Gender Quotas and Upward Political Mobility in India

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Abstract

This paper uses the staggered implementation of gender quota policy in India to understand whether women who won office due to quotas go on to win higher-level office. Indian local government elections impose mandatory gender quotas, but state elections do not. This provides a setting to assess if there is an increase in women's representation at higher levels of governance due to quotas at the local level. The identification strategy allows me to ascribe an increase of three percentage points in the share of women at the state-level to gender quotas in local government. Additionally, to establish upward political mobility of local-level leaders I tracked political biographies of over 1000 women legislators across India's 15 major state assemblies. In doing so, I identify that political dynasties, and ground-level leadership — those who entered politics due to mandatory gender quotas — are the two primary channels that enable entry of women into state-level politics. Further, I show that the effect of democratic entry of women into politics via quotas is pronounced in states with parties that are reliant on empowered rank and file members. Overall, these results highlight the importance of gender quotas as a democratic state-building tool and provide evidence for career advancement of women in politics whose democratic entry into politics was facilitated by the implementation of mandatory gender quotas.

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I Introduction

Under-representation of women in electoral politics is a global phenomenon. Besides being important in and of itself, women's political representation changes the terms of political engagement and weakens gender stereotypes (Htun and Jones, 2002; Chattopadhyay and Duflo, 2004; De Paola, Scoppa and Lombardo, 2010). Thus, more than 100 countries use electoral quotas to promote representation of women (O'Brien and Rickne, 2016).[1]

Quotas are temporary measures to improve representation of targeted groups (Bhavnani, 2009). By eliminating entry barriers, these policies expose individuals from previously underrepresented groups to the electorate. However, how far-reaching these effects are is not well-established. Therefore, this paper seeks to explore if the members of disadvantaged groups – who had quota privileges – move up the political ladder in the absence of quotas. In doing so, this paper asks the following: Do quotas for a particular group at one level of governance improve their representation at higher levels where quotas are not imposed? I refer to this as upward political mobility and test whether it exists using the variation in timing of introduction of quota policies in Indian local governments. The identification strategy allows me to establish that women who win local level elections due to quotas go on to win higher-level office. Specifically, gender quotas at the local level induce a statistically significant increase of about 3 percentage points in the proportion of women in state legislatures.

India is a federal country with three levels of government – local, state, and national — and mandatory gender quotas were introduced at the local level after constitutional amendments. Importantly, gender quotas do not exist at the level of state and national legislatures[2] This feature provides a unique setting to evaluate a "trickle-up" effect and assess the impact of electoral quota at lower levels on the election of women to the state level.

Yet, despite the existence of a large and growing literature that examines the effects of gender quotas within politics, mobility of women across levels of government is relatively understudied.

[1] The Gender Quotas Database – a collaboration between International IDEA, Inter-Parliamentary Union and Stockholm University – provides easily accessible information "on the various types of quotas in existence today, detailing the percentages and targets in countries where they are applicable."

[2] The women's reservation bill that seeks to reserve one-third of all seats for women in the national and state legislative assemblies has been debated widely but is still pending at the time of writing of this article in the lower house of the Parliament.

Scholars have focused on the probability of career advancement of women in politics, but associated works focus on women reaching powerful positions within the same electoral body, i.e., the scope of these studies is limited to the body where quotas apply. This paper focuses on the effects of quotas across levels of governments, specifically on government bodies where quotas are not applicable. Studies about follow-on effects of quotas have been sparse: Some examples include Bertrand et al. (2014), who find no evidence for "trickle-down" effects of quotas for women in Norwegian corporate boards; Kerevel (2019), who finds that quotas are ineffective in career advancement of women from legislature to executive office in Mexico; and Goyal (2020*b*) who studies the effects of quotas across levels of governance and finds that reserving seats for women at the local level results in the doubling of local women securing party nomination at the higher level using evidence from Delhi. This effect is driven by the party building activities that women – who act as brokers – in local levels perform for higher-level female candidates in exchange for access to patronage and oversight over bureaucracy.

Most scholarly work that studies the Indian gender quotas experiment focuses on effect of quotas that are applied to leadership positions (executive roles) in local bodies. This rests on the assumption that the "Pradhan" or the chief-councilor is "the only one that yields effective power" (Kanango, 1998; Duflo, 2004). While women in leadership roles do wield considerable executive powers, gender quotas in India are responsible for introducing women into politics across more than 260,000 local government bodies in leadership *and* non-leadership roles (*India Country Profile*, 2018). This is a result of the 73rd and 74th amendments to the Indian constitution of 1992 that introduced provisions for reserving one-third of all council seats for women. Therefore, following Iyer et al. (2012), I utilize the variation in timing of local government elections with quotas across Indian states to analyze state electoral data from 1962 through 2017. Additionally, I take advantage of the fact that multiple states in India increased the level of women's reservation to 50% from 33.3%, adding more variation to the data. Together, this allows me to account for the full effect of the reservation policy. Therefore, this paper complements O'Connell (2020), who uses spatial variation in the assignment of leadership roles in local government bodies in India and finds mixed evidence for a trickle-up effect. Using electoral data before 2007, he finds that longer exposure to women in local leadership positions increases the number of female candidates for higher office, but finds that there is no effect on the probability of women winning office

at higher levels. In contrast, I find that reservations also induce an increase in the proportion of women attaining legislative office at higher levels.[3] There is no evidence to suggest that this effect could be due to legislative ideology, attitudes towards women as proxied by sex ratio, or effective number of parties in the government.

Although the increase of about 3 percentage points in the proportion of women winning office at the state level is modest, the results are relevant from a policy perspective as they demonstrate that quotas are an important channel for upward political mobility. To establish this, I tracked prior political experience of all women (more than 1000 individuals) elected into 15 major state legislatures after the implementation of a quota policy at the local level. Consequently, I identify two discernible channels that enable women's entry into politics in India: political families and local-level politicians. Up to 60 percent of the women in certain state assembly terms have family connections to politics. More importantly, up to 70 percent of women in some state assembly terms are those who gained political experience after winning office in local elections.[4] Further, controlling for the proportion of women in state assemblies, this effect is driven by the presence of two political parties — Communist Party of India and Community Party of India (Marxist) — in the state legislatures. These parties exhibit relatively high levels of party decentralization, low levels of reliance on leadership charisma and dynastic politics, and have traditions of empowering local leaders (Kitschelt, 2012). Therefore, this result complements existing literature that has argued about the importance of party organization and internal party dynamics towards empowering women in politics. (Sanbonmatsu, 2002, 2006; Cheng and Tavits, 2011; Esteve-Volart and Bagues, 2012; Crowder-Meyer, 2013; Murray, 2014; Pansardi and Vercesi, 2017)[5]

While women's representation in India at the local and national levels has received considerable scholarly attention, their representation at the state level has received limited attention.Therefore,

[3]Consequently, the specification I present considers the effect of reservation policy at a broader level instead of focusing on a sub-sample of women who occupy leadership positions. This allows me to capture the effects of broad-based women's representation necessitated by mandatory gender quotas. In fact, while shedding light on the "political architecture that maximizes female voice",Iyer et al. (2012) state that "It is the presence of women in the broad base of political representatives rather than in leadership positions at higher levels of governance per se, that generates a more powerful impact on reporting of crimes".

[4]I do not rule out the possibility of other channels through which women could enter politics. For example, there are cases where movie stars and sports personalities with limited political experience have entered state legislatures. However, it is hard to ascertain whether their entry was facilitated by their social status or their innate ability as politicians or other reasons.

[5]Note that these results travel to any setting with quotas in one level of governance but not in others like Sri Lanka which has local quotas, or in some countries like Uganda where quotas exist at the national assembly but not at the executive level.

the results in this paper augment evidence on career concerns of women in politics by highlighting an association between previous office holding experience and future electoral representation (Smith, Reingold and Owens, 2012; Carroll and Sanbonmatsu, 2013). This paper also suggests that quotas can play an important role in democratic upward political mobility given that the evidence worldwide regarding political career advancement of women is mixed (Folke, Rickne et al., 2016; Bagues, 2017; Bhalotra, Clots-Figueras and Iyer, 2018; Kerevel, 2019; Goyal, 2020*b*). Finally, by drawing its theoretical motivation from Myerson (2011, p. 21300) — who contends "the essential problem in building a democratic state is to develop the nation's supply of democratic leaders." — this article places itself in the broader context of democratic decentralization and state-building by looking at follow-on effects that quota policies could have on the supply of democratic leaders.

The rest of the paper is structured as follows. Section II provides details on the policy measure, institutional background, and related literature. Section III describes the empirical strategy and data. Section IV presents results from the estimation. Section V provides alternative specifications. Section VI talks about the time taken for the effects to kick-in that segues into Section VII that describes the main mechanism and section VIII concludes.

II Gender Quotas - Policy Background and Theoretical Expectations

The introduction of mandatory gender quotas at local levels in India was a result of the 73rd constitutional amendments of 1992. Specifically, the amendment required the states to amend laws regarding local self-government and to set up multi-tiered system of local government known as *Panchayti Raj*. The Panchayti Raj comprises village, intermediate and district level bodies whose representatives are elected directly by the people for a five year term. Additionally, at least one-third of all the council seats in these institutions are mandatorily set aside for women and these reservations are in addition to the reservations that already existed for scheduled castes and scheduled tribes – which are set to be proportional to their population. In 2020, almost all the states in India have implemented these provisions, with the only exceptions being the North-Eastern states of Meghalaya, Mizoram and Nagaland that enjoy a special status in the Constitution of India and therefore wield higher autonomy in certain spheres of governance.

Further, the amendment made it explicitly clear that the legislature of the states could make any provisions at any level in favor of "other backward classes"(OBC). Thus, several states increased women's reservation to 50% of the seats and some even added reservations for women belonging to OBC category. Consequently, these amendments have ushered a sea change in over 250,000 local bodies and local electoral politics of India has been transformed as women are now well represented in these local bodies(*India Country Profile*, 2018).[6]

The reservation policy has several other important features. One, mandatory female representation is randomly assigned at the constituency level. Two, leadership positions like that of the chief councillor (*Pradhan*) in one-third of village councils are randomly selected in every election and must be held by women. In the same year, the 74th constitutional amendment introduced similar quota provisions for urban local bodies across India.

Since only women are allowed to contest in these single-member districts quotas, the policy measure by design has changed the descriptive identity of the pool of representatives in local government bodies in India. Theoretically, with an increase in the presence of women in local governments one can expect some or all of these women to seek a career in politics. Consequently, it is reasonable to expect some of these career minded politicians to succeed in attaining higher office in the political space (O'Brien and Rickne, 2016).[7] However, given that politics in developing countries (like India) revolves around personalized political parties that occupy positions of power in a setting with deeply centralized legislatures, any career minded politician's aspira-

[6]Electoral quotas in general (and gender quotas specifically) are viewed as necessary tools to correct distributive inequalities (Wilkinson, 2003) and some contend that "representation by gender cannot be achieved without some form of quota" (Mansbridge, 2005). Consequently, a burgeoning literature has explored a range of questions including types of quota policies in place (Htun, 2004), effects of quota on quality and attributes of candidates (Ban and Rao, 2008; Casas-Arce and Saiz, 2011; Baltrunaite et al., 2014; Allen, Cutts and Campbell, 2016; Jensenius, 2016; Besley et al., 2017; Bagues, 2017; Karekurve-Ramachandra and Lee, 2020*b*), on voting behavior (Casas-Arce and Saiz, 2011; Ranehill and Weber, 2017), on intersectional concerns (Hughes, 2011; Tan, N.d.; Celis et al., 2014; Karekurve-Ramachandra and Lee, 2020*b*) and on the representation of women's policy preferences (Devlin and Elgie, 2008; Rohini and Ford, 2011; Barnes, 2016; Karekurve-Ramachandra and Lee, 2020*a*).This policy measure in India and its design have been the focus of multiple studies: Chattopadhyay and Duflo (2004) show that reservation affects the type of public goods provided in Indian villages, Karekurve-Ramachandra and Lee (2020*a*) show that there is overall improvement is service provisioning in urban settings, Iyer et al. (2012) show that reservations induce an increase in documented crimes against women but find no effect on gender-neutral crimes or crimes against men. Franceschet and Piscopo (2008) argue – based on their study in Argentina – that quotas can reinforce negative stereotypes about women's capacities as politicians. Dunning and Nilekani (2013) find weak distributive effects due to reservations and highlight the relationship between partisanship and distributive effects of ethnic quotas. Bardhan, Mookherjee and Parra Torrado (2009) conclude that women's reservation 'may have' generated 'empowerment effects' but find differing impacts of reservations for women and reservations for Scheduled Castes/Scheduled Tribes(SC/ST) on targeting of public goods to these groups.

[7]The political space could be within the same electoral body, or higher office in a different level of government(the state government in my case)

tions could be curtailed. This is more so in the case of women – aspiring for a career in politics – who have historically been discriminated against. Therefore, since the gender quota reform has provided a democratic entry channel to leaders who would otherwise not enter politics, I expect this strengthening of the democratic state to result in an increase in women's representation at higher levels conditional on the presence (and success) of political parties that rely on empowered lower level leaders (Goyal, 2020*b*), and don't draw their electoral success based on any one leader's charisma or political dynasties. Hence, I expect the empirical analysis to reveal that gender quotas in India result in upward political mobility of women, more so in those states where less personalized parties are relatively more successful.

III Empirical Strategy and Data

A Variation in Timing of Reservation

The identification strategy in this paper hinges on the variation in the timing of elections with reservations across Indian states. The precise timing of these elections can be viewed as plausibly exogenous since they were driven by a Constitutional change. As shown in table 1, there is considerable variation in implementation of these elections across states. It is important to note three aspects. First, reservations in Karnataka and Andhra Pradesh came into effect before the Constitutional amendment. Second, north-eastern states like Meghalaya, Mizoram and Nagaland have not implemented reservations as they are exempt from central control over such matters. Third, although the law requiring reservations was passed in the state assembly of conflict-ridden Jammu and Kashmir, an election with reservations has not taken place yet.appendi

As detailed in Iyer et al. (2012), the three main reasons for the variation in timing are: (1) existence of local government in various states before the enactment of constitutional amendments, that led to the implementation of reservations only after the term of office holders expired; (2) A lack of clarity regarding certain elements of Panchayti Raj — especially reservations for OBCs that were not mandated by the constitutional amendment — leading to elections only after lawsuits challenging its implementation were settled;[8] and (3), delay of elections due to "budgetary con-

[8] Iyer et al. (2012) says "(...) elections in Bihar were delayed due to a lawsuit challenging the proposed reservations for Other Backward Castes (OBCs) that had not been explicitly mandated by the constitutional amendment."

Table 1: First election with women's reservation

1987	Karnataka
1991	Andhra Pradesh
1993	*Constitutional Amendment*
1994	Madhya Pradesh, Tripura
1995	Himachal Pradesh, Rajasthan, Gujarat, Kerala, Haryana, Uttar Pradesh
1996	Tamil Nadu
1997	Maharashtra, Manipur, Orissa, Sikkim
1998	Punjab
2000	Goa
2001	Assam
2005	Chattisgarh
2007	Delhi
2010	Jharkhand

straints and other unspecified reasons" in the state of Assam. While the first two reasons could be regarded as exogenous, the exact reason for the delay in Assam is unclear. While some evidence suggests budgetary constraints (Iyer et al., 2012), others indicate that the deferment was "on the pretext of insurgency and problems of law and order" (Kolås, 2017). Both these concerns were corroborated during an interview I conducted with a member of the Assam state legislative assembly.[9] This issue is potentially endogenous and presents a threat to identification. However, the results presented in the subsequent section are robust to the exclusion of potentially endogenous states individually and simultaneously. Across specifications, there is a sizable increase in the proportion of women in state legislatures after the implementation of quotas. This can be visually seen in Figure A.3 that displays the trends in the proportion of women across all Indian state legislatures, and figure A.1 that displays the trends at an aggregate level post the implementation of quotas, and A.2 shows hte event study version for the same.

Taking a cue from the text of the amendment that granted states with the rights to increase the levels of reservation,[10] Bihar became the first state in 2006 to reserve 50% of seats for women. In fact this was the first election in Bihar with gender quotas. Other states quickly followed suit, as

[9] Interview with an elected member of the legislative assembly from rural Assam (Name, gender, and party affiliation withheld on request) on Janary 25^{th}, 2020.

[10] The text of the amendment reads: "Nothing in this Part shall prevent the Legislature of a State from making any provision for reservation of seats in any Panchayat or offices of Chairpersons in the Panchayats at any level in favour of backward class of citizens."

shown in Table 2. This adds further variation and forms the basis of an alternative specification to test the hypothesis.

The increase in percentage of quotas in Bihar deserves explication and clarification. Bihar is one of the poorest states in India and has had the lowest Human Development Index for several years. Caste plays an important role in most Indian elections, and it plays an even stronger role in Bihar (Dunning and Nilekani, 2013). The increase in the percentage of women's quota in Bihar was during the tenure of Mr. Nitish Kumar, who hails from a politically non-dominant caste. It has been surmised by Thakur (2015) in a political biography of Mr. Nitish Kumar that in the absence of a majority lower caste vote base, Mr. Kumar actively tried to build a 'vote bank' around women.[11] Although this is an informed conjecture by the biographer, this could be one of the potential reasons for the increase in the percentage of reservations. Irrespective of the validity of such a conjecture, this is potentially endogenous and can violate the identifying assumptions. However, the results are robust even after excluding Bihar (Table A.11).

Table 2: Increase in reservation to 50%

2006	Bihar
2008	Chattisgarh, Himachal Pradesh, Rajasthan, Uttar Pradesh
2009	Gujarat, Kerala
2010	Karnataka, Jharkhand
2011	Maharashtra, Orissa, Sikkim, Madhya Pradesh
2012	West Bengal, Assam
2016	Tamil Nadu

B Data Sources

The analysis uses four separate data sources as described below.

[11] Thakur (2015, p. 368) says: "He (Nitish Kumar) discovered a new voter class that predecessors must have kicked themselves for not identifying: girls and women. Girls across class and community were extended educational and health benefits. ***Half the local self-government went to women*** (emphasis added). The state was spending, Nitish was building political capital, a vote bank."

Electoral Data

The electoral data come from Jensenius and Verniers (2017). It covers state assembly elections for all the states between 1962 - 2016, containing candidate level information for every state election held in this time period. This includes candidate age, gender, party affiliation, vote-share, turnout percentage, and victory margin. The dataset includes all the main elections and by-polls (special elections). However, for ease of analysis, I only consider the main state election in every electoral cycle and drop the by-elections. Due to varying election cycles and unavailability of data for earlier elections in certain states, merging the individual state data results in an unbalanced panel data set. I then construct the primary dependent variable – proportion of women in state assembly for every election cycle. As a result, the analysis looks at 308 separate state elections across the time period (Table A.1). Figures A.3 and A.4 demonstrate the trends in the proportion and count of women respectively in the various state assemblies before and after the implementation of quotas.

Timing of Reservation

The timing of local elections with the implementation of reservations for one-third of the seats for women is taken from Iyer et al. (2012) and Ghani, Kerr and O'Connell (2014). Further, information on the state laws that allowed for the increase of women's reservation to 50% was collected originally for this project with the help of Surabhi Kulkarni and Alok Prasanna Kumar from Vidhi Center For Legal Policy, India (https://vidhilegalpolicy.in). Multiple publicly available legal documents and gazette notifications are utilized to compile this information and the exact details about the amendments to state laws can be found in Appendix A.I.

State Characteristics

I supplement the electoral data with a set of controls to include various state level characteristics that could impact women's representation in the state legislative assemblies. This data comes from Barenberg, Basu and Soylu (2015), who construct an unbalanced panel on Indian states between 1983-1984 and 2011-2012 from various sources including (a) Sample Registration System (SRS), (b) Economic and Political Weekly Research Foundation's India Time Series database, (c)

Handbook of Statistics on State Government Finances by the Reserve Bank of India in 2010, (d) Election Commission of India, (e) Handbook of Statistics on Indian Economy by the Reserve Bank of India, (f) Economic Surveys by the Ministry of Finance, Government of India, and (g) IndiaStat – a service that collects socioeconomic statistical data about India.[12] From the Barenberg, Basu and Soylu (2015) dataset I will be using the following variables: infant mortality rate, public health expenditure by states, index of effective number of parties in the state governments during this time period, per-capita real income, population sex ratio, adult female literacy, urbanization, and state tax revenue.

Candidate Biographies

In order to identify women who won office at the state level after gaining experience at the local level, I collected political biographies of all state-level female legislators across 15 major states of India since the introduction of gender quotas. This translated to poring over information — from interviews in English and a few other Indian languages, biographical profiles of legislators in the media and state government websites, media reportage of elections, publicly available social media accounts, talking to journalists and experts who are actively involved with various state governments in different capacities and accessing other online sources — for more than 1000 state level legislators across 15 major Indian states. Data limitations and specific details regarding the mechanism are described in section VII.

IV Estimation

I conduct panel analysis at the state election-year level that allows me to take advantage of the variation in timing of reservations across 26 Indian states.[13] My baseline regression specification is given by the following equation:

$$y_{st} = \gamma_s + \lambda_t + \delta D_{st} + j'\mathbf{X}_{st} + \varepsilon_{st}, \tag{1}$$

where y_{st} represents the proportion of women in the state assembly in election year t; γ_s represents state fixed effects; λ_t represents the year fixed effects; D_{st} is the dummy that is 1 in years

[12] See Barenberg, Basu and Soylu (2015) for details on the meticulous data collection efforts that they undertake.
[13] The newly carved states of Jharkhand, Chattisgarh, and Uttarakhand are excluded from the analysis.

when there is political reservation at the local elections for a particular state and 0 otherwise; and δ is the coefficient of interest that captures the effect of reservation on women's representation at the state assembly level. The standard errors are clustered at the state-assembly-term level.[14]

The identification strategy hinges on variation in the timing of local election with reservations. Consequently, this specification under identifying assumption captures the effect of reservation on women's representation at the state assembly level. This design uses temporal variation and broadens the sample when compared to O'Connell (2020), who focuses on 'quota-induced female leadership' and uses the spatial variation in the random assignment of quotas to leadership roles. In addition to capturing O'Connell's effect of the increase in number of women who contest for office in state legislatures, I find that presence of quota induces a small yet meaningful increase in the proportion of women elected to state assembly.

Main Results

Canonical Two Way Fixed Effects Estimator

The preliminary regression results are obtained using equation 1, where D_{st} is the dummy that is 1 in years with political reservation at the local elections for a particular state and 0 otherwise. These results presented in the appedix Table 3 indicate that reservations at the local level increase the share of women in state assemblies by 3 percentage points. To absorb unobserved time invariant and state specific shocks that could be correlated with the proportion of women in state assemblies, models in the table include state and year fixed effects. Although identification does not rely on state specific co-variates, I nonetheless include $\mathbf{X}_{st}$, a vector of state specific characteristics that have been identified as potential sources or determinants of women's political participation.[15] Some of the these key determinants include urban population (Smith, Reingold and Owens, 2012), female literacy rate (Goetz, 2003), and levels of social expenditure (Bolzendahl and Brooks, 2007). Models includes a full set of these state level controls including: Percentage of urban population, adult female literacy rate, log of state GDP, public health expenditure by states

[14] As an additional robustness check, Tables A.6 and A.7 cluster standard errors at the state level. The results are identical to the main results.

[15] A detailed review of this vast literature is beyond the scope of this paper. However, some important examples include Hill (1981) who highlights the role of 'political culture' in determining women's political participation, Fox and Lawless (2004) who analyze the decision to run for office, Paxton and Hughes (2015) who provide a detailed overview of women's political participation and representation across the world.

as a percentage of GDP, state revenues (tax and non-tax), social sector spending by states, and infant mortality rate. The results are robust to the inclusion of these controls. The error term (ϵ_{st}) is clustered at the state- level and corresponds to the level of the identifying source of variation.[16] The inclusion of state-specific trends impacts the magnitude and significance of the main effect. Therefore, as further checks on pre-trends in the proportion of women in state assemblies before quota implementation, table A.19 displays results from five regression specifications with lead treatment: where in the first specification, the reservation dummy is 1 one electoral cycle prior to the implementation of reservation and 0 otherwise. In the second specification, the reservation dummy is 1 two electoral cycles prior to the reservation and 0 otherwise and so on for five electoral cycles prior to the implementation of the quotas at the national level. As expected, we don't see any effect on any of the lead treatment variables (and the co-efficient on the reservation dummy remains statistically significant) thereby increasing our the confidence in the main results. Finally, tables A.20 displays results with the main analysis including state-specific time trends. As a further robustness check on the time trends analysis, I conduct another set of tests where I restrict the analyses to the sub-sample with full data (to mimic the analysis conducted in Table A.8). Both these analyses with time trends reveal that the effect of reservation is robust to these specifications and the co-efficient on the reservation dummy in these instances are also in the expected direction and magnitude.

To alleviate concerns about factors other than gender quotas impacting the results, models in table 3 also include the following: (1), a measure of political competition; (2), an index of ideology of the parties in the legislature; and (3), sex ratio to roughly proxy for attitudes towards women. The coefficients for these variables are not significantly different from zero, thereby indicating

[16]The results are also robust to alternative clustering strategy at the state assembly-term level (Tables A.6 and A.7).

Table 3: Baseline Regression Results

	Dependent variable:			
	Proportion of women in all state assemblies			
	(1)	(2)	(3)	(4)
Reservation	0.038***	0.012*	0.028***	0.014*
	(0.006)	(0.007)	(0.005)	(0.008)
Constant	0.031***			
	(0.002)			
State Fixed Effect	No	Yes	Yes	Yes
Time Fixed Effect	No	Yes	Yes	Yes
State-specific Time Trends	No	No	No	Yes
Observations	306	306	111	243
R^2	0.255	0.625	0.794	0.751
Adjusted R^2	0.253	0.501	0.537	0.605
Residual Std. Error	0.030 (df = 304)	0.025 (df = 229)	0.022 (df = 49)	0.022 (df = 153)
F Statistic	104.095*** (df = 1; 304)	5.025*** (df = 76; 229)	3.094*** (df = 61; 49)	5.171*** (df = 89; 153)

Note: *p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. The reservation dummy is 1 in years with reservation and 0 otherwise. Column (3) includes pre-treatment covariates. Column (4) presents results with state-specific time trends. Standard errors in all models clustered at the state level.

that the effects presented in Table 3 are due to gender quotas.[17,18] Finally, since the 73rd and 74th constitutional amendments of 1992 introduced both local governments and decentralization to many parts of India, a joint-treatment concern exists. However, the presence of local government body elections without reservation in the state of Bihar 2001 (Brahmanandam, 2018; Kumar, Prakash et al., 2012) and the experiments with decentralization in the states of Karnataka, Andhra Pradesh, and West Bengal before the constitutional amendments allay these concerns. Further, to account for the endogeneity concerns described earlier table A.10 shows that the results are robust to the simultaneous exclusion of all the early and late adopters of the quota policy that present an endogeneity thread. Tables A.11 and A.12 display results after individually exclud-

[17] These variables are obtained from the Barenberg, Basu and Soylu (2015) dataset:

- *Effective number of parties in the Govt:* is an 'index of effective number of parties in the government. This is calculated by the Barenberg, Basu and Soylu as follows: $N = \frac{1}{\sum_{i=1}^{n} p_i^2}$, where N is the effective number of parties in a state government, $i = 1, 2, ..., n$ indexes parties in the state government, and p_i is the share of party i in the government'.
- *Index of Ideology:* Barenberg, Basu and Soylu compute this index by 'first assigning an ideology score from one to five to each political party, with one denoting a Left ideology and five a Right ideology. The index of political ideology of the government is the weighted average of ideology scores of the parties in the government, with share of seats won by parties used as weights.'
- *Sex Ratio:* Defined as females per 1000 males in the population of the state.

[18] The number of observations drop in models (3) and (4) due to data availability reasons. However, the results are robust when analysis is restricted to the sub-sample with full data (Table A.8)

ing state of Assam, states of Karnataka and Andhra Pradesh (that had quotas for women before the constitutional amendment), and the state of Goa – which witnessed delays in constituting an independent state election commission.

Matching

Recent advances in the econometrics of two way fixed effect estimators has shown that some of these regressions estimate the treatment effect with "negative weights" leading to imprecise estimation (Goodman-Bacon, 2019; De Chaisemartin and d'Haultfoeuille, 2020; Imai and Kim, 2020; Callaway and Sant'Anna, 2020). While a lot of work in this area is focused on the canonical difference-in-differences framework with two groups and two time periods, Goodman-Bacon (2019) and Callaway and Sant'Anna (2020) extend the analysis to multiple units with variation in treatment timing. That said, the implementation of these techniques is designed for balanced panels whereas the setting used in this article is that of an unbalanced panel.[19] Therefore, to alleviate some of these concerns I have undertaken the following analyses: I follow two separate approaches of matching on covariate balance suggested by Ho et al. (2011) and Kim and Wang (2019). This section presents the results based on the matching strategy proposed by Ho et al. (2011) and can be found in table A.5. Tables A.13 and A.14 provide a summary of balance for matched data. Further, coefficient plots in figure A.5 in the appendix displays the treatment effect over time based on the matching methods recommended by (Kim and Wang, 2019)

V Alternative Specifications

Increase in the Percentage of Reservations

As mentioned before, many states – starting with Bihar in 2006 – increased the percentage of seats reserved for women from 33% to 50%. This adds variation to the data (Table 2) and enables estimation of another regression similar to equation 1. However, instead of using a binary variable indicating presence of reservations, D_{st} now takes the values 0, 1/3 and 1/2 capturing the percentage of quotas in place at time t. Table 4 summarizes the results where the models are similar to

[19] While not completely satisfactory, in the absence of a general solution the results from these methods are largely similar to the results obtained from teh classic two-way fixed effects approach presented in the appendix which gives us a reason to be cautiously optimistic about the results in the paper.

the ones presented in Table 3. As described in section II, the increase of reservations to 50% by Bihar presents an endogeneity threat, yet it is reasonable to explore the effect uncovered in the previous analysis with these more refined data. That said, the results are robust to the exclusion of Bihar (as shown in table A.12) and robust to employing an alternative clustering strategy for standard errors (Table A.7).

Table 4: Effects of different levels of quotas

	Dependent variable: Proportion of women in state assemblies			
	(1)	(2)	(3)	(4)
Reservation	0.104***	0.083***	0.040**	0.087***
	(0.013)	(0.024)	(0.018)	(0.032)
Effective Number of Parties in the Govt.			−0.003	−0.003*
			(0.002)	(0.002)
Legislative Ideology			0.001	0.005
			(0.005)	(0.007)
Sex Ratio			0.0001*	−0.0004
			(0.0001)	(0.0004)
Constant	0.031***			
	(0.002)			
Fixed effects: State and Time	-	✓	✓	✓
State Level Controls?	-	-	-	✓
Observations	306	306	179	111
R^2	0.271	0.411	0.643	0.792
Adjusted R^2	0.269	0.295	0.471	0.532
Residual Std. Error	0.030 (df = 304)	0.029 (df = 255)	0.024 (df = 120)	0.023 (df = 49)
F Statistic	112.993*** (df = 1; 304)	3.554*** (df = 50; 255)	3.730*** (df = 58; 120)	3.051*** (df = 61; 49)

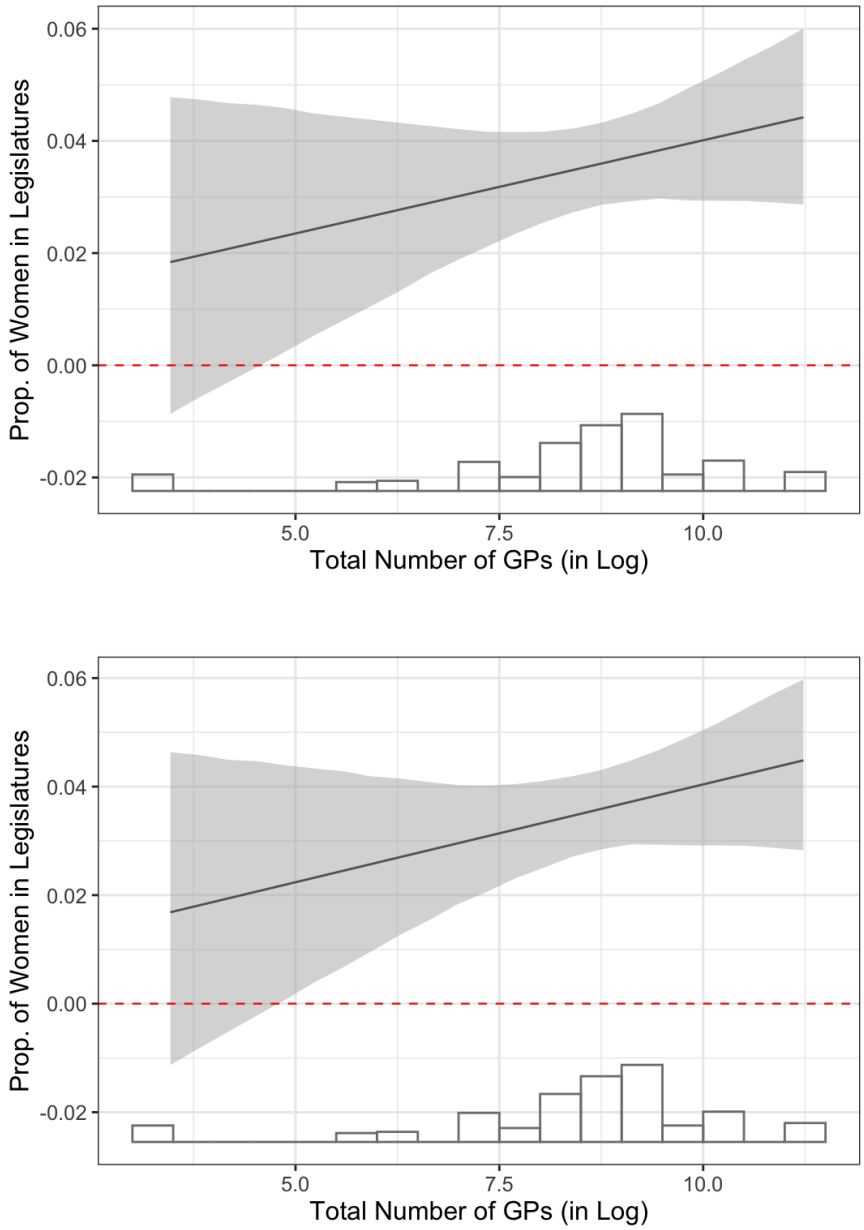
*p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. The reservation dummy is 0 for years with no reservation, 1/2 in years with 50% reservation reservation and 1/3 in years with 33.3% reservation. Standard errors are clustered at the state assembly level.

Number of Local Government Institutions

While the reservation policy was implemented across the country, there is sizeable variation in terms of the total number of Panchayati Raj Instutions that are operational across the country. Consequently, the total number of local government representatives also varies across India as shown in table A.15. Therefore, to investigate if this is driving the main effects I conduct separate regressions that included an interaction term of total number of local governments with the reservation dummy. As can be seen from the figure 1, the effects are largely similar across the range of treated number of local governments.

Figure 1: Treated number of local government officials and local government institutions



Note: The interaction plots provide an account of the effect of the variation in the number of Panchayati Raj institutions (PRI) and the number of elected representatives also varies across the states. The regression specification for these plots include the interaction of the reservation dummy with the number of PRIs and the total number of elected representatives in PRIs.

VI Exposure to Reservations

It is reasonable to think that the effects of reservation kick in after they are in place for a few years (Beaman et al., 2008). The mandatory enforcement of gender quotas mechanically leads to an increase in the descriptive representation of women. While this effect is nearly instantaneous in local governments due to the mandatory nature of the quotas, it is reasonable to think that the effects of quotas will take time to translate upwards – to state assemblies.[20]

Table 5: Effects of Exposure to Reservation

	Dep Var: Proportion of women in all state assemblies	
	(1)	(2)
Exposure of 1 – 5 years	0.032***	0.013
	(0.008)	(0.009)
Exposure of 6 – 10 years	0.041***	0.024***
	(0.009)	(0.008)
Exposure of 11 – 15 years	0.046***	0.031***
	(0.007)	(0.009)
Exposure of 16 – 20 years	0.044***	0.033**
	(0.012)	(0.016)
Constant	0.034***	0.045***
	(0.002)	(0.006)
Fixed effects: State and Time	-	✓
Observations	308	308
R^2	0.241	0.637

*p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. Standard errors are clustered at the state assembly level.

As summarized in Table 5, the effects of quotas can be seen after 5 years. While model (1) provides a simple specification, model (2) includes state and year fixed effects to absorb unobserved time invariant and state specific shocks that could be correlated with the proportion of women in state assemblies. The results suggest that exposure to reservation for more than 5 years induces an increase in the share of women in state assembly by approximately 3%. The threshold of 5 years is chosen as this is the typical term of office in India, however a finer disaggregation yields similar results.

[20] Table A.18 demonstrates the variation in terms of exposure to reservation and most of the states have anywhere between 1-10 years of exposure.

This upward movement, however, could be because quotas provide political experience to individuals who enter democratic politics via quotas by allowing more time for dynastic candidates to enter local politics. The next section discusses this upward political mobility in detail

VII Upward Political Mobility: Discussion

As seen in the previous sections, gender quota legislation in India has not only resulted in an increase in representation of women in local governments – where quotas are applied – it has also resulted in an increase in the representation of women in state legislatures. This has important consequences and the literature has demonstrated that increase in women's representation has several positive effects including an increase in public health spending and a concomitant reduction in defense spending (Clayton and Zetterberg, 2018). However, another active stream of literature has shown some unintended welfare reducing consequences of gender quotas too: Karekurve-Ramachandra and Lee (2020*c*) find a reduction in the descriptive representation of traditionally disadvantaged ethnic groups, Gangadharan et al. (2016) highlight the backlash against women due to infraction of traditional gender norms and Brulé (2020) demonstrates a reduction of women's right to inherit property. Finally, Krook (2018) studies a disturbing, yet rising, trend of violence against women in politics that could also be attributed as a backlash against the introduction of women into politics by way of quotas. While this paper aims to understand the mobility of women from local politics to state politics, it does not study the policy consequences of such a phenomenon. That said, the results described in the previous sections hold in spite of the backlash effects discussed above. In light of this it is important to examine whether quota women go on to win higher-level office.

Previous office holding experience correlates with future electoral representation (Smith, Reingold and Owens, 2012; Carroll and Sanbonmatsu, 2013). While there is limited qualitative evidence regarding women's political aspirations for higher office in India (Mhatre, 2009), to establish more direct evidence on whether this previous office holding experience drives the effect of quotas that I have already established, I look for state-level leaders who won local office too. Consequently, I tracked political biographies of all women in state legislatures in Indian states since the introduction of quotas.

This exercise identified two main channels that enable women's entry into state politics.[21] First, ground-level leadership: These are upwardly mobile legislators who gain political experience by winning local elections. Second, legislators with family ties to politics.[22] Figure 2 shows the proportion of both these types of legislators across India since the introduction of quota policies in the respective states.

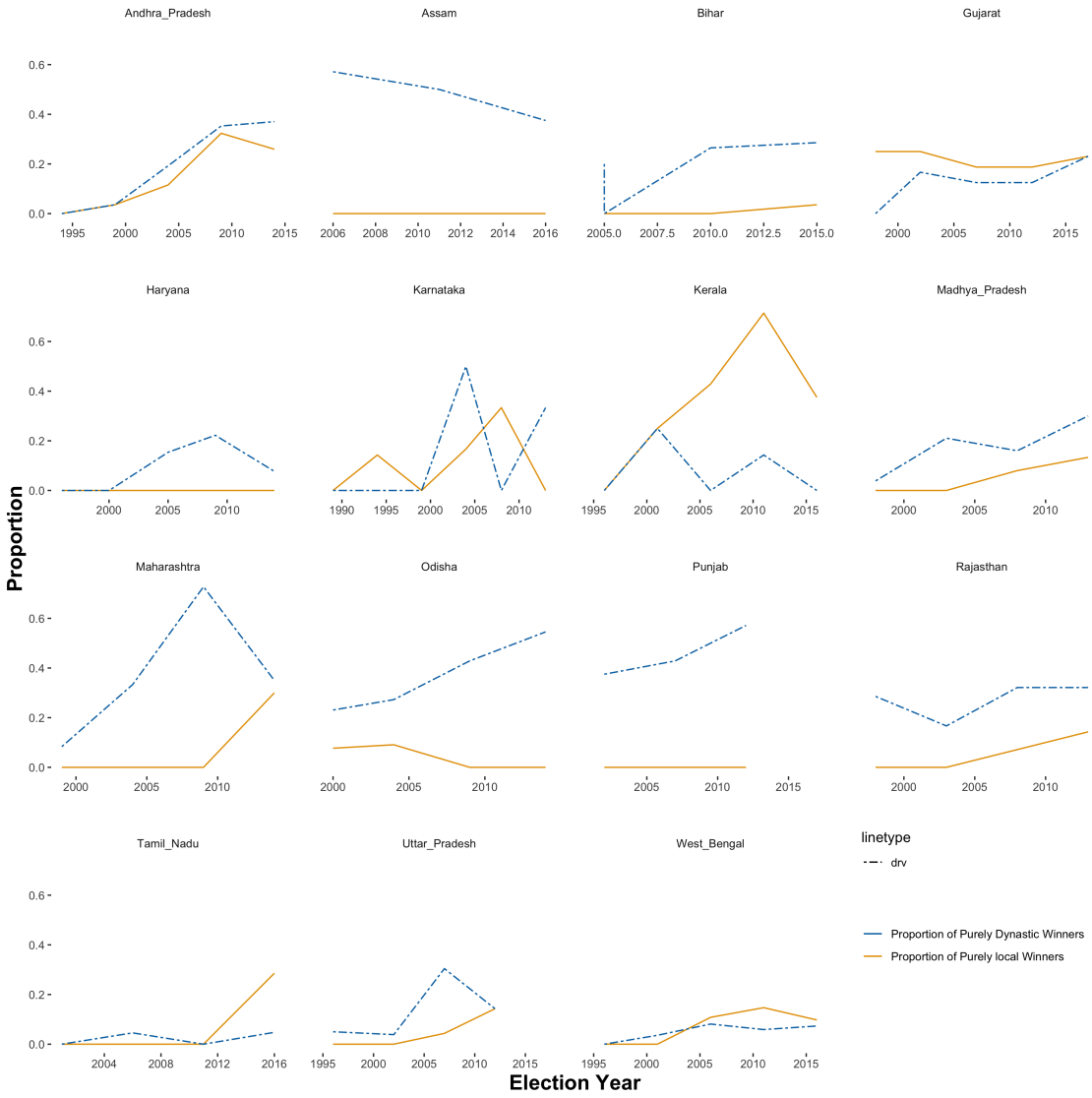
A few caveats are in order about this data collection exercise: First, the data on local leaders are not institutionally collected and disseminated. Hence, I trace candidate backgrounds via disparate online and offline sources. This results in recency bias due to uneven internet penetration, and myopic memory about politicians among the interviewees. Second, the two major types of elected women in the state legislatures are those with family ties to politics and those who have had previous experience as local leaders. Although these paths to office are not mutually exclusive, the reportage is limited specifically in ways that make these channels difficult to disentangle. Media coverage and commentary surrounding female representatives is usually gendered with emphasis on proxy and dynastic candidates.[23] Often, such media coverage does not mention previous local government experience for those women with even distant familial ties to politics. This masks any local-government experience that dynastic candidates might have. Third, there are several instances where a female politician wins local office and subsequently climbs the political ladder to assume a leadership position. However, media coverage or self-declared biographies do not talk about this "upward political mobility" within local governments. This makes it harder to separate those candidates who moved up from being councilors to *pradhans* from those who became *Pradhans* directly. That said, regardless of their eventual role in local politics, each female candidate's entry into politics was necessitated by quotas. Finally, there could be instances where someone with a familial connection entered politics purely because of quotas. However, sparse coverage and lack of thorough biographies make it impossible to capture this. Therefore, wherever applicable, I have separately identified candidates with local

[21] Since I do not track political biographies of all men in the state legislatures, I cannot establish whether similar channels enable men's entry into politics.

[22] For the purpose of this analysis I have consider the following relationships: spouse, sibling, parent, in-law, grandparent and grandparent-in-law.

[23] Proxy candidates are those who are fielded in lieu of their spouses just to meet the mandatory quota requirement (Chattopadhyay and Duflo, 2004) and Dynastic candidates are those who have familial ties to politics (Chandra, 2016).

Figure 2: Proportion of Female Legislators with Local Experience



Note: The figure shows the proportion of female legislators across Indian states with local government experience for 15 major Indian state after the implementation of quota policies. .

experience (and no reported family ties) and dynastic candidates (with no reported experience in local government). The state wise descriptive statistics are shown in Table A.16.

Thus, the proportions shown in Figure 2 provide conservative baseline estimates of the two types of legislators — those who move up from local to state-level elected office and women with family ties in politics — across Indian state assemblies. The trends show that up to 60 percent of the female representatives in certain state assembly terms (Assam in 2006) have family connections to politics. More importantly, up to 70 percent of female representatives in some state assembly terms (Kerala in 2010) are those who gained political experience after winning office in local elections.

It must be noted that this exercise does not rule out the possibility of other channels through which women could enter politics. There have been documented instances of celebrities and other successful people from different walks of life entering politics. However, the precise channel that enables these women to win state-level elections is not clear, nor can I make any assertions regarding their political ability, experience, or other factors that facilitate such political success.[24]

Party Structure and Types of Legislators

Party structure and inner-party dynamics play an important role in the electoral prospects of politicians in general (Sanbonmatsu, 2002, 2006; Cheng and Tavits, 2011; Esteve-Volart and Bagues, 2012; Murray, 2014; Pansardi and Vercesi, 2017; Crowder-Meyer and Cooperman, 2018). This is also the case in India (Lee, 2019; Goyal, 2020*a*). Further, scattered journalistic evidence about female legislators suggests that political parties that have traditions of empowering local leaders enable upward political mobility. For instance, a newspaper report from 2010 says that 20 out of 23 CPI(M) state legislators in West Bengal were "local party leaders who rose from the ranks"(*Behind every successful woman*, 2010).

Indian political parties are heterogenous in their organizational structure with varying degrees of exhibited centralization, traditions of empowering local leaders, and reliance on leadership charisma (Kitschelt, 2012, p. 96-157). In this context, the Communist Party of India and

[24] Local quotas could encourage candidates with dynastic ties at the state levels to compete and win elections, however due to lack of comprehensive data on all dynastic and non-dynastic women at the state levels across India over time, this aspect merits a separate and detailed analyses.

the Communist Party of India (Marxist) are perceived to be relatively less reliant of leadership charisma and dynastic politics (Chhibber, Jensenius and Suryanarayan, 2014). The two major national parties, The Bharatiya Janata Party(BJP) and Indian National Congress(INC), have varying levels of institutionalization and decentralization within their parties too (Kitschelt, 2012). Consequently, it is plausible – more so in the absence of a system of party-level primaries – that the party structure could have an effect on the type women candidates that a party nominates and supports (Fox and Lawless, 2010; Crowder-Meyer, 2013; Goyal, 2020*b*). Specifically, controlling for proportion of women in state assemblies, I regress proportion of female legislators with local experience on the lagged proportion of party share in 15 major state assemblies after the implementation of local quotas. I do so for two major national parties (BJP and INC), and the Communist parties. Hence, I employ the following regression specification at the state-assembly-year level:

$$local_{st} = \gamma_s + \lambda_t + q_{st-1} + p_{st} + \varepsilon_{st}, \tag{2}$$

where $local_{st}$ is the proportion of female legislators who have local-government experience and do not have political connections in state s at time t, q_{st-1} is the proportion of members from BJP, INC or Communist parties in the previous state assembly term, and p_{st} is the proportion of female legislators in the state assembly. The model also includes state and time fixed effects represented by γ_s and λ_t respectively to absorb any unobserved time invariant and state specific shocks that could be correlated with the proportion of women with local-government experience. Finally, the error term, represented by ε_{st}, is clustered at the state level.

Before delving into the results it is important to mention that party recruitment strategies play a significant role in shaping who runs for office across the world (Broockman, 2014; Butler and Preece, 2016). Specifically, (Goyal, 2020*a*) finds that local institutions act as sites of female-led party building because quotas mobilize women and recruit them into party activism that further contributes towards their move up the political hierarchy. That said, party structure is potentially endogenous to the type of candidates that a party nominates. For instance, it is reasonable to think that a party with empowered cadres (party workers) allows and even encourages moving up the ranks. Alternatively, a party that relies on personal charisma – of the founder or a particular leader who centralizes power – does not do so. Therefore, the following discussion does

Table 6: Party Structure and Upward Mobility

	Panel A		
	Proportion of female legislators with local experience		
	(1)	(2)	(3)
Lagged Proportion of (CPI and CPI(M)) Legislators	0.549** (0.201)		
Lagged Proportion of BJP Legislators		−0.105 (0.139)	
Proportion of INC Legislators			−0.076 (0.127)
Proportion of Female Legislators	0.312 (0.869)	−0.362 (0.931)	−0.377 (0.936)
Constant	−0.036 (0.153)	0.021 (0.172)	0.053 (0.169)
Fixed effects: State and Time	Yes	Yes	Yes
R^2	0.805	0.755	0.753
Observations	68	68	68

	Panel B		
	Proportion of purely dynastic female legislators		
	(1)	(2)	(3)
Proportion of Cadre Based Parties (CPI and CPI(M))	−0.091 (0.209)		
Proportion of BJP		0.193 (0.124)	
Proportion of INC			0.098 (0.116)
proportion of Female egislators	−0.420 (0.904)	−0.470 (0.828)	−0.398 (0.855)
Constant	−0.059 (0.159)	−0.022 (0.153)	−0.079 (0.155)
Fixed effects: State and Time	Yes	Yes	Yes
R^2	0.861	0.872	0.864
Observations	68	68	68

Note: *p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Panel A: Table shows linear models with proportion of female legislators with local experience and no dynastic ties among the women in state assemblies. Independent variables are lagged proportion of legislators from different types of parties.
Panel B: Table shows linear models with proportion of female legislators with dynastic ties and no local experience among the women in state assemblies. Independent variables are lagged proportion of legislators from different types of parties.

not make causal claims. Instead it aims to augment evidence in favor of the literature that has argued about the importance of party structure and its relationship with electoral politics and candidate recruitment/selection (Crowder-Meyer, 2013; Chhibber, Jensenius and Suryanarayan, 2014; Broockman, 2014; Weeks, 2018; Borz and De Miguel, 2019; Barnes and Holman, 2020; Goyal, 2020*a*,*b*). The results from Panel A of Table 6 indicates a relationship between Communist parties' seat share and election of women with local experience without dynastic ties. Every unit increase in the Communist party share accompanies an increase in proportion of female legislators with local-government experience.

However, this does not address whether these parties also systematically choose dynastic candidates too. To test for this possibility, Panel B in Table 6 conducts a similar test but with purely dynastic legislators (and no reported local-government experience) as the dependent variable, and finds is no evidence to suggest this possibility. Table A.17 in the appendix reports a similar effect in a specification that includes a dummy variable for when lagged seat share of a party is greater than 50%. Taken together, these results point towards the role that parties, their organizational structure and ideology can play in the kind of politicians that secure nomination and win office in general. Specifically, in the Indian context treatment effects are more pronounced in states with Communist parties.

VIII Conclusion

The Indian policy experiment of mandatory gender quotas has not only increased female representation at the local government level, it has induced an increase in the proportion of women in state assemblies as well. This is a promising result because developing democracies like India typically draw their pool of politicians from deeply entrenched networks resulting in "mediocre men" occupying positions of power (Besley et al., 2017). It is also fairly common for politicians involved in "money and muscle" networks to get elected at all levels of governance (Vaishnav, 2010). Hence, the presence of women in legislatures with local government experience highlights two important things: One, the role that mandatory gender quotas have played in diversifying representation. Two, the strengthening of the democratic state due to the enabling of a democratic entry channel for women.

The relationship between the types of legislators and the party structure highlights the strength wielded by political parties vis-a-vis individual legislators. It also signifies the relatively lower degree of autonomy granted to local-level leaders in the major national parties across India. This becomes interesting in the context of the decline of Communist parties in recent times and its concomitant impact on diversity of representation, but I do not test for it here.

Finally, these results must be viewed cautiously because the number of female representatives in India and across the world as a percentage of their population is still woefully low. A sizable proportion of women attained office through deeply entrenched familial networks. In fact, a few states still elect women (and men) who belong to royal families – medieval institutions whose significance is purportedly on the decline – with little or no formal political experience in democratic politics. While reservations at the local level have had massive implications from a policy and a political perspective, the number of candidates entering state assemblies seemingly due to familial connections is concerning. Identifying an exhaustive list of channels that enable entry into politics, candidate emergence, and the study of rise (or decline) of progressive political parties across the world and its impact on the broadening (or narrowing) of gendered candidate pools and pipeline to political power (Bernhard, Shames and Teele, 2021; Thomsen and King, 2020) present exciting areas of future research

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Appendix

A.I State laws providing for 50% reservation to women in Panchayats[25]

- **Bihar**: Bihar was the first State to bring 50% reservation for women in Panchayats The Bihar Panchayat Raj Act, 2006 (Section 13) replaced Bihar Panchayat Raj Act 1993.
- **Chhattisgarh**: The Chhattisgarh Panchayat Raj Adhiniyam, 1993 (Section 32) was amended in 2008.
- **Rajasthan**: The Rajasthan Panchayti Raj Act, 1994 (Sections 15 and 16) was amended in 2008.
- **Himachal Pradesh**: The Himachal Pradesh Panchayati Raj Act, 1994 (Section 8) was amended in 2008 (Act 10 of 2008).
- **Uttar Pradesh**: The United Provinces Panchayat Raj Act, 1947 and the Uttar Pradesh Zila Panchayat Raj and Kshetra Panchayat Act, 1961 (Section 12) was amended in 2008 (Act No. 7 of 2008).
- **Gujarat**: The Gujarat Municipalities Act 1963, and the Gujarat Panchayat's Act 1993 were amended in 2009.
- **Kerala**: The Kerala Panchayat Raj Act, 1994 was amended in 2009.
- **Karnataka**: The Karnataka Panchayat Raj Act, 1993 was amended in 2010 (Act 24 of 2010) to introduce 50% reservation for women in all three tiers of Panchayat Raj Institutions.
- **Jharkhand**: The Jharkhand Panchayat Raj Act, 2001 was passed repealing Jharkhand Panchayat Raj(Amendment) Ordinance, 2010
- **Maharashtra**: The Bombay Village Panchayat Act, 1959 (Section 10); The Maharashtra Zilla Parishads And Panchayat Samitis Act, 1961 (Section 12) were amended in the year 2011 (Act 19 of 2011).

[25] Data collected by Surabhi Kulkarni and Alok Prasanna Kumar from Vidhi Centre for Legal Policy, India.

- **Odisha**: The Odisha Grama Panchayat Act, 1964 (Section 10), Odisha Panchayat Samiti Act, 1959 (Section 16), Odisha Zilla Parishad Act, 1991 (Sections 6 and 8) were amended in 2011.
- **Sikkim**: The Sikkim Panchayat Act, 1993 (Section 13) was amended in 2011 (Act No. 11 of 2011).
- **Madhya Pradesh**: The Madhya Pradesh Panchayat & Gram Swaraj Act, 1993 was amended in 2011 (Act No. 26 of 2011).
- **West Bengal**: The West Bengal Panchayat Elections Act, 2003 (Sections 17 and 18) was amended in 2012 (Act No. 23 of 2012).
- **Assam**: Assam State Election Commission Notification dated 8th November, 2012 (No.SEC/82/2012/1).
- **Tamil Nadu**: The Tamil Nadu Panchayats Act, 1994 (Section 11) was amended in 2016 (ACT No. 5 OF 2016).
- **Punjab**: The Punjab Panchayti Raj Act, 1994 (Section 11) was amended in 2017 (Act No. 12 of 2017).

A.II Supplementary Figures and Tables

Table A.1: Assembly Election Years in Different States

State	Election Years
Andhra Pradesh	1962, 1967, 1972, 1978, 1983, 1985, **1989, 1994,1999, 2004,2009, 2014**
Arunachal Pradeh	1978, 1980, 1984, 1990, 1995, 1999, 2004, 2009, 2014
Assam	1962, 1967, 1972, 1978, 1983, 1985, 1991, 1996, **2001, 2006, 2011, 2016**
Bihar	1962, 1967, 1969, 1972, 1977, 1980, 1985, 1990, 1995, 2000, **2005, 2005, 2010, 2015**
Delhi	1972, 1977, 1983, 1993, 1998, 2003, **2008, 2013, 2015**
Goa	1989, 1994, 1999, **2002, 2007, 2012** textbf2017
Gujarat	1962, 1967, 1972, 1975, 1980, 1985, 1990, **1995, 1998, 2002, 2007, 2012, 2017**
Haryana	1967, 1968, 1972, 1977, 1982, 1987, 1991, **1996, 2000, 2005, 2009, 2014**
Himachal Pradesh	1967,1972,1977,1982,1985,1990,1993, **1998, 2003, 2007, 2012, 2017**
Karnataka	1978, 1983, 1985, **1989, 1994, 1999, 2004, 2008, 2013**
Kerala	1965, 1967, 1970, 1977, 1980, 1982,1987, 1991, **1996, 2001, 2006, 2011, 2016**
Madhya Pradesh	1962,1967,1972,1977,1980,1985, 1990,1993,**1998,2003,2008,2013**
Maharashtra	1962,1967,1972,1978,1980,1985, 1990,1995,**1999,2004,2009,2014**
Manipur	1967,1972,1974,1980,1984,1990,1995,2000,2002,2007,2012,2017
Meghalaya	1972,1978,1983,1988,1993,1998, 2003,2008,2013
Mizoram	1972,1978,1979,1984,1987,1989,1993,1998,2003,2008,2013
Nagaland	1964,1969,1974,1977,1982,1987,1989,1993,1998,2003,2008,2013
Odisha	1967,1971,1974,1977,1980,1985,1990,1995,**2000,2004,2009,2014**
Punjab	1962,1967,1969,1972,1977,1980,1985,1992,1997,**2002,2007,2012,2017**
Rajasthan	1962,1967,1972,1977,1980,1985,1990,1993,**1998,2003,2008,2013**
Sikkim	1979,1985,1989,1994,**1999,2004,2009,2014**
Tamil Nadu	1971,1977,1980,1984,1989,1991,**1996,2001,2006,2011,2016**
Tripura	1967,1972,1977,1983,1988,1993,**1998,2003,2008,2013**
Uttar Pradesh	1962,1967,1969,1974,1977,1980,1985,1989,1991,1993,**1996, 2002, 2007, 2012, 2017**
West Bengal	1962,1967,1969,1971,1972,1977,1982,1987,1991,**1996, 2001, 2006, 2011, 2016**

Note:Years **highlighted in bold** indicates those elections that happened after reservations were introduced at the local levels

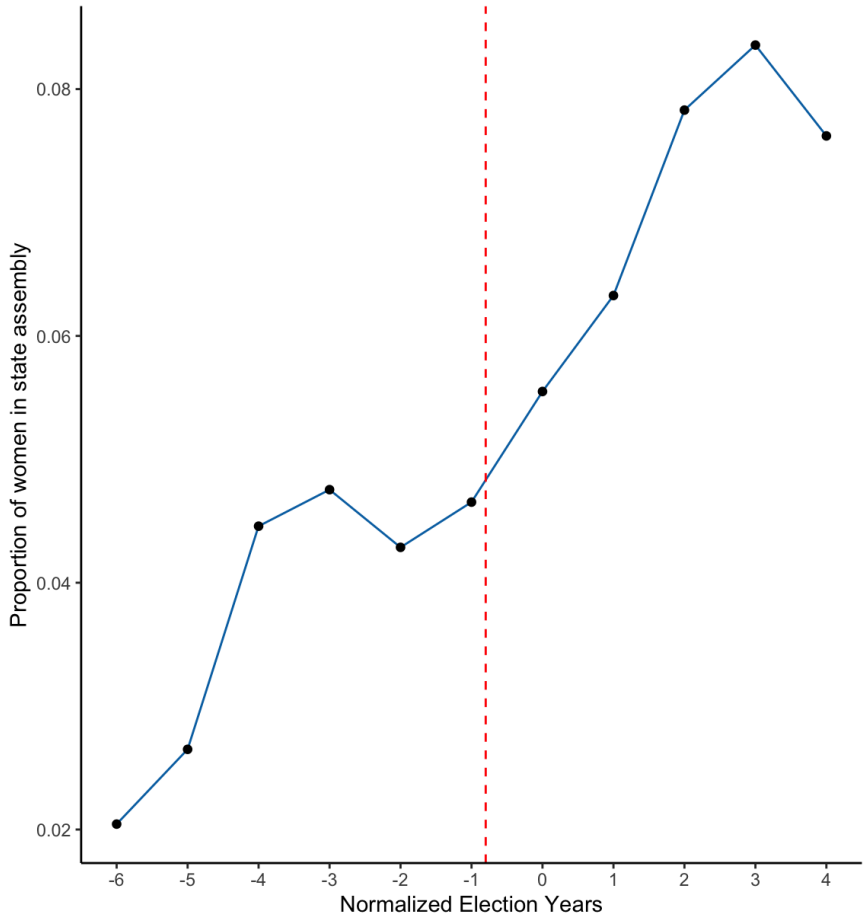
Table A.2: State Elections after the Implementation of Panchayti Raj

State Name	Latest State Assembly Election	Number of Elections after Panchayti Raj
Andhra Pradesh	2014	5
Arunachal Pradesh	2014	3
Assam	2016	3
Bihar	2015	4
Delhi	2015	3
Goa	2017	4
Gujarat	2017	5
Haryana	2014	5
Himachal Pradesh	2017	5
Karnataka†	2013	5
Kerala	2016	5
Madhya Pradesh	2013	4
Maharashtra	2014	4
Manipur	2017	5
Odisha	2014	4
Punjab	2017	4
Rajasthan	2013	4
Sikkim	2014	4
Tamil Nadu	2016	4
Tripura	2013	4
Uttar Pradesh	2017	5
West Bengal	2016	5

Source: Constructed by author based on data by Jensenius and Verniers (2017), Ghani, Kerr and O'Connell (2014), and Iyer et al. (2012)

† Karnataka had women's reservations before Panchayti Raj. Number in the table does not include the election for the year 1989 as it predates Panchayti Raj.

Figure A.1: Before and after reservations



Note: The graph shows proportion of women in state assemblies. Dotted line indicates the introduction of reservations, x-intercept 0 represents the first election with reservations. The date of implementation of quota policy varies across states as shown in table 1. The north-eastern states that have not implemented quotas, and the states of Karnataka and Andhra Pradesh that implemented quotas before the constitutional amendment are excluded from the figure.

Table A.3: First election with women's reservation

Year of first election with women's reservation	State(s)
1987	Karnataka
1991	Andhra Pradesh
1993	West Bengal
1994	Madhya Pradesh‡, Tripura
1995	Himachal Pradesh, Rajasthan, Gujarat, Kerala, Haryana, Uttar Pradesh
1996	Tamil Nadu
1997	Maharashtra, Manipur, Orissa, Sikkim
1998	Punjab
2000	Goa
2001	Assam, Bihar†
2005	Chattisgarh‡
2007	Delhi
2010	Jharkhand†

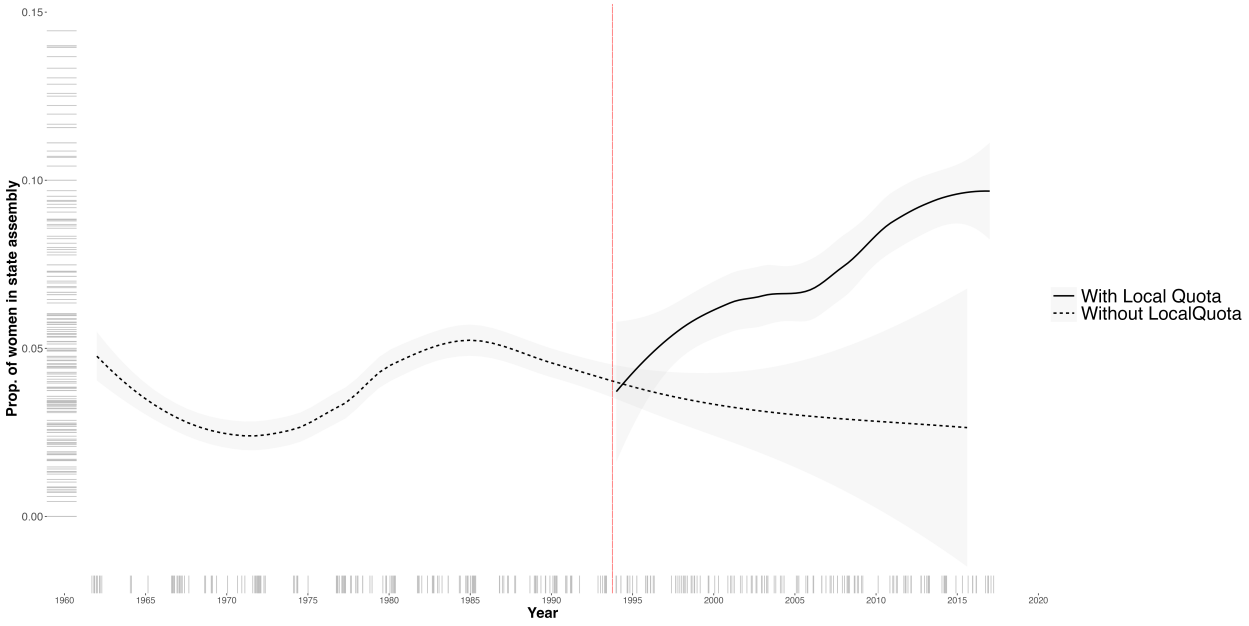
Note: Data for the table comes from multiple sources including Ghani, Kerr and O'Connell (2014) and Iyer et al. (2012).
† Jharkhand was carved out of Bihar as a separate state in April 2000.
‡ Chattisgarh was carved out of Madhya Pradesh as a separate state in November 2000.

Table A.4: Year of amendment of state laws to provide 50% reservation for women

Year	State(s)
2006	Bihar
2008	Chattisgarh, Himachal Pradesh Rajasthan, Uttar Pradesh
2009	Gujarat, Kerala
2010	Karnataka, Jharkhand
2011	Maharashtra, Odisha Sikkim, Madhya Pradesh
2012	West Bengal, Assam
2016	Tamil Nadu
2017	Punjab

Note: Data collected by Surabhi Kulkarni and Alok Prasanna Kumar from Vidhi Centre for Legal Policy, India.

Figure A.2: Before and after reservations



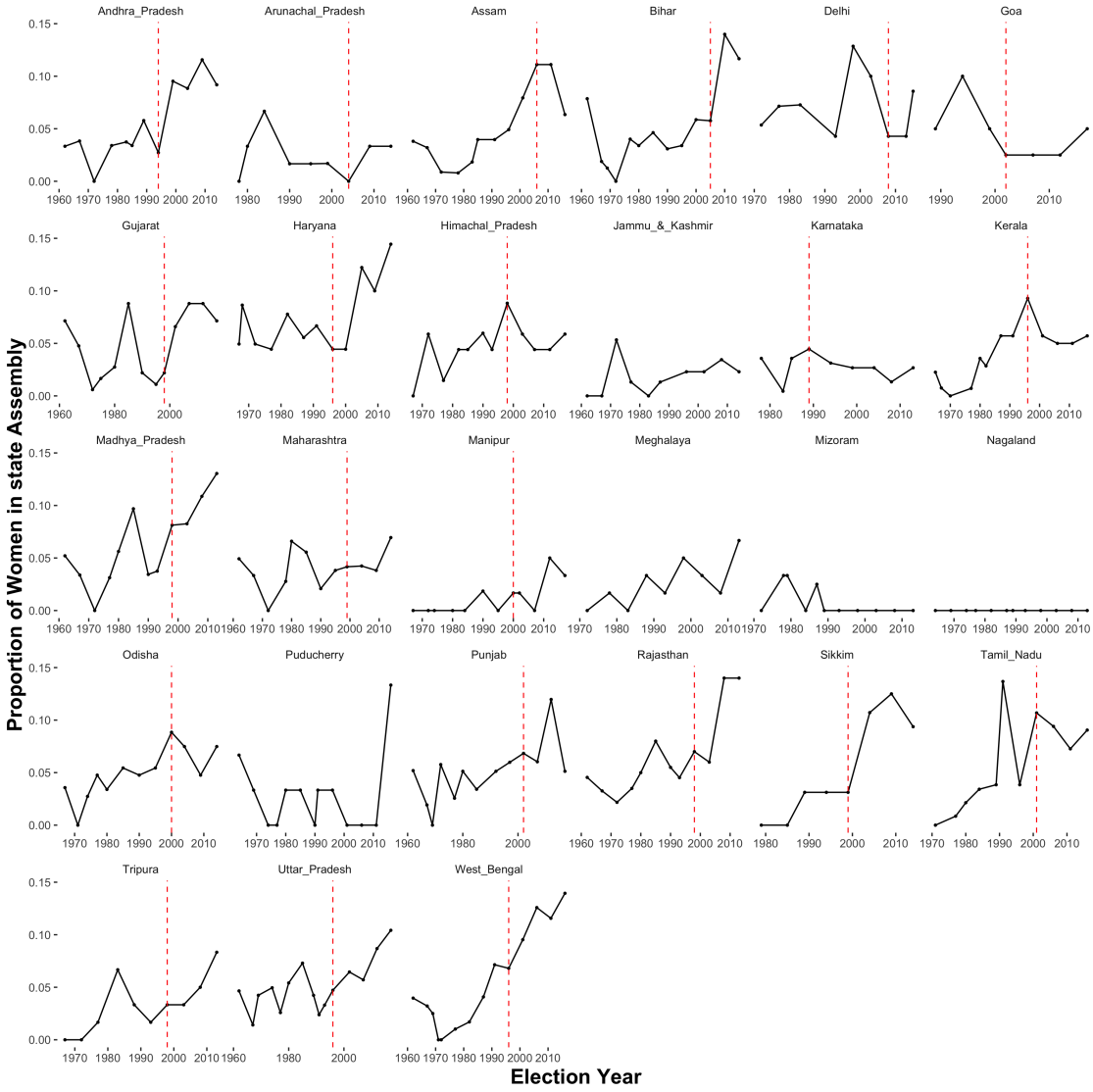
Note: The graph shows an event-study plot proportion of women in state assemblies before and after the introduction of gender quotas. The red dotted line indicates the introduction of reservations. The date of implementation of quota policy varies across states as shown in table 1, and the states drop out post implementation The north-eastern states that have not implemented quotas, and the states of Karnataka and Andhra Pradesh that implemented quotas before the constitutional amendment are excluded from the figure.

Table A.5: Matching Regressions Results

	Dependent variable:	
	Proportion of women in all state assemblies	
	(1)	(2)
Reservation	0.045***	0.038***
	(0.015)	(0.014)
Effective Number of Parties in the Govt.	0.006	0.001
	(0.004)	(0.004)
Legislative Ideology	0.007	0.007
	(0.006)	(0.007)
Sex Ratio	−0.0001	−0.0001
	(0.001)	(0.0005)
Constant	0.060	0.104
	(0.499)	(0.486)
Fixed effects: State and Time	Yes	Yes
State Level Controls?	Yes	Yes
Observations	102	102
R^2	0.848	0.801
Adjusted R^2	0.705	0.614
Residual Std. Error (df = 52)	0.015	0.018
F Statistic (df = 49; 52)	5.932***	4.281***
Note:		*p<0.1; **p<0.05; ***p<0.01

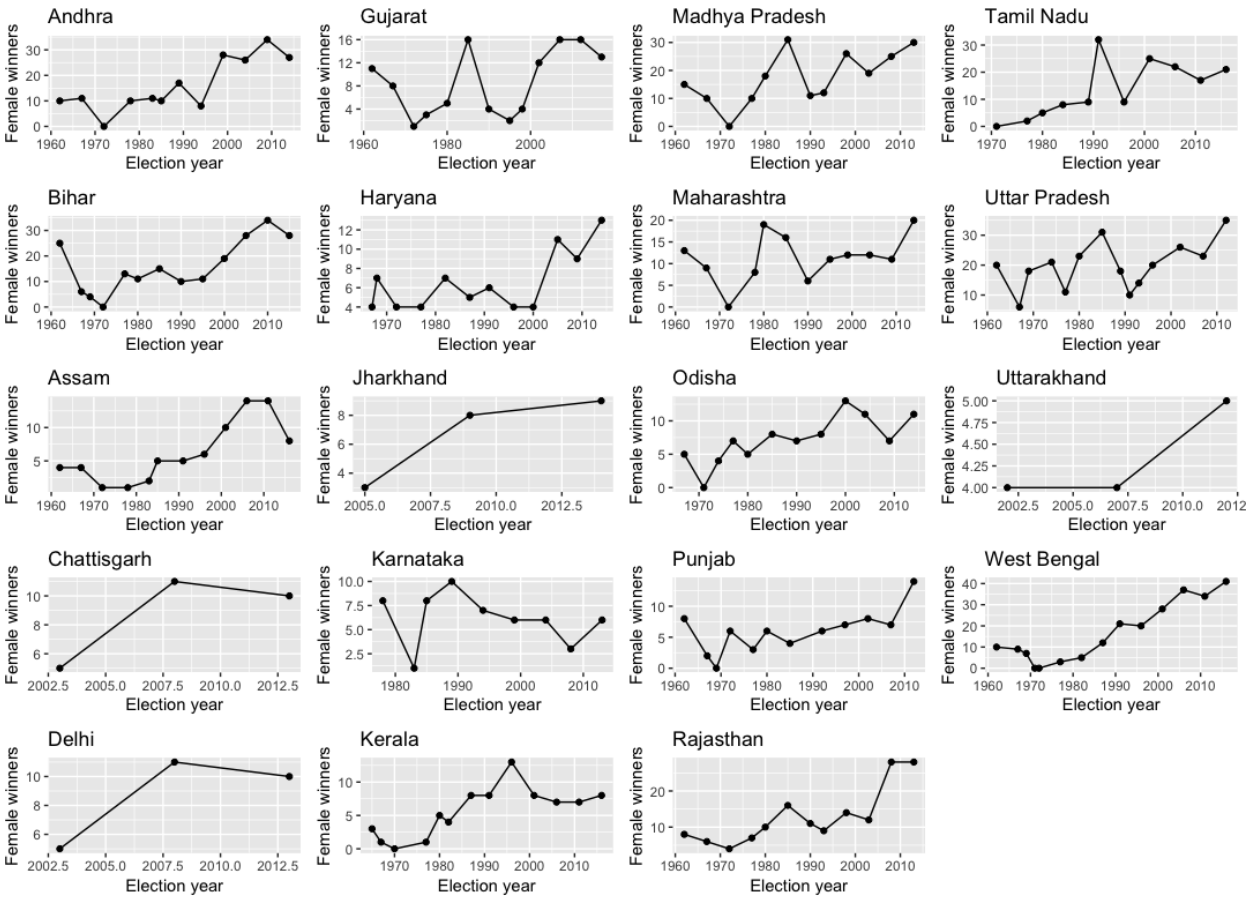
Models 1 and 2 represens the regression results using the "full match" and "subclass" matching performed using the R package "MatchIt" (Ho et al., 2011).

Figure A.3: Proportion of Women Legislators across Indian States



Note: The figure shows the proportion of female legislators across Indian states. The dotted line indicates the year when reservations were introduced in local bodies.

Figure A.4: Number of Female Representatives across Major Indian States



Note: The panel shows the number of female representatives in all the major states of India

Table A.6: Baseline Regression Results - Alternative Clustering

	Dependent variable: Proportion of women in state assemblies			
	(1)	(2)	(3)	(4)
Reservation	0.038***	0.012	0.017**	0.028**
	(0.006)	(0.009)	(0.008)	(0.014)
Effective Number of Parties in the Govt.			−0.003	−0.002
			(0.003)	(0.003)
Legislative Ideology			0.001	0.004
			(0.004)	(0.007)
Sex Ratio			0.0002***	−0.0003
			(0.0001)	(0.0003)
Constant	0.031***	0.046***	−0.095*	0.258
	(0.003)	(0.007)	(0.056)	(0.343)
Fixed effects: State and Time	-	✓	✓	✓
State Level Controls	-	-	-	✓
Observations	306	306	179	111
R^2	0.255	0.625	0.649	0.794
Adjusted R^2	0.253	0.501	0.479	0.537
Residual Std. Error	0.030 (df = 304)	0.025 (df = 229)	0.024 (df = 120)	0.022 (df = 49)
F Statistic	104.095*** (df = 1; 304)	5.025*** (df = 76; 229)	3.817*** (df = 58; 120)	3.094*** (df = 61; 49)

*p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. The reservation dummy is 1 in years with reservation and 0 otherwise. Standard errors are clustered at the state level.

Table A.7: Effects of differing levels of quotas

	Dependent variable: Proportion of women in all state assemblies			
	(1)	(2)	(3)	(4)
fiftypercent	0.104***	0.083***	0.040	0.087**
	(0.016)	(0.030)	(0.025)	(0.042)
Effective Number of Parties in the Govt.			−0.003	−0.003
			(0.003)	(0.003)
Legislative Ideology			0.001	0.005
			(0.004)	(0.007)
Sex Ratio			0.0001**	−0.0004
			(0.0001)	(0.0003)
Constant	0.031***	0.046***	−0.081	0.372
	(0.003)	(0.006)	(0.058)	(0.329)
Fixed effects: State and Time	-	✓	✓	✓
State Level Controls?	-	-	-	✓
Observations	306	306	179	111
R^2	0.271	0.411	0.643	0.792
Adjusted R^2	0.269	0.295	0.471	0.532
Residual Std. Error	0.030 (df = 304)	0.029 (df = 255)	0.024 (df = 120)	0.023 (df = 49)
F Statistic	112.993*** (df = 1; 304)	3.554*** (df = 50; 255)	3.730*** (df = 58; 120)	3.051*** (df = 61; 49)

*p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. The reservation dummy is 0 for years with no reservation, 1/2 in years with 50% reservation reservation and 1/3 in years with 33.3% reservation Standard errors are clustered at the state level.

Table A.8: Baseline Regression Results (sub-sample)

	Dependent variable: Proportion of women in state assemblies			
	(1)	(2)	(3)	(4)
Reservation	0.022***	0.029**	0.028**	0.029***
	(0.005)	(0.012)	(0.013)	(0.011)
Effective Number of Parties in the Govt.			−0.002	−0.003*
			(0.002)	(0.002)
Legislative Ideology			0.007	0.008
			(0.006)	(0.007)
Sex Ratio			−0.0001	−0.0003
			(0.0003)	(0.0003)
Constant	0.044***	0.040***	0.084	0.593
	(0.003)	(0.007)	(0.305)	(0.466)
Fixed effects: State and Time	-	✓	✓	✓
State Level Controls?	-	-	-	✓
Observations	105	105	105	105
R^2	0.124	0.721	0.728	0.769
Adjusted R^2	0.115	0.491	0.475	0.478
Residual Std. Error	0.030 (df = 103)	0.022 (df = 57)	0.023 (df = 54)	0.023 (df = 46)
F Statistic	14.576*** (df = 1; 103)	3.138*** (df = 47; 57)	2.885*** (df = 50; 54)	2.641*** (df = 58; 46)

*p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. Standard errors are clustered at the state assembly level.

Table A.9: Effects of differing levels of quotas (sub-sample)

	Dependent variable: Proportion of women inl state assemblies			
	(1)	(2)	(3)	(4)
Reservation	0.067***	0.110***	0.069	0.094***
	(0.015)	(0.028)	(0.045)	(0.036)
Effective Number of Parties in the Govt.			−0.002	−0.004***
			(0.002)	(0.002)
Legislative Ideology			0.008	0.009
			(0.006)	(0.007)
Sex Ratio			−0.00004	−0.0004
			(0.0003)	(0.0004)
Constant	0.044***	0.014	0.062	0.696
	(0.003)	(0.010)	(0.315)	(0.488)
Fixed effects: State and Time	-	✓	✓	✓
State Level Controls?	-	-	-	✓
Observations	105	105	105	105
R^2	0.128	0.363	0.720	0.767
Adjusted R^2	0.120	0.162	0.460	0.473
Residual Std. Error	0.030 (df = 103)	0.029 (df = 79)	0.023 (df = 54)	0.023 (df = 46)
F Statistic	15.165*** (df = 1; 103)	1.803** (df = 25; 79)	2.775*** (df = 50; 54)	2.607*** (df = 58; 46)

*p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. The reservation dummy is 0 for years with no reservation, 1/2 in years with 50% reservation reservation and 1/3 in years with 33.3% reservation Standard errors are clustered at the state assembly level.

Table A.10: Results - Excluding All Early and Late Adopters

	Dependent variable:			
	Proportion of women in all state assemblies			
	(1)	(2)	(3)	(4)
Reservation	0.041***	0.029***	0.022***	0.055***
	(0.005)	(0.008)	(0.007)	(0.016)
Effective Number of Parties in the Govt.			−0.001	0.008***
			(0.003)	(0.003)
Legislative Ideology			−0.004	−0.006
			(0.006)	(0.006)
Sex Ratio			0.0002***	−0.0001
			(0.0001)	(0.0004)
Constant	0.029***	0.014**	−0.104**	−0.074
	(0.002)	(0.006)	(0.046)	(0.475)
Fixed effects: State and Time	No	Yes	Yes	Yes
State Level Controls?	No	No	No	Yes
Observations	250	250	150	86
R^2	0.230	0.668	0.689	0.809
R^2	0.282	0.659	0.650	0.816
Adjusted R^2	0.279	0.528	0.457	0.478
Residual Std. Error	0.029 (df = 248)	0.024 (df = 180)	0.024 (df = 96)	0.023 (df = 30)
F Statistic	97.451*** (df = 1; 248)	5.033*** (df = 69; 180)	3.366*** (df = 53; 96)	2.417*** (df = 55; 30)

Note: *p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. The reservation dummy is 1 in years with reservation and 0 otherwise. Table exclude early adopters states like Karnataka and Andhra Pradesh, and late adopter states like Assam, Bihar, and Delhi. Northeastern states of Meghalaya, Mizoram and Nagaland are also excluded as these states do not have reservations. Standard errors are clustered at the state assembly level.

Table A.11: Excluding states - Baseline Regression Results

	Dependent variable: Proportion of women in state assemblies					
	Excluding Asssam	Excluding Karnataka	Excluding Andhra Pradesh	Excluding Bihar	Exclude Delhi	Excluding NE States†
Reservation	0.041***	0.031***	0.033***	0.028***	0.028***	0.028***
	(0.014)	(0.011)	(0.009)	(0.008)	(0.010)	(0.011)
Constant	−0.123	0.238	0.422	0.201	0.258	0.268
	(0.335)	(0.478)	(0.298)	(0.304)	(0.389)	(0.377)
Fixed effects: State and Time	Yes	Yes	Yes	Yes	Yes	Yes
State Level Controls?	Yes	Yes	Yes	Yes	Yes	
Observations	106	104	111	105	111	106
R^2	0.796	0.792	0.794	0.792	0.794	0.780
Adjusted R^2	0.525	0.501	0.537	0.519	0.537	0.508
Residual Std. Error	0.023 (df = 45)	0.023 (df = 43)	0.022 (df = 49)	0.023 (df = 45)	0.022 (df = 49)	0.023 (df = 47)
F Statistic	2.933*** (df = 60; 45)	2.721*** (df = 60; 43)	3.094*** (df = 61; 49)	2.904*** (df = 59; 45)	3.094*** (df = 61; 49)	2.869*** (df = 58; 47)

*p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

† Northeastern states of Meghalaya, Mizoram and Nagaland are excluded as these states do not have reservations.
Note: Table shows linear models with proportion of women in state assembly as the dependent variable. The reservation dummy is 1 in years with reservation and 0 otherwise. Standard errors are clustered at the state assembly level.

Table A.12: Excluding states(the 0, 1/3, 1/2 dummy)

	*Dependent variable:*Proportion of women in all state assemblies					
	Excluding Asssam	Excluding Karnataka	Excluding Andhra Pradesh	Excluding Bihar	Excluding Delhi	Excluding NE States†
Reservation	0.132***	0.094***	0.084***	0.084***	0.087***	0.087**
	(0.047)	(0.035)	(0.027)	(0.029)	(0.032)	(0.034)
Constant	0.044	0.316	0.462	0.312	0.372	0.386
	(0.479)	(0.469)	(0.298)	(0.450)	(0.390)	(0.380)
Fixed effects: State and Time	Yes	Yes	Yes	Yes	Yes	Yes
State Level Controls?	Yes	Yes	Yes	Yes	Yes	Yes
Observations	106	104	111	105	111	106
R^2	0.793	0.791	0.792	0.788	0.792	0.777
Adjusted R^2	0.518	0.500	0.532	0.510	0.532	0.503
Residual Std. Error	0.023 (df = 45)	0.023 (df = 43)	0.023 (df = 49)	0.023 (df = 45)	0.023 (df = 49)	0.023 (df = 47)
F Statistic	2.882*** (df = 60; 45)	2.718*** (df = 60; 43)	3.051*** (df = 61; 49)	2.833*** (df = 59; 45)	3.051*** (df = 61; 49)	2.831*** (df = 58; 47)
Note:						*p<0.1; **p<0.05; ***p<0.01
						Robust standard errors in parentheses

† Northeastern states of Meghalaya, Mizoram and Nagaland are excluded as these states do not have reservations.
Note: Table shows linear models with proportion of women in state assembly as the dependent variable. The reservation dummy is 0 for years with no reservation, 1/2 in years with 50% reservation reservation and 1/3 in years with 33.3% reservation Standard errors are clustered at the state assembly level.

Table A.13: Summary of Balance for Matched Data - Full Match

	Treated means	Control mean	Std. Mean Diff.	Var. Ratio	eDF Mean	eDF Max	Std. Pair Distance
distance	0.8836	0.7855	0.4849	0.4315	0.194	0.7778	0.4088
No. of Seats	2.7765	1.946	0.5724	1.3358	0.3006	0.7103	0.7824
Legislative Ideology	2.5484	2.9638	-0.4607	2.1536	0.3126	0.658	0.8535
Sex Ratio	931.8852	969.8036	-0.6035	1.3733	0.3082	0.7292	0.83
Urban Population	0.2369	0.3335	-0.9628	1.076	0.3102	0.7309	1.0457
FemaleLitaracy Rate	59.4644	56.9951	0.1909	1.6903	0.1962	0.5267	0.9082
Infant Mortality Rate	53.4759	53.856	-0.019	2.0018	0.1833	0.4358	0.9348
State GDP(logged)	10.1372	9.9903	0.3176	3.2413	0.2263	0.5276	0.8206
Public Health Expenditure	1.3796	1.5674	-0.1625	1.9259	0.2895	0.7016	0.8612
State's Own Tax Revenue	2134.5143	1355.5634	0.4852	7.8187	0.183	0.537	0.5579
State's Non Tax Revenue	1599.531	221.07	0.3481	81.0719	0.3243	0.7642	0.2782
Social Sector Expenditure	8.472	8.4284	0.0412	3.4789	0.2077	0.5185	0.7096

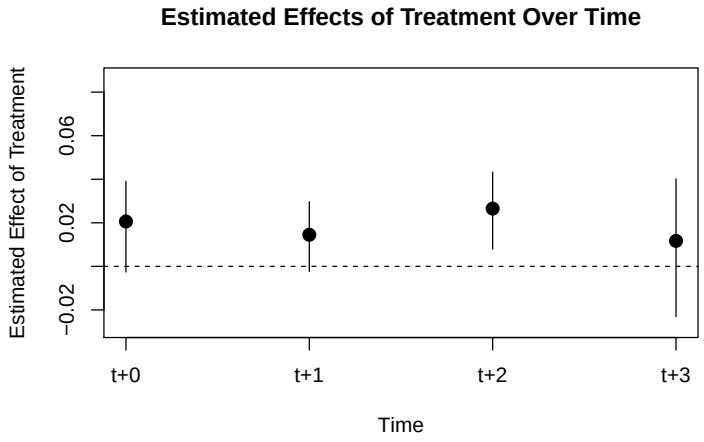
Table displays summary of balance after matching on the propensity score based using the R package "MatchIt" (Ho et al., 2011). The results above display the summary of balance for"Full" match. The following methods that the package allows for matching were performed for robustness. One, Exact Matching and Coarsened Exact Matching that yielded no matches. Two, Nearest neighbor match performed poorly with 21 treated units not matched at all. Three, "Optimal" method yielded no matches. Four, "Genetic" matching performed poorly with 21 treated units not matched at all. Five, Full Matching and Sub-classification performed relatively better and regression results using the the data matched on these two methods is displayed in table A.5

Table A.14: Summary of Balance for Matched Data - Subclass Match

	Treated means	Control mean	Std. Mean Diff.	Var. Ratio	eDF Mean	eDF Max
distance	0.8836	0.559	1.605	0.6547	0.2979	0.7778
nSeats	2.7765	2.7043	0.0498	1.966	0.0712	0.1898
Legislative Ideology	2.5484	2.4386	0.1217	2.5925	0.0615	0.1858
Sex Ratio	931.8852	923.3768	0.1354	2.4529	0.0897	0.2619
Urban population	0.2369	0.2497	-0.1277	0.9083	0.07	0.2149
female Literacy Rate	59.4644	54.5646	0.3788	1.7425	0.1428	0.5073
Infant Mortality Rate	53.4759	59.1452	-0.2833	1.5633	0.1028	0.3466
State GDP	10.1372	9.9747	0.3514	2.0954	0.0937	0.3644
Public Health Expenditure	1.3796	1.5777	-0.1714	1.6424	0.1393	0.3717
State's own tax revenue	2134.5143	1223.8532	0.5672	6.2298	0.1309	0.4259
State's non-tax revenue	1599.531	487.3696	0.2809	91.3367	0.102	0.2976
Social Sector Expenditure	8.472	8.0924	0.3584	2.7517	0.1453	0.3889

Table displays summary of balance after matching on the propensity score based using the R package "MatchIt" (Ho et al., 2011). The results above display the summary of balance for"subclass" match. The following methods that the package allows for matching were performed for robustness. One, Exact Matching and Coarsened Exact Matching that yielded no matches. Two, Nearest neighbor match performed poorly with 21 treated units not matched at all. Three, "Optimal" method yielded no matches. Four, "Genetic" matching performed poorly with 21 treated units not matched at all. Five, Full Matching and Sub-classification performed relatively better and regression results using the the data matched on these two methods are displayed in table A.5

Figure A.5



Note: The plot displays treatment (reservation) effect over time. Since the years are serialized to enable the use of R package "PanelMatch" (Kim and Wang, 2019). The program "matches each treated observation from a given unit in a particular time period with control observations from other units in the same time period that have a similar treatment and covariate history." t+1 on x-axis indicates one election cycle after the implementation of reservations and so on. While this plot indicates results using the "mahalanobis" distance matching method, the results are similar across various refinement methods including "ps.match","CBPS.match", "ps.weight", "CBPS.weight".

Table A.15: Total No. of Local Government institutions and Representatives

State	Total Gram Panchayats	Total No. of Elected Representatives	Total Women Representatives	% Women
Andhra_Pradesh	13,111	156,050	78,025	50%
Arunachal_Pradesh	5,205	9,383	3,658	39%
Assam	3,609	26,820	13,410	50%
Bihar	9,872	127,391	57,887	45%
Chhattisgarh	10,997	170,285	93,287	55%
Goa	377	1,564	516	33%
Gujarat	13,658	144,016	71,988	50%
Haryana	6,657	70,035	29,499	42%
Himachal_Pradesh	3,212	28,723	14,398	50%
Jammu_&_Kashmir	5,349	33,847	11,169	33%
Jharkhand	4,628	60782	30757	51%
Karnataka	6164	104,967	50,892	48%
Kerala	1,188	18,372	9,630	52%
Madhya_Pradesh	24,246	392,981	196,490	50%
Maharashtra	28,801	240,122	121,490	51%
Manipur	2,535	1,723	868	50%
Odisha	7,394	107,487	53,551	50%
Punjab	12,217	97,180	32,393	33%
Rajasthan	12,235	124,854	70,527	56%
Sikkim	430	1,096	548	50%
Tamil_Nadu	12,627	117,599	39,975	34%
Tripura	1,622	6,646	3,006	45%
Uttar_Pradesh	75,212	826,458	272,733	33%
Uttarakhand	15,400	64,606	35,957	56%
West_Bengal	3,362	59,402	30,157	51%

The data for this table comes from the 2019 handbook of "Basic Statistics of Panchayati Raj Institutions" published by the Ministry of Panchayati Raj, Government of India (pp 13, 18-20).

Table A.16: Candidate Political Experience: State-wise

State	Total Female Legislators in the State	Local Winners	Purely Local Experience	Purely Dynastic Experience
Andhra Pradesh	123	24	22	28
Assam	36	0	0	18
Bihar	90	2	1	22
Gujarat	63	19	14	9
Haryana	45	0	0	5
Karnataka	38	3	3	5
Kerala	43	15	13	3
Madhya Pradesh	100	6	6	18
Maharashtra	55	10	6	20
Odisha	42	2	2	15
Punjab	42	0	0	17
Rajasthan	82	7	6	24
Tamil nadu	94	10	6	2
Uttar Pradesh	104	8	6	14
West Bengal	160	22	13	9
Grand Total	1117	128	98	209

Table displays state-wise descriptive statistics for the count of female winners at the local level with purely local experience and purely dynastic experience after the introduction of quota policies. The table shows count of candidates whose local experience and dynastic ties could be credibly traced via disparate sources.
Purely Local Winners are those who won local elections but without documented family ties to politics.
Purely Dynastic Winners are those who with family ties to politics but without documented local government experience.

Table A.17: Party Structure and Upward Mobility: Seat Share > 50%

	Panel A		
	Proportion of female legislators with local experience		
	(1)	(2)	(3)
Lagged CPI and CPI(M) seat share >50%	0.273***		
	(0.093)		
Lagged BJP Seat Share > 50%		−0.036	
		(0.091)	
Lagged INC Seat Share >50%			0.004
			(0.058)
proportion of Female Legislators	0.193	−0.417	−0.469
	(0.838)	(0.935)	(0.944)
Constant	−0.012	0.042	0.049
	(0.149)	(0.170)	(0.170)
Fixed effects: State and Time	Yes	Yes	Yes
State Level Controls?	Yes	Yes	Yes
Observations	68	68	68
R^2	0.811	0.751	0.749

	Panel B		
	Proportion of purely dynastic female legislators		
	(1)	(2)	(3)
Lagged CPI and CPI(M) seat share >50%	0.029		
	(0.099)		
Lagged BJP Seat Share > 50%		0.059	
		(0.083)	
Lagged INC Seat Share >50%			0.048
			(0.052)
proportion of Female Legislators	−0.222	−0.362	−0.416
	(0.888)	(0.855)	(0.854)
Constant	−0.080	−0.063	−0.071
	(0.158)	(0.156)	(0.154)
Fixed effects: State and Time	Yes	Yes	Yes
State Level Controls?	Yes	Yes	Yes
Observations	68	68	68
R^2	0.861	0.863	0.865

Note: *p<0.1; **p<0.05; ***p<0.01
Robust standard errors in parentheses

Panel A: Table shows linear models with proportion of female legislators with local experience and no dynastic ties among the women in state assemblies. Independent variables are dummies that equal to 1 when lagged seat share is greater than 50%.
Panel B: Table shows linear models with proportion of female legislators with dynastic ties and no local experience among the women in state assemblies. Independent variables are dummies that equal to 1 when lagged seat share is greater than 50%

Table A.18: Exposure in Years

Exposure in years	No. of Observations
0 years	236
1-5 years	21
6-10 years	22
11-15 years	18
16-20 years	9
> 20 years	2
Total	308

Note: Author calculations based on data sources described in section III

Table A.19: Lead Treatment Regression

	Dependent variable:				
	Proportion of women in all state assemblies				
	(1)	(2)	(3)	(4)	(5)
Reservation (lead)	0.005				
	(0.010)				
Reservation (lead2)		−0.006			
		(0.009)			
Reservation (lead3)			−0.004		
			(0.013)		
Reservation (lead4)				−0.017	
				(0.020)	
Reservation (lead5)					−0.022
					(0.018)
Reservation	0.027*	0.027*	0.027*	0.024	0.025*
	(0.015)	(0.014)	(0.014)	(0.016)	(0.014)
Constant	0.225	0.352	0.271	0.330	0.267
	(0.352)	(0.337)	(0.334)	(0.375)	(0.340)
Fixed effects: State and Time	Yes	Yes	Yes	Yes	Yes
State Level Controls?	Yes	Yes	Yes	Yes	Yes
Observations	111	111	111	111	111
R^2	0.794	0.795	0.794	0.795	0.795
Adjusted R^2	0.529	0.530	0.528	0.529	0.531
Residual Std. Error (df = 48)	0.023	0.023	0.023	0.023	0.023
F Statistic (df = 62; 48)	2.991***	2.997***	2.985***	2.996***	3.005***
Note:					*p<0.1; **p<0.05; ***p<0.01
					Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. In Model (1) the reservation dummy is 1 one electoral cycle prior to the reservation and 0 otherwise. In Model (2) the reservation dummy is 1 years two electoral cycles prior to the reservation and 0 otherwise, and so on till column 5 where the reservation dummy is 1 5 electoral cycles prior to the reservation. Standard errors are clustered at the state assembly level.

Table A.20: Regression Results With State Specific Time Trends

	Dependent variable:		
	Proportion of women in all state assemblies		
	(1)	(2)	(3)
Reservation	0.038***	0.055***	0.039***
	(0.005)	(0.009)	(0.009)
Constant	0.011***	0.045***	0.035***
	(0.002)	(0.007)	(0.007)
State Fixed Effects	✓	×	×
Time Fixed Effects	×	✓	×
State-specific Time Trends	×	×	✓
Observations	243	243	243
R^2	0.521	0.515	0.530
Adjusted R^2	0.476	0.396	0.483
Residual Std. Error	0.025 (df = 221)	0.027 (df = 194)	0.025 (df = 220)
F Statistic	11.461*** (df = 21; 221)	4.300*** (df = 48; 194)	11.287*** (df = 22; 220)
Note:			*p<0.1; **p<0.05; ***p<0.01
			Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. All models include state-specific time trends, and Standard errors are clustered at the state level.

Table A.21: Regression Results with State Specific Time Trends (sub-sample)

	Dependent variable:		
	Proportion of women in all state assemblies		
	(1)	(2)	(3)
Reservation	0.018***	0.036**	0.029**
	(0.003)	(0.017)	(0.014)
Constant	0.011*	−0.010	3.518***
	(0.006)	(0.016)	(1.100)
Fixed effects: State and Time	No	Yes	Yes
State Level Controls?	No	No	Yes
State Specific Trends	Yes	Yes	Yes
Observations	105	105	105
R^2	0.605	0.857	0.902
Adjusted R^2	0.487	0.562	0.558
Residual Std. Error	0.023 (df = 80)	0.021 (df = 34)	0.021 (df = 23)
F Statistic	5.115*** (df = 24; 80)	2.907*** (df = 70; 34)	2.619*** (df = 81; 23)
			*p<0.1; **p<0.05; ***p<0.01
			Robust standard errors in parentheses

Note: Table shows linear models with proportion of women in state assembly as the dependent variable. All models include state-specific time trends, and standard errors are clustered at the state level.