



RAISING FEMALE LEADERS

A quota system for female village leaders in India changed perceptions of women's abilities, improved women's electoral chances, and raised aspirations and educational attainment for adolescent girls.



In 2008, women accounted for 18 percent of parliament members worldwide, and only 13 countries had a female head of government. In response to this underrepresentation, more than one hundred countries have introduced affirmative action policies for women in public office. In an effort to increase women's participation in politics in India, a 1993 constitutional amendment mandated that a randomly selected third of leadership positions at every level of local government be reserved for women.

The hope is that such a quota system, beyond its immediate impact on gender balance among leaders, will have long-term effects on women's status in society by changing perceptions of their leadership capabilities and shaping beliefs about what they can achieve. However, until recently, little research has been done on the longer-term impact of quota systems.

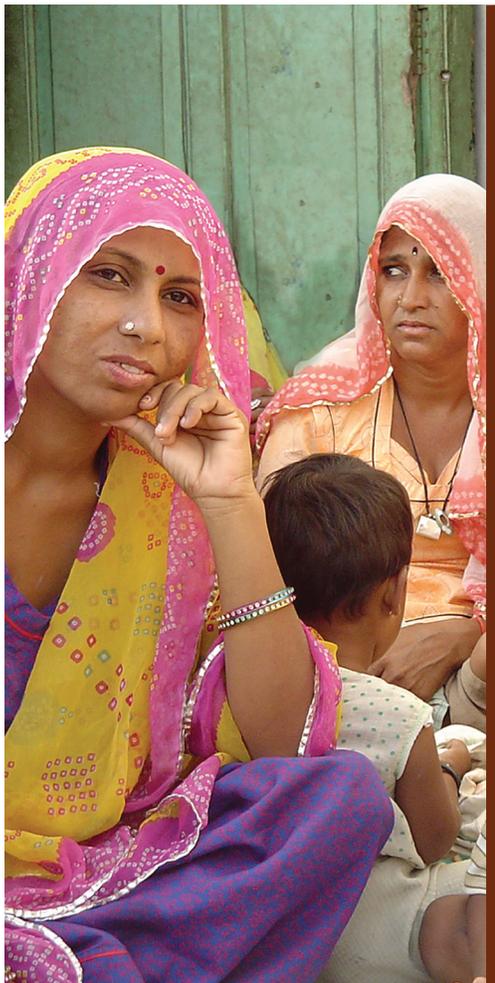
J-PAL affiliates Lori Beaman, Raghendra Chattopadhyay, Esther Duflo, and Rohini Pande, together with Petia Topalova, used the random variation in exposure to female leaders mandated by the constitutional amendment to examine the medium- and longer-term impacts of reservation on perceptions of women leaders, the aspirations of adolescents and their parents, and girls' schooling attainment in India.

- **The reservation policy led to significant electoral gains for women in subsequent, unreserved elections, but only after two rounds of quotas.** In the 2008 election in India, the proportion of female candidates elected significantly increased in villages that had reservations for women in the previous two elections, compared to villages that had never been reserved.
- **Repeated exposure to a female leader changed villagers'—especially men's—perceptions of women's ability to lead effectively.** The reservation policy reduced the association of women with domestic activities and improved male villagers' evaluation of female leaders' effectiveness.
- **Exposure to female leaders heightened adolescent girls' career aspirations and increased their level of educational attainment.** Compared to villages that never had reservations for a female leader, the gender gap in aspirations closed significantly for adolescents in villages assigned to a female leader for two election cycles. The presence of a female leader also erased the gender gap in adolescent educational attainment and caused girls to spend less time on household chores.

In 1993, a constitutional amendment mandated a three-tiered system of local government for each state in India. The lowest tier is the village council, or *gram panchayat*, which is responsible for the provision of village infrastructure—such as public buildings, water, and roads—and for identifying government program beneficiaries. The councilors in each village elect a chief councilor, or *pradhan*, from amongst themselves.

The amendment required that in each election one third of village councils be randomly chosen to be reserved for a female *pradhan*; only women could run for or be elected *pradhan* in reserved village councils. At the time of data collection in West Bengal in 2006 and 2007, two village council elections had been conducted (in 1998 and 2003) since the amendment was implemented. The randomized nature of the quota assignment meant that, in 2007, a village council could have been reserved for a female *pradhan* once (in 1998 or 2003), twice (in 1998 and 2003), or never. This created the opportunity to study the impact of different amounts of exposure to a female leader.

In order to measure voter attitudes and adolescent aspirations, researchers surveyed households in 495 randomly selected villages in Birbhum district, a largely rural and poor district in the state of West Bengal in Eastern India. In sampled households, an individual questionnaire was administered to one male and one female adult, as well as all adolescents. The adult questionnaire asked respondents to evaluate their *pradhans* as well as a set of hypothetical leaders. Both the adult and adolescent questionnaire included questions on educational attainment and time use in the last 24 hours, as well as questions on parents' aspirations for their children and adolescents' aspirations for themselves.



TOOLS TO MEASURE PERCEPTIONS

Hypothetical Leader Effectiveness

Speech experiment: Each respondent heard a short tape-recorded speech in which a leader responded to a villager complaint by requesting that villagers contribute money and effort. Some respondents were randomly selected to hear the speech read by a male voice and others to hear it with a female voice. They were then asked to evaluate the leader's performance and effectiveness.

Vignette experiment: Each respondent also heard a vignette in which the leader chose to address a situation of resource scarcity by investing in either a drinking water or an irrigation project. The vignettes were randomly varied along two dimensions: the leader's sex and the choice of project.

Since there were no performance differences between the hypothetical male and female leaders, if respondents gave worse ratings to female leaders, this was evidence of bias.

Gender-Occupation Stereotypes

An Implicit Association Test (IAT) is an experimental method that relies on the idea that respondents who more quickly pair two concepts in a rapid categorization task associate those concepts more strongly. In order to measure gender-occupation stereotypes, an IAT was used to test the association of male and female names with leadership and domestic tasks. An IAT was also used to measure taste, i.e. the association of male and female leaders with concepts of good and bad.

RESULTS

The reservation policy significantly improved women's prospects in elections open to both sexes, but only after two rounds of reservation. Villages that had one previous round of reservation were not significantly more likely to elect a female pradhan than never-reserved villages. However, villages that had been previously reserved twice were more likely to elect female leaders. In unreserved elections, women were elected pradhan in around 10 percent of villages with no prior history of reservation, 13 percent of villages that had been reserved once, and 17 percent of villages that had been reserved twice.

Repeated exposure to female leaders changed villagers' beliefs on female leader effectiveness and reduced their association of women with domestic activities. Evaluations of female pradhans in villages reserved for the first time were significantly worse than those of (predominantly male) pradhans in never-reserved villages. In contrast, in twice-reserved villages, evaluations of female pradhans were indistinguishable from those of pradhans in never-reserved villages. Reservation also reversed the bias in male villagers' ratings of the effectiveness of a hypothetical female pradhan: men in villages that had been reserved actually rated the effectiveness of a hypothetical female pradhan above that of a male pradhan. Exposure to a female leader also significantly reduced male villagers' association of leadership activities with men.

Researchers found no evidence that these changes were driven by observable differences between the first and second-generation female pradhans, or between male and female pradhans. There was no significant difference in the quality of public goods received and, on average, very similar levels of villager satisfaction were reported across villages in different reservation categories.

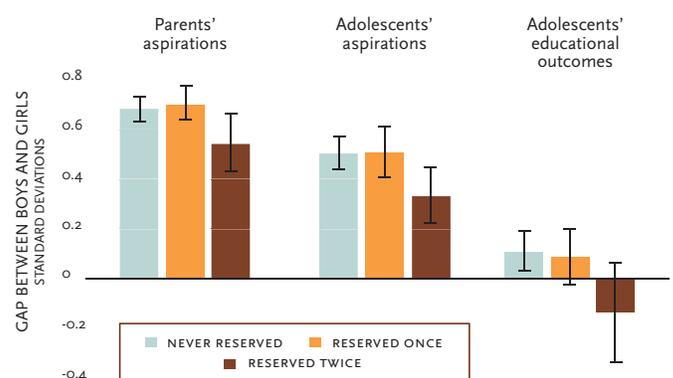
However, reservation did not, in the short run, alter voter taste for female leaders. All villagers exhibited a strong *implicit* same-gender preference: women associated female names and images of female leaders with positive attributes on the IAT, while men associated male names and images with positive attributes. However, both genders exhibited an *explicit* preference for male leaders. Male villagers in never-reserved villages rated male leaders 1.45 points higher than female leaders on a ten-point scale. Among female villagers the difference was smaller (0.56 points), but still significant. Reservation did not improve

the implicit or explicit distaste for female leaders—in fact, the relative explicit preference for male leaders was actually strengthened in villages that had experienced a quota.

The presence of a female leader in their village significantly increased parents' aspirations for their daughters and female adolescents' aspirations for themselves. In villages that had never been reserved for a female leader, parents had significantly lower aspirations for girls than for boys. For example, parents were 14 percentage points less likely to want their daughter to study beyond the secondary school level. In villages with a female leader for two election cycles, however, the gender gap in parents' aspirations significantly decreased, as did the gender gap in adolescent aspirations (Figure 1). Adolescent girls in twice-reserved villages were 19 percentage points more likely to want to marry after age 18, and 8.6 percentage points more likely to want a job that requires an education.

The presence of a female leader in the village increased educational attainment for adolescent girls and decreased the amount of time they spent on domestic chores. Adolescent boys in never-reserved villages were 6 percent more likely to attend school and 4 percent more likely to be able to read and write than their female counterparts. Adolescent girls in never-reserved villages also spent more time on domestic chores (79 minutes more per day than boys). By the second cycle of female leadership in twice-reserved villages, the gender gap in educational outcomes was completely erased, and the gender gap in time spent on household activities decreased by 18 minutes.

FIGURE 1: GENDER GAP DECREASED IN VILLAGES WITH MOST EXPOSURE TO FEMALE LEADERS



POLICY LESSONS



Although stated preferences against female leaders remain difficult to reverse, beliefs on their effectiveness may be more malleable and appear to play a significant role in voter decision making. The reservation policy did not improve voters' implicit or explicit taste for female leaders. However, exposure to a female leader caused voters to realize that women have the ability to lead effectively.

Use of political affirmative action, which causes voters to update their understanding of the abilities of traditionally disadvantaged groups, including women, can durably influence political outcomes. Reservation, by increasing exposure to nontraditional leaders, can change voters' attitudes on the ability of disadvantaged groups to lead. Exposure to a female leader improved perceptions of women leaders' effectiveness and led to electoral gains for women in future, unreserved elections.

Female leaders may serve as role models for future generations, shaping parents' and children's beliefs about what women can achieve. The presence of a female leader in the village significantly increased parents' aspirations for their daughters and female adolescents' aspirations for themselves. Paralleling the changes in aspirations, the presence of a female leader also improved educational outcomes for adolescent girls, which may improve labor market outcomes for women over time.

Featured Evaluations: Beaman, Lori, Raghavendra Chattopadhyay, Esther Duflo, Rohini Pande, and Petia Topalova. 2009. "Powerful Women: Does Exposure Reduce Bias?" *Quarterly Journal of Economics* 124(4): 1497-1540.

Beaman, Lori, Esther Duflo, Rohini Pande, and Petia Topalova. 2012. "Female Leadership Raises Aspirations and Educational Attainment for Girls: A Policy Experiment in India." *Science* 335 (6068): 582-586.

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About J-PAL The Abdul Latif Jameel Poverty Action Lab (J-PAL) is a network of affiliated professors around the world who are united by their use of randomized evaluations to answer questions critical to poverty alleviation. J-PAL's mission is to reduce poverty by ensuring that policy is based on scientific evidence.

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