ONLINE APPENDIX

Female Leaders and Intrahousehold Dynamics: Evidence from State Elections in India

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1 List of Variables

- Health facility index: A z-score calculated by averaging 6 indicator variables that equal one if the village has access to the following health facilities: a sub-center, a primary health center, a block primary health center, a government hospital, a community health center, and a government dispensary.
- Sub-center: an indicator variable that equals one if a sub-center facility either exists in the village or is connected to the village through an all-weather road.
- Primary health center: an indicator variable that equals one if a primary health center facility either exists in the village or is connected to the village through an all-weather road.
- Block primary health center: an indicator variable that equals one if a block primary health center either exists in the village or is connected to the village through an all-weather road.
- Government hospital: an indicator variable that equals one if a government hospital either exists in the village or is connected to the village through an all-weather road.
- Community health center: an indicator variable that equals one if a community health center either exists in the village or is connected to the village through an all-weather road.
- Government dispensary: an indicator variable that equals one if a government dispensary either exists in the village or is connected to the village through an all-weather road.
- Health worker index: A z-score calculated by averaging 3 indicator variables that equal one if the village has any Auxiliary Nurse Midwives (ANMs), any female doctor, and any private doctor.
- Auxiliary Nurse Midwife (ANM): an indicator variable that equals one if the village has an ANM.
- Female Doctor: an indicator variable that equals one if the village has a female doctor.
- Private Doctor: an indicator variable that equals one if the village has a private doctor.
- Women's group: an indicator variable that equals one if the village has a *mahila mandal*, that is, a woman's group.

- Public program index: A z-score calculated by averaging 4 indicator variables that equal one for the existence of the following public programs in the village: namely, *Janani Suraksha Yojana*, *Kishori Shakti Yojana*, *Balika Samriddhi Yojana*, and *Sanitation Program*.

- Janani Suraksha Yojana: an indicator variable that equals one if the public program called Janani Suraksha Yojana has been implemented in the village.

- Kishori Shakti Yojana: an indicator variable that equals one if the public program called Kishori Shakti Yojana has been implemented in the village.

- Balika Samriddhi Yojana: an indicator variable that equals one if the public program called Balika Samriddhi Yojana has been implemented in the village.

- Sanitation Program: an indicator variable that equals one if the public program called Sanitation Program has been implemented in the village.

- Using modern contraception: an indicator variable that equals one if the respondent is currently using a modern contraceptive method, including female sterilization, intrauterine devices (IUDs), injectables, pills, condoms, male sterilization, female condoms, foam or jelly.

- Using traditional contraception: an indicator variable that equals one if the respondent is currently using a traditional contraceptive method, including periodic abstinence, withdrawal, lactational amenorrhea, or standard days.

- Birth Spacing (in years): The number of years since the respondent's last birth took place.

- Number of children: The number of children a respondent has in a given year.

- Physical violence index: A z-score calculated by averaging the z-scores of indicator variables that equal one if the respondent reported experiencing one of the following violent acts from her husband in the last 12 months: slapping; twisting her arm or pulling her hair; pushing, shaking, or throwing an object at her; hitting with the partner's fist or in a way that hurts; kicking, dragging, or beating; choking or burning; attacking with a knife, gun, or other weapon.

- Sexual violence index: A z-score calculated by averaging the z-scores of indicator variables that equal one if the respondent reported experiencing one of the following acts from her partner in the last 12 months: forced into unwanted sex, forced into other unwanted sexual acts, and forced with threats to perform unwanted sexual acts.

- Psychological violence index: A z-score calculated by averaging the z-scores of indicator variables that equal one if the respondent reported experiencing one of the following acts from her partner in the last 12 months: insulting, humiliating, and threatening to hurt or harm.

- Wife's IPV attitudes: A z-score constructed by averaging the z-scores of indicator variables that equal one if the respondent disagrees that violence is justified if (i) the wife goes out without telling her husband, (ii) the wife neglects the children, (iii) the wife argues with her husband, (iv) the wife refuses to have sex with her husband, and (v) the wife burns food.
- Wife worked last week: an indicator variable that equals one if the respondent worked last week.
- Wife worked last year: an indicator variable that equals one if the respondent worked last 12 months.
- Husband's ideal number of sons: The ideal number of sons of the husband.
- Husband's ideal number of sons greater than actual number: an indicator variable that equals one if the husband's ideal number of sons exceeds the couple's actual number of sons.
- Men's IPV attitudes index: A z-score constructed by averaging the z-scores of indicator variables that equal one if the responding man disagrees that violence is justified if (i) the wife goes out without telling her husband, (ii) the wife neglects the children, (iii) the wife argues with her husband, (iv) the wife refuses to have sex with her husband, and (v) the wife burns food.
- Husband's schooling: The number of years of schooling that the husband has completed.
- Spousal Education Gap: The difference between years of schooling completed by the husband and years of schooling completed by the wife.
- Spousal Age Gap: The difference between husband's age and wife's age.
- Husband worked last week: an indicator variable that equals one if the husband worked last week.
- Share of constituencies won by women in a district: The fraction of state assembly constituencies in a district in which a female candidate won in the most recent state election before the woman-level outcome variable survey.
- Share of close male-female elections won by women in a district: Fraction of state assembly constituencies in a district where a woman won in a close election against a man in the most recent state election before the woman-level outcome variable survey.
- Share of male-female close elections in a district: Fraction of state assembly constituencies in the district that had a close male-female election, in the most recent election before the woman-level outcome variable survey.
- Whether the district had at least one male-female election: an indicator variable for whether a district had at least one male-female election, in the most recent election before the woman-level outcome variable survey.

- Whether the district had at least one male-female close election: an indicator variable for whether a district had at least one male-female close election, in the most recent election before the woman-level outcome variable survey.
- Whether the district had at least one male-female close election won by a woman: an indicator variable for whether a district had at least one male-female close election in which a woman was the winner, in the most recent election before the woman-level outcome variable survey.
- Age: The age of the respondent.
- Rural: an indicator variable that equals one if the respondent lives in a rural location.
- Hindu: an indicator variable that equals one if the respondent reports that her religion is Hindu.
- Muslim: an indicator variable that equals one if the respondent reports that her religion is Muslim.
- Christian: an indicator variable that equals one if the respondent reports that her religion is Christian.
- Sikh: an indicator variable that equals one if the respondent reports that her religion is Sikh.
- SC/ST: an indicator variable that equals one if the respondent reports that her caste is a scheduled caste or tribe (SC/ST).
- OBC: an indicator variable that equals one if the respondent reports that her caste is other backward caste (OBC).
- Years of schooling: The number of years of schooling that the respondent reports having completed.

2 Description of Public Programs

- **Janani Suraksha Yojana (JSY)**: As part of its national policy and commitment to the Millennium Development Goals, the Indian government prioritized promoting institutional deliveries to enhance maternal survival. In April 2005, the JSY or the Safe Motherhood Scheme was launched under the National Rural Health Mission of India. The primary goals of JSY are to reduce the maternal mortality ratio and infant mortality rate by encouraging institutional deliveries, especially targeting women from families below the poverty line. This is to be achieved by providing financial incentives at the time of delivery, along with antenatal and postnatal care. The program distinguishes between low-performing states and high-performing states based on pre-program institutional delivery rates, with the level of financial support varying depending on state performance and whether the region is rural or urban (Gupta

et al., 2012). JSY is among the world's largest conditional cash transfer programs; in 2010–2011, it covered over 11.3 million beneficiaries, with an annual budget of more than USD 300 million. While JSY is fully financed by the central government, states and local bodies are highly involved in the disbursement of funds and scheme implementation.

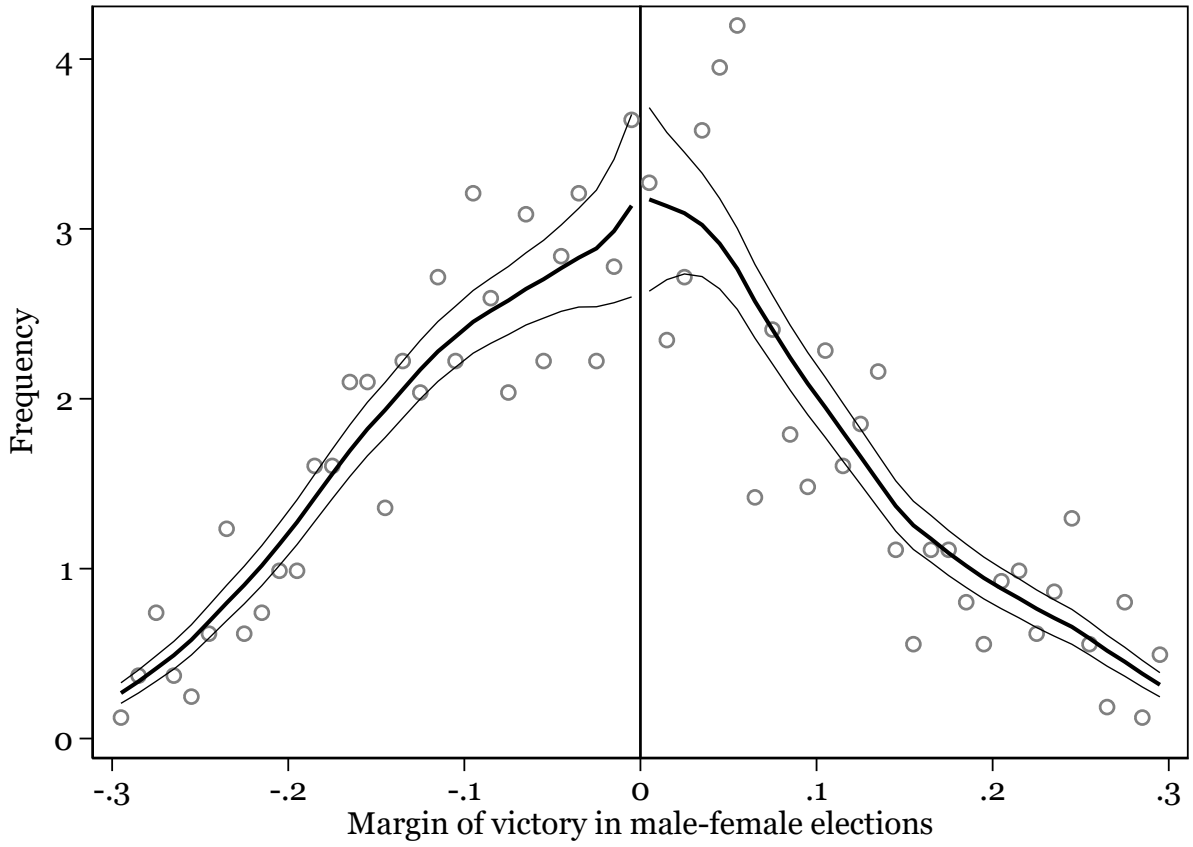
- **Kishori Shakti Yojana (KSY)**: This scheme was initiated in 2000 by the Ministry of Women and Child Development if the Government of India under the Integrated Child Development Services (ICDS) program. The primary objective is to empower adolescent girls aged 11 to 18, particularly those from disadvantaged backgrounds, by improving their health, nutrition, and self-awareness. KSY focuses on enhancing their nutritional status, providing supplementary nutrition, and raising awareness about health and hygiene, including reproductive health. It also aims to equip girls with vocational skills, literacy, and life skills to promote economic independence. In addition, the program educates girls on important social issues, such as gender equality, child marriage, and legal rights, to help them make informed decisions (Ministry of Women and Child Development, 2024). Although KSY operates as a national policy, it is implemented at the state level with some variation across states. Moreover, MLAs are involved in the implementation through participation in State Monitoring and Supervision Committees, for example. In 2010, the Government of India decided that the KSY would be gradually phased out and replaced with the Scheme for Adolescent Girls by 2018-19.

- **Balika Samriddhi Yojana (BSY)**: This scheme was launched by the Government of India in 1997, aiming to enhance the status of girls, particularly in families below the poverty line, by promoting their education and overall well-being. The key objectives include empowering girls through financial assistance for their education, reducing female infant mortality and discrimination, and encouraging their survival and development. BSY incentivizes the enrollment and retention of girls in school by providing financial benefits for continuing education up to the 10th grade. It also seeks to delay the marriage age of girls and promoting their education and self-reliance before adulthood. The scheme operates in two stages: offering a post-birth grant to the mother and annual scholarships for the girl's education, with the goal of reducing gender disparities (Sekher, 2012). The BSY was originally initiated by the Government of India in 1997 but since 2006 its implementation was taken over by the state governments. Moreover, in some cases, the state governments have changed the name of the scheme over the years and have implemented it under a new name with additional financial incentives; e.g., the BSY in Himachal Pradesh was discontinued in July 2010 and the state government launched a new scheme called the Beti Hai Anmol with similar objectives and benefits as that of BSY.

- **Sanitation Program**: The sanitation program in India began with the Central Rural Sanitation Programme (CRSP) in 1986, which was followed by the Total Sanitation Campaign (TSC) in 1999, and the Nirmal Bharat Abhiyan in 2012. This was followed by the Swachh Bharat Mission (SBM) or the Clean India Mission, a country-wide campaign initiated by the Government of India in October 2014 to eliminate open

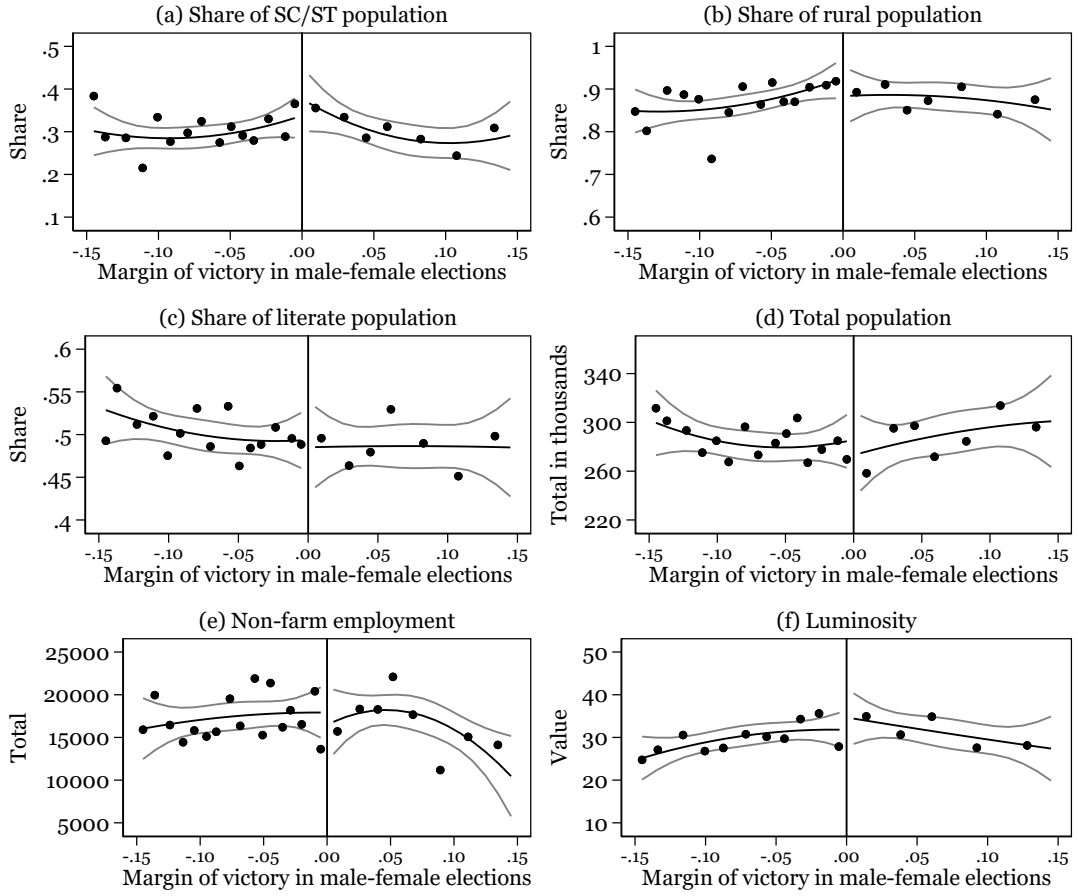
defecation and improve solid waste management and to create Open Defecation Free villages. Since we use the 2012-14 DLHS-4 for our analysis of program implementation, the TSC is the most relevant version of the program for our paper. The TSC aimed to "improve the general quality of life in rural areas [and] accelerate sanitation coverage in rural areas through access to toilets to all by 2012." Although the program was implemented by the central Ministry of Rural Development, the responsibility for delivering on program goals rested with village councils with state governments playing a facilitating role that took the form of framing enabling policies, providing financial and capacity-building support, and monitoring progress. To give a boost to the TSC, the government introduced an innovative incentive program known as Nirmal Gram Puraskar (NGP) in 2003. The NGP offered a cash prize to motivate village councils to achieve total sanitation.

Figure 1: McCrary test



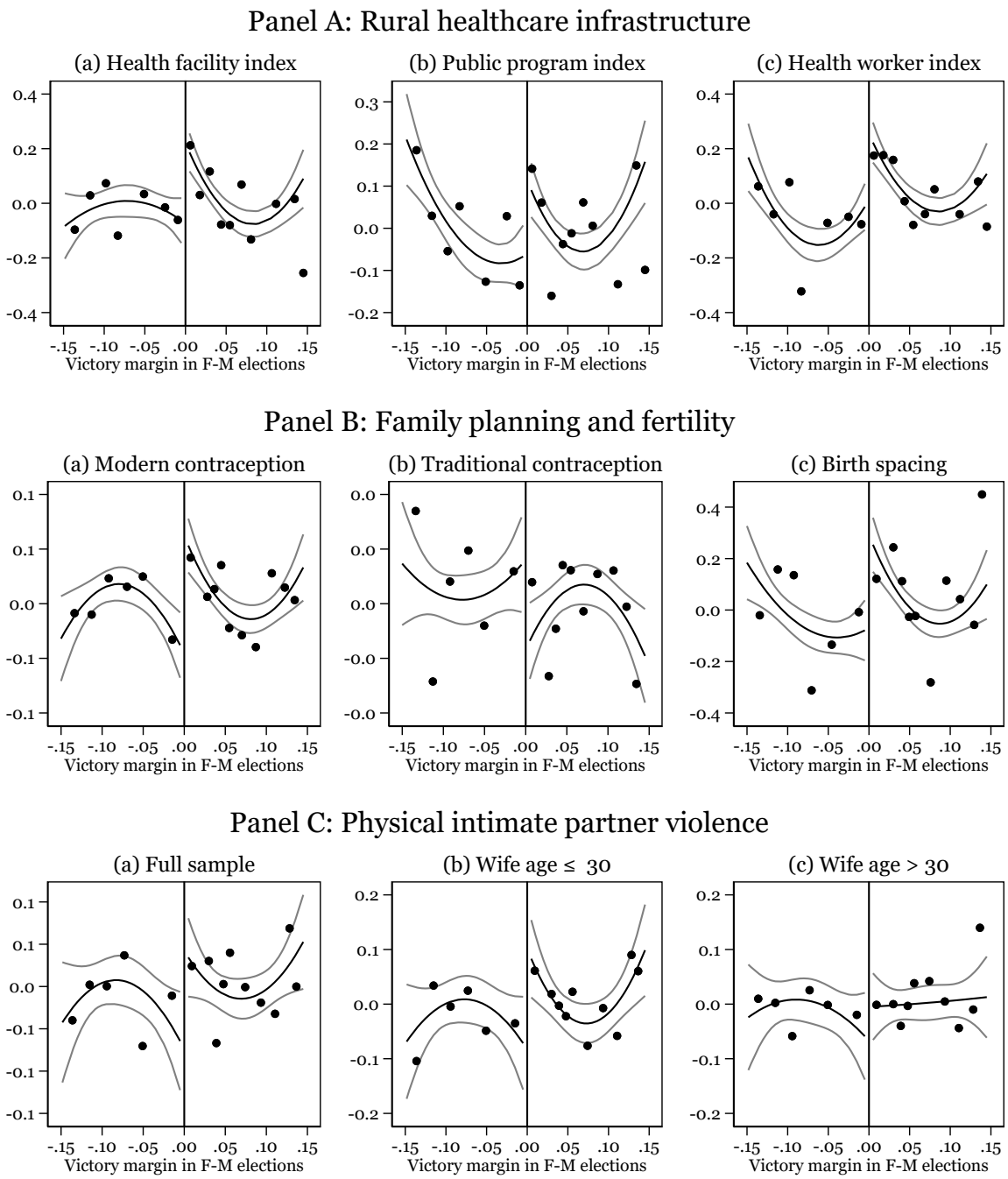
Notes: The figure shows the frequency in each margin-of-victory bin in elections between male and female candidates. Gray lines show 95 percent confidence intervals around the quadratic local polynomial. The p-value for the McCrary test is 0.72.

Figure 2: Balanced Covariates



Notes: The figures plot assembly constituency characteristics against the margin of victory in elections between male and female politicians. Using data from the 2001 Population Census of India, we match close female-male elections that took place between 2008 and 2012, the period over which we conduct our main analysis using the DLHS data on publicly provided goods and public programs. The vertical dashed line in each graph represents the cutoff point. Gray lines show 90 percent confidence intervals around the mean level.

Figure 3: Discontinuity Plots for Main Outcomes



Notes: The figures plot assembly main outcomes against the margin of victory in elections between male and female politicians. All outcomes are residualized to account for individual and district level covariates. Using data from the NFHS-4 and DLHS-4, we match close female-male elections that took place between 2010-2015 and 2008-2012 respectively. The vertical dashed line in each graph represents the cutoff point. Gray lines show 90 percent confidence intervals around the mean level.

Table 1: Summary statistics, DLHS sample

	N	Mean	S.D.
Panel A: Election data			
Share of constituencies won by women in a district	265	0.06	0.09
Share of close male-female elections in a district	265	0.02	0.06
Share of male-female close election won by women in a district	265	0.01	0.03
Share of districts with at least one seat won by a woman	265	0.35	0.48
Share of districts with at least one male-female election	265	0.58	0.49
Share of districts with at least one male-female close election	265	0.15	0.36
Share of districts with at least one male-female close election won by a woman	265	0.07	0.26
Panel B: Census data			
Fraction of female population	265	0.49	0.02
Fraction of urban population	265	0.32	0.21
Fraction of SC/ST population	265	0.36	0.26
Female literacy rate	265	0.62	0.11
Male literacy rate	265	0.73	0.08
Panel C: Village data			
Any accessible sub-center	8,383	0.88	0.33
Any accessible primary health center	8,383	0.81	0.39
Any accessible block primary health center	8,383	0.56	0.50
Any accessible community health center	8,383	0.73	0.45
Any accessible government hospital	8,383	0.75	0.43
Any accessible government dispensary	8,366	0.11	0.31
Any accessible auxiliary nurse midwife	8,376	0.63	0.48
Any accessible female doctor	8,375	0.21	0.41
Any accessible private doctor	8,375	0.32	0.47
Women's group present	8,374	0.55	0.50
Janani Suraksha Yojana implemented	8,379	0.92	0.26
Kishori Shakti Yojana implemented	8,378	0.49	0.50
Balika Samriddhi Yojana implemented	8,378	0.42	0.49
Sanitation Program implemented	8,377	0.56	0.50

Notes: Data comes from the 2012-14 District-level Household and Facility Survey (DLHS) of India. The table presents the number of observations, the means, and standard deviations (S.D.) for district-level characteristics of the election data and Census data matched to DLHS data in Panels A and B, and village-level data from the DLHS in Panel C.

Table 2: Summary statistics, NFHS sample

	N	Mean	S.D.
Panel A: NFHS ever-married sample, women			
Physical violence index	62,036	0.01	1.00
Psychological violence index	62,036	0.00	1.00
Sexual violence index	62,036	0.00	1.01
IPV attitudes index	61,976	-0.01	1.00
Worked last week	62,036	0.26	0.44
Worked last 12 months	62,036	0.33	0.47
Using modern contraception	62,036	0.46	0.50
Using traditional contraception	62,036	0.06	0.24
$Ideal^{H}_{sons} - Actual_{sons}$	44,073	-0.01	1.08
Age	62,036	33.01	8.12
Rural	62,036	0.71	0.45
Hindu	62,036	0.78	0.42
Muslim	62,036	0.10	0.30
Christian	62,036	0.07	0.26
Sikh	62,036	0.02	0.14
SC/ST	62,036	0.38	0.48
OBC	62,036	0.41	0.49
Years of schooling	62,036	5.96	5.20
Panel B: NFHS woman-year variables			
Years since the last births	234,554	6.96	6.57
Number of children	234,554	2.40	1.61
Panel C: NFHS ever-married sample, men			
IPV attitudes index	70,829	0.03	0.97
Worked last week	70,922	0.91	0.29
Age	70,923	37.58	8.81
Rural	70,923	0.70	0.46
Hindu	70,923	0.76	0.43
Muslim	70,923	0.13	0.34
Christian	70,923	0.07	0.25
Sikh	70,923	0.02	0.14
SC/ST	67,152	0.38	0.49
OBC	67,152	0.41	0.49
Years of schooling	70,923	7.56	4.94

Notes: The table presents the number of observations, the means, and standard deviations (S.D.) for demographics, IPV outcomes, attitudes outcomes, labor market outcomes, contraceptive use, fertility preferences and behavior, and husband's characteristics. The samples in Panels A and B include ever-married women in the domestic violence module from the 2015-16 National Family Health Survey (NFHS), with Panel A presenting the summary statistics for the cross-sectional data and Panel B presenting them for the retrospective woman-year panel. Information on the variable $Ideal^{H}_{sons} - Actual_{sons}$, which measures the difference between the husband's ideal number of sons and the couple's actual number of sons, comes from the couple recode, which has fewer observations than the woman recode used for other variables in this table. This is because husbands of only a subset of women included in the woman recode were surveyed. The sample in Panel C includes ever-married men from the 2015-16 NFHS.

Table 3: Election and District Characteristics, NFHS Sample

	N	Mean	S.D.
Panel A: Election data			
Share of constituencies won by women in a district	626	0.09	0.14
Share of close male-female elections in a district	626	0.03	0.08
Share of male-female close election won by women in a district	626	0.01	0.05
Share of districts with at least one seat won by a woman	626	0.40	0.49
Share of districts with at least one male-female election	626	0.58	0.49
Share of districts with at least one male-female close election	626	0.13	0.33
Share of districts with at least one male-female close election won by a woman	626	0.06	0.24
Panel B: Census data			
Fraction of female population	626	0.49	0.02
Fraction of urban population	626	0.26	0.20
Fraction of SC/ST population	626	0.33	0.22
Female literacy rate	626	0.55	0.12
Male literacy rate	626	0.69	0.09

Notes: The table presents the number of observations, the means, and standard deviations (S.D.) for district-level characteristics of the election data and the Census data. Panel A presents these summary statistics for the electoral data from the Election Commission of India, which was obtained at the constituency level and aggregated to the district level. Panel B presents them for the district characteristics obtained from the 2011 Census of India.

Table 4: Female candidature by parties

Party/ Type of party	Share of female candidates	
	Top 2 Candidates (1)	All candidates (2)
National Democratic Alliance	9.35%	8.72%
United Progressive Alliance	7.80%	8.18%
Bharatiya Janata Party	9.83%	9.04%
Congress parties	8.27%	9.07%
Regional parties	7.32%	7.06%
Janata parties	9.07%	7.71%
Soft Left parties	9.97%	8.65%

Notes: This table shows the share of candidates that is female among the top two candidates (in column 1) and among all candidates (in column 2) in state elections that took place during our period of analysis, 2008-2015.

Table 5: Balanced Covariates, NFHS sample

Outcome: Fraction of female leaders in close elections	
Age	0.000
	(0.000)
Hindu	-0.005
	(0.009)
Muslim	-0.010
	(0.009)
Sikh	-0.009
	(0.012)
SC/ST	0.000
	(0.001)
OBC	0.001
	(0.001)
Years of schooling	0.000
	(0.000)
Rural	-0.001
	(0.001)
Fraction of female population	-0.100
	(0.209)
Fraction of urban population	0.027
	(0.022)
Fraction of SC/ST population	0.015
	(0.018)
Female literacy rate	-0.049
	(0.062)
Male literacy rate	0.042
	(0.077)
Share of districts seats reserved for lower castes	-0.020
	(0.015)
Share of district seats won by congress parties	0.062
	(0.042)
Share of district seats won by janata parties	-0.027
	(0.035)
Share of district seats won by regional parties	0.038
	(0.030)
Share of district seats won by hindu parties	-0.043
	(0.048)
Share of district seats won by other parties	0.040
	(0.040)
Total number of seats in a district	-0.001
	(0.001)
Observations	62,036
F-test of joint significance: p-value	0.8981

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. We define close elections as those in which victory margin is less that 3 percentage points. The dependent variable is the fraction of constituencies in a district where a woman won in a close election against a man in the most recent state election before the survey. We include state fixed effects in the regression. Robust standard errors are clustered at the district level.

Table 6: Balanced Covariates, DLHS sample

Outcome: Fraction of female leaders in close elections	
Fraction of female population	0.086
	(0.162)
Total population	0.000
	(0.000)
Fraction of urban population	-0.014
	(0.017)
Fraction of SC/ST population	-0.019
	(0.020)
Female literacy rate	-0.032
	(0.142)
Rural female literacy rate	0.018
	(0.134)
Share of districts seats reserved for lower castes	0.025
	(0.024)
Share of district seats won by congress parties	0.045
	(0.055)
Share of district seats won by janata parties	-0.026
	(0.049)
Share of district seats won by regional parties	0.031
	(0.050)
Share of district seats won by hindu parties	0.008
	(0.052)
Share of district seats won by other parties	-0.049
	(0.059)
Share of district seats won by hard-left parties	-0.044
	(0.083)
Total number of seats in a district	0.000
	(0.001)
Observations	8,383
F-test of joint sig: p-value	0.6434

Notes: Data comes from the 2012-14 District-level Household and Facility Survey (DLHS) of India. We define close elections as those in which victory margin is less than 3 percentage points. The dependent variable is the fraction of constituencies in a district where a woman won in a close election against a man in the most recent state election before the survey. We include state fixed effects in the regression. Robust standard errors are clustered at the district level.

Table 7: Correlations between Gender Norms and the Fraction of female leaders

	(1)	(2)	(3)	(4)
Dependent variable:	**Fraction of female leaders**			
Ratio of male to female literacy rate	0.076			
	(0.042)			
Wife's ideal number of sons		0.146		
		(0.092)		
Husband's ideal number of sons			0.214	
			(0.082)	
Proportion of females in population				-0.542
				(0.390)
Observations	615	615	614	615

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. Each column provides the correlation between the dependent variable (Fraction of females leaders in a district), and variables that capture gender norms in the district.

Table 8: Correlations between gender Norms and rural healthcare provision

Dependent variable:	**Health Workers Index**	
	(1)	(2)
Ratio of male to female literacy rate	-0.704	
	(0.336)	
Proportion of females in population		5.124
		(2.328)
Observations	265	265

Notes: Data comes from the 2012-14 District-level Household and Facility Survey (DLHS) of India. Each column provides the correlation between the dependent variable (Health Workers Index in a district), and variables that capture gender norms in the district.

Table 9: Candidate Characteristics

	t-tests of differences in means between:		
	Female winners in close male-female Elections vs. female winners in all other elections (1)	Female winners vs. male winners in close male-female elections (2)	Female winners vs. male winners in all elections (3)
Age	0.742	5.756	4.875
	(1.567)	(2.150)	(0.867)
Reservation	-0.121	-0.044	0.006
	(0.077)	(0.105)	(0.041)
Has College Degree	0.125	0.100	0.079
	(0.078)	(0.105)	(0.041)
No Criminal Cases	-0.016	-0.096	-0.093
	(0.060)	(0.086)	(0.035)
Ln(total Assets)	-0.263	-0.316	0.074
	(0.331)	(0.393)	(0.160)
NDA	0.001	-0.094	-0.033
	(0.076)	(0.099)	(0.040)
UPA	-0.097	-0.118	-0.024
	(0.069)	(0.094)	(0.036)
Observations	343	92	580

Notes: Data are from candidate affidavit data provided by the Association of Democratic Reform and election years that are included in the analysis in this paper (2008-2015). We define close elections as those in which victory margin is less than 3 percentage points. The sample in column 1 is restricted to female winners, and the t-tests provide tests of differences in means between the sample of female winners in close male-female elections and the sample of all other female winners. The sample in column 2 is restricted to all winners in close male-female elections, and the t-tests provide tests of differences in means between the sample of female and male winners in such elections. Column 3 includes all winners across all elections, and the t-tests provide tests of differences in means between the sample of female and male winners in all elections.

Table 10: Male vs female winners in close male-female elections

Dependent variable	Coefficient of "Male winner"	N
Vote share of winner	0.002	143
	(0.013)	
Winner is from incumbent party	0.028	143
	(0.028)	
Voter turnout in constituency	-7424.623	143
	(7128.111)	
Last election in the constituency was close	-0.059	133
	(0.046)	
Last election in the constituency was a close male-female election	0.002	133
	(0.054)	
No. of female candidates in constituency	-0.018	143
	(0.174)	

Notes: Each coefficient is from a separate regression where the dependent variable is regressed on an indicator for the winner being male. The sample is restricted to election year-constituencies where a close election took place between a male and a female candidate during our period of analysis, 2008-2015.

Table 11: Balanced Covariates, NFHS sample

Outcome: Any close male-female election	
Age	-0.000
	(0.000)
Hindu	-0.030
	(0.024)
Muslim	-0.036
	(0.027)
Sikh	-0.055
	(0.061)
SC/ST	0.003
	(0.007)
OBC	0.005
	(0.008)
Years of schooling	-0.000
	(0.000)
Rural	0.006
	(0.006)
Fraction of female population	0.009
	(1.165)
Fraction of urban population	-0.096
	(0.116)
Fraction of SC/ST population	-0.008
	(0.105)
Female literacy rate	0.348
	(0.481)
Male literacy rate	-0.303
	(0.570)
Share of districts seats reserved for lower castes	-0.053
	(0.074)
Share of district seats won by congress parties	0.341
	(0.244)
Share of district seats won by janata parties	-0.013
	(0.243)
Share of district seats won by regional parties	0.308
	(0.220)
Share of district seats won by hindu parties	0.231
	(0.236)
Share of district seats won by other parties	0.499
	(0.339)
Total number of seats in a district	0.006
	(0.005)
Observations	62,036
F-test of joint sig: p-value	0.5537

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. We define close elections as those in which victory margin is less than 3 percentage points. The dependent variable indicates that the district had at least one constituency with a close election between a man and a woman in the most recent state election before the survey. We include state fixed effects in the regression. Robust standard errors are clustered at the district level.

Table 12: Reduced form estimates, rural sample

	Health facility index	Health worker index	Program index	Using modern contraception	Physical IPV index		
					Full sample	$Ideal^{H}_{sons} > Actual_{sons}$	$Ideal^{H}_{sons} \leq Actual_{sons}$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fraction of female leaders	2.729	2.274	1.412	0.197	0.392	0.525	0.120
in close elections	(0.576)	(0.556)	(0.545)	(0.105)	(0.171)	(0.234)	(0.189)
Observations	8,366	8,371	8,374	43,902	43,902	9,361	21,645
						p-value for (6)-(7): 0.0960	

Notes: Data in columns 1-3 are from the 2012-14 District-level Household and Facility Survey (DLHS) of India and in columns 4-7 from the 2015-16 National Family Health Survey (NFHS) of India. We present reduced form estimates for the rural sample. We define close elections as those in which victory margin is less than 3 percentage points. The outcome variables are indices for access to health facilities, the presence of health professionals, and implementation of public programs, respectively, in columns 1-3. In column 3, the outcome is an indicator for whether the wife is using modern contraception at the time of the survey and in columns 5-6, it is the z-score for physical IPV. In columns 6-7, we split the sample by whether the husband's ideal number of sons ($Ideal^{H}_{sons}$) is greater than or $\leq$ to the actual number of sons ($Actual_{sons}$) that the couple has at the time of the survey. All regressions include individual controls (except in columns 1-3), district controls, and state fixed effects. Individual controls include years of schooling and indicator variables for age, religion, caste, residence in a rural area, and highest level of educational attainment. District-level controls include the share of female population, the share of urban population, the share of SC-ST population in the district, and the female and male literacy rates. Robust standard errors are clustered at the district level.

Table 13: Family planning and fertility, Urban sample

	Modern contraception		Traditional contraception		Birth spacing		No. of children	
	Full sample	Couple sample	Full sample	Couple sample	Full sample	Couple sample	Full sample	Couple sample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: OLS								
Fraction of female leaders	0.083	0.083	0.013	0.025	-0.233	0.010	-0.078	-0.112
	(0.048)	(0.053)	(0.021)	(0.024)	(0.254)	(0.321)	(0.101)	(0.110)
Observations	18,134	13,232	18,134	13,232	68,196	49,752	68,196	49,752
Panel B: 2SLS Second-stage								
Fraction of female leaders	-0.078	-0.153	-0.068	0.036	-0.652	-0.652	-0.443	-0.212
	(0.126)	(0.141)	(0.087)	(0.072)	(0.869)	(1.140)	(0.310)	(0.345)
Observations	18,134	13,232	18,134	13,232	68,196	49,752	68,196	49,752
Outcome mean	0.478	0.503	0.066	0.076	7.574	6.821	2.124	2.127
Panel C: 2SLS First-stage								
Dep var: Fraction of female leaders								
Fraction of female leaders	1.056	1.077	1.056	1.077	1.044	1.073	1.044	1.073
in close elections	(0.095)	(0.090)	(0.095)	(0.090)	(0.104)	(0.092)	(0.104)	(0.092)
Observations	18,134	13,232	18,134	13,232	68,196	49,752	68,196	49,752
First stage F-stat	123.358	141.695	123.358	141.695	100.375	137.436	100.375	137.436

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively, for the urban sample. Columns 1-4 are based on cross-sectional data and columns 5-6 use the retrospective woman-year panel data. Columns 1, 3, 5, and 7 show estimates for the full rural sample, while columns 2, 4, 6, and 8 restrict the rural sample to women from our couples' sample. We define close elections as those in which victory margin is less than 3 percentage points. The outcomes in the table are as follows: indicator for whether the woman is using a modern contraceptive method (columns 1-2), indicator for whether the woman is using a traditional contraceptive method (columns 3-4), the number of years since the woman's last birth (columns 5-6), and the woman's number of children (columns 7-8). All regressions include individual controls, district controls, and state fixed effects. Individual controls include years of schooling and indicator variables for age, religion, caste, residence in a rural area, and highest level of educational attainment. District-level controls include the share of female population, the share of urban population, the share of SC-ST population in the district, and the female and male literacy rates. The regressions in columns 5-8 also include year fixed effects. Robust standard errors are clustered at the district level.

Table 14: Psychological and Sexual IPV, Rural sample

	Psychological IPV index			Sexual IPV index		
	Full sample	$Ideal^{H}_{sons} > Actual_{sons}$	$Ideal^{H}_{sons} \leq Actual_{sons}$	Full sample	$Ideal^{H}_{sons} > Actual_{sons}$	$Ideal^{H}_{sons} \leq Actual_{sons}$
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: OLS						
Fraction of female leaders	0.083	0.228	0.083	-0.017	0.180	-0.089
	(0.065)	(0.094)	(0.073)	(0.055)	(0.096)	(0.070)
Observations	43,902	9,361	21,645	43,902	9,361	21,645
Panel B: 2SLS Second-stage						
Fraction of female leaders	0.253	0.666	-0.050	-0.013	0.234	-0.316
	(0.179)	(0.303)	(0.214)	(0.177)	(0.262)	(0.242)
Observations	43,902	9,361	21,645	43,902	9,361	21,645
Outcome mean	0.011	-0.031	-0.002	0.019	0.011	0.008
Panel C: 2SLS First-stage						
Dep var: Fraction of female leaders						
Fraction of female leaders	0.927	0.961	0.961	0.927	0.961	0.961
in close elections	(0.098)	(0.107)	(0.100)	(0.098)	(0.107)	(0.100)
Observations	43,902	9,361	21,645	43,902	9,361	21,645
First stage F-stat	89.308	80.923	92.964	89.308	80.923	92.964

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively, for the rural sample. We define close elections as those in which victory margin is less than 3 percentage points. The outcome variable in columns 1-3 is the z-score for psychological IPV experienced by the wife in the last 12 months and in columns 4-6 is the z-score for sexual IPV experienced by the wife in the last 12 months. In columns 2, 3, 5, and 6, we split the sample by whether the husband's ideal number of sons ($Ideal^{H}_{sons}$) is greater than or $\leq$ to the actual number of sons ($Actual_{sons}$) that the couple has at the time of the survey. All regressions include individual controls, district controls, and state fixed effects. Individual controls include years of schooling and indicator variables for age, religion, caste, residence in a rural area, and highest level of educational attainment. District-level controls include the share of female population, the share of urban population, the share of SC-ST population in the district, and the female and male literacy rates. Robust standard errors are clustered at the district level.

Table 15: IPV, Urban sample

	Physical IPV index			Phsychological IPV index			Sexual IPV index		
	Full sample	$Ideal^H_{sons} > Actual_{sons}$	$Ideal^H_{sons} \leq Actual_{sons}$	Full sample	$Ideal^H_{sons} > Actual_{sons}$	$Ideal^H_{sons} \leq Actual_{sons}$	Full sample	$Ideal^H_{sons} > Actual_{sons}$	$Ideal^H_{sons} \leq Actual_{sons}$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: OLS									
Fraction of female leaders	0.005	0.097	-0.009	0.033	0.171	-0.045	0.011	-0.086	0.057
	(0.071)	(0.122)	(0.072)	(0.084)	(0.180)	(0.091)	(0.077)	(0.140)	(0.074)
Observations	18,134	3,740	9,327	18,134	3,740	9,327	18,134	3,740	9,327
Panel B: 2SLS Second-stage									
Fraction of female leaders	0.042	0.319	-0.167	-0.010	0.268	-0.410	0.027	0.261	-0.297
	(0.187)	(0.390)	(0.244)	(0.219)	(0.437)	(0.265)	(0.240)	(0.337)	(0.283)
Observations	18,134	3,740	9,327	18,134	3,740	9,327	18,134	3,740	9,327
Outcome mean	-0.052	-0.069	-0.069	-0.019	-0.045	-0.040	-0.037	-0.057	-0.046
Panel C: 2SLS First-stage									
Dep var: Fraction of female leaders									
Fraction of female leaders	1.056	1.044	1.094	1.056	1.044	1.094	1.056	1.044	1.094
in close elections	(0.095)	(0.091)	(0.093)	(0.095)	(0.091)	(0.093)	(0.095)	(0.091)	(0.093)
Observations	18,134	3,740	9,327	18,134	3,740	9,327	18,134	3,740	9,327
First stage F-stat	123.358	131.355	137.478	123.358	131.355	137.478	123.358	131.355	137.478

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively, for the urban sample. We define close elections as those in which victory margin is less than 3 percentage points. The outcome variables are, respectively, the z-score for physical IPV, the z-score for psychological IPV, and the z-score for sexual IPV experienced by the wife in the last 12 months in columns 1-3, columns 4-6, and columns 7-9. In columns 1, 4, and 7, we use the full rural sample, but in the remaining columns, we split the sample by whether the husband's ideal number of sons ($Ideal^H_{sons}$) is greater than or $\leq$ to the actual number of sons ($Actual_{sons}$) that the couple has at the time of the survey. All regressions include individual controls, district controls, and state fixed effects. Individual controls include years of schooling and indicator variables for age, religion, caste, residence in a rural area, and highest level of educational attainment. District-level controls include the share of female population, the share of urban population, the share of SC-ST population in the district, and the female and male literacy rates. Robust standard errors are clustered at the district level.

Table 16: Robustness Checks, DLHS sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Health facility index										
Fraction of female leaders	2.088	2.156	2.061	3.143	2.869	2.274	2.999	2.964	2.824	2.978
	(0.705)	(0.774)	(0.919)	(0.851)	(0.801)	(0.963)	(0.887)	(0.735)	(0.745)	(0.778)
Observations	8,366	8,366	8,366	8,366	8,366	8,366	4,786	8,366	8,366	8,366
Outcome mean	0.000	0.000	0.000	0.000	0.000	0.000	0.114	0.000	0.000	0.000
Panel B: Health worker index										
Fraction of female leaders	2.351	2.333	2.139	2.627	2.162	2.528	2.647	2.470	2.097	2.270
	(0.550)	(0.592)	(0.664)	(0.696)	(0.666)	(0.610)	(0.711)	(0.665)	(0.605)	(0.650)
Observations	8,371	8,371	8,371	8,371	8,371	8,371	4,787	8,371	8,371	8,371
Outcome mean	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.105	-0.000	-0.000	-0.000
Panel C: Public program index										
Fraction of female leaders	1.295	1.383	1.260	1.887	1.601	0.950	1.022	1.535	1.370	1.323
	(0.597)	(0.636)	(0.578)	(0.814)	(0.704)	(0.739)	(0.571)	(0.578)	(0.570)	(0.569)
Observations	8,374	8,374	8,374	8,374	8,374	8,374	4,789	8,374	8,374	8,374
Outcome mean	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	0.062	-0.000	-0.000	-0.000
Robustness check	No polynomial	1st order polynomial	2nd order polynomial	BW=2%	BW=2.5%	BW=3.5%	At least one male-female election	Removing outliers	Political party controls	Drop education controls
State group fixed effects	x	x	x	x	x	x	x	x	x	x
District characteristics	x	x	x	x	x	x	x	x	x	x

Notes: Data are from the 2012-14 District-level Household and Facility Survey (DLHS) of India. The table presents 2SLS estimates using the fraction of female leaders in a district in close elections as an instrument. The dependent variables are indices for access to health facilities (Panel A), the presence of health professionals (Panel B), and implementation of public programs (Panel C). Columns (1)-(3) use alternative functional forms for the victory margin, and columns (4)-(6) change the bandwidth for the definition of close elections. In column (7), we restrict the sample to districts with at least one male-female election. In column (8), we exclude districts whose share of female leaders is equal to or above 50% (99th percentile). In column (9), we add political party controls (the shares of winners from each of the seven political party groups) and the share of reservation seats for SC/ST population. In column (10), we drop the controls for district level female and male literacy rates. All regressions include state fixed effects and control for the share of seats in the district that had close elections between women and men. Individual controls include age, years of schooling, and indicator variables for living in a rural area, religion, and caste. District-level controls include the share of female population, the share of urban population, the share of SC-ST population in the district, and (except in column 10) the female and male literacy rates. Robust standard errors are clustered at the district level.

Table 17: Robustness Checks, NFHS Rural sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Physical IPV index										
Fraction of female leaders	0.349	0.388	0.415	0.455	0.428	0.208	0.438	0.503	0.427	0.412
	(0.176)	(0.198)	(0.196)	(0.182)	(0.214)	(0.162)	(0.216)	(0.263)	(0.195)	(0.194)
Observations	43,902	43,902	43,902	43,902	43,902	43,902	24,702	42,294	43,902	43,902
Outcome mean	0.031	0.031	0.031	0.031	0.031	0.031	0.057	0.030	0.031	0.031
Panel B: Using modern contraception										
Fraction of female leaders	0.229	0.258	0.279	0.244	0.170	0.160	0.338	0.237	0.250	0.248
	(0.113)	(0.115)	(0.118)	(0.110)	(0.111)	(0.122)	(0.123)	(0.161)	(0.120)	(0.117)
Observations	31,433	31,433	31,433	31,433	31,433	31,433	17,699	30,266	31,433	31,433
Outcome mean	0.493	0.493	0.493	0.493	0.493	0.493	0.508	0.494	0.493	0.493
Robustness check	No polynomial	1st order polynomial	2nd order polynomial	BW=2%	BW=2.5%	BW=3.5%	At least one male-female election	Removing outliers	Political party controls	Drop education controls
State fixed effects	x	x	x	x	x	x	x	x	x	x
District characteristics	x	x	x	x	x	x	x	x	x	x
Individual characteristics	x	x	x	x	x	x	x	x	x	x

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. The sample is restricted to women living in rural areas. The table presents 2SLS estimates using the fraction of female leaders in a district in close elections as an instrument. The dependent variables are physical violence index in Panel A and an indicator for using a modern contraception method (for the couple sample) in Panel B. Columns (1)-(3) use alternative functional forms for the victory margin, and columns (4)-(6) change the bandwidth for the definition of close elections. In column (7), we restrict the sample to districts with at least one male-female election. In column (8), we exclude districts whose share of female leaders is equal to or above 50 percent (99th percentile). In column (9), we add political party controls (the shares of winners from each of the seven political party groups) and the share of reservation seats for SC/ST population. In column (10), we drop the controls for district level female and male literacy rates as well individual level variables related to schooling. All regressions include state fixed effects and control for the share of seats in the district that had close elections between women and men. Individual controls include years of schooling (except in column 10) and indicator variables for age, religion, caste, residence in a rural area, and highest level of educational attainment (except in column 10). District-level controls include the share of female population, the share of urban population, the share of SC-ST population in the district, and (except in column 10) the female and male literacy rates. Robust standard errors are clustered at the district level.

Table 18: Access to Health Facilities Using Data from DLHS-2, DLHS-3, and DLHS-4

	Health facility index (1)	Sub center (2)	Primary center (3)	Govt. hospital (4)	Community center (5)	Govt. dispensary (6)
Panel A: OLS						
Fraction of female leaders	0.335	-0.039	-0.027	0.024	0.018	0.191
	(0.221)	(0.067)	(0.091)	(0.127)	(0.134)	(0.078)
Observations	21,730	21,804	21,804	21,804	21,804	21,730
Panel B: 2SLS Second-stage						
Fraction of female leaders	1.960	0.379	0.465	0.599	0.549	0.479
	(0.799)	(0.204)	(0.286)	(0.338)	(0.321)	(0.247)
Observations	21,730	21,804	21,804	21,804	21,804	21,730
Outcome mean	0.051	0.871	0.807	0.755	0.733	0.108
Panel C: 2SLS First-stage						
Dep var: Fraction of female leaders						
Fraction of female leaders in close elections	1.180	1.187	1.187	1.187	1.187	1.180
	(0.146)	(0.146)	(0.146)	(0.146)	(0.146)	(0.146)
Observations	21,730	21,804	21,804	21,804	21,804	21,730
First stage F-stat	65.333	66.126	66.126	66.126	66.126	65.333

Notes: Data comes from three rounds of the District-level Household and Facility Survey (DLHS) of India (DLHS-2, DLHS-3, and DLHS-4), conducted during 2002-2004, 2007-2008, and 2012-2014, respectively. All specifications include district fixed effects and survey year fixed effects, as well as district-level controls. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively. We define close elections as those in which victory margin is less that 3 percentage points. In columns 2-6, the dependent variables are indicators for access to different types of health facilities and the outcome in column 1 is an index based on the outcomes in columns 2-6. District-level controls include the share of female population, the share of urban population, and the share of SC-ST population in the district, and the female and male literacy rates. These variables come from the 2001 Population Census, and they are interacted with the survey year indicator for each round. Robust standard errors are clustered at the district level.

Table 19: Falsification Tests

	DLHS-2	DLHS-3			
	Health facility index	Health facility index	Health worker index	Public Program index	Women's group
	(1)	(2)	(3)	(4)	(5)
Panel A: Full sample					
Fraction of female leaders	0.153	0.048	0.234	0.207	0.183
	(0.448)	(0.418)	(0.294)	(0.438)	(0.119)
Observations	14,466	20,933	20,789	20,933	20,933
Outcome mean	-0.001	0.005	0.005	0.004	0.387
Panel B: Excluding districts where a woman won in a close election recently					
Fraction of female leaders	0.256	0.111	0.279	0.297	0.167
	(0.469)	(0.464)	(0.316)	(0.470)	(0.127)
Observations	13,775	19,605	19,471	19,605	19,605
Outcome mean	-0.001	0.013	0.005	-0.008	0.388

Notes: Data for column 1 comes from the 2002–2004 District-level Household and Facility Survey (DLHS-2) and for columns 2-5 comes from the 2007-2009 DLHS-3. The election data covers future state elections (the second round of elections after the survey was conducted). We present 2SLS estimates in Panels A and B. For Panel B, we exclude districts that had a recent (the next round of elections after the survey was conducted) close male-female election where a female candidate won. We define close elections as those in which the victory margin is less than 3 percentage points. In column 1, the health facility index excludes the block center, which is not reported in DLHS-2. All other variables are defined in the same way as in Tables 1-3. All regressions include district controls and state fixed effects. District-level controls include the share of female population, the share of urban population, and the share of SC-ST population in the district, and the female and male literacy rates. Robust standard errors are provided in parentheses.

Table 20: Access to Health Facilities, District-Level Analysis

	Health facility index (1)	Sub center (2)	Primary center (3)	Block center (4)	Govt. hospital (5)	Community center (6)	Govt. dispensary (7)
Panel A: OLS							
Fraction of female leaders	0.688	0.026	0.163	0.252	0.260	0.304	0.167
	(0.293)	(0.084)	(0.089)	(0.121)	(0.117)	(0.128)	(0.113)
Observations	265	265	265	265	265	265	265
Panel B: 2SLS Second-stage							
Fraction of female leaders	2.966	0.182	0.661	1.141	1.013	1.158	0.705
	(0.735)	(0.133)	(0.206)	(0.264)	(0.290)	(0.316)	(0.389)
Observations	265	265	265	265	265	265	265
Outcome mean	-0.009	0.870	0.804	0.560	0.738	0.716	0.112
Panel C: 2SLS First-stage							
Dep var: Fraction of female leaders							
Fraction of female leaders in close elections	0.920	0.920	0.920	0.920	0.920	0.920	0.920
	(0.121)	(0.121)	(0.121)	(0.121)	(0.121)	(0.121)	(0.121)
Observations	265	265	265	265	265	265	265
First stage F-stat	57.962	57.962	57.962	57.962	57.962	57.962	57.962

Notes: Data comes from the 2012-14 District-level Household and Facility Survey (DLHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively. We define close elections as those in which victory margin is less than 3 percentage points. The outcomes are district-level means of the following variables: in columns 2-7, the dependent variables are indicators for access to different types of health facilities and the outcome in column 1 is an index based on the outcomes in columns 2-7. All regressions are weighted by cellsize and include the same district-level variables as in Table 1. Robust standard errors are provided in parentheses.

Table 21: Access to Women-centric Services, District-Level Analysis

	Health worker index	Auxiliary Nurse Midwife	Female doctor	Private doctor	Women's group
	(1)	(2)	(3)	(4)	(5)
Panel A: OLS					
Fraction of female leaders	0.526	0.159	0.296	0.012	0.163
	(0.387)	(0.169)	(0.116)	(0.148)	(0.161)
Observations	265	265	265	265	265
Panel B: 2SLS Second-stage					
Fraction of female leaders	2.473	0.892	0.720	0.755	0.481
	(0.665)	(0.262)	(0.278)	(0.242)	(0.244)
Observations	265	265	265	265	265
Outcome mean	-0.013	0.618	0.217	0.316	0.539
Panel C: 2SLS First-stage					
Dep var: Fraction of female leaders					
Fraction of female leaders in close elections	0.920	0.920	0.920	0.920	0.920
	(0.121)	(0.121)	(0.121)	(0.121)	(0.121)
Observations	265	265	265	265	265
First stage F-stat	57.962	57.962	57.962	57.962	57.962

Notes: Data comes from the 2012-14 District-level Household and Facility Survey (DLHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively. We define close elections as those in which victory margin is less than 3 percentage points. The outcomes are district-level means of the following variables: in columns 2-4, the dependent variables are indicators for the presence of different types of health professionals in the village and the outcome in column 1 is an index based on the outcomes in columns 2-4. In column 5, the outcome is the district-level average of an indicator for the presence of a women's group in the village. All regressions are weighted by cellsize and include the same district-level variables as in Table 2. Robust standard errors are presented in parentheses.

Table 22: Implementation of Public Programs, District-Level Analysis

	Public program index (1)	Janani Suraksha Yojana (2)	Kishori Shakti Yojana (3)	Balika Samriddhi Yojana (4)	Sanitation Program (5)
Panel A: OLS					
Fraction of female leaders	0.435	0.065	0.297	0.134	0.077
	(0.325)	(0.076)	(0.173)	(0.182)	(0.159)
Observations	265	265	265	265	265
Panel B: 2SLS Second-stage					
Fraction of female leaders	1.535	0.160	0.543	0.523	0.678
	(0.578)	(0.106)	(0.316)	(0.305)	(0.351)
Observations	265	265	265	265	265
Outcome mean	-0.049	0.917	0.461	0.394	0.548
Panel C: 2SLS First-stage					
Dep var: Fraction of female leaders					
Fraction of female leaders in close elections	0.920	0.920	0.920	0.920	0.920
	(0.121)	(0.121)	(0.121)	(0.121)	(0.121)
Observations	265	265	265	265	265
First stage F-stat	57.962	57.962	57.962	57.962	57.962

Notes: Data comes from the 2012-14 District-level Household and Facility Survey (DLHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively. We define close elections as those in which victory margin is less than 3 percentage points. The outcomes are district-level means of the following variables: in columns 2-5, the dependent variables are indicators for whether each public program has been implemented in the village and the outcome in column 1 is an index based on the outcomes in columns 2-5. All regressions are weighted by cellsize and include the same district-level variables as in Table 3. Robust standard errors are provided in parentheses.

Table 23: Family planning and Fertility - District-Level Analysis

	Modern contraception		Traditional contraception		Birth spacing (in years)		No. of children	
	Full sample	Couple sample	Full sample	Couple sample	Full sample	Couple sample	Full sample	Couple sample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: OLS								
Fraction of female leaders	0.022	0.012	-0.004	-0.003	0.026	0.104	-0.037	-0.100
	(0.040)	(0.042)	(0.020)	(0.024)	(0.109)	(0.120)	(0.042)	(0.043)
Observations	615	615	615	615	2.415	2,415	2,415	2,415
Panel B: 2SLS Second-stage								
Fraction of female leaders	0.212	0.279	-0.068	-0.091	1.544	1.463	-0.122	-0.207
	(0.113)	(0.116)	(0.046)	(0.053)	(0.328)	(0.310)	(0.151)	(0.146)
Observations	615	615	615	615	2,415	2,415	2,415	2,415
Outcome mean	-0.001	-0.005	0.000	-0.001	-0.010	-0.001	-0.012	-0.010
Panel C: 2SLS First-stage								
Dep var: Fraction of female leaders								
Fraction of female leaders	0.929	0.962	0.929	0.962	894	0.918	0.894	0.918
in close elections	(0.103)	(0.069)	(0.103)	(0.069)	(0.047)	(0.050)	(0.047)	(0.050)
Observations	615	615	615	615	2.415	2,415	2.415	2,415
First stage F-stat	81.825	81.112	81.825	81.112	364.666	337.993	364.666	337.993

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively, for the rural sample. Columns 1-4 are based on cross-sectional data and columns 5-8 use the retrospective woman-year panel data. Columns 1, 3, 5, and 7 show estimates for the full rural sample, while columns 2, 4, 6, and 8 restrict the rural sample to women from our couples' sample. We define close elections as those in which victory margin is less than 3 percentage points. The outcomes are district-level means (residual of state fixed effects, individual-level controls, and the margin variables) of the following variables: indicator for whether the woman is using a modern contraceptive method (columns 1-2) and indicator for whether the woman is using a traditional contraceptive method (columns 3-4). The outcomes are district-year-level means (residual of state fixed effects, individual-level controls, and the margin variables) of the following variables: the number of years since the woman's last birth (columns 5-6) and the woman's number of children (columns 7-8). All regressions are weighted by cellsize and include district controls, i.e., the share of female population, the share of urban population, the share of SC-ST population in the district, and the female and male literacy rates. The regressions in columns 5-8 also include year fixed effects. Robust standard errors are presented in parentheses; in columns 5-8 the standard errors are clustered at the district level.

Table 24: Physical IPV - District-Level Analysis

Dep var: *Physical IPV index*	Full sample	Wife's age ≤ 30	Wife's age > 30	$Ideal^{H}_{sons} > Actual_{sons}$	$Ideal^{H}_{sons} \leq Actual_{sons}$
	(1)	(2)	(3)	(4)	(5)
Panel A: OLS					
Fraction of female leaders	0.087	0.122	0.016	0.175	0.040
	(0.057)	(0.081)	(0.073)	(0.101)	(0.069)
Observations	615	612	615	611	613
Panel B: 2SLS Second-stage					
Fraction of female leaders	0.374	0.524	0.180	0.476	0.093
	(0.189)	(0.209)	(0.222)	(0.258)	(0.199)
Observations	615	612	615	611	613
Outcome mean	-0.004	-0.005	-0.005	-0.005	-0.002
Panel C: 2SLS First-stage					
Dep var: Fraction of female leaders					
Fraction of female leaders	0.952	0.954	0.952	0.975	0.970
in close elections	(0.085)	(0.116)	(0.116)	(0.095)	(0.084)
Observations	615	612	615	611	613
First stage F-stat	126.657	67.156	67.240	105.473	133.475

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively, for the rural sample. We define close elections as those in which victory margin is less than 3 percentage points. The outcome is district-level mean (residual of state fixed effects, individual-level controls, and the margin variables) of the z-score for physical IPV experienced by the wife in the last 12 months. The sample is restricted to women who age was ≤ 30 and > 30 at the time of the survey in columns 2 and 3, respectively. In columns 4-5, we split the sample by whether the husband's ideal number of sons ($Ideal^{H}_{sons}$) is greater than or $\leq$ to the actual number of sons ($Actual_{sons}$) that the couple has at the time of the survey. All regressions are weighted by cellsize and include district level controls, i.e., the share of female population, the share of urban population, the share of SC-ST population in the district, and the female and male literacy rates. Robust standard errors are presented in parentheses.

Table 25: Modern Contraception and Husband's son preference, Rural sample

	Using modern contraception		$Ideal^{H}_{sons}$	$Ideal^{H}_{sons} > Actual_{sons}$
	$Ideal^{H}_{sons} > Actual_{sons}$	$Ideal^{H}_{sons} \leq Actual_{sons}$		
	(1)	(2)	(3)	(4)
Panel A: OLS				
Fraction of female leaders	0.008	0.037	0.069	0.089
	(0.047)	(0.043)	(0.063)	(0.064)
Observations	9,361	21,645	31,013	31,006
Panel B: 2SLS Second-stage				
Fraction of female leaders	0.295	0.280	-0.013	0.128
	(0.123)	(0.141)	(0.157)	(0.209)
Observations	9,361	21,645	31,013	31,006
Outcome mean	0.286	0.585	1.254	-0.011
Panel C: 2SLS First-stage				
Dep var: Fraction of female leaders				
Fraction of female leaders	0.961	0.961	0.960	0.960
in close elections	(0.107)	(0.100)	(0.102)	(0.102)
Observations	9,361	21,645	31,013	31,006
First stage F-stat	80.923	92.964	88.421	88.550

Notes: Data are from the 2015-16 National Family Health Survey (NFHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively, for the rural sample. We define close elections as those in which victory margin is less than 3 percentage points. The outcome variable in columns 1-2 is an indicator for whether the wife is using a modern method of contraception. In column 3, the outcome variable is the husband's ideal number of sons and in column 4, the outcome indicates whether the husband's ideal number of sons ($Ideal^{H}_{sons}$) is greater than the couple's actual number of sons ($Actual_{sons}$). In columns 1-2, we split the sample by whether the husband's ideal number of sons ($Ideal^{H}_{sons}$) is greater than or $\leq$ to the actual number of sons ($Actual_{sons}$) that the couple has at the time of the survey. All regressions include individual controls, district controls, and state fixed effects. Individual controls include years of schooling and indicator variables for age, religion, caste, residence in a rural area, and highest level of educational attainment. District-level controls include the share of female population, the share of urban population, the share of SC-ST population in the district, and the female and male literacy rates. Robust standard errors are clustered at the district level.

Table 26: Provision of other public goods

	Electricity facility (1)	Middle school (2)	Credit coop (3)	Agri coop (4)	Milk coop (5)	Bank (6)	Post office (7)
Panel A: OLS							
Fraction of female leaders	-0.059	0.159	0.146	-0.087	0.242	0.097	0.178
	(0.118)	(0.103)	(0.133)	(0.126)	(0.153)	(0.125)	(0.135)
Observations	8,376	8,379	8,375	8,376	8,376	8,375	8,375
Panel B: 2SLS Second-stage							
Fraction of female leaders	-0.092	-0.013	0.266	0.389	0.571	0.320	0.632
	(0.338)	(0.280)	(0.353)	(0.349)	(0.528)	(0.402)	(0.481)
Observations	8,376	8,379	8,375	8,376	8,376	8,375	8,375
Outcome mean	0.774	0.719	0.300	0.322	0.283	0.309	0.597
Panel C: 2SLS First-stage							
Dep var: Fraction of female leaders							
Fraction of female leaders	0.921	0.920	0.920	0.920	0.920	0.921	0.920
in close elections	(0.110)	(0.110)	(0.110)	(0.110)	(0.110)	(0.110)	(0.110)
Observations	8,376	8,379	8,375	8,376	8,376	8,375	8,375
First stage F-stat	70.602	70.414	70.470	70.443	70.456	70.553	70.447

Notes: Data comes from the 2012-14 District-level Household and Facility Survey (DLHS) of India. We present OLS estimates in Panel A and 2SLS estimates in Panels B and C, respectively. We define close elections as those in which victory margin is less than 3 percentage points. All regressions include district controls, and state fixed effects. District-level controls include the share of female population, the share of urban population, and the share of SC-ST population in the district, and the female and male literacy rates. Robust standard errors are clustered at the district level.

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