi-annual general assemblies (20.41% in reserved and 24.49% in unreserved) nor the fraction of women petitioning their pradhans (64% and 62%). Note that Rajasthan posted higher proportions of female participants at the biannual meetings than West Bengal, presumably because the system was newer there and because all the leaders had been trained to mobilize women.

Women and men prefer different public goods

Table 1 shows the issues about which formal complaints were brought to the pradhan, broken down by gender. For public works, women in West Bengal complained most about drinking water and roads, and much less about education and irrigation. Men complained most about roads and irrigation and less about drinking water. In Rajasthan, over half the complaints made by women were about drinking water, but very few complained about education. Drinking water was also a big concern for men in Rajasthan, but it was not as predominant an issue as for women. In contrast, men complained much more than women about roads and education.

The pattern of complaints dovetails with the gender responsibilities of men and women within the household and their employment opportunities. Women are responsible for collecting drinking water, and in West Bengal, women provide the bulk of labor on roads and are therefore the main immediate beneficiaries of road works. In Rajasthan, both men and women work on roads, but men use the roads more as they travel more in search of work.

Gender of pradhan affects policy—women invest more in goods preferred by women

Table 2 compares how the GPs allocated the public works budget. In general, the investments of reserved GPs shifted most toward investments where there was the biggest (positive) gap between the petitioning rate of women vs. men. In other words, if both men and women rated a good highly, changing the gender of

the leader had little impact on the investment schedule. Where a good was much further up the priority list for women than men, women leaders invested more in this good. Thus, in West Bengal, GPs reserved for women invested more in drinking water, were less likely to have set up an informal school, and had roads in a significantly better state of repair. And in Rajasthan, they also invested more in drinking water but less in roads (because in Rajasthan, roads were less of a priority for women than men). Unexpectedly, GPs reserved for women did not invest any less in irrigation in West Bengal despite the very big gap in frequency of complaints between men and women on this issue.

Overall, GPs reserved for women invest more in public goods preferred by women, suggesting that reservation for women has important effects on local policy decisions, and further, that the effect is to align policy decisions with the expressed policy priorities of women (Table 2). Nor are women alone in this. SC pradhans, while not changing the type of goods they invested in, changed the location of investments with infrastructure located in SC communities (Box 2).

Box 2: GPs reserved for scheduled castes invest more in goods located in scheduled caste communities

Pradhan positions and seats were reserved for scheduled castes (SCs) and scheduled tribes (STs)—i.e. minorities with special rights—in proportion to each group's share of the population, 34.5% and 11.5% respectively in West Bengal. Analysis of village infrastructure data found that, unlike women, SC pradhans did not alter the types of goods that they invested in, but that they located more investment in SC communities. Across all goods, SC communities received 14% more investment in goods in GPs reserved for SC leaders relative to unreserved GPs. (The analysis did not include the pradhan's village so as to exclude the possibility that this result was driven only by the fact that the pradhan shifted the location of goods to be close to his/her own home.) It seems SC populations may not need a different set of public goods than the non-SC population, but may want these goods to be located in their communities. Looking at the different goods separately, the increase in the share of public goods going to SC communities reflected the existing distribution of goods in the GP. Thus, SC pradhans opted for a bit more of everything (with the exception of informal schools which they tended not to invest in)—they just brought these services to less-served hamlets.

Female pradhans differed from male pradhans along three other characteristics—they had low political experience and ambition, low reelection prospects, and low socioeconomic status. Could these differences, rather than gender, be driving the results? In each case, details on the way the policy was implemented allow us to find a (randomly selected) group of male pradhans who shared the above characteristics. None of these subgroups of men produced the same pattern of investment that we see for GPs reserved for women. For example, GPs randomly selected to have SC pradhans ended up with pradhans with little experience, little chance of reelection, and of low socioeconomic status. But these GPs invested in the same types of goods as nonreserved GPs, though the location of the investment was more skewed to SC communities. Thus, the effects of reservations on investment type described above can be attributed to the gender of the pradhan.

Why the policies of females pradhans align more closely with the policy priorities of women

What explains these results? Are women more responsive to complaints in general, are they more responsive to specific complaints from women, or are they, because of their experience as women, simply more likely to invest in goods that are important to women in general? Looking at the data, GP by GP, there is no clear evidence that women pradhans are more responsive to formal complaints from within their GP or even formal complaints made by women in their GP. Their investment strategy is in line with the preferences of women in the district as a whole rather than specific GP-level formal complaints. Thus, it may be that women are simply more likely to invest in priorities for women because they understand and share these priorities rather than that they are more open to formal complaints in general.

Policy lessons

Political reservation significantly increases the influence of women in policy decisions of local government in rural India. Women elected under reservation invest more in public goods that are more reflective of women's policy priorities, such as drinking water. Although reservations bring into office leaders who are relatively inexperienced, who have less political ambition and fewer political prospects, and are of lower socioeconomic status, there is no evidence that these characteristics affect their investment decisions. Differences in investment made by reserved and unreserved village councils can be attributed simply to differences in gender of the pradhan. While the investments made by village councils reserved for a woman were more consistent with the goods petitioned for by villagers, female council heads are no more responsive to petitions in general than their male counterparts. The mechanism seems to be that women leaders have the same kind of preferences and development priorities as other women. Similarly, councils reserved for SCs tended to invest more in goods located in SC communities: the share of investment targeted at goods located in SC communities is 14% higher in councils reserved for them.

In general, reservations lead to a shift in the distribution of public good expenditure in the direction of preferences of the reserved group benefiting from the reservation. Political reservations are therefore a powerful tool for redistribution. And given the difficulty of targeting public transfers to specific groups in otherwise decentralized systems, they may be an effective way to ensure both equality of representation, and through empowerment, equality in the distribution of local public goods to disadvantaged groups—whether identified by race, religion, caste, class, income, or gender.

This research shows important failures in the way democratic representation is meant to work. First, male leaders do not seem to be representing the needs of all their electorate. Second, even when women do a better job than their male counterparts by, for example, deliv-

Box 3: Why reservations? Evidence of bias in perceptions of women leaders

Women have as much a right to run for election and to vote as men. And if women do a better job of representing women's preferences, they should be favored by women in elections. Why then political reservations? In practice, very few women, SCs, and STs are elected without reservation. One reason is that they are reluctant to run. Another, related to the first, is that political parties, where women are underrepresented, are reluctant to field female candidates—but this is more a symptom than an explanation.

Duflo and Topalova (2004), using the infrastructure data (see Box 1) and voter perception data collected by the Public Affairs Center in Bangalore, found another explanation that may drive the first two—that voters are biased in their appraisal of the competence and performance of women. Women provide more public goods, and at better quality, than men. On average, women take significantly fewer bribes than men—villagers are 1.5 percentage points less likely to pay bribes for obtaining services or to the police when the pradhan is a woman. Even so, voters are less satisfied with the performance of female pradhans than with that of male pradhans in providing all services, including drinking water, for which quantity and quality is objectively better in GPs reserved for women. Overall, villagers are 2 percentage points less satisfied with public goods when the pradhan is a woman, and the difference is significant. Surprisingly, those unhappy with women leaders include both men and women, and they blame women even for the service levels of those goods that the GP doesn't provide.

It seems that there is a significant cultural barrier to recognizing women as competent policy makers. No wonder, then, so few women are elected or reelected to unreserved seats at the local level. This suggests a strong rationale for reservations: not only are the development needs of women underrepresented by male leaders, but even when women do a good job, biased perception means that these are not recognized by the electorate.

ering investment that produces better quality water for the village, the perception of both men and women in the community is that they have done a worse job even in this particular dimension (Box 3). This biased perception, which psychologists have found to be prevalent in our attitudes toward many minorities and disadvantage groups, provides a rationale for policies to artificially promote representation of these groups.



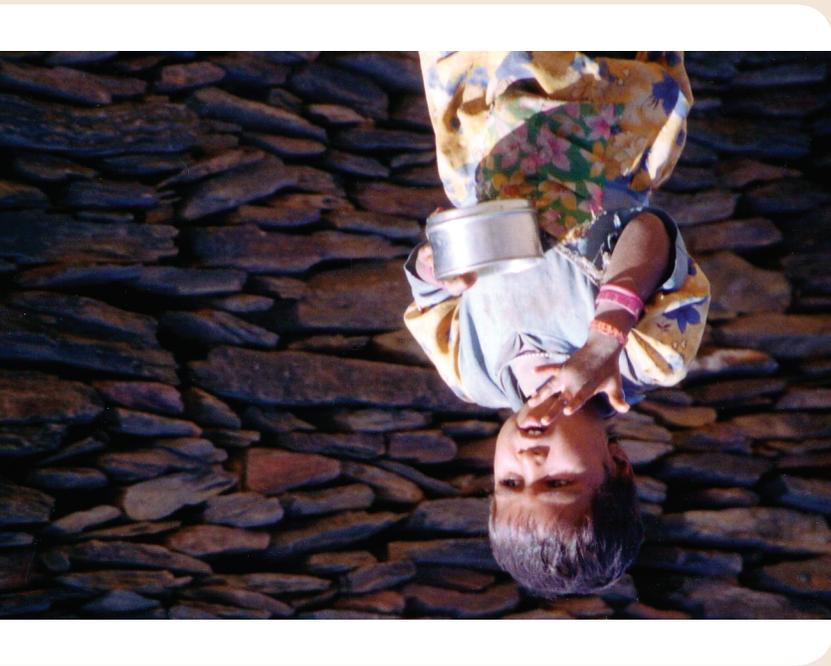
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Note: The studies on which this briefcase is based can be found at www.povertyactionlab.org.



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