

Who Decides? Effect of Female Political Representation on Preferences and Practice in Household Decision-Making*

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Replication package is available [here](#).

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Abstract

An established body of literature reveals that female leaders do not only improve outcomes for women through policymaking but can also promote the adoption of egalitarian gender norms. In the current paper, I explore whether this phenomenon extends to gender norms governing household decision-making. By exploiting close Indian state elections between male and female candidates, I show that quasi-random exposure to female leaders reduces men's preference for husband-dominant household decision-making, particularly in decisions regarding fertility and major household purchases. However, there is no observed effect on actual household decision-making practices experienced by married women. I find this discrepancy is likely due to unmarried men, particularly young, unmarried men, driving the change in men's preferences, with little observed change in the preferences of married men.

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1 Introduction

Increasing women’s participation in household decision-making is a meaningful policy goal as it enables households to allocate resources and spread costs more equitably between genders. However, targeted policy attempts to promote women’s participation exhibit varying degrees of success and have even been deleterious to women’s well-being in some cases (Holvoet 2005; Ashraf, Field, and Lee 2014; Almås et al. 2018; Field et al. 2021). Work on intrahousehold bargaining reveals that the ability to promote women’s participation in household decisions may depend on how interventions address pre-existing gendered norms governing bargaining arrangements. Subverting these norms can elicit a backlash effect where men actively attempt to restore prior bargaining arrangements, suppressing potential gains in women’s empowerment (Ashraf, Field, and Lee 2014; Erten and Keskin 2018; Au Yong Lyn 2021; Dhanaraj and Mahambare 2022). This begs the question of what mechanisms can promote gender-egalitarian norms in household decision-making in order to bolster women’s participation.

In this paper, I test whether exposure to female leadership can promote gender-egalitarian preferences and practices in household decision-making. An established body of literature displays that female leaders can create favorable policy outcomes for women that enhance their economic empowerment (Chattopadhyay and Duflo 2004; Clots-Figueras 2011; Bhattacharya and Clots-Figueras 2014). Additionally, female leaders have been shown to serve as role models for female constituents, weaken patriarchal stereotypes of gender roles, and improve perceptions of women in leadership positions (Beaman et al. 2009; Beaman et al. 2012; Castilla 2018; Deininger, Nagarajan, and Singh 2020; Brown, Mansour, and O’Connell 2022). The capacity of female leaders to not only empower women through policy but also challenge patriarchal norms and improve the perception of women in key decision-making roles indicates their potential to encourage gender-equitable decision-making preferences and practices within the household.

Specifically, this paper aims to assess how female political representation in Indian

state legislatures influences male constituents' preference for husband-dominant household decision-making and the practice of household decision-making from the female perspective. To address possible endogeneity in the election of female politicians, this paper exploits an instrumental variable strategy, which utilizes close elections between male and female candidates. This strategy is used by Clots-Figueras (2011), Bhalotra and Clots-Figueras (2014), and Anukriti, Erten, and Mukherjee (2022) to estimate the effects of Indian female leadership in state legislature on policy decisions and expenditures, provisions of antenatal and child health services, and intimate partner violence, respectively. As in these papers, I instrument the fraction of seats won by women in a given district by the fraction of seats won by women in close elections against men within the district. This helps to isolate the exogenous occurrence of female leadership in state legislature. The data used in this paper comes from the 2015–16 National Family Health Survey (NFHS) of India, the Election Commission of India (ECI), and the 2011 Indian Census.

The findings of this paper show that exposure to female political representation leads to a significant decrease in men's expressed preference for husband-dominant household decision-making, both overall and for specific decisions about fertility and major household purchases. However, there is no evidence that exposure to female leaders elicits a change in household decision-making practices, as experienced by married women. I find this discrepancy is likely because the change in men's preferences is completely driven by unmarried men, principally young, unmarried men. Married men, across age groups, do not significantly change preferences for husband-dominant decision-making. The exact reason why unmarried men drive the change in preferences is not discernible. However, I do find that young, unmarried men consume media at significantly higher rates than other groups of men, which may increase their awareness of political leaders' identities and expose them more to the impact of having a female leader. I also find that female leaders increase schooling of young women, which may cause school-age men to experience an increase in female peers. An increase in female peers has previously been shown to promote the adoption of gender-egalitarian views among

male students (Querejeta 2024).

This paper contributes to the evolving body of work looking at the effects of female political representation on various aspects of female empowerment, including maternal health (Bhalotra and Clots-Figueras 2014), education and aspirations (Beaman et al. 2012), employment opportunities (Deininger, Nagarajan, and Singh 2020), public good allocation (Chattopadhyay and Duflo 2004; Clots-Figueras 2011), marriage age (Castilla 2018), sex selection (Kalsi 2017), intimate partner violence (Anukriti, Erten, and Mukherjee 2022), and gender attitudes (Beaman et al. 2009; Kuipers 2020). This paper specifically complements work on gender attitudes by showing the effect of female leadership on reducing gender bias extends to the domain of household decision-making. This paper also looks at whether the observed shift in attitudes leads to any substantive change in behavior. I find the shift in gender bias in men’s decision-making preferences does not lead to a change in household decision-making practices among married couples, likely because there is little change in the attitudes held by married men.

Additionally, this paper relates to literature exploring how exposure to women in traditionally male-dominated public spheres affects gender roles within the household. Previous studies document that exposure to strong female characters in television (Jensen and Oster 2009) and female participation in political protests (Bargain, Boutin, and Champeaux 2019) can have a positive effect on female participation in household decisions. Similarly, I estimate that exposure to women in Indian state legislature reduces male preference for husband-dominant decision-making. However, unlike previous literature, I find no change in household decision-making practices, likely due to heterogeneous effects on preferences for married and unmarried men, where married men exhibit little change in preferences as a result of exposure to female leaders.

The rest of the paper is organized as follows. Section 2 presents a conceptual framework for the relationship between female political representation and household decision-making. Section 3 describes the data. Section 4 explains the empirical strategy. Section 5 discusses

the main results, potential mechanisms, and robustness. Section 6 concludes.

2 Conceptual Framework

Literature on household decision-making suggests preferences between men and women can be distinct and whose preferences are realized plays a factor in how household resources are allocated (Delaney and O’Toole 2008; Amugsi et al. 2016; Verschoor et al. 2019; Sariyev et al. 2020; Alem, Hassen, and Köhlin 2023). The household bargaining model dictates that, in a state of competing preferences, bargaining power helps determine whose preferences are realized. Prevailing gender norms have been identified as a key determinant of bargaining power (Agarwal 1997; Mabsout and Van Staveren 2010; Spierings 2017; Jayachandran 2021). This is partially suggested to come from gender norms shaping social and institutional practices and, through these channels, inequitably distributing resources between genders. In a patriarchal society, the inequitable distribution of resources through social and institutional channels would improve men’s fallback position in bargaining arrangements relative to women’s fallback position, and thus create an inequitable distribution of bargaining power between household members across a gender line.

However, even when resources are redistributed toward women, gender norms can inhibit any redistribution in bargaining power. For instance, increases in women’s paid employment have been found to increase the perpetration of intimate partner violence by male spouses in an attempt to either extract the woman’s income or regain control over household decision-making (Krishnan et al. 2010; Erten and Keskin 2018; Dhanaraj and Mahambare 2022). This phenomenon is also observed in the redistribution of information by Ashraf, Field, and Lee (2014), who find that improvements in women’s autonomy over fertility, through private access to modern contraceptives, can create a moral hazard problem where husbands become aggrieved that their wives will shirk their responsibility of birthing children under traditional marital norms. This leads to a reduction in women’s subjective well-being, which

is suggested to come from the husband’s mistrust. Given these findings, policies that solely improve women’s opportunities to gain resources may not be enough to change household decision-making practices if ingrained gender norms can impede the translation of resource allocation into bargaining power.

Female leadership serves as one policy mechanism that is shown to not only improve women’s resource allocation but also promote egalitarian gender norms in arenas outside of household decision-making. Particularly in the context of India, exposure to female leaders at various levels of government is found to affect gender norms. For instance, exposure to female leaders in village councils is found to create a role model effect and positively influence adolescent girls’ career aspirations (Beaman et al. 2012), reduce female-biased sex selection (Kalsi 2017), and improve perceptions of women as effective leaders while weakening gender-based stereotypes (Beaman et al. 2009). Furthermore, exposure to women in Indian state legislature is shown to inspire further female participation in politics (Brown, Mansour, and O’Connell 2022).

By improving gender norms in general, female leadership may be able to influence norms around household decision-making. Men may be more willing to give up some control over household decisions if they now perceive women as better leaders and decision-makers who will improve outcomes for the household. Additionally, the change in norms may force men to adopt more equitable decision-making practices by altering the perception of a woman’s outside options. For instance, improvements in gender-equitable social norms may make it easier for women to live on their own by improving their income-earning opportunities and reducing societal expectations for women to marry. Additionally, it may appear more likely that a woman could find a new partner with a greater preference for gender-equitable household decision-making practices compared to their current partner. The improved perception of women’s outside options would increase the perceived risk of a woman terminating a relationship if she is not included in decision-making processes. Thus, even if female leadership does not directly change men’s desire to include women in household decision-making, a

shift in societal gender norms, as a result of female leadership, may force men to adopt more equitable household decision-making practices to retain their spouses.

On the other hand, there is some evidence from India suggesting female leadership may not be a strong enough exposure mechanism to weaken traditional gender norms around household decision-making, despite improving women’s resource allocation within the household. Anukriti, Erten, and Mukherjee (2022) find female leadership in Indian state legislature can increase the perpetration of intimate partner violence by increasing women’s access to modern contraceptives through healthcare policy. It is suggested that due to differing fertility preferences between spouses, the increased access to modern contraceptives creates marital conflict since husbands do not want to lose control over fertility decisions. This evidence fits within the body of literature that suggests pre-existing bargaining norms moderate the relationship between resource redistribution and bargaining power and the results from Anukriti, Erten, and Mukherjee (2022) suggest female political representation may have little influence on these pre-existing norms within the household.

While prior research provides an unclear picture of the expected effect of female leadership on norms and practices in household decision-making, this paper will attempt to provide an answer by examining how female leaders affect men’s preferences for husband-dominant decision-making and whether this translates into changes in decision-making practices.

3 Data

The main dataset used in this paper is the 2015-16 NFHS, a nationally representative household survey administered in India. For all surveyed households, women aged 15-49 are interviewed and for a random subsample of surveyed households, men aged 15-54 are interviewed. The NFHS records a wide array of information on household and individual characteristics, including beliefs and experiences related to healthcare, nutrition, fertility, relationships, and other household dynamics. Of particular interest for this paper are the questions related to

various types of household decisions. The household-decision questions and who are asked these questions differ between the men’s and women’s surveys. In the men’s survey, all men are asked about who, between a theoretical husband and wife, *should* have the greatest say in various household decisions, including how many children to have, major household purchases, what to do with the wife’s earnings, daily household purchases, and when to visit the wife’s family. To each question, a man can respond with “husband”, “wife”, “both equally”, or “don’t know/depends”. In the women’s survey, household decision questions are administered to a subsample of married women. Unlike in the men’s sample, the married women are not asked about their preference for how household decisions *should* be made, and are instead asked about how household decisions *are* made within their household. Additionally, married women are not asked about the same set of household decisions. They are not asked about the decision of how many children to have or daily household purchase decisions but are asked about the decision of whether to use contraceptives and decisions regarding their healthcare. Contraceptive decisions and healthcare decisions in the married women’s sample will be used as proxies for the fertility decisions and daily household purchase decisions, respectively, that are asked in the men’s sample. All other household decisions are the same between the men’s and married women’s samples.¹ To each question about who usually makes a household decision, married women can respond with “respondent alone”, “respondent and husband”, “husband alone”, or “someone else”.

While household-decision questions are only asked to married women in the women’s survey, the main analysis for the men’s sample will include all men since changes in the opinions of unmarried men may indirectly affect how household decisions are made among married couples by redistributing bargaining power. For instance, if unmarried men increase their preference for gender-equitable decision-making, there may be an improved perception of married women’s outside options in bargaining arrangements with their husbands if women now have a better chance of finding a new husband with more equitable decision-making

1. The household-decision questions asked to married women are not all in the same survey module so the subsamples of married women are not identical across each household-decision question.

preferences. After the main analysis, married and unmarried men will be split up to evaluate whether the effect of female political representation is heterogeneous between the subsamples.

For each household-decision question asked to the men's and married women's sample, I create indicators that take on the value 1 if the respondent answers that the husband alone should, or usually does, make a household decision and 0 if any alternative response is given. Additionally, for each sample, I construct an index that averages the z-scores of each household decision indicator. Panels A and B of Table A.1 present summary statistics for the main outcome variables in the men's and married women's sample. The men's sample includes 110,704 men from 629 districts in 30 states. The married women's sample includes 291,642 women from 629 districts in 30 states. The share of men who respond with a preference for husband-dominant decision-making ranges from 10-27% across the household decisions, while the share of women who experience husband-dominant decision-making ranges from 8-21% across the household decisions, implying that both the preference for and practice of husband-dominant decision-making occurs at a nontrivial rate.

The NFHS data are merged with state legislative assembly election data from the ECI. State legislative assembly elections occur every 5 years for a given state, but states are not all on the same 5-year election cycle. For a given state, elections are held for all assembly seats at the same time. Each assembly seat corresponds to an assembly constituency within the state and the winner of the seat represents their constituency for the following term. The winner is decided based on who has the plurality of votes, where voters are adult citizens within the constituency.² The election data include observations for the winner and runner-up of each state assembly constituency election and provide the candidates' gender as well as the margin of victory. The election data come from each state's most recent legislative assembly election prior to the beginning of the 2015-2016 NFHS survey for the 30 states represented in the women's and men's survey samples. The election years span from 2010 to 2014. Similar to Clots-Figueras (2011), Bhalotra and Clots-Figueras (2014), and Anukriti, Erten, and

2. Unlike village councils, district councils, and municipal bodies, there are no seats reserved for women in state legislature.

Mukherjee (2022), I aggregate the constituency-level election data up to the district level in order to merge with the NFHS data based on the surveyed individuals’ district of residence since the constituency of residence is not identifiable through the NFHS data for privacy reasons. Districts in the dataset have a median number of 8 state assembly constituencies, with a minimum of 1 and a maximum of 33. The aggregated district-level election variables include the fraction of constituencies won by women in a district, F_{ds} , as well as the fraction of constituencies that are won by women in close male-female elections within a district, FC_{ds} . I define a close male-female election to be an election where the winner and runner-up are opposite genders and the margin of victory between the two candidates is less than or equal to 3 percent, in terms of total vote share.³

Other datasets utilized include the 2011 Indian Census data, which provide district-level controls including the share of the population that is female, the share of the population that is part of a Scheduled Caste or Scheduled Tribe (SC/ST), and male and female literacy rates.

4 Empirical Strategy

The goal of this paper is to test the effect of female political representation on men’s preference for husband-dominant household decision-making and on household decision-making practices experienced by married women. The use of OLS regression is likely to suffer from selection bias since regions with more egalitarian gender norms prior to elections may be more likely to vote for a woman. Thus, to test the effects of female political representation, an instrumental variable (IV) is adopted. The IV isolates the exogenous occurrence of female political representation by utilizing close elections between male and female candidates, following the identification strategy used in Clots-Figueras (2011), Bhalotra and Clots-Figueras (2014), and Anukriti, Erten, and Mukherjee (2022). When the margin of victory is small between male and female candidates, the gender of the winner is quasi-random.

3. In Section 5.5, I include multiple analyses using smaller and larger bandwidths.

If the assembly constituency of residence was identifiable for NFHS survey respondents, outcomes could be compared between residents in constituencies where a female narrowly won an election against a male candidate to residents in constituencies where a female narrowly lost an election against a male candidate. However, since assembly constituencies are not identifiable in the NFHS survey, treatment must be rolled up to the next identifiable geographic level of residence, which is the district of residence. As done by Clots-Figueras (2011), Bhalotra and Clots-Figueras (2014), and Anukriti, Erten, and Mukherjee (2022), the IV used is the fraction of constituencies in a district where a woman wins a close election against a man in the most recent state legislative assembly election. This is used as an instrument for the fraction of constituencies in a district that are won by women in the most recent state legislative assembly election.

The identification strategy is depicted in Figure 1. Panel A plots the fraction of seats won by women within a district against the margin of victory in all male-female elections, where positive margins indicate a female candidate won. Panel B uses male-female elections in districts with only one male-female election. Both panels display a distinct discontinuity, where the fraction of seats won by female candidates in a district increases by approximately 15-20 percentage points when a woman narrowly wins a male-female election within the district. In Figure A.1, a McCrary test is conducted and no evidence is found of manipulation in male-female election outcomes around the cutoff.

Using two-stage least squares (2SLS), I estimate:

$$Y_{ids} = \beta_0 + \beta_1 F_{ds} + \beta_2 TC_{ds} + \sum_{j=1}^n \alpha_{1j} I_{jds} G(m_{jds}) + \sum_{j=1}^n \alpha_{2j} I_{jds} + X_{ids} \rho_1 + Z_{ds} \rho_2 + \delta_s + \epsilon_{ids} \quad (1)$$

$$F_{ds} = \eta_0 + \eta_1 FC_{ds} + \eta_2 TC_{ds} + \sum_{j=1}^n \omega_{1j} I_{jds} G(m_{jds}) + \sum_{j=1}^n \omega_{2j} I_{jds} + X_{ids} \theta_1 + Z_{ds} \theta_2 + \delta_s + \mu_{ids} \quad (2)$$

In the second-stage model (1), Y_{ids} is the outcome of interest for individual i in district d and state s . The key explanatory variable is F_{ds} , which measures the fraction of constituen-

cies with female winners in district d for the most recent election in state s . In the first-stage model (2), F_{ds} is regressed upon the instrument FC_{ds} , which represents the fraction of constituencies in a district with female winners of a close male-female election for the most recent state election. Similar to Clots-Figueras (2011), Bhalotra and Clots-Figueras (2014), and Anukriti, Erten, and Mukherjee (2022), the model controls for the fraction of constituencies with close male-female elections, TC_{ds} , since the existence of a close male-female election may be non-random. The model also controls for a second-order polynomial, $G(m_{jds})$, in the margin of victory, m_{jds} , for every male-female election (including non-close elections) j in a given district.⁴ These polynomials are interacted with I_{jds} , an indicator for whether the j th male-female election exists. X_{ids} represents a vector of individual controls, including the respondent’s age, years of education, and indicators for literacy status, religion, and caste. Z_{ds} represents a vector of district-level controls, including the share of the population that is female, the share of the population that is low caste, and male and female literacy rates. Finally, robust standard errors, clustered at the district level, are utilized. The models used for the men’s and married women’s samples are equivalent.

In Table A.2, I perform balance checks utilizing the same IV strategy to confirm that the fraction of female leaders in a district is not correlated with pre-determined individual or district characteristics.⁵ In Panel A, an individual’s age, literacy status, years of schooling, religion, membership status in a Scheduled Cast or Scheduled Tribe (SC/ST), and membership status in an Other Backwards Caste (OBC) are not associated with the share of female leaders in a district for both the men’s and married women’s sample. In Panel B, district characteristics including the female share of the population, female and male literacy rates, and the SC/ST share of the population are not associated with the share of female leaders in the district.

4. In Section 5.5, I estimate the main results using alternative functional forms, including no polynomials and first-order polynomials.

5. The regressions in Table A.2 do not control for individual or district characteristics.

5 Results

5.1 Men’s household decision-making preferences

Table 1 presents estimates for equations (1) and (2) using the men’s sample. In Panel A, all estimates show a significant, negative relationship between the share of seats held by women in a district and men’s preference for husband-dominant household decision-making. Estimates become slightly less precise once the full set of controls is included in column 3. In column 3, the estimate shows a 1 s.d (0.14) increase in the share of seats held by women at the district level reduces men’s preference for husband-dominant decision-making by 0.07 s.d. Panel B reports the first-stage estimates using equation (2). For all estimates, the F-statistics are quite large, suggesting the instrument has strong predictive power.

Table 2 presents estimates for each individual household decision recorded in the men’s sample. While the relationship between female leadership and men’s preference for husband-dominant decision-making is estimated to be negative for all decisions, the relationship is statistically significant for decisions regarding how many children to have and major household purchases. The estimates imply a 1 s.d. increase in the share of seats held by women at the district level reduces men’s preference for husbands to solely decide the number of children to have by 2 percentage points (an 18% decrease relative to the mean) and major household purchases by 4 percentage points (a 15% decrease relative to the mean). These two types of decisions require large resource investment by the household, suggesting the effect of female leadership on men’s decision-making preferences is not limited to trivial domains of the household.

5.2 Household decision-making practices

Table 3 presents estimates for equations (1) and (2) using the married women’s sample. In Panel A, all estimates show no significant relationship and small, though negative coefficients, providing no evidence for an effect of female leadership on the incidence of husband-dominant

decision-making experienced by married women. The finding of no significant relationship overall could mask heterogeneity by decision type. Table 4 presents the estimated effect of female leadership on husband-dominant decision-making for each household decision measured in the married women’s sample. No evidence of an effect is found for any decision type. While men’s preference for husband-dominant decision-making significantly reduces for decisions regarding how many children to have and major household purchases, there is no observed change in married women’s experience of husband-dominant decision-making in contraceptive use or major household purchases.

Though there is no observable effect on decision-making practices within the household, the negative effect of female leadership on men’s preference for husband-dominant decision-making may translate into other empowerment outcomes within the household for married women. Table 5 presents the estimated effect of female leadership on outcomes related to fertility, employment, and asset ownership including married women’s total fertility, pregnancy status, current working status, personal savings ownership status, individual or joint home ownership status, and individual or joint land ownership status. I find the share of seats held by women at the district level does not significantly affect any of these alternative empowerment outcomes for married women.

5.3 Subsample analysis

The lack of change in household decision-making practices experienced by married women could be due to differences in the effect of female political representation on household decision-making preferences between unmarried and married men. If the effect is only experienced by unmarried men, there may be little change in the household decision-making practices among married couples. To evaluate whether this is occurring, I will estimate the effect of female political representation on decision-making preferences separately for unmarried and married men.

There is a concern that marital status itself is influenced by female political representa-

tion. If female leaders distort the marriage market and change the likelihood of men being in a marital relationship, splitting the men’s sample by marital status would result in selection bias. In Table 6, I evaluate the effect of female political representation on each possible marital status and age at first marriage for the men’s sample. There is no effect observed on any type of marital status or age at first marriage, suggesting a subsample analysis on married men and unmarried men will not result in selection bias.

In Table 7, I evaluate the effect of female political representation on men’s preference for husband-dominant decision-making among unmarried and married men. In Panel A, unmarried men show a significant decrease in responding with a preference for husband-dominant decision-making on the overall index and every decision type except for decisions about visiting the wife’s relatives. For the overall index, a 1 s.d (0.14) increase in the share of seats held by women at the district level reduces unmarried men’s preference for husband-dominant decision-making by 0.14 s.d. On the other hand, in Panel B, married men only show a significant decrease in expressed preference for husband-dominant decision-making on major household purchases and exhibit no effect on the overall index. These estimates suggest that female political representation primarily affects the decision-making preferences of unmarried men and has little effect on the preferences of married men. So, it is not simply that men are changing their expressed preferences though not changing their practices with their wives. Instead, the men who change their expressed preferences are distinct from the men who engage in household decision-making with a wife. These estimates also suggest that the change in decision-making preferences of unmarried men does not significantly alter household decision-making practices between married couples.

The observed difference in effects across marital status may be representing a difference in effects across age given that age shapes the probability of marriage. In panels C and D of Table 7, I evaluate the effect of female political representation on younger and older men, by splitting the whole men’s sample by those younger or equal to the median age of 30 and those

older than 30.⁶ In Panel C, younger men show a significant decrease in expressed preference for husband-dominant decision-making both overall and on every decision type except for decisions about visiting the wife’s relatives. In Panel D, older men only show a significant decrease in expressed preference for husband-dominant decision-making on major household purchases and show no effect on the overall index, much like married men in Panel B. Panel E evaluates whether the estimated effects are statistically different across subsamples by performing a Wald test on the coefficients of a jointly estimated model. On the overall index and four of the five individual questions, the estimated effects for unmarried and married men differ at 5 percent significance. The estimates for younger and older men only differ at 5 percent significance for one individual question. This suggests that the differences in outcomes between married and unmarried men are not solely explained by age.

To further elucidate the heterogeneity across age and marital status, I split the men’s sample both by marital status and age to evaluate how the effect differs between age groups within the same marital status and between marital statuses within the same age group. This results in the four subsamples displayed in Table 8.⁷ When splitting young men by marital status, the majority fall into the unmarried sample, but for older men, the vast majority fall into the married sample. This demonstrates that there is, in fact, a strong correlation between age and marital status within the men’s sample. Panel A in Table 8 shows that younger unmarried men experience a significant shift in preference away from husband-dominant decision-making on the overall index. Specifically, a 1 s.d (0.14) increase in the share of seats held by women at the district level reduces younger unmarried men’s preference for husband-dominant decision-making by 0.13 s.d. Additionally, for almost every household decision, younger unmarried men show a significant decrease in preference for husband-dominant decision-making. In comparison, in Panel B, younger married men show a relatively small and insignificant change in preference overall and for every specific

6. Table A.2 displays balance checks and shows age is uncorrelated with exposure to female leadership, suggesting that splitting the men’s sample up by age will not result in selection bias.

7. As shown in Table A.2, individual controls remain balanced within each subsample.

household decision. In Panel C, older unmarried men are estimated to significantly reduce their overall preference for husband-dominant decision-making, with a larger, though less precisely estimated effect compared to younger unmarried men. In comparison, in Panel D, estimates for older married men show a small, insignificant decrease in overall preference for husband-dominant decision-making. Panel E presents tests for coefficient equality across marital statuses within age groups and across age groups within marital statuses. The effect on the overall household decision index is only significantly different across marital statuses among young men.

The results from Table 8 suggest that heterogeneity in the effect of female leadership on men’s preferences exists across both marital status and age dimensions. Both younger and older unmarried men exhibit a significant and relatively large shift in preference, while younger and older married men exhibit an insignificant change in preference overall. However, only younger men are estimated to have a significant difference in effects across marital status.

5.4 Mechanisms

There are several potential reasons why female political representation is estimated to have a heterogeneous effect on preferences across age groups and marital status. First, there may be differences in men’s exposure to female political representation across age and marital status. Differences in exposure may arise from differences in direct exposure to the identity of a female leader or from differences in exposure to the intermediate effects of female leadership.

If female political representation primarily impacts men’s preferences through direct exposure to the identity of a female leader, whether men’s preferences change would depend on their awareness of their legislators’ identities. In India, one of the primary ways citizens gain information about their current government and political candidates is through media consumption (Verma and Sardesai 2014). Additionally, media consumption habits are shown to fluctuate across age and life transitions, such as marriage and having children (Zheng, Chen, and Zheng 2021). Significant differences in levels of media consumption across age

and marital status could indicate differences in political awareness, including the identity of one’s legislators, across these demographic groups.

I compare media consumption across age and marital status to proxy variation in general knowledge about the current government among these demographic groups, in the absence of more direct measurements in the NFHS data. Figure A.2 reports the share of men who consume media daily (including television, newspaper, or radio) for the four male age and marital status subsamples. 69.73% of younger unmarried men consume media daily, a significantly higher percentage than the other three subsamples. For older men, the rate of media consumption does not significantly differ between the married (62.22%) and unmarried (61.83%) sample, while younger married men (58.52%) exhibit the lowest rate of daily media consumption. Younger unmarried men have the highest rate of daily media consumption and are the group with the most precisely estimated, significant reduction in preference for husband-dominant decision-making. However, media consumption does not significantly differ between older married and unmarried men despite older unmarried men exhibiting a relatively large and significant decrease in preference for husband-dominant decision-making. Thus, media consumption does not appear to exclusively explain the heterogeneous effect on men’s preferences across age and marital status, but it may indicate why the effect is particularly strong for younger unmarried men.

In addition to variation in direct exposure to female leaders across age and marital status, there may be variation across these demographic groups in exposure to intermediate effects of female leadership that independently affect men’s preferences. Improved school enrollment for women is one documented effect of female leadership (Beaman et al. 2012), which independently is shown to affect male perceptions of gender roles. Increasing the proportion of female peers within a classroom is shown to induce male students’ adoption of gender-egalitarian perceptions of domestic work, employment, and leadership (Querejeta 2024). Increases in female schooling may drive the heterogeneous change in men’s preference across age and marital status if certain groups of men are more likely to be enrolled in

school, and thus experience a disproportionate increase in exposure to female peers. The NFHS does not record current school enrollment for most of the men’s sample and any of the women’s sample.⁸ Thus, I cannot say conclusively what groups of men are more likely to be currently enrolled in school. In Figure A.3, I plot the share of men that are at schooling age for the four male subsamples. Schooling age is defined as those aged 15-21 years old. 15 is the youngest age in the male NFHS sample and is the typical age during the second year of secondary education, while 21 is the typical age at the end of tertiary education. 64.68% of young unmarried men are at schooling age, while only 7.25% of young married men are at schooling age. By definition, both samples of older men have 0% at schooling age.

While I cannot evaluate whether women’s current enrollment changed as a result of female leadership in this study’s setting, I can estimate whether their educational attainment changes. The balance checks in Table A.2 confirm that female leadership does not affect years of education for married women, but these women are mostly above schooling age. In Table A.3, I estimate the effect of female political representation on schooling for all women in the NFHS, breaking the total women’s sample up by marital status and age about the median age of 29.⁹ As an outcome variable, I use an indicator for whether the respondent reached secondary school (which traditionally starts at age 14) or higher. This is used instead of schooling years in order to not just estimate whether their overall education increased but instead estimate whether their attainment increased in school levels where most young men would be enrolled. In Table A.3, female leadership is estimated to have a significant positive effect on young unmarried women reaching secondary education or higher. There is no evidence of an effect on young married women or older women, both married and unmarried. These results suggest that men enrolled in school do experience an increase in female peers as a result of female political representation. Given that many young unmarried men are at schooling age, this may contribute to the significant change in decision-making preferences

8. In the small subsample of men who do have current school enrollment measured, all men are unmarried.

9. The regressions in Table A.3 do not control for years of education or individual literacy status due to potential endogeneity.

for this group, but it likely does not explain why older unmarried men’s preferences change since this group is above schooling age.

While differences in exposure to female leaders may help explain why effects are particularly significant for young, unmarried men, they do not provide a clear explanation for why both young and older unmarried men exhibit a significant change in decision-making preferences, while married men do not. If it is not explained by differences in exposure, this could be caused by an association between marriage and inflexible norms. For instance, selection into marriage may be correlated with characteristics associated with more inflexible norms. Alternatively, marriage, itself, may directly affect the flexibility of one’s norms. If married men, who engage in household bargaining with married women, benefit from gender-inequitable norms, they may be less willing to give up these norms compared to men who do not. This may result in no significant change in who makes household decisions as a result of female leadership exposure. However, without being able to isolate random assignment of marriage to individuals, I cannot infer whether marriage does affect the flexibility of men’s norms regarding to household decision-making.

5.5 Robustness Checks

I estimate my main findings using several alternative specifications to evaluate the robustness of my results. In Panel A of Table A.4, I first evaluate the robustness of the estimates in Panel A of Table 1 by estimating the effect of female political representation on men’s overall preferences for husband-dominant decision-making using alternative functional forms for margins of victory as controls, as well as alternative bandwidths for defining close elections. Results remain negative for all specifications and remain significant for all polynomial forms and most bandwidths except for bandwidths greater than the 3% bandwidth used in the main specification. In Panel B, the same is done for the women’s sample to evaluate the robustness of the results in Table 3 and results remain insignificant across all specifications. Next, in Panels C-E, I evaluate the robustness of the results presented in Table 8. The estimates for

younger unmarried men remain negative and significant across all specifications, while the estimates remain insignificant for younger and older married men. For older unmarried men, the estimates are negative and significant for all functional forms and all bandwidths that are less than the 3% bandwidth used in the main specification.

6 Conclusion

By exploiting close elections between male and female candidates for Indian state legislature, I study the effect of female leadership on male constituents' preference for husband-dominant household decision-making and the practice of household decision-making from the female perspective. I find that female leadership reduces men's preferences for husband-dominant decision-making, particularly in areas of fertility and major household purchases. However, I find no effect on household decision-making practices, as experienced by married women, or on alternative household empowerment outcomes for married women. Exploring this discrepancy, I find that the reduction in men's preference for husband-dominant decision-making is almost completely driven by unmarried men, particularly young, unmarried men. Young, unmarried men reduce their preference for husband-dominant decision-making in almost all types of household decisions measured, including fertility decisions, major household purchases, what to do with a wife's earnings, and daily household purchases. On the other hand, there is little change in married men's preference for husband-dominant decision-making among both younger and older married men.

While these results present a promising view of female leaders' ability to improve preferences for gender-egalitarian decision-making practices within the household, they suggest there are constraints to changing the preferences of actors who may be best positioned to change decision-making practices. Exploring what can weaken these constraints in order to promote gender egalitarian decision-making is a key area of future research.

References

- Agarwal, Bina. 1997. ““Bargaining” and gender relations: Within and beyond the household.” *Feminist economics* 3 (1): 1–51.
- Alem, Yonas, Sied Hassen, and Gunnar Köhlin. 2023. “Decision-making within the household: The role of division of labor and differences in preferences.” *Journal of Economic Behavior & Organization* 207:511–528.
- Almås, Ingvild, Alex Armand, Orazio Attanasio, and Pedro Carneiro. 2018. “Measuring and changing control: Women’s empowerment and targeted transfers.” *The Economic Journal* 128 (612): F609–F639.
- Amugsi, Dickson A, Anna Lartey, Elizabeth Kimani-Murage, and Blessing U Mberu. 2016. “Women’s participation in household decision-making and higher dietary diversity: findings from nationally representative data from Ghana.” *Journal of Health, Population and Nutrition* 35:1–8.
- Anukriti, S, Bilge Erten, and Priya Mukherjee. 2022. “Women’s Political Representation and Intimate Partner Violence.”
- Ashraf, Nava, Erica Field, and Jean Lee. 2014. “Household bargaining and excess fertility: an experimental study in Zambia.” *American Economic Review* 104 (7): 2210–2237.
- Au Yong Lyn, Audrey. 2021. “Male employment and female intra-household decision-making: a Mexican gold mining case study.” *Review of Economics of the Household* 19 (3): 699–737.
- Bargain, Olivier, Delphine Boutin, and Hugues Champeaux. 2019. “Women’s political participation and intrahousehold empowerment: Evidence from the Egyptian Arab Spring.” *Journal of Development Economics* 141:102379.

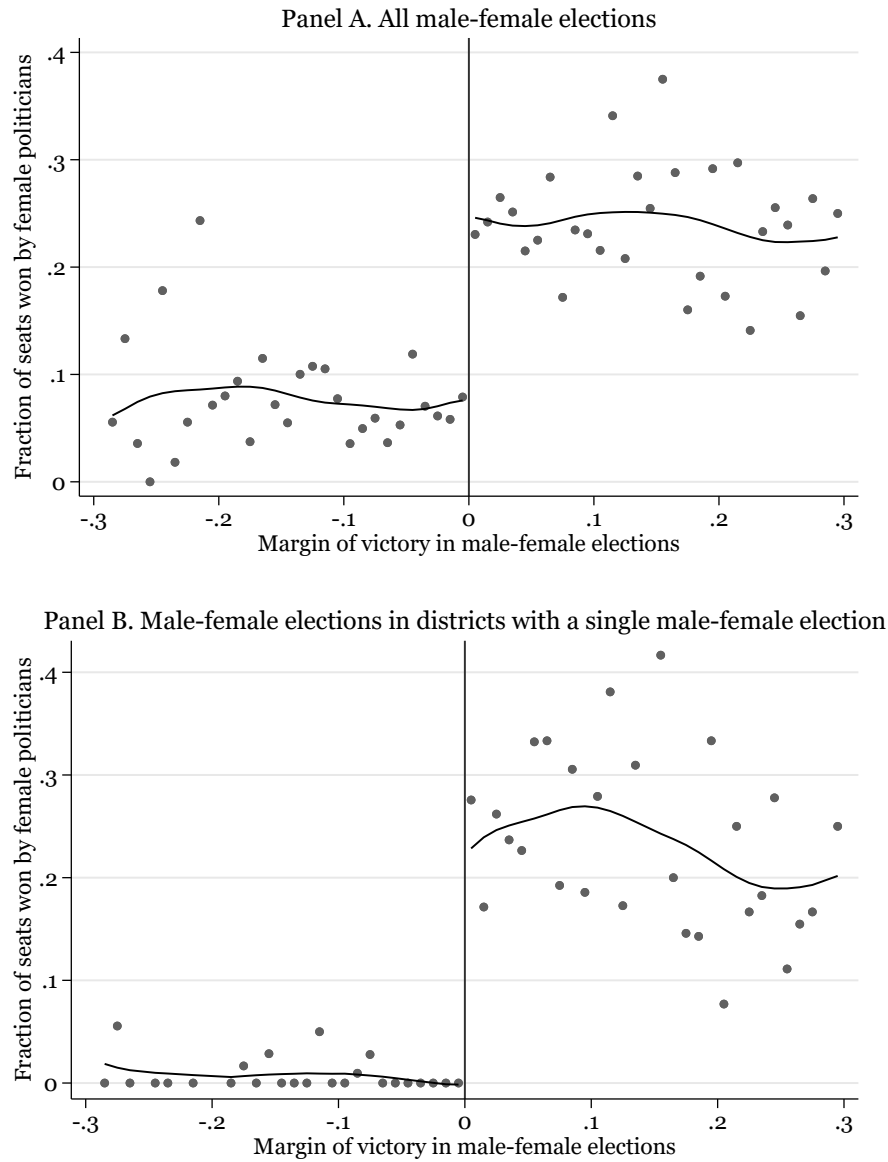
- Beaman, Lori, Raghabendra Chattopadhyay, Esther Duflo, Rohini Pande, and Petia Topalova. 2009. "Powerful women: does exposure reduce bias?" *The Quarterly journal of economics* 124 (4): 1497–1540.
- Beaman, Lori, Esther Duflo, Rohini Pande, and Petia Topalova. 2012. "Female leadership raises aspirations and educational attainment for girls: A policy experiment in India." *science* 335 (6068): 582–586.
- Bhalotra, Sonia, and Irma Clots-Figueras. 2014. "Health and the political agency of women." *American Economic Journal: Economic Policy* 6 (2): 164–197.
- Brown, Ryan, Hani Mansour, and Stephen D O’Connell. 2022. "Does local female political representation empower women to run for higher office? evidence from state and national legislatures in india." *The World Bank Economic Review* 36 (1): 198–218.
- Castilla, Carolina. 2018. "Political role models and child marriage in India." *Review of Development Economics* 22 (4): 1409–1431.
- Chattopadhyay, Raghabendra, and Esther Duflo. 2004. "Women as policy makers: Evidence from a randomized policy experiment in India." *Econometrica* 72 (5): 1409–1443.
- Clots-Figueras, Irma. 2011. "Women in politics: Evidence from the Indian States." *Journal of public Economics* 95 (7-8): 664–690.
- Deininger, Klaus, Hari K Nagarajan, and Sudhir K Singh. 2020. "Women’s political leadership and economic empowerment: Evidence from public works in India." *Journal of comparative economics* 48 (2): 277–291.
- Delaney, Liam, and Francis O’Toole. 2008. "Individual, household and gender preferences for social transfers." *Journal of Economic Psychology* 29 (3): 348–359.

- Dhanaraj, Sowmya, and Vidya Mahambare. 2022. "Male backlash and female guilt: women's employment and intimate Partner Violence in Urban India." *Feminist economics* 28 (1): 170–198.
- Erten, Bilge, and Pinar Keskin. 2018. "For better or for worse?: Education and the prevalence of domestic violence in turkey." *American Economic Journal: Applied Economics* 10 (1): 64–105.
- Field, Erica, Rohini Pande, Natalia Rigol, Simone Schaner, and Charity Troyer Moore. 2021. "On her own account: How strengthening women's financial control impacts labor supply and gender norms." *American Economic Review* 111 (7): 2342–2375.
- Holvoet, Nathalie. 2005. "The impact of microfinance on decision-making agency: evidence from South India." *Development and change* 36 (1): 75–102.
- Jayachandran, Seema. 2021. "Social norms as a barrier to women's employment in developing countries." *IMF Economic Review* 69 (3): 576–595.
- Jensen, Robert, and Emily Oster. 2009. "The power of TV: Cable television and women's status in India." *The Quarterly Journal of Economics* 124 (3): 1057–1094.
- Kalsi, Priti. 2017. "Seeing is believing-can increasing the number of female leaders reduce sex selection in rural India?" *Journal of Development Economics* 126:1–18.
- Krishnan, Suneeta, Corinne H Rocca, Alan E Hubbard, Kalyani Subbiah, Jeffrey Edmeades, and Nancy S Padian. 2010. "Do changes in spousal employment status lead to domestic violence? Insights from a prospective study in Bangalore, India." *Social science & medicine* 70 (1): 136–143.
- Kuipers, Nicholas. 2020. "The Effect of Electing Female Candidates on Attitudes toward Intimate Partner Violence." *The Journal of Politics* 82 (4): 1590–1595.

- Mabsout, Ramzi, and Irene Van Staveren. 2010. “Disentangling bargaining power from individual and household level to institutions: Evidence on women’s position in Ethiopia.” *World Development* 38 (5): 783–796.
- Querejeta, Martina. 2024. “Impact of Female Peer Composition on Gender Norm Perceptions in Secondary School in Uruguay.” *Feminist Economics*, 1–29.
- Sariyev, Orkhan, Tim K Loos, Manfred Zeller, and Tulsi Gurung. 2020. “Women in household decision-making and implications for dietary quality in Bhutan.” *Agricultural and Food Economics* 8:1–20.
- Spierings, Niels. 2017. “The influence of patriarchal norms, institutions, and household composition on women’s employment in twenty-eight Muslim-majority countries.” In *Gender and Economics in Muslim Communities*, 87–112. Routledge.
- Verma, Rahul, and Shreyas Sardesai. 2014. “Does media exposure affect voting behaviour and political preferences in India?” *Economic and political weekly*, 82–88.
- Verschoor, Arjan, Bereket Kebede, Alistair Munro, and Marcela Tarazona. 2019. “Spousal control and efficiency of intra-household decision-making: Experiments among married couples in India, Ethiopia and Nigeria.” *The European Journal of Development Research* 31:1171–1196.
- Zheng, Jiawen, Qi Chen, and Xia Zheng. 2021. “Transitions in marital, parental, occupational status, and political news consumption in China.” *The Social Science Journal*, 1–17.

Figures

Figure 1: First Stage Illustration



Notes: The figures plot the share of of seats won by a female candidate in a district by the margin of victory in elections between male and female candidates. Positive values in the margin of victory represent elections won by women, while negative values represent elections won by men. Panel A uses all elections between male and female candidates. Panel B uses elections in districts with only one election between male and female candidates.

Table 1: Men's Preference for Husband-dominant Decision-making

	(1)	(2)	(3)
Panel A: Household decision index			
Fraction of female leaders	-0.539** (0.261)	-0.535** (0.260)	-0.505* (0.264)
Observations	110,704	110,704	104,814
Outcome mean	-0.001	-0.001	-0.008
Panel B: First-stage regressions			
Fraction of female leaders in close elections	0.886*** (0.085)	0.878*** (0.089)	0.874*** (0.091)
Observations	110,704	110,704	104,814
Outcome mean	0.089	0.089	0.091
First stage F -stat	108.748	96.728	93.163
State fixed effects	x	x	x
District characteristics		x	x
Individual characteristics			x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. The outcome variable in Panel A is the average z-score of responses to all questions asked to the men's sample about who should have the greatest say over specific household decisions, including the number of children to have, major household purchases, what to do with the wife's earnings, daily household purchases, and when to visit the wife's relatives. Each response is coded to take on the value 1 if the respondent responds with "Husband" and 0 if an alternative response is given. All regressions include state fixed-effects. Individual controls include age, years of education, and indicators for literacy status, religion, and caste. District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

Table 2: Men's Preference for Husband-dominant Decision-making by Decision Type

	Number of children	Major purchases	What to do with wife's earnings	Daily Purchases	Visits to wife's relatives
Fraction of female leaders	-0.121** (0.058)	-0.288** (0.113)	-0.093 (0.076)	-0.128 (0.121)	-0.060 (0.101)
Observations	104,814	104,814	104,814	104,814	104,814
Outcome mean	0.095	0.271	0.138	0.198	0.202
State fixed effects	x	x	x	x	x
District characteristics	x	x	x	x	x
Individual characteristics	x	x	x	x	x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. All outcome variables are responses to questions asked to the men's sample about who should have the greatest say over specific household decisions, including the number of children to have, major household purchases, what to do with the wife's earnings, daily household purchases, and when to visit the wife's relatives. Responses are coded to take on the value 1 if the respondent responds with "Husband" and 0 if an alternative response is given. All regressions include state fixed-effects, individual controls, and district controls. Individual controls include age, years of education, and indicators for literacy status, religion, and caste. District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

Table 3: Married Women’s Experience of Husband-dominant Decision-making Practices

	(1)	(2)	(3)
Household decision index			
Fraction of female leaders	-0.085 (0.236)	-0.071 (0.235)	-0.110 (0.211)
Observations	291,642	291,642	279,539
Outcome mean	-0.001	-0.001	-0.007
First-stage regressions			
Fraction of female leaders in close elections	0.900*** (0.087)	0.889*** (0.093)	0.886*** (0.094)
Observations	291,642	291,642	279,539
Outcome mean	0.095	0.095	0.097
First stage F -stat	106.439	91.527	89.146
State fixed effects	x	x	x
District characteristics		x	x
Individual characteristics			x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. The outcome variable in Panel A is the average z-score of responses to all questions asked to the married women’s sample about who has the greatest say over specific household decisions, including whether to use contraceptives, major household purchases, what to do with the respondent’s earnings, decisions about the respondent’s healthcare, and when to visit the respondent’s relatives. Each response is coded to take on the value 1 if the respondent responds with "Husband" and 0 if an alternative response is given. All regressions include state fixed-effects. Individual controls include age, years of education, and indicators for literacy status, religion, and caste. District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

Table 4: Married Women's Experience of Husband-dominant Decision-making by Decision Type

	Contraceptive use	Major purchases	What to do with respondent's earnings	Respondent's healthcare	Visits to respondent's relatives
Fraction of female leaders	-0.013 (0.062)	-0.101 (0.094)	0.006 (0.096)	-0.084 (0.080)	-0.103 (0.084)
Observations	240,364	81,992	19,334	81,992	81,992
Outcome mean	0.082	0.206	0.164	0.214	0.204
State fixed effects	x	x	x	x	x
District characteristics	x	x	x	x	x
Individual characteristics	x	x	x	x	x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. All outcome variables are responses to questions asked to the married women's sample about who has the greatest say over specific household decisions, including whether to use contraceptives, major household purchases, what to do with the respondent's earnings, decisions about the respondent's healthcare, and when to visit the respondent's relatives. Responses are coded to take on the value 1 if the respondent responds with "Husband" and 0 if an alternative response is given. All regressions include state fixed-effects, individual controls, and district controls. Individual controls include age, years of education, and indicators for literacy status, religion, and caste. District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

Table 5: Alternative Empowerment Outcomes for Married Women

	Total fertility	Pregnant	Working	Has personal savings	Individual or joint house ownership	Individual or joint land ownership
Fraction of female leaders	-0.014 (0.275)	-0.012 (0.009)	0.051 (0.089)	0.029 (0.088)	-0.120 (0.159)	-0.192 (0.152)
Observations	279,539	279,539	81,992	81,992	81,992	81,992
Outcome mean	2.735	0.019	0.239	0.419	0.421	0.327
State fixed effects	x	x	x	x	x	x
District characteristics	x	x	x	x	x	x
Individual characteristics	x	x	x	x	x	x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. Outcome variables include total fertility as well as indicators for pregnancy status, current working status, whether the respondent has personal savings, whether the respondent individually or jointly owns a house, and whether the respondent individually or jointly owns land. All regressions include state fixed-effects, individual controls, and district controls. Individual controls include age, years of education, and indicators for literacy status, religion, and caste. District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

Table 6: Men's Marriage Outcomes

	Married	Never married	Separated or divorced	Age at first marriage
Fraction of female leaders	-0.018 (0.041)	0.011 (0.044)	0.007 (0.012)	-0.889 (0.777)
Observations	110,704	110,704	110,704	69,370
Outcome mean	0.627	0.359	0.015	23.106
State fixed effects	x	x	x	x
District characteristics	x	x	x	x
Individual characteristics	x	x	x	x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. Outcome variables are indicators for marital status for the men's sample, including currently married, never married, and separated or divorced, as well as age at first marriage. All regressions include state fixed-effects, individual controls, and district controls. Individual controls include age, years of education, and indicators for literacy status, religion, and caste. District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

Table 7: Men's Preference for Husband-dominant Decision-making by Marital Status and Age

	Household decision index	Number of children	Major purchases	What to do with wife's earnings	Daily Purchases	Visits to wife's relatives
Panel A: Unmarried						
Fraction of female leaders	-0.970*** (0.310)	-0.260*** (0.071)	-0.398*** (0.133)	-0.204** (0.093)	-0.270** (0.127)	-0.194 (0.120)
Observations	38,982	38,982	38,982	38,982	38,982	38,982
Outcome mean	-0.024	0.095	0.260	0.134	0.190	0.201
Panel B: Married						
Fraction of female leaders	-0.224 (0.270)	-0.038 (0.065)	-0.220* (0.114)	-0.025 (0.079)	-0.042 (0.127)	0.021 (0.099)
Observations	65,832	65,832	65,832	65,832	65,832	65,832
Outcome mean	0.002	0.095	0.278	0.141	0.203	0.202
Panel C: Age ≤ 30						
Fraction of female leaders	-0.691*** (0.257)	-0.171*** (0.062)	-0.311*** (0.114)	-0.136* (0.081)	-0.223** (0.113)	-0.112 (0.108)
Observations	52,737	52,737	52,737	52,737	52,737	52,737
Outcome mean	-0.020	0.093	0.264	0.134	0.194	0.202
Panel D: Age > 30						
Fraction of female leaders	-0.303 (0.310)	-0.068 (0.071)	-0.261** (0.128)	-0.045 (0.085)	-0.024 (0.144)	-0.004 (0.109)
Observations	52,077	52,077	52,077	52,077	52,077	52,077
Outcome mean	0.005	0.096	0.279	0.143	0.203	0.201
Panel E: Test of coefficient equality p-values						
Unmarried vs. married	0.001***	0.001***	0.054*	0.018**	0.003***	0.003***
Ages ≤ 30 vs. > 30	0.061*	0.099*	0.561	0.168	0.016**	0.169
State fixed effects	x	x	x	x	x	x
District characteristics	x	x	x	x	x	x
Individual characteristics	x	x	x	x	x	x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. Outcome variables are responses to questions asked to the men's sample about who should have the greatest say over specific household decisions, including the number of children to have, major household purchases, what to do with the wife's earnings, daily household purchases, and when to visit the wife's relatives. Responses are coded to take on the value 1 if the respondent responds with "Husband" and 0 if an alternative response is given. In the first column, the household decision index is the average z-score of responses to all household decision questions. All regressions include state fixed-effects, individual controls, and district controls. Individual controls include age, years of education, and indicators for literacy status, religion, and caste. District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

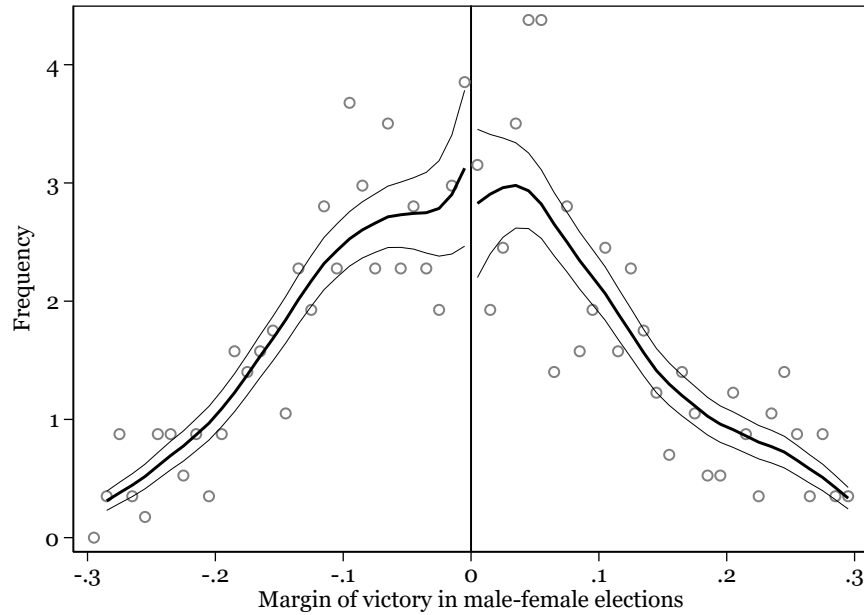
Table 8: Men's Preference for Husband-dominant Decision-making by Marital Status and Age (Cont'd)

	Household decision index	Number of children	Major purchases	What to do with wife's earnings	Daily Purchases	Visits to wife's relatives
Panel A: Unmarried & Age ≤ 30						
Fraction of female leaders	-0.919*** (0.290)	-0.233*** (0.067)	-0.399*** (0.130)	-0.203** (0.086)	-0.250** (0.121)	-0.179 (0.117)
Observations	35,494	35,494	35,494	35,494	35,494	35,494
Outcome mean	-0.041	0.090	0.255	0.129	0.185	0.196
Panel B: Married & Age ≤ 30						
Fraction of female leaders	-0.264 (0.286)	-0.053 (0.080)	-0.145 (0.116)	-0.015 (0.102)	-0.172 (0.126)	0.011 (0.128)
Observations	17,243	17,243	17,243	17,243	17,243	17,243
Outcome mean	0.023	0.099	0.282	0.143	0.212	0.214
Panel C: Unmarried & Age > 30						
Fraction of female leaders	-1.367* (0.817)	-0.522** (0.250)	-0.321 (0.262)	-0.145 (0.279)	-0.440 (0.310)	-0.336 (0.256)
Observations	3,488	3,488	3,488	3,488	3,488	3,488
Outcome mean	0.151	0.138	0.316	0.182	0.244	0.244
Panel D: Married & Age > 30						
Fraction of female leaders	-0.218 (0.306)	-0.035 (0.072)	-0.252* (0.129)	-0.034 (0.084)	0.007 (0.141)	0.021 (0.108)
Observations	48,589	48,589	48,589	48,589	48,589	48,589
Outcome mean	-0.006	0.093	0.276	0.140	0.200	0.198
Panel E: Test of coefficient equality p-values						
Age ≤ 30 : married vs. unmarried	0.021**	0.020**	0.026**	0.046**	0.459	0.102
Age > 30 : married vs. unmarried	0.128	0.052*	0.777	0.678	0.095*	0.126
Unmarried: ages ≤ 30 vs. > 30	0.530	0.234	0.732	0.814	0.483	0.482
Married: ages ≤ 30 vs. > 30	0.876	0.818	0.345	0.842	0.114	0.937
State fixed effects	x	x	x	x	x	x
District characteristics	x	x	x	x	x	x
Individual characteristics	x	x	x	x	x	x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. Outcome variables are responses to questions asked to the men's sample about who should have the greatest say over specific household decisions, including the number of children to have, major household purchases, what to do with the wife's earnings, daily household purchases, and when to visit the wife's relatives. Responses are coded to take on the value 1 if the respondent responds with "Husband" and 0 if an alternative response is given. In the first column, the household decision index is the average z-score of responses to all household decision questions. All regressions include state fixed-effects, individual controls, and district controls. Individual controls include age, years of education, and indicators for literacy status, religion, and caste. District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

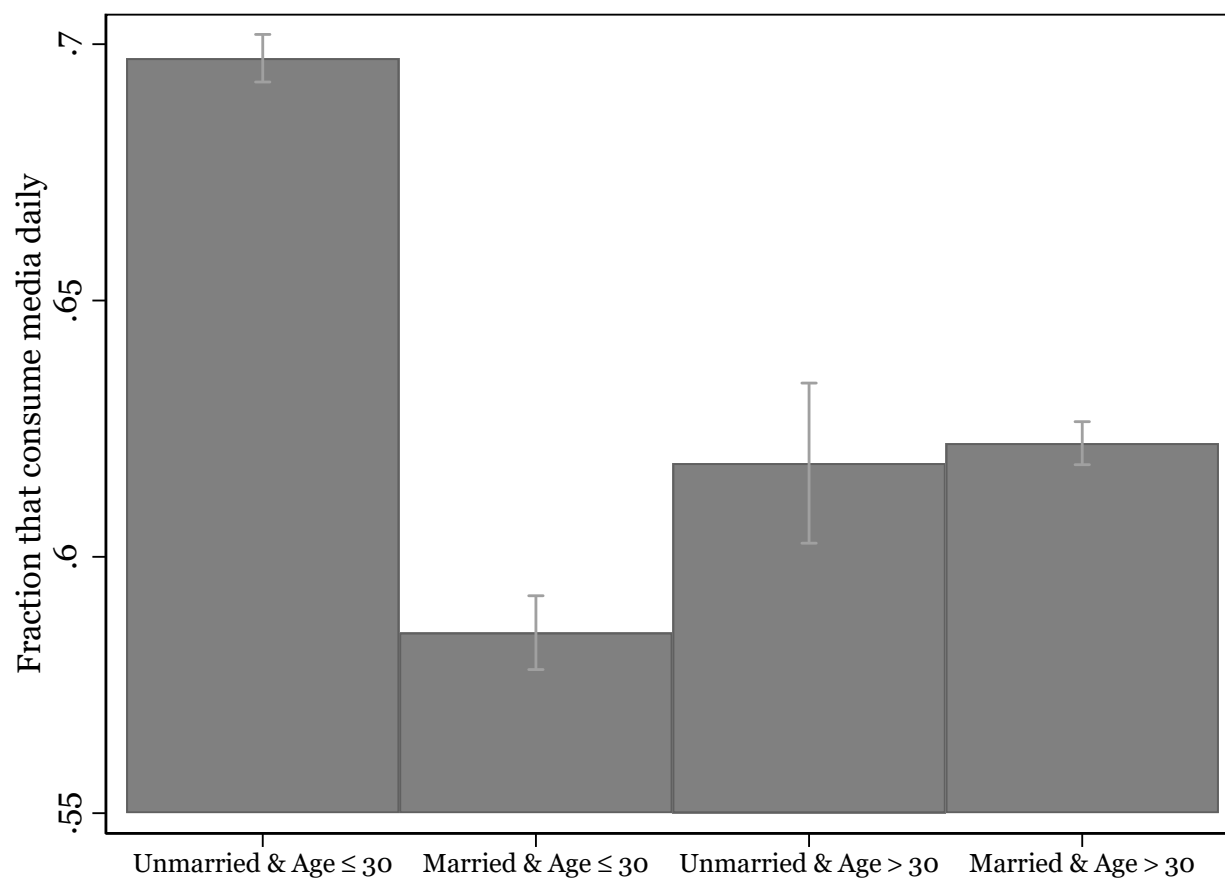
Appendix Figures and Tables

Figure A.1: McCrary Test



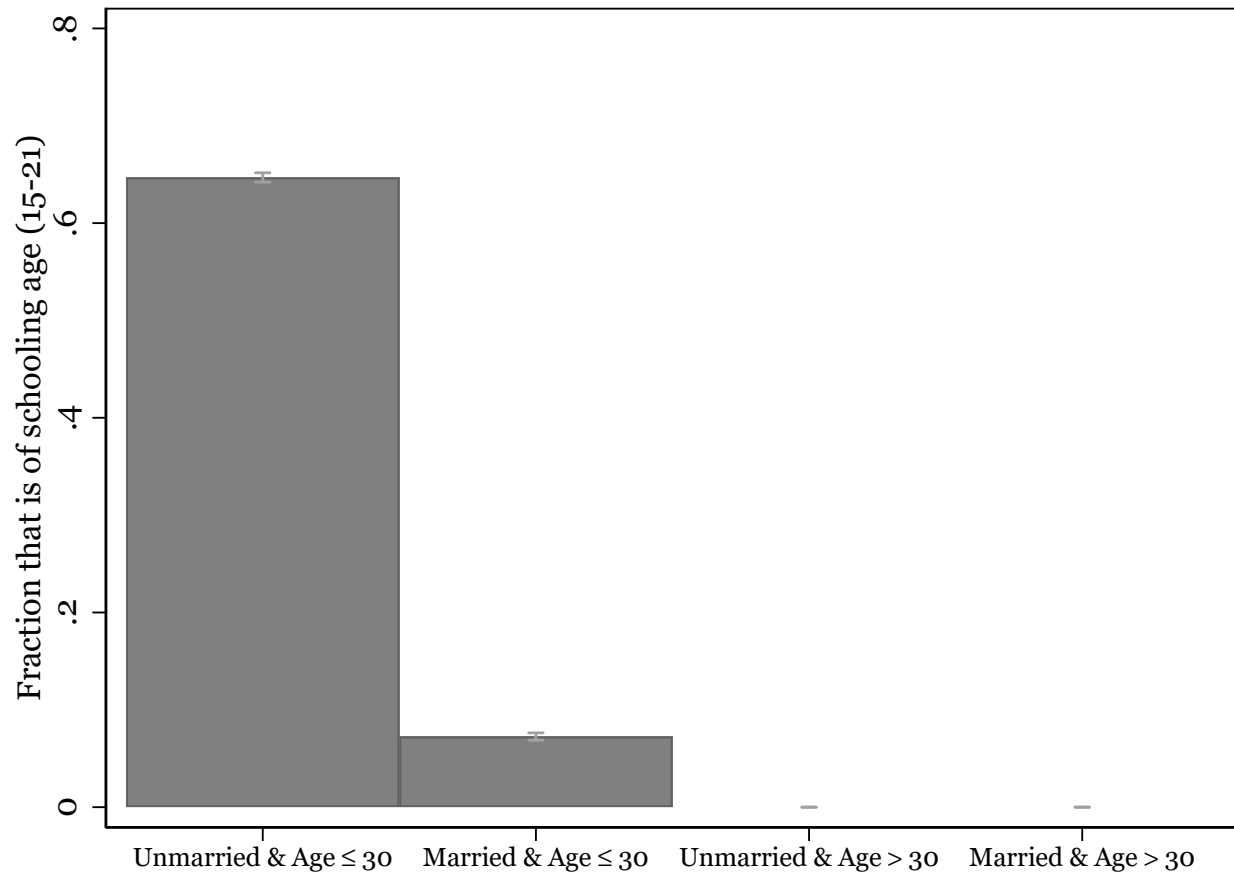
Notes: The figure plots the frequency of margin of victory bins in elections between male and female candidates. Positive values in the margin of victory represent elections won by women, while negative values represent elections won by men. The sample includes all elections between male and female candidates. 95% confidence intervals are plotted around the local linear density estimates. The discontinuity estimate for the McCrary test is -0.164 with a standard error of (.177).

Figure A.2: Mechanism: Men's Daily Media Consumption by Marital Status and Age



Notes: This figure plots the share of men who report consuming media daily, including watching TV, reading the newspaper, or listening to the radio. For each men's subsample, the share of the subsample that reports consuming media daily is plotted along with 95% confidence intervals.

Figure A.3: Mechanism: Men at Schooling Age



Notes: This figure plots the share of men who are at schooling age (15-21). For each men's subsample, the share of the subsample is plotted along with 95% confidence intervals.

Table A.1: Summary Statistics

	N	Mean	S.D
Panel A: Men's preference for husband-dominant decision-making			
Household decision preference index	110,704	0.00	1.00
Number of children to have	110,704	0.10	0.29
Major household purchases	110,704	0.27	0.45
What to do with wife's earnings	110,704	0.14	0.35
Daily household purchases	110,704	0.20	0.40
Visits to wife's relatives	110,704	0.20	0.40
Panel B: Married women's experience of husband-dominant decision-making			
Household decision index	291,642	0.00	1.00
Contraceptive use	250,678	0.08	0.28
Major household purchases	85,883	0.21	0.41
What to do with respondent's earnings	19,878	0.16	0.37
Respondent's healthcare	85,883	0.21	0.41
Visits to respondent's relatives	85,883	0.20	0.40
Panel C: Individual controls			
<i>Men's sample</i>			
Age	110,704	31.73	11.08
Literate	110,704	0.78	0.42
Years of education	110,704	8.37	4.70
Hindu	110,704	0.75	0.44
Muslim	110,704	0.14	0.34
Christian	110,704	0.07	0.25
Sikh	110,704	0.02	0.14
SC/ST	104,814	0.37	0.48
OBC	104,814	0.41	0.49
<i>Married women's sample</i>			
Age	291,642	34.26	7.90
Literate	291,642	0.53	0.50
Years of education	291,642	5.70	5.14
Hindu	291,642	0.78	0.41
Muslim	291,642	0.12	0.32
Christian	291,642	0.05	0.21
Sikh	291,642	0.03	0.17
SC/ST	279,539	0.35	0.48
OBC	279,539	0.42	0.49

Table A.1: Summary Statistics - *Continued*

	N	Mean	S.D.
Panel D: District controls			
Female share of population	629	0.49	0.02
Female literacy rate	629	0.55	0.12
Male literacy rate	629	0.69	0.09
SC/ST share of population	629	0.33	0.22
Panel E: Election measurements			
Share of constituencies won by a female	629	0.09	0.14
Share of constituencies with close male-female elections	629	0.03	0.08
Share of constituencies with close male-female elections won by a female	629	0.01	0.05
Share of districts with at least one seat won by a female	629	0.39	0.49
Share of districts with at least one close male-female election	629	0.13	0.34
Share of districts with at least one close male-female election won by a female	629	0.06	0.24
Panel F: Men's marriage outcomes			
Married	110,704	0.63	0.48
Never married	110,704	0.36	0.48
Seperated or divorced	110,704	0.01	0.12
Age at first marriage	69,370	23.11	4.92
Panel G: Alternative empowerment outcomes for married women			
Total fertility	291,642	2.73	1.52
Pregnant	291,642	0.02	0.14
Working	85,883	0.23	0.42
Has personal savings	85,883	0.42	0.49
Individual or joint house ownership	85,883	0.42	0.49
Individual or joint land ownership	85,883	0.33	0.47

Notes: The table reports observation counts (N), means, and standard deviations (S.D.) for all outcome variables, individual controls, district controls, and election measurements. Panel A includes household-decision outcome variables for all surveyed men in the 2015-2016 NFHS survey. Panel B includes household-decision outcome variables for all surveyed married women, who are asked questions about household decisions in the 2015-2016 NFHS survey. Panel C includes the individual controls for the samples used in panels A and B. Panel D presents the district controls from the 2011 Indian Census for all districts of residence in Panel A and B. Panel E presents district-level election measurements for all districts of residence in Panel A and B. Election data were obtained at the constituency level from the Election Commission of India and aggregated to the district level. Panel F includes marriage outcome variables for the sample of men in Panel A. Panel G includes alternative empowerment outcomes for the sample of women in Panel B.

Table A.2: Balance Checks

Panel A: Individual characteristics									
	Age	Literacy	Years of schooling	Hindu	Muslim	Christian	Sikh	SC/ST	OBC
Men's sample									
Fraction of female leaders	-1.368 (1.023)	0.062 (0.090)	0.607 (1.033)	0.045 (0.162)	-0.125 (0.093)	0.125 (0.119)	-0.021 (0.061)	0.076 (0.137)	-0.020 (0.108)
Observations	110,704	110,704	110,704	110,704	110,704	110,704	110,704	104,814	104,814
Outcome mean	31.733	0.778	8.371	0.746	0.137	0.068	0.021	0.375	0.410
Married women's sample									
Fraction of female leaders	-0.164 (0.781)	0.071 (0.125)	1.156 (1.288)	-0.004 (0.160)	-0.075 (0.062)	0.140 (0.126)	-0.050 (0.071)	0.117 (0.128)	-0.050 (0.091)
Observations	291,642	291,642	291,642	291,642	291,642	291,642	291,642	279,539	279,539
Outcome mean	34.264	0.532	5.697	0.784	0.116	0.048	0.029	0.350	0.420
Men: Unmarried & Age ≤ 30									
Fraction of female leaders	0.272 (0.779)	-0.044 (0.072)	-0.074 (0.892)	0.058 (0.160)	-0.121 (0.106)	0.107 (0.100)	-0.033 (0.082)	0.106 (0.141)	-0.055 (0.108)
Observations	37,607	37,607	37,607	37,607	37,607	37,607	37,607	35,494	35,494
Outcome mean	20.307	0.906	9.857	0.727	0.154	0.070	0.024	0.367	0.413
Men: Married & Age ≤ 30									
Fraction of female leaders	0.293 (0.718)	0.076 (0.113)	0.297 (1.240)	0.060 (0.160)	-0.109 (0.107)	0.080 (0.115)	-0.048 (0.049)	0.019 (0.185)	0.058 (0.188)
Observations	18,002	18,002	18,002	18,002	18,002	18,002	18,002	17,243	17,243
Outcome mean	26.431	0.771	8.120	0.763	0.139	0.056	0.020	0.411	0.420
Men: Unmarried & Age > 30									
Fraction of female leaders	1.033 (3.984)	0.027 (0.269)	-1.108 (3.075)	0.103 (0.193)	-0.020 (0.121)	0.021 (0.099)	-0.041 (0.081)	-0.011 (0.272)	-0.075 (0.254)
Observations	3,720	3,720	3,720	3,720	3,720	3,720	3,720	3,488	3,488
Outcome mean	39.168	0.706	7.750	0.723	0.098	0.116	0.024	0.397	0.356
Men: Married & Age > 30									
Fraction of female leaders	-0.591 (0.994)	0.094 (0.128)	0.998 (1.426)	0.021 (0.183)	-0.140 (0.094)	0.163 (0.142)	0.002 (0.057)	0.086 (0.153)	-0.036 (0.122)
Observations	51,375	51,375	51,375	51,375	51,375	51,375	51,375	48,589	48,589
Outcome mean	41.416	0.693	7.416	0.756	0.127	0.068	0.020	0.366	0.409
Panel B: District characteristics									
	Female share of population	Female literacy rate	Male literacy rate	SC/ST share of population					
Fraction of female leaders	-0.018 (0.013)	-0.050 (0.076)	-0.017 (0.075)	0.059 (0.128)					
Observations	629	629	629	629					
Outcome mean	0.486	0.550	0.691	0.327					
State fixed effects	x	x	x	x	x	x	x	x	x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. Individual-level outcome variables in panel A include age, years of education, and indicators for literacy status, religion, and caste. District-level outcome variables in panel B include share of population that is female, the share of population that is SC/ST, and male and female literacy rates. All regressions include state fixed-effects. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

Table A.3: Mechanism: Educational Attainment for All Women by Marital Status and Age

	Unmarried & Age ≤ 29	Married & Age ≤ 29	Unmarried & Age > 29	Married & Age > 29
Achieved Secondary School or Higher				
Fraction of female leaders	0.107** (0.049)	0.075 (0.078)	0.046 (0.071)	0.077 (0.058)
Observations	159,276	185,261	29,561	289,653
Outcome mean	0.874	0.634	0.405	0.424
State fixed effects	x	x	x	x
District characteristics	x	x	x	x
Individual characteristics	x	x	x	x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. Close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. The outcome variable is an indicator for reporting having an educational attainment of secondary school or higher. Regressions include state fixed-effects, individual controls, and district controls. Individual controls include age, religion, and caste (years of education and literacy status are not included due to potential endogeneity). District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.

Table A.4: Robustness Checks

	No polynomial	1st order polynomial	BW = 2%	BW = 2.5%	BW = 3.5%	BW = 4%
Panel A: Men's sample						
Fraction of female leaders	-0.471* (0.258)	-0.504* (0.273)	-0.533* (0.285)	-0.484* (0.276)	-0.400 (0.268)	-0.261 (0.257)
Observations	104,814	104,814	104,814	104,814	104,814	104,814
Outcome mean	-0.008	-0.008	-0.008	-0.008	-0.008	-0.008
Panel B: Married women's sample						
Fraction of female leaders	-0.114 (0.205)	-0.127 (0.213)	-0.196 (0.240)	-0.151 (0.236)	-0.067 (0.187)	-0.104 (0.173)
Observations	279,539	279,539	279,539	279,539	279,539	279,539
Outcome mean	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007
Panel C: Men: Unmarried & Age ≤ 30						
Fraction of female leaders	-0.893*** (0.318)	-0.943*** (0.305)	-0.977*** (0.340)	-0.906*** (0.311)	-0.770*** (0.293)	-0.666** (0.283)
Observations	35,494	35,494	35,494	35,494	35,494	35,494
Outcome mean	-0.041	-0.041	-0.041	-0.041	-0.041	-0.041
Panel D: Men: Married & Age ≤ 30						
Fraction of female leaders	-0.213 (0.260)	-0.255 (0.302)	-0.182 (0.300)	-0.120 (0.293)	-0.239 (0.283)	-0.098 (0.278)
Observations	17,243	17,243	17,243	17,243	17,243	17,243
Outcome mean	0.023	0.023	0.023	0.023	0.023	0.023
Panel E: Men: Unmarried & Age > 30						
Fraction of female leaders	-1.380** (0.699)	-1.495* (0.842)	-1.774* (0.983)	-1.660* (0.956)	-0.972 (0.668)	-0.831 (0.670)
Observations	3,488	3,488	3,488	3,488	3,488	3,488
Outcome mean	0.151	0.151	0.151	0.151	0.151	0.151
Panel F: Men: Married & Age > 30						
Fraction of female leaders	-0.204 (0.288)	-0.202 (0.314)	-0.244 (0.336)	-0.223 (0.333)	-0.144 (0.286)	0.015 (0.270)
Observations	48,589	48,589	48,589	48,589	48,589	48,589
Outcome mean	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006
State fixed effects	x	x	x	x	x	x
District characteristics	x	x	x	x	x	x
Individual characteristics	x	x	x	x	x	x

Notes: This table presents 2SLS estimates using the fraction of constituencies in a district where a woman wins a close election as an instrument. In the first two columns, close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to 3% of total votes. In the rest of the columns, close elections are defined as elections between male and female candidates, where the margin of victory is less than or equal to the specified percentage of total votes. The first two columns use alternative functional forms for the margins of victory in male-female elections. The outcome variable in Panel A and C-F is the average z-score of responses to all questions asked to the men's sample about who should have the greatest say over specific household decisions, including the number of children to have, major household purchases, what to do with the wife's earnings, daily household purchases, and when to visit the wife's relatives. The outcome variable for Panel B is the average z-score of responses to all questions asked to the married women's sample about who has the greatest say over specific household decisions, including whether to use contraceptives, major household purchases, what to do with the respondent's earnings, decisions about the respondent's healthcare, and when to visit the respondent's relatives. For both men's and married women's samples, each response is coded to take on the value 1 if the respondent responds with "Husband" and 0 if an alternative response is given. All regressions include state fixed-effects, individual controls, and district controls. Individual controls include age, years of education, and indicators for literacy status, religion, and caste. District controls include the share of population that is female, the share of population that is SC/ST, and male and female literacy rates. Robust standard errors are clustered at the district level. ***, **, * denote significance at the 1, 5, and 10 percent levels.