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Application for social programs: the role of local politics and caste networks in affirmative action in India

Véronique GILLE

UMR DIAL 225
Place du Maréchal de Lattre de Tassigny 75775 • Paris •Tél. (33) 01 44 05 45 42 • Fax (33) 01 44 05 45 45
• 4, rue d'Enghien • 75010 Paris • Tél. (33) 01 53 24 14 50 • Fax (33) 01 53 24 14 51
E-mail : dial@dial.prd.fr • Site : www.dial.ird

Application for social programs: the role of local politics and caste networks in affirmative action in India

Véronique Gille*

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Abstract

India's affirmative action programs are among the largest in the world. In the public sector, up to 49.5% of the jobs are reserved for low castes. However, the recruitment is highly discretionary, so it is difficult for low-castes without connections to access these jobs and thereby benefit from affirmative action. This paper studies the impact of having someone from the same caste as local elected leader on the probability of applying for jobs reserved for low castes in the public sector in India. The identification strategy exploits the political reservation system at the village level that determines the caste group of the person in power. Using data from three States in South India, I find that households are more likely to apply when the village council president is from their caste group. The evidence suggests that the impact comes from the council president using his connections to help his caste-fellows.

Keywords: India, affirmative action, caste, political reservations

JEL Classification Numbers: I38, O12, P48

*IRD, UMR DIAL, PSL, Université Paris-Dauphine, 4 Rue d'Enghien, 75010 Paris, France; Email: gille@dial.prd.fr. I am grateful for very useful comments from Kaivan Munshi, Liam Wren Luis, Flore Gubert and Catherine Bros. I also thank participants from seminars at Paris 1 Panthéon Sorbonne University, Catholic University of Louvain and from conferences at Cambridge University, University College London and Indian Statistical Institute. I acknowledge support for this research from the European Research Council under the European Union's Seventh Framework Programme (FP7/2007-2013) / ERC grant agreement 269831 and the French Ministry of Education.

1 Introduction

Past discrimination against certain people on the basis of their ethnicity, religion or gender has had an important impact on current inequalities. Because those groups were restricted to certain occupations or deprived from certain rights, today, they are lagging behind in terms of socio-economic outcomes. This is for example the case for the African Americans in the US, the Malay in Malaysia, the indigenous population in Brazil or women all over the world. Nowdays, in order to support these groups a lot of countries have set up affirmative action programs.

In India, where certain individuals were discriminated against because of their caste,[1] affirmative action programs are implemented on a very large scale. The extent of affirmative action is particularly sizeable in public employment where since Independence, depending on the State, between 22.5% and 49.5% of the jobs in the public sector have been reserved for low castes. However, each year a non-marginal proportion of these quotas remains unfilled and low castes are still underrepresented in the public sector. There are two main reasons for that. The first reason is that the candidates are often not considered as "suitable" (Jaffrelot, 2011). The second reason, on which this paper focuses, is that it is not easy to access these jobs, due to a highly discretionary recruitment process. Chandra (2004) reports that except for high skilled positions, which are filled by competitive exams, a high proportion of the employees at low skilled positions, which constitute almost 95% of the jobs in the public sector, are recruited directly by the concerned offices. This discretion in hiring makes it difficult for low castes individuals without connections to access these jobs and therefore benefit from provisions under reservations in the public sector. Chandra (2004) describes the case of an untouchable in a village in Uttar Pradesh, who is eligible for quotas in public sector employment but does not even try to benefit from them because "had he tried to escape his circumstances by securing regular employment in the public sector, he would have needed "contacts"". This difficulty in getting benefits from the State without connections not only concerns quotas in public employment, but a large range of public programs. Therefore, intermediaries are commonly used to mediate people's access to State institutions (Witsoe, 2012). Among

[1] Section 2 provides an overview of the organization of the social system in India.

these intermediaries, political leaders, who have power over administrative decisions as they can transfer bureaucrats to different positions (Chandra, 2004; Iyer and Mani, 2012), play an important role.

The question this paper is concerned with is if households that are better connected to the State through their caste networks have an easier access to reserved jobs in the public sector. This question is explored using the village census and the village survey of the ARIS-REDS data for 36 villages distributed across three States in South India. Because these data do not indicate if households got the job after applying, I study the impact of caste networks on *application* for reserved jobs. In particular, I study the impact of having someone from the same caste as a local elected leader on the probability of applying for reserved jobs in the public sector. How would local elected leaders help their caste members for reserved jobs? In India elected leaders do not have the legal power to attribute administrative jobs. In practice, however, they have a certain control over bureaucrats. Local elected leaders, because of their connections to higher level elected leaders or political parties can play the role of intermediaries between their caste members and the bureaucrats.

As caste groups that have elected leaders may have different characteristics than caste groups without, I exploit an institutional feature of India created by a reform in 1993 to identify the effect. This reform created a three-tier government system with elected councils at the village level, called Gram Panchayats. This reform also established that the position of village council president, called pradhan, has to be reserved for low castes by rotation across villages.

To look at the impact of having someone from the same caste group as pradhan I therefore look at the impact of having the position of pradhan reserved for the same caste group. As the attribution of political reservations to a specific caste group in a specific village at given point in time is partially determined by village level characteristics,[2] I focus on intra-village variation across caste groups in the probability of applying for reserved jobs in the public sector. This

[2]Whereas every village gets political reservations for each caste group at the same frequency, the sequence in which villages get political reservations is not random, therefore leading to systematic differences across villages in their observable characteristics (Dunning and Nilekani, 2013). This point will be further explained in section 4.1.

specification controls for village level characteristics but caste groups in villages with political reservations and without political reservations may still differ in their unobservable characteristics. To check if caste level unobservables are driving the results, I use a panel specification based on a recall question. I also conduct a falsification test. These robustness checks provide evidence that the results are unlikely to be driven by caste unobservables at the village level.

To shed further light on what drives the effect, I study if the impact is driven by members from the same subcaste, called jati. The identification strategy also uses the political reservation status of the village, which now serves as an instrument. Although the political reservation status of the village might be correlated to caste level characteristics, it is unlikely to be correlated to jatis' unobservable characteristics because there are several jatis per caste in each village. The identification strategy differs from above in that the political reservation status of the pradhan seat no longer functions as a proxy for the caste group of the pradhan.

I document that sharing the caste group of the pradhan increases households' application for reserved jobs in the public sector, and that this impact is driven by members from the same subcaste. Further analysis suggests that the impact comes from the pradhan helping the application of members from his caste group to be processed. Indeed, the application rate of members from the same jati as the pradhan only increases in villages where the pradhan is himself well connected, and consequently able to help his caste fellows. The results do not provide support for other channels such as improved self-confidence or better access to information.

The fact that elected political leaders favor their own group in the distribution of benefits has been well documented in the literature. Besley et al. (2004) show that intra-village allocation of public goods shifts towards low castes when the seat of the pradhan is reserved for low castes. Similarly, Kumar and Somanathan (2015) find that low castes that share the caste of the middleman in charge of social programs benefit more from programs with one-time transfers. Chattopadhyay and Duflo (2004) find that female pradhans distribute public goods which are more relevant to the needs of women. Mu and Zhang (2014) show that in China elected village heads favor their home natural village in ressource allocation. Caeyers and Dercon (2012) find that people connected to

local elites tend to get more food than others in the context of food programs in Ethiopia.

There is less empirical evidence in the economics literature on how having someone from the same group in power changes the behavior of individuals because they expect different returns from their actions or because they feel more confident to do so. Among the exceptions, Markussen and Tarp (2014) show that households that have political connections tend to invest more in land improvement in Vietnam. In India Beaman et al. (2009) find that female reservations for the seat of pradhan lead to an increase in the proportion of female candidates in successive elections. Ghani et al. (2014) find an increase in women's entrepreneurship following the implementation of political reservations for women.

This paper provides new empirical evidence of the impact of elected leaders on the behavior of individuals sharing their identity. Whereas the previous literature has mainly focused on the impact of political leaders' identity on the distribution of public goods, this paper studies a different kind of public benefit, namely quotas for low castes for jobs in the public sector and studies how the identity of political leaders affects people's application behavior. This policy is the biggest affirmative action program in the world, but little is known about the mechanisms underlying people's application. This paper therefore sheds some light onto the determinants of applications for reserved jobs in the public sector.

The rest of the paper is organized as follows: section 2 provides some information on the caste system and caste-based affirmative action programs. Section 3 describes the data. Section 4 explains the empirical strategy, shows the main results and explores the channels. Section 5 concludes.

2 Contextual background

Affirmative action policies in India are due to, and based on, the caste system. To understand the policy studied in this paper, this section provides basic information on the caste system before giving a quick overview of the evolution of reservations in public employment.

2.1 The caste system and the need for reservations

The Indian society is stratified according to a caste system. The organization of the caste system is hierarchical, and is governed by the concept of purity. People at the top of the hierarchy are considered to be pure, whereas people at the bottom are considered to be impure and therefore "untouchable". The caste system goes hand in hand with a division of occupations across jatis, where each jatis has a traditional occupation. Hierarchically low jatis traditionally have menial jobs such as scavenging or laundering. Membership to a specific jati is hereditary and endogomy is practiced, such that it is very difficult, not to say impossible, to escape one's caste.

Because the caste system in itself does not allow for social mobility, the caste group at the bottom of the social hierarchy, the "untouchables", also called dalits, have always been the most economically disadvantaged group. And because of their impurity, they were and still are suffering from discrimination: for centuries they had been obliged to live in specific areas of villages and were banned from using common goods such as wells or places of worship.

At Independence, under the lead of Dr. Ambedkar himself a dalit, the principal of affirmative action was introduced in the Constitution. The dalits, referred to as the "Scheduled Castes" (SC), and the indigenous people of India, referred to as the "Scheduled Tribes" (ST), were provided with respectively 15% and 7.5% quotas in public employment and in institutions of higher education. The other low castes, also economically poor and socially backward but not suffering from the stigma of untouchability, were not entitled to affirmative action. But a door was left open for them in the Constitution where they were referred to as the "Other Backward Classes" (OBC).[3]

2.2 The evolution of reservations for low castes in public employment

Whereas reservations in public employment for SC and ST were quickly implemented and accepted, reservations in public employment for OBC were subjected to several twists and turns and the situation was extremely diverse across States. There have been reserved jobs in the public sec-

[3]For the purpose of clarity, in the rest of the paper "caste" refers to the caste group, namely SC, ST and OBC, and "jati" refers to the the hereditary and endogamous subcaste group.

tor for OBC in the Southern States prior to Independence. During the post-Independence period, several other States adopted reservations in public employment for OBC. However, the turning point was the "Mandal Commission" of 1979 which recommended 27% quotas in the public sector for OBC. This recommendation was implemented by the Central Government in 1993. Most of the States followed the Central Government and implemented reservations in public employement for OBC in their own services, the most recent State being West Bengal which only implemented reservations in the public sector for Muslim OBC in 2012.

Currently, there are employment quotas in the public sector (central and State Government) for SC, ST and OBC in every State.

3 Data and descriptive statistics

The data used to conduct this study are from the 2006 round of the Additional Rural Incomes Survey and Rural Economic and Demographic Survey (ARIS-REDS) from the National Council of Applied Economic Research (NCAER). Since 1971, the NCAER has been conducting household surveys along with village surveys in the 17 major States of India.

Out of the 17 States where the survey has been conducted, I focus on the 3 States for which the jati of the pradhan is available: Andhra Pradesh, Karnataka and Maharashtra.[4] These three States are all in South India. In these three States, the jati of the Pradhan is available for 36 villages. In those villages, I focus on households from castes benefitting from reservations in public employment, namely SC, ST and OBC. The final sample is composed of 13,198 households. Robustness checks on specifications which do not use the jati of the pradhan are conducted with a larger sample that includes all the villages that have been surveyed in the three States.

The village survey provides the reservation status of the pradhan position for three periods:

[4]The data do not directly provide the jati of the pradhan, but indicate the name and several socio-demographic indicators along with the electoral score of all the candidates to the seat of pradhan. We also know for all the village members if they were candidate for the seat of pradhan. The jati of the pradhan can be deduced in two specific institutional contexts: when the pradhan is elected among the Gram Panchayat members as in Maharashtra and Karnataka, because the data indicate the jati of panchayat members, or when the Gram Panchayat is composed of only one village, in which case we can match the pradhan to the village listing.

Table 1: Villages political reservation status

	Main sample						3 Southern States					
Pradhan position reserved for	current		previous		previous to previous		current		previous		previous to previous	
	#	%	#	%	#	%	#	%	#	%	#	%
SC	2	6%	5	14%	8	22%	4	8%	8	16%	11	22%
ST	3	8%	0	0 %	4	11%	5	10%	2	4%	4	8%
OBC	17	47%	19	53%	11	31%	25	49%	23	45%	16	31%
Total Reserved	22	61%	24	67%	23	64%	34	67%	33	65%	31	61%
Non Reserved	14	39%	12	33%	13	36%	17	33%	18	31%	20	39%
Total	36	100%	36	100%	36	100%	51	100%	51	100%	51	100%

The table indicates the number of villages where the seat of pradhan is reserved for SC, ST or OBC, in the main sample and the extended sample, for current, previous and previous to previous Gram Panchayat.

current pradhan, previous pradhan and previous to previous pradhan. Table 1 summarizes the information for the main sample and the larger sample used for robustness checks. Two important points are to be noted: first, OBC benefit the most from pradhan's reservation. Each electoral term, almost half of the reserved pradhan seats are reserved for OBC. Second, the number of reserved seats constitute between 60 and 70% of the total number of seats for both samples.

The village listing, which lists all the households in the surveyed villages, provides the information about application for reserved jobs in the public sector along with several demographic characteristics. In particular, households were asked "Have you or any member of your family taken advantage of provisions under reservations to seek employment" in the current year of the survey and 10 years prior. This is the answer to this question that I use to analyse the role of the pradhan in affirmative action and that I will refer to in the rest of the paper as "having applied for a reserved job".

Table 2 provides descriptive statistics for the most important variables for the main sample (MS) and for the sample that includes all the villages of the three Southern States (TSS). Comparing the main sample to the sample with all the villages of the three States allows to check if there is some selection in the main sample. The two samples are pretty similar. Concerning the pradhan, the percentage of households that live in a reserved Gram Panchayat is high (49% in the MS and 59% in the TSS). However, the percentage of households having a pradhan seat reserved for their caste group is lower (34% in the MS and 39% in the TSS). The OBC are the one that benefit the

Table 2: Households descriptive statistics

	Main sample		3 Southern States	
	mean	sd	mean	sd
Application for reserved jobs				
Job reserv app 2006	0.044	(0.21)	0.037	(0.19)
Job reserv app 1996	0.047	(0.21)	0.042	(0.20)
Reservations for current pradhan position				
Elect reserv	0.49	(0.50)	0.59	(0.49)
Same caste reserv	0.34	(0.47)	0.39	(0.49)
Same caste reserv × SC	0.01	(0.11)	0.03	(0.17)
Same caste reserv × ST	0.01	(0.12)	0.02	(0.13)
Same caste reserv × OBC	0.31	(0.46)	0.35	(0.48)
Households characteristics				
SC	0.28	(0.45)	0.27	(0.44)
ST	0.06	(0.25)	0.07	(0.26)
OBC	0.66	(0.47)	0.66	(0.47)
Age (Years)	44.5	(13.10)	44.9	(13.23)
Female	0.1	(0.32)	0.1	(0.31)
Years of schooling	4.1	(4.43)	3.9	(4.34)
Land owned (in acres)	1.6	(8.38)	1.6	(7.48)
Household Size	4.6	(2.41)	4.5	(2.28)
Hindu	0.83	(0.37)	0.86	(0.34)
Muslim	0.05	(0.22)	0.04	(0.20)
Christian	0.06	(0.24)	0.06	(0.23)
Other religion	0.05	(0.21)	0.04	(0.19)
Observations	13198		17355	

most from reservations in the pradhan seat: 31% have an OBC pradhan in the MS and 35% in the TSS. On the contrary, only 1% (2% in the TSS) of the SC and 1% (3% in the TSS) of the ST have a pradhan seat reserved for their caste group. This small percentage is due to the small proportion of villages that have a pradhan seat reserved for SC and ST. The demographic characteristics are very similar across samples. They show that low-castes are poor and have little education. On average, household heads have not completed primary schooling, and landholdings are small.

4 Results

This section studies if households are more likely to apply for a reserved job in the public sector when they are from the same caste and jati as their pradhan. I first focus on the impact of being from the same caste in subsection 4.1, before looking at the impact of being from the same jati

in subsection 4.2. In subsection 4.3 I study what drives the impact measured in the preceeding subsections.

4.1 Impact of having a pradhan from the same caste

To estimate the impact of having someone from the same caste group as pradhan on the probability of applying for reserved jobs in the public sector, I take advantage of the reservation system for the position of pradhan. Given that castes that have elected leaders are likely to be different from castes that do not have elected leaders, instead of directly looking at the impact of the caste of the pradhan I look at the impact of having a pradhan seat reserved for the same caste group in the village. In the area I am focusing on, the position of pradhan can be reserved for SC, ST or OBC. When it is not reserved, anyone from any caste group can be a candidate. In practice, low-castes are rarely elected when the pradhan seat is not reserved. In my sample, only 2 out of 14 pradhans are low-castes in the unreserved villages.

How does the system of electoral reservations work? Regarding the number of villages where the position of pradhan has to be reserved at each electoral term, The 73rd amendment of the Constitution, which introduced the policy, specifies that "the number of offices of Chairpersons reserved for the Scheduled Castes and Scheduled Tribes in the Panchayats at each level in any State shall bear, as nearly as may be, the same proportion to the total number of such offices in the Panchayats at each level as the population of the Scheduled Castes in the State or of the Scheduled Tribes in the State bears to the total population of the State". For OBC, States do not have to provide reservations for the seat of pradhan but, for those who choose to, the number of seats to be reserved is also determined by law. In Karnataka and Andhra Pradesh, 1/3 of the seats for Chairpersons are to be reserved for OBC, and in Maharashtra it is 27%. In practice, in most States the proportion of pradhan seats to be reserved for each caste group is determined at the block level (i.e. subdistrict) and is approximately equal to the share that they represent in the population of the block.[5]

[5]The exact OBC population is not known, because since 1931 the census does not provide statistics per caste.

Once the number of villages that will have a seat reserved for the position of pradhan has been determined, how are the villages chosen? The 73rd Amendment specifies that the reserved seats have to be allocated by "rotation" across Gram Panchayats, but the order in which each Gram Panchayat gets electoral reservations is not specified in the text. In practice, Gram Panchayats are classified according to a specific criterion, which often is the size of the population considered in each Gram Panchayat.[6] In Karnataka, for example, for the attribution of reserved seats for SC Gram Panchayats are listed in descending order of their SC population. At each election the block level bureaucrats go down the list to allocate the reserved seats (Dunning and Nilekani, 2013). The strategy is the same for OBC reservations in Bihar, except that Gram Panchayats are classified in descending order of their total population, given that the size of the OBC population is not known. So even if the frequency at which Gram Panchayats get reservations for a specific caste is the same for every Gram Panchayat, the fact that they get reservation at a specific electoral term is not random, because the order of allocation is determined by a Gram Panchayat level criterion. In a cross-sectional setting, villages with reservations are therefore not similar to villages without reservations and the causal effect of having a pradhan from the same caste cannot be identified.

To mitigate this problem, in subsection 4.1.1 I use the same identification strategy as Besley et al. (2004), who add village dummies to their specification. Once controlling for village dummies, households characteristics are similar across villages with and without reservations (see table 10 in the appendix). As this specification does not control for caste level unobservables in the village, I also conduct a falsification test that checks if political reservation status of the villages are correlated with previous reserved jobs applications. To further check if caste level unobservables in the village are driving the impact, in subsection 4.1.2 I exploit the panel dimension of the data. This strategy allows me to include household level fixed-effects that control for any unobservables that are fixed over time.

[6]However, the criteria is not known for all States.

4.1.1 Cross-sectionnal evidence

In the cross-sectional specification, the effect is estimated with village dummies. The village dummies capture all the village-level unobservables which may be correlated with the reservation status of the village and with the rate of application for reservations in the public sector of members from this village. The impact of having a pradhan from the same caste group on reserved jobs applications is therefore only identified from within village variation in political reservation. The empirical specification is as follows:

$$Y_{hcv} = \beta_0 + \beta_1 X_{hcv} + \beta_2 RESERV_{cv} + \alpha_v + \varepsilon_{hcv} \quad (1)$$

where Y_{hcv} is equal to one if a member from household h of caste c (namely SC, ST or OBC) in village v applied to reserved jobs in the public sector. X_{hcv} are household level variables.[7] $RESERV_{cv}$ is a dummy variable equal to one if the pradhan's position is reserved for the caste group of the household. The village dummies α_v control for the unobservables at the village level that may be correlated with the reservation status of the village and ε_{hcv} is an error term. I also control in most specifications for caste characteristics at the village level.[8] The standard errors are clustered at the village level.

Table 3 reports the results of the estimation of equation 1. Columns 1 to 3 show the average impact of having a pradhan from the same caste. Having a pradhan from the same caste has a significant and positive impact on the probability of applying for reserved jobs. The increase in applications is estimated to be between 1.9 (column 1) and 2.7 percentage points (column 3) depending on the specification. Compared to the specification in column 1, column 2 additionally controls for average caste characteristics and column 3 controls for district dummies interacted with caste, which take into account caste unobservables at the district level.[9] Finally, column 4

[7] Age and education level of the household head, land owned, household size, caste and religion.

[8] The caste level controls are the household level controls aggregated at the caste in the village level, i.e. age, education, land owned, household size, the total population of the caste in the village and the share of population that the caste represents in the village.

[9] The probability of getting political reservations for a given Gram Panchayat is likely to be correlated with caste level characteristics in the other Gram Panchayats of the block. As explained previously, the fact that a Gram Panchayat

Table 3: OLS estimation of application to reserved jobs

Dependant variable	Application for reserved jobs					
	in 2006				10 years ago	
	(1)	(2)	(3)	(4)	(5)	(6)
Age (Years)	0.000752***	0.000755***	0.000811***	0.000620**	0.00105**	0.00100**
	(0.000268)	(0.000269)	(0.000275)	(0.000243)	(0.000474)	(0.000393)
Years of schooling	0.00358**	0.00365***	0.00373**	0.00362***	0.00491***	0.00506***
	(0.00132)	(0.00131)	(0.00138)	(0.00112)	(0.00173)	(0.00149)
Land owned in acres	0.000517	0.00173	0.00140	0.000794	-0.0000414	0.000463
(in log)	(0.00322)	(0.00326)	(0.00356)	(0.00251)	(0.00388)	(0.00299)
Household Size	0.000412	0.000481	0.000600	0.000858	0.00197	0.00166
	(0.00131)	(0.00129)	(0.00137)	(0.00122)	(0.00119)	(0.00105)
ST	-0.0176*	-0.0203**	-0.0190	-0.0132	0.0137	0.00789
	(0.00915)	(0.00910)	(0.0114)	(0.00855)	(0.0227)	(0.0180)
OBC	-0.0321***	-0.0122	-0.0101	-0.0170	0.00208	0.00920
	(0.00558)	(0.00737)	(0.0284)	(0.0144)	(0.0116)	(0.0115)
Same caste reserv	0.0189**	0.0246**	0.0270***	0.0168**	0.00179	0.00262
	(0.00907)	(0.00933)	(0.00917)	(0.00664)	(0.0147)	(0.00796)
Religion dummies	Yes	Yes	Yes	Yes	Yes	Yes
Caste controls	No	Yes	Yes	Yes	Yes	Yes
Village dummies	Yes	Yes	Yes	Yes	Yes	Yes
Caste $\times$ District Dummies	No	No	Yes	Yes	No	No
Observations	13198	13198	12246	17355	13198	17355
r2	0.060	0.061	0.060	0.065	0.139	0.154

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors are corrected for clustering at the village level. The samples in columns 4 and 5 exclude districts where there is only one village for which data are available, to keep some variation when the interaction term between caste and district dummies is added. Columns 4 use the extended sample. The caste level controls are the household level controls aggregated at the caste level, i.e. age, education, land owned, household size, the total population of the caste in the village and the share of population that the caste represents in the village.

checks if the impact is robust to the use of the larger sample.

Falsification tests for the reduced and full sample are reported in columns 5 and 6. The outcome variable is now a dummy equal to one if somebody from the household applied for a reserved job 10 years ago. This allows to check if the impact is driven by caste unobservables at the village

gets political reservation for a certain group at a certain point in time depends on its position on the list, which itself depends on the distribution of caste level characteristics in the other Gram Panchayats of the block. The probability of getting political reservation consequently depends on the SC, ST and OBC characteristics in the other Gram Panchayat. However, I cannot control for caste dummies at the block level because there are not enough villages per block in the sample.

level. If the impact that we observe is not driven by caste level unobservables, we should not see any significant relation between having a pradhan from the same caste today and this outcome. And indeed, the variables “having a pradhan from the same jati” and ”applying for a reserved job 10 years ago” are not correlated: the coefficient is very small and not significantly different from zero.

4.1.2 Panel evidence

Table 4 provides further evidence of the robustness of the impact by using a panel specification. In the survey, households were asked about their application for reserved jobs at the time of the survey (2006) and ten years prior (therefore 1996). For most villages, the data also provide the information on reservations for the seat of pradhan for previous to previous election. As elections happen every five years, this provides information about reservations for the seat of pradhan ten year ago. I am therefore able to study the impact in a panel setting with households fixed effects, where the identification comes from villages where there was a change in the reservation status of the pradhan seat. Households who have moved into the village after 1996 are excluded, as well as households whose head has changed. Because the data do not have a real panel structure, I am not able to control for households' characteristics that vary over time. But I allow the impact of the households' characteristics to vary over time by interacting the household's characteristics with a time dummy. I also take into account time-varying village level unobservables by controlling for village dummies interacted with the time dummy.

The results are similar to the ones in table 3. Columns 1 and 2 show the results for the main sample and columns 3 and 4 for the extended sample. The results show that households living in villages where the pradhan seat is reserved for their caste group are significantly more likely to apply for reserved jobs. In terms of magnitude, the coefficient estimated with the panel specification is slightly smaller than with the cross-sectional specification: the increase in applications for reserved jobs is estimated to be between 1.5 and 1.8 percentage points in the main sample and between 1 and 1.3 percentage points in the larger sample.

Table 4: Fixed-effects estimation of application for reserved jobs

	Application for reserved jobs			
	(1)	(2)	(3)	(4)
Same caste reserv	0.0179***	0.0153**	0.0132***	0.00972**
	(0.00583)	(0.00634)	(0.00436)	(0.00470)
Time dummy	Yes	Yes	Yes	Yes
Time dummy × HH controls	Yes	Yes	Yes	Yes
Time dummy × Caste controls	No	Yes	No	Yes
Time dummy × Village dummies	Yes	Yes	Yes	Yes
Households FE	Yes	Yes	Yes	Yes
Observations	19326	19326	25522	25522
r2	0.008	0.009	0.008	0.008

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors are corrected for two-way clustering at the household and village level.

Both specifications (cross-section and panel) show that there is a significant and positive impact of having a pradhan from the same caste on the probability of applying for reserved jobs. The following section considers the question at a more disaggregated level, the jati level.

4.2 Impact of having a pradhan from the same jati

Section 4.1 underlines that low-caste households are more likely to apply for reserved jobs in the public sector when the pradhan seat is reserved, and therefore occupied, by a low-caste. But who is concerned among low-castes households? Does the positive impact of having a low-caste pradhan concerns any household or is it limited to the close social group of the pradhan, that is his jati? Whatever the channel at stake here, the answer is not straightforward. While most of the literature underlines that the jati is still the real group of reference in contemporary India (Damodaran, 2008; Munshi, 2011; Munshi and Rosenzweig, 2013, 2015), Dunning (2010) shows that electoral quotas favor intra-caste solidarity. To get some insight into this question, I look at the impact of having a pradhan from the same jati on the probability of applying for a reserved job. I begin with a simple OLS specification:

$$Y_{hjcv} = \alpha_0 + \alpha_1 X_{hjcv} + \alpha_2 E_{jcv} + \delta_v + \omega_{hjcv} \tag{2}$$

Table 5: OLS estimation of the impact of having a pradhan from the same jati

	Application for reserved jobs					
	(1)	(2)	(3)	(4)	(5)	(6)
Same jati Pradhan	0.0499**	0.0505***	0.0560***	0.0517***	0.0639**	0.0510***
	(0.0229)	(0.0126)	(0.0115)	(0.0136)	(0.0249)	(0.00940)
Same caste diff jati Pradhan						-0.0171
						(0.0167)
HH controls	Yes	Yes	Yes	Yes	Yes	Yes
Village dummies	Yes	Yes	Yes	Yes	Yes	Yes
Caste controls	Yes	Yes	Yes	Yes	Yes	Yes
Jati dummies	No	Yes	Yes	Yes	Yes	Yes
Jati in the vill. controls	No	No	Yes	Yes	Yes	Yes
Caste × District dummies	No	No	No	Yes	No	No
Caste × Village dummies	No	No	No	No	Yes	No
Observations	13198	12319	12319	11413	12319	12319
r2	0.063	0.086	0.088	0.090	0.096	0.088

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors are corrected for clustering at the village level. The sample in columns 2-6 excludes jatis that are only in one village, and column 4 additionally excludes districts where there is only one village for which data are available.

where E_{jcv} is a dummy variable equal to one if the pradhan is from the same jati as the household and zero otherwise. The equation includes village dummies δ_v such that α_2 is only estimated from intra-village variation. Standard errors are clustered at the village level.

The OLS results are shown in table 5. As expected, the relationship between application for reserved jobs and having a pradhan from the same jati is positive and significant (column 1). But this correlation may be driven by unobservables, so columns 2 to 5 test the robustness of the relation by controlling for additional factors. Column 2 controls for jati dummies to take into account unobservables at the jati level. Column 3 additionally controls for jati characteristics at the village level.[10] Column 4 adds an interaction term between caste and district to take into account caste unobservables at the district level. As there is variation among households from the same caste, it is also possible to add an interaction term between caste and village to take into account caste unobservables at the village level (column 5), in which case the impact is solely estimated

[10]The control variables for jatis at the village level are the mean age of households head in the jati, their mean education level, the mean household size, the mean land owned by the jati in the village, the total number of households in the jati in the village and the share that they represent in the total population of the village.

from within caste in the village variation. In all the specifications, having a pradhan from the same jati is positively correlated with applications for reserved jobs. The coefficient on the jati of the pradhan is quite stable, between 0.05 and 0.064. Finally, if the impact of the pradhan only goes through jati networks, we also expect that having a pradhan from the same caste group but a different jati will have no impact. Column 7 shows the results. The coefficient is not significantly different from zero, showing that the increase in low-castes applications for reserved jobs when the pradhan is also a low-caste is fully driven by an increase among households from the same jati.

The relationship between having a pradhan from the same jati and application for reserved jobs is robust to the addition of controls, and the magnitude of the impact is bigger than when the impact is estimated at the caste level. Moreover, once various demographic and geographical characteristics are accounted for, having a pradhan from the same caste but not from the same jati is not significantly correlated with application for reserved jobs. These results are consistent with the hypothesis that the impact measured in tables 3 and 4 is an intra-jati effect. However, having a pradhan from the same jati may be correlated with characteristics of the jati in the village that cannot be observed and controlled for. So the coefficient in table 5 may not be consistently estimated by OLS. Therefore, the impact is now estimated using instrumental variables based on the political reservation status of the village. The first stage is as follows:

$$E_{jcv} = \pi_0 + \pi_1 X_{hjcv} + \pi_2 RESERV_{cv} + \pi_3 (RESERV_{cv} \times PROP_{jcv}) + \pi_4 PROP_{jcv} + \phi_j + \rho_v + \psi_{hjcv} \tag{3}$$

The second stage is:

$$Y_{hjcv} = \lambda_0 + \lambda_1 X_{hjcv} + \lambda_2 \hat{E}_{jcv} + \lambda_3 PROP_{jcv} + \Phi_j + w_v + v_{hjcv} \tag{4}$$

The variable of interest, E_{jcv} is instrumented with two instruments. The first instrument is a dummy variable ($RESERV_{cv}$) which indicates if there is political reservation for the caste group from which the household is from. Namely, the variable is equal to 1 if the household is OBC and the seat of pradhan is reserved for OBC and similarly for SC and ST. As seen in section 4.1, the fact that there

is political reservation for a specific caste group in the electoral term that is considered here may not be independent of *caste level characteristics in village and in the block*. However, because each caste group in a village is composed of several jatis, political reservations are not likely to be correlated with *jati level characteristics in the village*. It is therefore a valid instrument for E_{jcv} and is expected to have a positive impact on E_{jcv}.

The second instrument is the interaction of the reservation status of the caste group with the proportion of households that the jati represents in the village ($RESERV_{cv} \times PROP_{jcv}$).[11] Households from jatis that belong to a caste for whom the seat of pradhan is reserved (i.e. $RESERV_{cv} = 1$), have a probability of having a member of their jati as pradhan that increases with the population strength of their jati in the village, because population strength increases the probability of being elected. $RESERV_{cv} \times PROP_{jcv}$ is therefore also expected to have a positive impact on the probability of having a pradhan from the same jati. Because in itself the jati's population may also impact the probability of applying for reserved jobs, I control for $PROP_{jcv}$ in both stages. The second stage is similar to the OLS specification, but the impact of having a pradhan from the same jati is estimated with its predicted value $\hat{E}_{jcv}$. Standard errors are clustered at the village level.

Results are shown in table 6. The table shows three different specifications, where I allow the controls to vary. In columns 1 and 2 the only controls are household and caste level controls, and jati and village dummies. Columns 3 and 4 additionally control for jati in the village variables and in columns 5 and 6 an interaction term between caste and district is added. In the three first stages, the two instruments have a strong and positive impact on the probability that the household has a pradhan from the same jati. The p-value of the Hansen J-statistics also shows that the validity of the overidentifying restriction of the instruments cannot be rejected. Looking at the second stages, having a pradhan from the same jati has a significantly positive impact on the probability of applying for reserved jobs in the three specifications. The impact is quite large, with an increase of application for reserved jobs between 3.9 and 5.7 percentage points, which is close to what was estimated in the OLS regressions.

[11] $PROP_{jcv}$ is the number of households from the same jati in the village divided by the total number of households in the village.

Table 6: IV estimation of the impact of having a pradhan from the same jati

Dependant variable	Application for reserved jobs					
	(1) First stage	(2) Sec. stage	(3) First stage	(4) Sec. stage	(5) First stage	(6) Sec. stage
Same jati Pradhan		0.0569***		0.0509***		0.0390**
		(0.0200)		(0.0185)		(0.0194)
Same caste reserv	0.250**		0.269***		0.218**	
	(0.103)		(0.102)		(0.0998)	
Prop jati ×	0.888**		0.845**		0.977***	
Same caste reserv	(0.352)		(0.356)		(0.343)	
Prop jati	0.211	-0.0728**	0.416	-0.109***	0.335	-0.0447
	(0.300)	(0.0321)	(0.341)	(0.0358)	(0.302)	(0.0429)
Jati dummies	Yes	Yes	Yes	Yes	Yes	Yes
Village dummies	Yes	Yes	Yes	Yes	Yes	Yes
HH controls	Yes	Yes	Yes	Yes	Yes	Yes
Caste controls	Yes	Yes	Yes	Yes	Yes	Yes
Jati in the vill. controls	No	No	Yes	Yes	Yes	Yes
Caste × District dummies	No	No	No	No	Yes	Yes
Observations	12319	12319	12319	12319	11413	11413
r2		0.011		0.012		0.012
KP Wald rk F-stat		11.90		12.20		10.21
Hansen J-test (p-value)		0.259		0.272		0.573

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors are corrected for clustering at the village level. The sample only uses households from jatis present in at least two villages. In columns 5 and 6 the sample is further restricted to districts where there are at least two villages.

In table 11 in the appendix I also provide results for specifications where each instrument is used separately. Using these alternative specifications does not change the main finding: having a pradhan from the same jati has a positive impact on the probability of applying for reserved jobs. However it does change the size of the coefficient: with only one instrument the estimated coefficient is between 0.040 and 0.066.

4.3 What drives the impact?

The fact that having a pradhan from the same jati enhances application for reserved jobs can be driven by different factors. What inspired this paper is the idea that households believe that having a pradhan from the same jati makes it easier to access reserved jobs because pradhans have political

connections that they can use to help them. But other channels might also play a role. The pradhan may increase the self-confidence of his jati fellows by showing that low-caste individuals are able to hold prestigious positions. Or the effect might simply be driven by information sharing. Pradhan may provide information on what jobs are available and how to apply to their jati members. In this section, I discuss these three channels and I provide suggestive evidence that beliefs in the probability of success are likely to play a key role in the increase in applications for reserved jobs.

4.3.1 "Patronage democracy"

Political science and anthropological literatures have emphasized that politicians in India have great power over the distribution of resources because they control the bureaucracy (for a more detailed description of the phenomenon, see Chandra, 2004). This "patronage" system makes it complicated for poor people without connections to access State resources. Consequently, in rural India, there is an extensive usage of intermediaries (Manor, 2000; Witsoe, 2012). Village council presidents play an important role in this intermediation. Dunning and Nilekani (2013), in a survey of 512 villages in three Indian States (Karnataka, Rajasthan and Bihar), asked "to whom a hypothetical citizen would most likely turn for help getting access to a government benefit or service". 73% of the respondents answered the council president. They were also asked "who has the most power to provide access to the desired service". To this question 43% identified the council president.

Consequently, after the election of a pradhan from their jati, people's expectations of getting a job in the public sector may increase if they believe that the pradhan will help them get a reserved position. Their expectations may increase over actual probabilities if pradhans from their jati cannot help them get a job although people think they can, or their expectation may match actual probabilities if pradhans actually help their jati members to get reserved jobs.

I cannot directly test if people's expectations change following the election of a pradhan from their jati, given that there is no information about beliefs in the data. However, I can test if the impact of having a pradhan from the same jati varies with the potential/visible power of the prad-

han. In fact, pradhans can only help their jati fellows to get reserved jobs in the administration if they are themselves well connected. While high castes are historically well connected to the State and the political sphere, it may not be the case for low-castes accessing power at a very local level. One way to access higher levels of bureaucracy is through political parties. Political parties get involved in pradhans' elections by financing their campaigns. In most States political parties are by law not allowed to officially support candidates but they often do so in practice. In my sample, 2/3 of the pradhans currently in office have been financially supported for their campaigns by a political party, and the proportion is the same for SC, ST and OBC pradhans. The reason why political parties get involved in local elections is that it is a win-win situation for political parties and candidates. Political parties have incentives to finance local election campaigns to keep their hands on local politics and gain proximity with electors (Banerjee, 2008). Candidates have incentives to be financed by political parties because political parties provide money, which can be used to distribute gifts to electors. It also provides them with contacts at higher levels of the political system, which can help them achieve particular goals (Dutta, 2012).

To explore if beliefs in the pradhan's power to help them get a reserved job in the public sector plays a role in households' choice of applying for reserved jobs, I look at whether the impact is larger when pradhans are financed by political parties. Namely, I interact the variable of interest with a dummy variable equal to one when the pradhan's campaign is financed by a political party and zero otherwise. If the impact is driven by these beliefs, then we expect the interaction term to be positive and significant. Table 7 shows several specifications. Column 1 reproduces the results of the caste-level estimation in OLS; columns 2 and 3 show the OLS estimation of the jati-level estimation, and column 4 shows the IV estimation of the jati-level specification.[12] In the four specifications the results are similar: Pradhans only have a positive impact on application for reserved jobs when their campaigns are financed by a political party. The coefficient for pradhans that are not connected to political parties is very small and not significantly different from zero.

[12]In the IV specification, both the "same jati pradhan" variable and the interaction term are instrumented. The strategy used is the one recommended by Angrist and Pischke (2008). More details are provided in the appendix as well as the two first-stage estimation results.

Table 7: Party support and reserved jobs application

Dependant variable:	Application for reserved jobs			
	(1)	(2)	(3)	(4)
Estimation method:	OLS	OLS	OLS	IV
Same caste reserv	-0.0295			
	(0.0206)			
Same caste reserv × Party	0.0630***			
	(0.0222)			
Same jati Pradhan		0.00695	-0.00487	-0.0347
		(0.0113)	(0.0184)	(0.0327)
Same jati Pradhan × Party		0.0684**	0.0795***	0.113***
		(0.0306)	(0.0174)	(0.0286)
HH controls	Yes	Yes	Yes	Yes
Village dummies	Yes	Yes	Yes	Yes
Caste in the vill. controls	Yes	Yes	Yes	Yes
Jati in the vill controls	No	No	Yes	Yes
Jati dummies	No	No	Yes	Yes
Observations	13198	13198	12319	12319
r2	0.061	0.065	0.089	0.014

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors are corrected for clustering at the village level. The sample in columns 3 and 4 only uses households from jatis present in at least two villages.

So it is only when the pradhan is connected to a political party that people from the same caste are more likely to apply for reserved jobs. This result strongly supports the hypothesis that households are more likely to apply for reserved jobs when they believe that their pradhan can actually help them get the job.

But one can also think about other channels playing a role in the impact. In the two following subsections I question the channels of self-confidence and of information sharing.

4.3.2 Increase in self-confidence?

Another reason why having a pradhan from the same jati enhances applications for reserved jobs could be an improvement in self-confidence among members from her/his jati. There is evidence that discriminated groups under-achieve in part because they have lower aspirations and low self-confidence (Pajares and Urdan, 2006). In the context of reservations, it is possible that low-castes

negatively self-select themselves by not applying to reserved jobs because they believe (wether it is true or not) that they have low probabilities of getting reserved jobs. A pradhan from the same jati might increase their self-confidence such that their expectation of getting a reserved job increases. It could also be that expectations of having a reserved jobs when the pradhan is from their jati increase *over* actual probabilities because of some euphoria after the election.

There is indeed evidence that stereotypes in India are changing and that political reservations have a long lasting impact on the way people consider discriminated groups and on the way they consider themselves. Bhavnani (2009) and Beaman et al. (2009) show that quotas for women in Gram Panchayats change the probability that they run for office in unreserved panchayat and that they are elected. Similarly, reported crimes against women in India have increased with the implementation of reservations for women in Gram Panchayats, because the police is more willing to record those crimes, but also because women feel more confident to report them (Iyer et al., 2012). Beaman et al. (2012) show that political reservations for women increase educational aspirations for parents and girls. Chauchard (2014) provides evidence that having experienced a low-caste pradhan diminishes discrimination against low-castes in the village, and that this is partly due to a change in how their social status is perceived. He further underlines that the way they evaluate their own social status is positively changed.

However, several results in this paper do not support the interpretation of the positive impact of having someone from the same jati/caste as pradhan as a self-confidence impact. First, in columns 1, 2 and 3 of table 8, I provide evidence that political reservations did not seem to change the way low-castes feel discriminated.[13] Then, column 4 in table 8 studies the impact of previous reservations in elections. If the increased probability of applying for reserved jobs is due to an increased self-confidence, then we would expect the effect to last. However, the impact of previous political reservations is *negative*. This result underlines that the impact of having a pradhan from the same caste increases the application rate during the electoral term, but decreases it afterwards.

[13]Households were asked if they have been discriminated against because of their caste while seeking job, or if they have been prevented from entering any street or place of worship within the village. The discrimination variable is a dummy variable equal to one if they answered yes to at least one of these questions.

Table 8: The self-confidence channel

Dependant variable:	Discrimination			App job reserv
	(1)	(2)	(3)	(4)
Estimation method:	OLS	OLS	IV	OLS
Same caste reserv	0.00282			0.0171*
	(0.0241)			(0.00907)
Same jati Pradhan		-0.0205	-0.0834	
		(0.0198)	(0.0551)	
Same caste prev reserv				-0.0224**
				(0.00924)
HH controls	Yes	Yes	Yes	Yes
Village dummies	Yes	Yes	Yes	Yes
Caste in the vill. controls	Yes	Yes	Yes	Yes
Jati in the vill controls	No	Yes	Yes	No
Jati dummies	No	Yes	Yes	No
Observations	13198	12319	12319	13198
r2	0.209	0.216	0.004	0.061

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors are corrected for clustering at the village level. The dependent variable in columns 1 to 3 is a dummy variable equal to one if a member of the household has suffered from discrimination while seeking jobs or has been prevented from entering a street in the village or a place of worship because of her/his caste.

It shows that the impact is related to the pradhan being currently in power, which is coherent with a patronage effect where households believe that the pradhan can help when he is in power but is powerless afterwards. Under this interpretation, households that had a pradhan from the same caste in the previous electoral term apply less to reserved jobs in the current electoral term, because they applied in the previous electoral term when they had a pradhan from their caste in power.

4.3.3 The information channel

The positive impact of having a pradhan from the same caste/jati may also come from a transfer of information from the pradhan to his network. Applying for reserved jobs is a complicated process. It requires to know how to get a "caste certificate", which proves the caste identity of the applicant, and how to apply for quotas. The pradhan, because he is connected outside the village, may be a source of information for her/his caste/jati.

Table 9: The information channel

Dependant variable:	Appl. for reserv. seats in school			Appl. for reserved jobs		
	(1)	(2)	(3)	(4)	(5)	(6)
Estimation method:	OLS	OLS	IV	OLS	OLS	IV
Same caste reserv	0.0218			0.0409***		
	(0.0281)			(0.0130)		
Same caste reserv × Educ				-0.00344*		
				(0.00182)		
Same jati Pradhan		-0.00317	-0.0101		0.0728***	0.0633**
		(0.0234)	(0.0510)		(0.0145)	(0.0281)
Same jati Pradhan × Educ					-0.00340**	0.000492
					(0.00127)	(0.00333)
HH controls	Yes	Yes	Yes	Yes	Yes	Yes
Village dummies	Yes	Yes	Yes	Yes	Yes	Yes
Caste in the vill. controls	Yes	Yes	Yes	Yes	Yes	Yes
Jati in the vill controls	No	Yes	Yes	No	Yes	Yes
Jati dummies	No	Yes	Yes	No	Yes	Yes
Observations	13198	12319	12319	13198	12319	12319
r2	0.299	0.331	0.008	0.062	0.089	0.012

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors are corrected for clustering at the village level. The dependent variable in columns 1 to 3 is a dummy variable equal to one if a member of the household has suffered from discrimination while seeking jobs or has been prevented from entering a street in the village or a place of worship because of her/his caste.

But again, several results do not support the information channel as being the main channel driving the impact. First of all, if the pradhan is a source of information for his network and this is what increases the application to reserved jobs, then we expect that the same happens to application to reserved seats in schools.[14] Applying for reserved seats in schools also requires a caste certificate, as well as a knowledge of the procedure. The only way in which application for reserved jobs and application for reserved seats in schools differ is in their admission process. Whereas access to reserved seats in schools is given by an anonymous competitive exam, the process to get a reserved job is discretionary. Table 9 shows the results of the same regression but the dependent variable is now application to reserved seats in schools. As we can see in columns 1 to 3, there is no significant impact of having a pradhan from the same jati/caste on application for reserved seats in schools. Therefore, the impact of having a pradhan from the same jati on application for

[14]Low-castes also benefit from quotas in higher education institutions.

reserved jobs does not seem to come from a better access to information. One additional argument is that access to information is related to education (see for example Foster and Rosenzweig, 1995, for India). If the information channel is driving the impact, we expect that the impact of the pradhan decreases with the education level of the household's head. The rationale behind the second point is that the amount of information required from the pradhan should decrease with education, because educated households already have good access to information. Columns 3 to 6 in table 9 show the results of interacting the education level of the household's head with the variable of interest. Here the results are more ambiguous: the impact of having a pradhan from the same caste seems to diminish with the education level of the household's head (column 4). But this result is not robust when I only consider households from the same jati as the pradhan: the interaction term is significant in column 5 but not in column 6.

5 Conclusion

The central empirical finding in this paper is that sharing the ethnic group (jati) of the village council president increases households' propensity of applying for reserved jobs in the public sector. The use of the electoral quota system, which determines the caste group of the council president, along with several specification robustness checks allow me to rule out that the relation is driven by caste or jatis' specific unobservables. The interpretation that is the most consistent with the data is that it is due to a "patronage" system, where the council president helps the members of his jati to access reserved jobs in the public sector. Further data analysis for alternative explanations suggests that improved self-confidence or information sharing do not constitute a channel.

These findings have important policy implications. Although India is the country with the largest affirmative action program, many countries implement quotas for discriminated groups. One conclusion from this paper is that the implementation conditions matter a lot for the success of affirmative action. In this specific context, the fact that the hiring process is discretionary and that politicians have important power over bureaucrats does not provide equal opportunities of

access to every eligible people. In practice, the reservation policy in the public sector is more beneficial to already connected people (who supposedly need less help) than to the very poor. The way this policy is implemented seems to have consequences conflicting with the original purposes of affirmative action policies.

Appendix A

Table 10: Conditional differences in means across reservation status

	SC		ST		OBC	
Panel A:						
Conditional on village dummies						
Age	-0.90	(-0.93)	0.36	(0.36)	0.01	(0.05)
Sex	-0.00	(-0.13)	0.01	(0.41)	-0.00	(-0.31)
Years of educ	-0.36	(-1.08)	0.06	(0.18)	-0.22**	(-2.27)
HH size	0.10	(0.60)	0.07	(0.40)	0.04	(0.75)
Land	-0.33	(-0.40)	-0.31	(-1.45)	-0.13	(-0.74)
Agr activity	0.04	(1.51)	0.05**	(2.16)	-0.01	(-1.06)
Panel B:						
Conditional on village dummies & OBC $\times$ district dummies						
Age	-0.96	(-0.99)	0.06	(0.06)	-0.03	(-0.10)
Sex	-0.01	(-0.24)	0.00	(0.16)	0.00	(0.08)
Years of educ	-0.22	(-0.68)	0.36	(1.21)	-0.04	(-0.37)
HH size	0.16	(0.94)	0.12	(0.63)	0.02	(0.43)
Land	-0.10	(-0.12)	-0.25	(-1.18)	-0.05	(-0.29)
Agr activity	0.04	(1.42)	0.03	(1.48)	-0.00	(-0.41)
Observations	3394		837		8015	

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The table compares the means of various household level variables across villages with different reservation status for the position of pradhan, once controlling for village dummies (panel A) and caste $\times$ district dummies (panel B). For example, column 1 compares variables means in villages where the pradhan position is reserved for SC with variables means in villages where the pradhan is not reserved for SC. t statistics are in parentheses.

Appendix B

Table 11: IV with one instrument

Dependant variable	Application for reserved jobs			
	(1)	(2)	(3)	(4)
	First stage	Sec. stage	First stage	Sec. stage
Same jati Pradhan		0.0657***		0.0399*
		(0.0230)		(0.0220)
Same caste reserv	0.428***			
	(0.102)			
Prop jati ×			1.441***	
Same caste reserv			(0.377)	
Prop jati	0.919***	-0.114***	-0.0667	-0.0990**
	(0.268)	(0.0334)	(0.349)	(0.0409)
Jati dummies	Yes	Yes	Yes	Yes
Village dummies	Yes	Yes	Yes	Yes
HH controls	Yes	Yes	Yes	Yes
Caste controls	Yes	Yes	Yes	Yes
Jati in the vill. controls	Yes	Yes	Yes	Yes
Observations	12319	12319	12319	12319
r2		0.013		0.013
KP Wald rk F-stat		17.65		14.64

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors are corrected for clustering at the village level. The sample only uses households from jatis present in at least two villages.

Appendix C

The strategy to instrument the variable "Having a pradhan of the same jati" and its interaction with the variable indicating if the pradhan's campaign was financed by a political party in section 4.3.1 or with education in section 4.3.3 follows the suggestion in Angrist and Pischke (2008). I provide hereafter the details for the estimation in section 4.3.1, but the strategy is exactly the same in section 4.3.3. I first estimate

$$E_{jcv} = \pi_0 + \pi_1 X_{hjcv} + \pi_2 RESERV_{cv} + \pi_3 (RESERV_{cv} \times PROP_{jcv}) + \pi_4 PROP_{jcv} + \phi_j + \rho_v + \psi_{hjcv} \tag{5}$$

as in section 4.2. I then use the predicted value, $\hat{E}_{jcv}$ from (5), and its interaction with the dummy indicating if the campaign was financed by a political party $PARTY_v \times \hat{E}_{jcv}$ as instruments in the two first-stage estimations of E_{jcv} and $PARTY_v \times E_{jcv}$ respectively (6) and (7) below, in a conventional 2SLS procedure.

$$E_{jcv} = \delta_0 + \delta_1 X_{hjcv} + \delta_2 \hat{E}_{jcv} + \delta_3 PARTY_v \times \hat{E}_{jcv} + \delta_4 PROP_{jcv} + \gamma_j + \eta_v + \iota_{hjcv} \tag{6}$$

$$PARTY_v \times E_{jcv} = \varepsilon_0 + \varepsilon_1 X_{hjcv} + \varepsilon_2 \hat{E}_{jcv} + \varepsilon_3 PARTY_v \times \hat{E}_{jcv} + \varepsilon_4 PROP_{jcv} + \kappa_j + \mu_v + \nu_{hjcv} \tag{7}$$

γ_j and κ_j are jati dummies, η_v and μ_v are village dummies and ι_{hjcv} and ν_{hjcv} are error terms. The estimation results of equations (6) and (7), as well as the first-stage estimations for the IV estimation in section 4.3.3 are reported in table 12. The estimation of (5) is not reported because it is the same as in table 6.

Table 12: First-stage estimations

	First-stages table 7		First-stages table 9	
	(1)	(2)	(3)	(4)
	E_{jcv}	$PARTY_{jcv} \times E_{jcv}$	E_{jcv}	$educ_{hjcv} \times E_{jcv}$
$\hat{E}_{jcv}$	1.029***	0.0713	0.986***	2.458**
	(0.224)	(0.199)	(0.238)	(1.141)
$PARTY_{jcv} \times \hat{E}_{jcv}$	-0.0313	0.870***		
	(0.139)	(0.0896)		
$educ_{hjcv} \times \hat{E}_{jcv}$			0.00307***	0.528***
			(0.00115)	(0.186)
HH controls	Yes	Yes	Yes	Yes
Caste controls	Yes	Yes	Yes	Yes
Jati in the vill controls	Yes	Yes	Yes	Yes
Village dummies	Yes	Yes	Yes	Yes
Jati dummies	Yes	Yes	Yes	Yes
Observations	12319	12319	12319	12319

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors are corrected for clustering at the village level. The sample only uses households from jatis present in at least two villages.

References

Angrist, Joshua D and Jörn-Steffen Pischke, *Mostly harmless econometrics: An empiricist's companion*, Princeton University Press, 2008.

Banerjee, Partha Sarathi, "The Party and the Panchayats of West Bengal," *Economic and Political Weekly*, 2008, *43* (24), 17–19.

Beaman, Lori, Esther Duflo, Rohini Pande, and Petia Topalova, "Female leadership raises aspirations and educational attainment for girls: A policy experiment in India," *Science*, 2012, *335* (6068), 582–586.

_ , Raghabendra Chattopadhyay, Esther Duflo, Rohini Pande, and Petia Topalova, "Powerful women: does exposure reduce bias?," *Quarterly Journal of Economics*, 2009, *124* (4), 1497–1540.

Besley, Timothy, Rohini Pande, Lupin Rahman, and Vijayendra Rao, "The politics of public good provision: Evidence from Indian local governments," *Journal of the European Economic Association*, 2004, *2* (2-3), 416–426.

Bhavnani, Rikhil R, "Do electoral quotas work after they are withdrawn? Evidence from a natural experiment in India," *American Political Science Review*, 2009, *103* (1), 23–35.

Caeyers, Bet and Stefan Dercon, "Political Connections and Social Networks in Targeted Transfer Programs: Evidence from Rural Ethiopia," *Economic Development and Cultural Change*, 2012, *60* (4), 639–675.

Chandra, Kanchan, *Why ethnic parties succeed: Patronage and ethnic head counts in India*, Cambridge University Press, 2004.

Chattopadhyay, Raghabendra and Esther Duflo, "Women as policy makers: Evidence from a randomized policy experiment in India," *Econometrica*, 2004, *72* (5), 1409–1443.

Chauchard, Simon, "Can Descriptive Representation Change Beliefs about a Stigmatized Group? Evidence from Rural India," *American Political Science Review*, 5 2014, *108*, 403–422.

Damodaran, Harish, *India's new capitalists: Caste, business, and industry in a modern nation*, Palgrave Macmillan, 2008.

Dunning, Thad, "Do quotas promote ethnic solidarity? Field and natural experimental evidence from India," working paper, Yale University 2010.

_ **and Janhavi Nilekani**, "Ethnic Quotas and Political Mobilization: Caste, Parties, and Distribution in Indian Village Councils," *American Political Science Review*, 2013, pp. 1–22.

Dutta, Sujoy, "Power, Patronage and Politics: A Study of Two Panchayat Elections in the North Indian State of Uttar Pradesh," *South Asia: Journal of South Asian Studies*, 2012, *35* (2), 329–352.

Foster, Andrew D and Mark R Rosenzweig, "Learning by Doing and Learning from Others: Human Capital and Technical Change in Agriculture," *Journal of Political Economy*, 1995, *103* (6), 1176–1209.

Ghani, Ejaz, William R. Kerr, and Stephen D. O'Connell, "Political reservations and women's entrepreneurship in India," *Journal of Development Economics*, 2014, *108*, 138 – 153.

Iyer, Lakshmi, Anandi Mani, Prachi Mishra, and Petia Topalova, "The power of political voice: women's political representation and crime in India," *American Economic Journal: Applied Economics*, 2012, *4* (4), 165–193.

_ **and** _ , "Traveling agents: political change and bureaucratic turnover in India," *Review of Economics and Statistics*, 2012, *94* (3), 723–739.

Jaffrelot, Christophe, *Religion, Caste, and Politics in India*, Columbia University Press, 2011.

Kumar, Hemanshu and Rohini Somanathan, "Caste connections and government transfers: The Mahadalits of Bihar," August 2015.

Manor, James, "Small-Time Political Fixers in India's States: "Towel over Armpit"," *Asian Survey*, 2000, *40* (5), 816–835.

Markussen, Thomas and Finn Tarp, "Political connections and land-related investment in rural Vietnam," *Journal of Development Economics*, 2014, *110*, 291 – 302. Land and Property Rights.

Mu, Ren and Xiaobo Zhang, "Do elected leaders in a limited democracy have real power? Evidence from rural China," *Journal of Development Economics*, 2014, *107*, 17 – 27.

Munshi, Kaivan, "Strength in numbers: Networks as a solution to occupational traps," *The Review of Economic Studies*, 2011, *78* (3), 1069–1101.

_ **and Mark Rosenzweig**, "Networks, Commitment, and Competence: Caste in Indian Local Politics," Technical Report, National Bureau of Economic Research 2013.

_ **and** _ , "Networks and Misallocation: Insurance, Migration, and the Rural-Urban Wage Gap," Working Paper 2015.

Pajares, Frank and Timothy C Urdan, *Self-efficacy beliefs of adolescents*, IAP, 2006.

Witsoe, Jeffrey, "Everyday Corruption and the Political Mediation of the Indian State," *Economic & Political Weekly*, 2012, *47* (6), 47.