Political Selection and the Quality of Government: Evidence from South India[*]

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Abstract

This paper uses household data from India to examine the consequences of a unique experiment in democratization which saw more than two million people elected to run village governments. We examine who is elected to village public office and how they disburse benefits once they are there. We have three key findings. First, the political class is selected on the basis of political connections and economic advantage. Second, politicians benefit disproportionately from public transfer programs. Third, being educated increases the chances of being selected and reduces the odds that a politician uses political power opportunistically. This suggests that educated citizens make better politicians and are recognized for this.

"The nature of the workings of government depends ultimately on the men who run it. The men we elect to office and the circumstances we create that affect their work determine the nature of popular government. Let there be emphasis on those we elect to office." V.O. Key (1956, page 10).

1 Introduction

Common sense discussions of political life often place the quality of *politicians* at center stage. For example, Thomas Jefferson believed that a key role of elections was to create a "natural aristocracy" of the talented and virtuous. Yet the modern political economy literature remains dominated by a paradigm in which good policy is achieved solely by getting incentives right rather than by improving the quality of the political class. While incentives are important, personal qualities of politicians such as honesty, integrity and competence are potentially important, especially in environments where politicians face limited formal sanctions. However, there is almost no evidence on this.

This paper examines how individual characteristics and the form of village institutions affect the political selection process and politician behavior in office. Our evidence comes from village India, and is based on a remarkable political experiment. The 73rd amendment of the Indian constitution in 1993 created a new tier of local government which, by the year 2000, had led to the constitution of 227,698 new village governments staffed by over two million elected representatives. In an effort to infuse fresh blood into the political class, the amendment mandated that close to half of these elected positions be reserved for traditionally disadvantaged groups (lower caste groups and women). It presents an ideal opportunity to look at political selection and its effect on policy outcomes.

The paper develops a simple model in which individuals differ in two dimensions

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– which group interest they represent and their quality as policy makers. Along the latter dimension, citizens agree that they prefer a higher quality candidate. Differential returns to holding public office between high and low quality politicians, so that high quality politicians have relatively weak incentives to enter, and imperfect information about candidate quality can cause the selection of low quality politicians. These results hold both in environments with, and without, a politically dominant group (political dominance of a group may arise from differences in group population shares or political reservation in favor of a group). Reductions in the extent of political dominance can, however, increase the difficulties in coordinating on high quality candidates. In contrast, changes in the type of political dominance will alter the group targeting of public resources, but need not affect politician quality. The model can also be used to examine the role of village institutions and characteristics in improving the political selection process.

The empirical relevance of these ideas is tested using survey data from the four South Indian states. The survey, which was designed by the authors and conducted in 2002, surveys both politician and non-politician households. We also have information on village characteristics – whether there is a dominant group in the village, wages paid to politicians and village literacy rates.

The empirical analysis has two main components. First, we study politician characteristics. We estimate a "selection equation" for politicians and investigate how selection is affected by village characteristics. Second, we examine which personal characteristics make politicians better policy makers. To measure quality, we examine whether politicians benefit from targeted public transfer programs. The data suggest that politicians are opportunistic, having a larger propensity to receive such benefits than citizens at large. We examine the determinants of such behavior as a function of politicians' and village characteristics.

Political selection in Indian villages is on the basis of economic advantage and political connections – politicians are more likely to be educated, own land and benefit

from family political connections. Institutions that reduce the political dominance of the village elite reduce the extent of such selection. In contrast, increasing formal returns to politics (measured as higher salaries, relative to returns from agriculture in the village) are associated with the relatively more landed and more educated individuals becoming politicians. Finally, villages with higher literacy rates select more educated politicians.

Turning to policy outcomes, we find evidence that politicians are opportunistic – relative to non-politician households, politician households are more likely to benefit from the public transfers. Individual characteristics affects the extent to which this is true – better educated politicians exhibit less political opportunism. Changes in the type of political dominance wrought by political reservation alters who gets public resources, but does not reduce political opportunism. Finally, politicians in villages which have a relatively higher literacy rates or which hold village meetings exhibit lower political opportunism. Taken together, these findings point to village characteristics that affect the selection process of politicians having an impact on policy outcomes.

The remainder of the paper is organized as follows. In the next section, we discuss related work. Section three develops a simple model to identify the different reasons for why political selection may fail to produce good politicians. Section four introduces the data and develops the empirical tests. Results are in section five, and section six concludes.

2   Related Literature

The Downsian model of politics, which has dominated political economy for more than a generation, has no role for political selection. The role of politics is to seek out the policy position of the median voter, and not to examine who implements that policy. But selection can be critical to establishing policy credibility in this

context – there is no reason to "trust" a Downsian politician unless he/she is truly indifferent about policies. Having a politician with policy conviction is a means to make policy credible.[1]

Until recently, political selection was also absent from political agency models – the classic analyses being due to Barro (1973) and Ferejohn (1986). They focus exclusively on the problem of moral hazard in politics and the role of elections in restraining politicians.[2] The problem of incentives embodied in constitution design is also the main theme in the Public Choice literature pioneered by Buchanan.[3]

More recent work has emphasized the importance of characteristics embodied in politicians in explaining political behavior. This puts greater weight on the political selection mechanism. The citizen-candidate approach of Besley and Coate (1997) and Osborne and Slivinski (1996) characterizes political competition as a three-stage game of entry, voting and policy making. The model explains endogenously who enters into politics and whether they are elected. This approach can be used either to study selection on policy preferences or "identity" or selection on valence characteristics such as talent or virtue.

The citizen-candidate approach has been applied to study the effect of political

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[1]Alesina (1988) considers the possibility of trust established by the formation of party reputations.

[2]Recent political agency models study the implications of good and bad politicians for policy outcomes where these types are unobserved. For example, Coate and Morris (1995) draw out implications for the quality of public decisions and Maskin and Tirole (2004) contrast appointing versus electing judges in this framework. Besley (2004) uses this framework to study equilibrium quality of the pool of politicians as a function of the rewards to politicians.

[3]The following quote from Buchanan captures this idea clearly:

> "To improve politics, it is necessary to improve or reform rules, the framework within which the game of politics is played. There is no suggestion that improvement lies in the selection of morally superior agents who will use their powers in some "public interest"" (Buchanan (1989, page 18)).

reservation by Pande (2003) and Chattopadhyay and Duflo (2004). Both argue that reservation matters by changing the identities of the individuals elected to office. Lee, Moretti and Butler (2004) argue that this type of framework explains the U.S. data. The focus in all these cases is on how politics changes spatial policy preferences rather than implications for politician quality.

The quality dimension in political selection has been studied in this framework by Caselli and Morelli (2002), Poutvarra and Takalo (2003) and Besley and Coate (1997). Caselli and Morelli (2002) argue that the key issue is to understand factors which affect the supply of bad politicians, such as the rents that they can earn while in office. Imperfect information may also affect the incidence of bad politicians by making it difficult to spot candidate quality. Poutvarra and Takalo (2003) develop a model in which the value of holding office impinges on candidate quality via its affect on election campaigns. Besley and Coate (1997) consider the implications of coordination problems among voters. Gelbach and Sonin (2004) apply a citizen candidate framework to ask when economic elites (such as businessmen) will choose to run for political office. Running for office is in this world an alternative to lobbying for influence. They argue that business candidates lead to greater misuse of public office.

Empirical work on the quality of government using cross-country data, such as La Porta, Lopez-de-Silanes, Shleifer and Vishny (1999), is typically not able to decompose the quality of government into problems of selection or incentives. However, recent work by Jones and Olken (2004) uses death of national leaders in office as a source of exogenous variation to show that unexpected changes in national leadership affect economic growth. This effect is strongest in autocratic polities, and can be interpreted as saying that personal qualities of leaders matter. Moreover, the weaker effect in democracies suggests that political selection may have some virtuous properties when it is conducted in the more open entry processes of a democracy.

Our paper also contributes to a growing empirical literature on decentralized

government in the developing world. There is emerging evidence that decentralization affects resource allocation. Faguet (2004) finds that decentralization improved targeting in Bolivia. Bardhan and Mookherjee (2003) examine the role of elected village councils in affecting land reform in the Indian state of West Bengal. Chattopadhyay and Duflo (2004) show political reservation for women affected public good allocation in two Indian states. Finally, Foster and Rosenzweig (2001) examine how decentralization interacts with land ownership patterns to affect public good outcomes. None of these papers focuses on how politicians' characteristics affect the workings of decentralized governments. But an important difference between politics at the local and national level could be in terms of the kind of people who hold public office.

3 The Model

We develop a simple citizen-candidate model which we will use to bring out the possible reasons why low quality politicians can be elected to office. This will be useful in motivating the empirical analysis below.

3.1 The Environment

Consider a village populated by N individuals, each eligible to be elected as a politician. Politicians enjoy policy authority over the allocation of public resources. For simplicity, we focus on election of a single politician rather than the election of a whole council.

Each citizen belongs to a group j. There are M such groups with a fraction π_j of citizens in group j. These groups can be thought of as representing policy interests such as gender, caste or wealth. If elected, an individual's group identity will be important if she cannot commit to policy outcomes before the election. Conflict of interest in policy priorities between groups creates a form of spatial political

competition to holding office. Each group member would prefer to elect a politician from their own group.

As well as their group identity, politicians (once elected) can be good or bad. We do not need to be specific about the exact interpretation of this characteristic – honesty or competence. However, we assume that politician quality is a valence issue, i.e. one on which all citizens (regardless of their group identity) have the same ranking. We denote this characteristic by $\tau \in \{g, b\}$ where g stands for 'good' and b for 'bad'.

We do not model the policy process explicitly. Hence, preferences are in reduced form – preferences over *politicians* rather than policy. It would be straightforward to develop a micro-foundation for this in terms of policy choice. Citizen i from group j receives a payoff of:

$$\lambda^j (k) - C (\tau, I)$$

from having a type $\{k, \tau\}$ citizen as a politician where j is that citizen's group membership, and k is the politician's group identity. Thus, preferences are separable with $\lambda^j (k)$ being a group identity component and $C (\tau, I)$ a quality component. We normalize so that $C (g, I) = 0 < C (b, I)$. Hence, there is a cost to having a bad politician. The variable I is a measure of "institutions". This indexes the extent to which political institutions prevent dishonest politicians from imposing a cost on the other citizens. "Good" institutions reduce $C (b, I)$. We will return to this below.

Politicians are citizens, with similar preferences. The only difference is that politicians may enjoy a private "benefit" from holding office. Thus a type (j, τ) politician receives utility

$$\lambda^j (j) + B (\tau, I)$$

from holding office. The term $B (\tau, I)$, which is also affected by institutions I, is the benefit from holding public office. In general, $B (\tau, I)$ could be positive or negative for each kind of politician. It would, for example, depend on the wages that

politicians are paid compared to their outside earnings as well as any opportunism while politicians are in office. We concentrate on the case where $B(b, I) \geq B(g, I)$, which implies that bad politicians have a higher demand for public office than good ones.[4] This is the most interesting case as it creates a greater demand for public office among the low quality candidates.

3.2 The Political Process

We model the electoral process as a two-stage citizen-candidate game. At stage one candidates choose whether or not to enter and at stage two voters cast their votes.[5] We consider non-cooperative entry and voting decisions. We discuss the implications of coordination (for example, through political parties) below. The two stages of the political process are analyzed in reverse order.

Voting We assume that the group characteristic k is always observed by voters before they cast their vote. However, we allow for the possibility of imperfect information with respect to candidate quality – τ. To model this as simply as possible, assume that τ is revealed to *all* voters during the election campaign with probability $q (\in (0, 1))$. (Hence, voters are always symmetrically informed.) We assume that voting decisions then form a Nash equilibrium from among the candidates who have chosen to run for office. Following Besley and Coate (1997), we refine the voting equilibrium by eliminating weakly dominated strategies. This implies that voting is sincere in two-candidate elections, but puts relatively little structure on multi-candidate voting. There are many voting equilibria – since voters affect outcomes only when they are pivotal – they are indifferent about whom to vote for most of the time. We assume that indifferent voters abstain and that in the event of a tie,

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[4]This inequality may go the other way in societies that have a strong ethic of public service so that good politicians earn relatively higher rents. This could be modeled as an increment of utility from public service that increases $B(g, I)$.

[5]See Besley and Coate (1997) and Osborne and Slivinski (1996) for such models.

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the winning candidate is picked at random from among those who have the most votes.

Entry   Each citizen faces a cost of running for office δ_j which varies with his/her group identity.   Let $\lambda^j(0)$ be the utility of a citizen of type j when nobody runs for public office.   We assume that $\lambda^j(0) < \lambda^j(k)$ for all $(j,k) = 1,...,M$.   This says that everyone would like to avoid a situation in which nobody runs for office. Each citizen's pure strategy, denoted by $\sigma_i \in \{0,1\}$, is whether or not to enter as a candidate.   A collection of such decisions (one for each citizen) must form a Nash equilibrium in pure or mixed strategies.

3.3   Political Equilibrium

A *political equilibrium* is an equilibrium in the entry and voting stages of the game. Without more structure, there are many possible equilibria which can either be in pure or mixed strategies.   Rather than providing an exhaustive description of equilibria, we use the model to examine various reasons why equilibria can result in bad politicians being elected.

We begin by studying an important case – when there is a *politically dominant group*.   This occurs if a citizen from some group can defeat a citizen from *any* other group in a pairwise comparison. This includes the case where one group comprises more than half the population, but it can happen more generally if preferences are appropriately ordered.[6]   In our data, some seats are reserved for politicians from particular groups.   Thus reservation can be thought of as creating a politically dominant group.   Let the dominant group be denoted by d.   Assume the parameters are such that at least one candidate from the dominant group is willing to run rather than having nobody in office, i.e.:

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[6]This is possible if there is a group k such that a "good" candidate drawn from group k is a Condorcet winner among the set of all types.

$$\lambda^d(d) - \lambda^d(0) + B(\tau, I) > \delta_d \ for \ \tau \in \{g, b\}.$$

The existence of a dominant group relaxes competition in the spatial dimension.[7] This allows the selection process to focus on the *within-group* competition between good and bad candidates. From a social point of view, it is preferable to have a single good candidate from the dominant group standing for office.[8] Thus, the main focus is on whether bad candidates enter, and have any chance of being elected.

We start with the entry process. As a first pass, consider the incentive for a bad candidate to run given that there are only good candidates in the race. Since $q < 1$, voters will not detect that he is bad some of the time. Thus, he faces a positive probability of being elected and capturing $B(b, I)$. Whether he does so depends on the probability of capturing $B(b, I)$ relative to the entry cost.

Then we have the following result:

Proposition 1 *With a politically dominant group d, if $B(b, I)$ is high enough, there is no pure strategy equilibrium in which only good candidates of type d enter.*

The intuition is straightforward – if bad candidates earn sufficiently high rents then at the point that no more good candidates wish to enter, it will be worthwhile for a bad candidate to enter if there is some chance that she will be elected. Thus, to sustain equilibria with only good candidates, it is necessary that rents are sufficiently low for bad candidates. This would be true if institutions restrain consumption or rents by bad candidates sufficiently. Further, the threshold ratio of rents for bad and good candidates is higher when information about candidates is good. Thus, better information makes it more likely that only good candidates will run.

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[7]However, for this to be true, it has to be the case that even a bad candidate from the dominant group will win against a candidate from any other group.

[8]The only reason for multiple good candidates to run is if $B(g, I)$ is high relative to δ_d.

We next ask whether an equilibrium with *only* bad candidates is possible. To investigate this, suppose that a single bad candidate is running for office. Then, if a good candidate enters, he will win as long as he is identified as good, i.e. with probability q. Thus for only bad candidates to run, it must be true that no good candidate would wish to enter. Here, the source of political dominance matters. For the case of reserved seat, we need only check that a good candidate from the reserved group would not want to enter. However, without reservation, we also need to consider entry by candidates who are not from the politically dominant group.

With political reservation, a condition for this to be true is in the following result:

Proposition 2 *Suppose the political position is reserved for group d. Then a pure strategy Nash equilibrium with only bad candidates of type d exists if entry costs are sufficiently large so that:*

$$\delta_d > \left(\frac{1+q}{2}\right) [B(g, I) + C(b, I)].$$

The required condition reflects the two motives for a good candidate to hold office – the personal benefit to running $[B(g, I)]$ and the gain from not having a bad candidate in office $[C(b, I)]$. If these are sufficiently weak, relative to entry costs (reflecting the fact that winning is only probabilistic), then good candidates will choose not to enter.[9]

This kind of equilibrium is most likely to exist when information is poor (q close to zero) and when $B(g, I) + C(b, I)$ is low relative to entry costs. This gives a reason to expect high wages to improve the quality of politics as it destroys the equilibrium in which only bad candidates stand. Good information (q close to one) will also help to break the equilibrium with only bad candidates. Thus, if politicians earn high wages, the second part of the inequality is like to fail.

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[9]The proposition illustrates a somewhat extreme case – more generally there can be pure or mixed strategy equilibrium comprising good and bad candidates.

To extend this to politically dominant groups in general requires an additional condition:

Proposition 3 *Suppose that there is a politically dominant group d and*

$$\lambda^k(k) - \lambda^k(d) > C(b, I) \, for \, all \, k = 1, 2, ...M.$$

Then a pure strategy Nash equilibrium exists with only bad candidates of type d if:

$$\delta_d > \left(\frac{1+q}{2}\right)[B(g, I) + C(b, I)]$$

The extra condition says that citizens prefer to vote on the basis of their group identity rather than candidate quality.

These results bring out two important issues in affecting candidate quality: (i) the relative returns to holding office among good and bad candidates and (ii) the probability of detecting bad candidates in electoral competition. These are the main forces at work when there is a politically dominant group.

By focussing on situations where there is a politically dominant group, the above examples ignore the consequences of conflict between different voter groups. We now show how coordination costs can lead to bad politicians being elected when there is polarization. The ensuing example follows Besley and Coate (1997). To abstract from the issues that we have just studied, we focus on the case where $q = 1$, and:

$$\frac{1}{2}[B(g, I) + C(b, I)] > \delta_k,$$

for all $k = 1, 2, ...M$. This says that even if a good candidate only wins with probability one half, he would be motivated to enter, ruling out the possibility in Proposition 2.

To focus on the role of polarization, suppose also that there are two equal sized groups in the population which we label $k \in \{1, 2\}$ and $\delta_1 = \delta_2 = \delta$. i.e., a good candidate gets sufficient utility from running for office when she anticipates that she will replace a bad candidate of her type only half of the time. We focus on equilibria

with one candidate from each group. These equilibria can have all candidates being bad provided that there is sufficient polarization. Specifically:

Proposition 4 *Suppose that there is a two candidate equilibrium with one candidate from each group, then there exists a pure strategy equilibrium with only bad candidates if:*

$$\left| \lambda^k(k) - \lambda^k(j) \right| > \max \left\{ C(b, I), \delta \right\} \ for \ (k, j) = \{1, 2\} .$$

The required condition says that entry costs are sufficiently low so candidates from each group are willing to enter. The condition guarantees that a politician from their own group enters, irrespective of competence.

An equilibrium with bad politicians can be supported since voters cannot coordinate on good candidates. By switching to a good candidate, the result is that the candidate from their own group loses. This gives a further reason for bad candidates to be selected. In this case, however, this would not happen if the position were reserved for either group A or B. Thus, the driving force here is absence of political dominance. This gives a reason for thinking that bad candidates are more likely to survive when politics is polarized.[10]

We have assumed that bad politicians have no extra electoral power to influence elections. The likelihood of observing bad politicians would be strengthened if some bad candidates can directly influence voting outcomes and prevent citizens voting for good candidates through bribery or intimidation. Although we do not have evidence of electoral intimidation, we show below that extra electoral power of politicians is correlated with their characteristics.

Our analysis also ignores the role of parties. In reality, parties may also influence outcomes. The result in Proposition 4, for example, cannot arise if parties coordinate political entry among groups 1 and 2. However, in situations where bad

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[10]Padro-i-Miquel (2005) develops a similar argument for why ethnic divisions persist in African politics.

candidates can also corrupt parties, then we would not expect parties to resolve the issues raised above.

3.4 Empirical Implications

Our model of the political process identifies channels through which institutions that alter politician rents ex post, and information flows in the village, should affect politician quality. Here, we briefly outline how we will test the empirical relevance of these channels.

Our model demonstrates that if $B(b, I)$ is relatively low then there may be an equilibrium with only good candidates. Hence, institutions which increase information flows in the village and formal returns to politics should improve politician quality. Institutions that alter the type of political dominance should affect who gets resources, but not necessarily the extent of political opportunism (apart from the observation that the absence of political dominance introduces an additional reason for the persistence of bad candidates in equilibrium).

In our empirical analysis we identify village characteristics that alter political dominance, formal returns to politics and information flows, respectively. We separately examine how these characteristics affect who is selected as a politician, and the selection of beneficiaries for government schemes. If, as predicted by the model, differences in politician performance are systematically linked to politician characteristics such as education and group identity, then institutions which alter the extent of selection on these characteristics should also have a predictable impact on policy outcomes. We look for such evidence.

4 Data and Empirical Analysis

We begin by discussing the institutional context for our data. We then describe the survey data and our empirical specification.

4.1 Institutional Context

The 73rd constitutional amendment of India, passed in 1993, created a three-tier elected local government in every state. We focus on the lowest tier – a popularly elected village council called the Gram Panchayat (GP). GPs are demarcated on a state-specific population basis, and typically consist of 1-5 revenue villages. Each GP is divided into wards, with elections held at the ward-level.[11] The elected ward members constitute the GP council. The head of this council is the Pradhan.[12]

The 73rd constitutional amendment also mandated political reservation of a certain fraction of elected GP positions in favor of two groups – scheduled castes and tribes (hereafter, SC/ST) and women. Only individuals belonging to the group benefitting from reservation can stand for election in a reserved position. The constitutional amendment required that the extent of SC/ST reservation in a state reflect the group's population share, while women's reservation equal one-third of all positions. No ward or Pradhan post can be reserved for the same group for two consecutive elections.

A GP has responsibilities of civic administration with limited independent taxation powers.[13] While the precise ambit of GP policy activism varies by state, the GP is typically responsible for beneficiary selection for government welfare schemes and the construction and maintenance of village public goods such as street-lights, roads and drains.

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[11]A state's Panchayat Act mandates the population criteria for GP demarcation. In Andhra Pradesh and Kerala, it is a (revenue) village irrespective of its size. In Tamil Nadu it is a revenue village with population of 500 or more. In Karnataka it is a group of villages with population between 5,000 and 7,000. For these states the population per ward varies between 300 and 800.

[12]In two of our sample states (Andhra Pradesh and Tamil Nadu) the Pradhan is directly elected, while in the other two (Karnataka and Kerala) he/she is nominated from the pool of elected ward members.

[13]On average, roughly 10 percent of a GP's total revenue come from own revenues with the remainder consisting of transfers from higher levels of government.

In our analysis, we focus on beneficiary selection by the GP. In every village belonging to a GP, the GP officials, together with state government representatives, conducts a census to identify households which fall below the state poverty line. This census is conducted every 2-3 years. The GP is supposed to ensure that each such household gets a Below the Poverty line care (BPL card). Possession of a BPL card entitles a household to obtain benefits such as subsidized food under the public food distribution, and free medical care. Further, when a GP receives funds for a welfare scheme, it is supposed to uses its list of BPL and SC/ST households to identify beneficiary households for that scheme.[14] In choosing beneficiaries for these schemes the GP officials are also supposed to consult villagers via Gram Sabha meetings. The Gram Sabha is a village-level body consisting of persons registered in the electoral rolls of a GP. However, in all cases final decision-making powers in a GP are vested with the Pradhan.

4.2 Data

Our analysis combines household survey data with information from village meetings. We collected these data between September and November 2002 in the four southern states of India – Andhra Pradesh, Karnataka, Kerala and Tamil Nadu.[15]. Here, we use data from the 259 villages in which we conducted household surveys.

Our sample includes nine boundary districts in these four states. Indian districts are divided into blocks. In each district we sampled 3 blocks, and within each block we randomly sampled six GPs (in Kerala we sampled 3 GPs per block). This gave us a sample of 126 GPs across 37 blocks. In GPs with three or fewer villages, we sampled all villages; otherwise, we sampled the Pradhan's village and two other randomly selected villages. To account for the much higher population per GP in Kerala, we directly sampled 6 wards per GP in Kerala – the Pradhan's ward and five randomly

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[14]Government schemes typically restrict eligibility to BPL and/or SC/ST households.

[15]At the time of our survey at least one year had lapsed since the last GP election in every state.

selected wards. In each of the 259 sample villages we conducted twenty household surveys. Household selection was random, but subject to the requirement that four sampled households per village be SC/ST households. Within each village, we alternated between male and female respondents so that overall half our respondents are male, and half female. In every village we conducted an additional household interview with an elected Panchayat official, preferably the Pradhan.[16] Our final household sample size is 5180 non-politician and 265 politician households.

Table 1 provides descriptive statistics. The average respondent has slightly over 4 years of education. Politicians are significantly more educated. Average land holdings are 2.4 acres; however, when we restrict the sample to politicians this figure rises to 5.7 acres. Roughly 60% of our respondents are either SC/ST or female, and therefore eligible for reservation. In terms of political experience, seven percent of our respondents have/had a family member with a political position. Turning to respondents' perception of Pradhan performance, less than 40% of the non-politician households believe that their Pradhan has either kept his/her election promises or looked after their needs. Finally, 8% of our respondents state the most important reason for their candidate choice in the GP election was their group identity (defined along religion, caste, gender or regional lines), while over 30% stated that the candidate's quality (in terms of reputation or policy promises) determined their vote.

Our data on household beneficiary status also comes from the household survey. We make use of three measures. First, whether the household possesses a BPL card. 21% of our households possess a BPL card. Second, whether, since the last election, the household had improvements to their house made, a toilet constructed or drinking water or electricity provided, under a government scheme. Roughly 7%

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[16]That is, if the Pradhan lived in the village he/she was interviewed, otherwise a randomly selected ward member. If the Pradhan was unavailable a ward member was interviewed, and the investigator revisited the village to interview the Pradhan

of our households have had such an improvement. Third, whether any member of the household worked on a public works project during the last year. We observe in Table 1 that in all three cases, relative to non-politician households, politician households are more likely to have access to these benefits.

Turning to village characteristics, we define caste dominance in a village by the fraction of villagers belonging to the single largest non SC/ST caste. On average, 42% of the households in a village belong to this caste. An important motivation for political reservation was to prevent the political dominance by members of such a caste. The Pradhan position is reserved for all women in roughly 20% of our GPs, and for SC/ST in 13 percent of GPs. To examine how formal returns to politics affects politician selection and performance, we construct a variable called 'salary' which is the ratio of the log Pradhan salary in the state to log male agricultural wage in the village. While ward members do not receive a salary, there is good reason to believe that the Pradhan's salary in a state is correlated with the returns enjoyed by ward members. One reason is that in two of our states Pradhan elections are indirect and limited to ward members. Finally, we measure levels of villager information and activism by the 1991 village literacy rate and whether the village had at least one Gram Sabha meeting in the last year.

4.3 Empirical Specification

The above model identifies multiple reasons for why bad politicians may be selected. These include problems of coordination across heterogeneous groups of voters, barriers to entry, poor information about candidate quality, and insufficient rewards to good politicians. These reasons can lead good candidates not to stand for election. Even if they do, they may not be elected.

In our household data we observe who is ultimately elected, but not who stands. Suppose that being elected depends upon some underlying candidate quality e_{ij} for politician i in village j. Further, suppose that candidate quality depends on a vector

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of candidate characteristics x_{ij} so that:

$$e_{ij} = \beta x_{ij} + \psi_{ij} \tag{1}$$

where ψ_{ij} is a component of candidate electability that may be observable to voters, but not to us. The parameters β can be thought of as true "production function" parameters for candidate quality.

We suppose that there is some unobserved threshold e_j^* in village j for i to be elected to office. This subsumes the quality of the challengers for public office, plus the distribution of different voting groups in village j. Then, we observe candidate i in village j if:

$$e_{ij} > e_j^*.$$

or

$$\beta x_{ij} + \psi_{ij} + \eta_{ij} > e_j^*$$

where η_{ij} is a shock which affects how the candidate is perceived by voters in village j. Treating e_j^* as an unobserved village effect, and assuming a linear probability model, this yields:

$$p_{ij} = \alpha_j + \rho x_{ij} + \varepsilon_{ij}. \tag{2}$$

where p_{ij} is a dummy variable for whether the respondent is a politician and α_j is a village fixed effect. The parameters ρ are no longer reflective solely of the production function if the variance of the shock η_{ij} is a function of x_{ij}. The fact that the variance of ε_{ij} depends on village level characteristics I_j may also justify interacting ρ with such characteristics in equation (??).

Estimating (??) allows us to look at political selection on observables and how this varies with village characteristics. Following the theory, we look at institutions which affect the extent and type of political dominance. These include the fraction of villagers belonging to the single largest caste (which could reflect barriers to entry) and whether the politician's position is reserved. We also consider whether formal

returns to politics measured by the relative salary of the Pradhan. Information flows cannot be measured directly. However, we proxy these by the village literacy rate as measured in the 1991 Census.[17]

To test whether politician quality and group identity matters for policy making, we look at politicians' access to public transfer programs. Let b_{ij} be the probability that household i in village j benefits from a government transfer. We model this empirically as:

$$b_{ij} = \alpha_j + \lambda p_{ij} + \tau p_{ij} e_{ij} + \gamma x_{ij} + \eta_{ij} \qquad (3)$$

where, as above, e_{ij} is politician "quality". If politicians are opportunistic we expect $\lambda > 0$, but if quality matters, then we expect $\tau < 0$.

The above selection model tells that we expect

$$e_{ij} = \theta x_{ij} + \phi I_j + \nu_{ij} \qquad (4)$$

where θ is the "reduced form" effect of candidate characteristics on quality working both through the production function (**??**) and the probability that a candidate with characteristics x_{ij} is selected. Substituting (**??**) into (**??**), we get the reduced form model:

$$b_{ij} = a_j + p_{ij}\lambda + \chi_1 (x_{ij} * p_{ij}) + \chi_2 (p_{ij} * I_j) + \gamma x_{ij} + \mu_{ij}. \qquad (5)$$

The coefficients $\chi_2 = \tau\theta$ and $\chi_2 = \tau\phi$. Hence, observing that characteristic x_{ijk} enters negatively indicative of $\tau < 0$ and $\theta > 0$, i.e. this is associated with being a good politician. The latter can also be related to (**??**) since we would expect that a good politician characteristic x_{ijk} would have $\rho_k > 0$, if that characteristic is valued by voters.

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[17]Both of these measures are imperfect. We have only wages for the Pradhan and not for ward members. We have some direct questions in the data on how informed individuals are about politics and this is strongly related to village literacy. However, the village literacy rate could arguably be related to all manner of unobserved village differences.

5 Results

The results are presented in two parts. We first examine the determinants of politician selection, and then those of beneficiary selection.

5.1 Selection

We start by using our household data to ask whether individual characteristics affect the likelihood that the respondent is an elected politician. The results from estimating (??) are in Table 2. In column (1) the dependent variable is whether the respondent is an elected GP politician (i.e. a Pradhan or ward member). Eligibility for reservation is uncorrelated with being a politician. However, years of education and land ownership are positively correlated with being a politician. An additional year of education, and owning an additional acre of land, each increase the likelihood that the respondent is a politician by 7%. A respondent belonging to a family with a history of political participation is 12% more likely to be a politician.[18]

In columns (2) and (3) we restrict the sample to the groups eligible for political reservation, women and SC/ST respectively. For both groups we observe positive selection on education, but not land ownership. For SC/ST households the absence of selection on land is potentially related to their owning relatively less land. However, this explanation cannot hold for women; it would appear that female politicians come from relatively poorer households.[19] Finally, family political history is positively correlated with selection only for women. The absence of a political history effect for SC/STs very likely reflects the fact that they are relatively new entrants in politics. Columns (4)-(6) restrict the sample to Pradhan villages, and the dependent

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[18]We have estimated these regressions including party affiliation variables. A respondent affiliated with the party in power in the state is roughly 7% more likely to be a politician.

[19]In our sample mean landholding for SC/ST households is 1.14 acres and for non SC/ST households 2.79 acres. Chattopadhyay and Duflo (2004) report that, relative to male Pradhans, women Pradhans in West Bengal come from poorer households.

variable to whether the respondent is the Pradhan. We observe very similar patterns of selection. Overall, the data points to the political selection process favoring economically advantaged and politically connected individuals.

Table 3 explores political selection in village j as a function of village institution I_j. We estimate:

$$p_{ij} = \alpha_j + \beta x_{ij} + \gamma \left(x_{ij} * I_j \right) + \varepsilon_{ij}. \tag{6}$$

where x_{ij} are the individual characteristics considered in Table 2. Since patterns of selection are very similar for non Pradhan and Pradhan politicians we focus on the sample of all politicians.

In Table 3 we consider institutions that affect political dominance. In column (1) we consider caste dominance, as measured by the fraction of village population belonging to the single largest non SC/ST caste. We find suggestive evidence of increased elitism – increases in caste dominance are correlated with elected politicians owning relatively more land and increased selection on family political history. Columns (2) and (3) examine how reserving the position of a politician affects selection. We distinguish between reservation open to all women, and reservation for SC/STs. Unsurprisingly, eligibility for reservation is a near perfect predictor of being selected. In both cases we observe that, relative to other politicians, reserved politicians are less educated, own less land and are less likely to have a family political history of participation. This, we think, reflects the historic economic, social and political disadvantage faced by these groups.

Columns (4) and (5) examine how formal returns to politics, as measured by Pradhan salary, and information flows, as measured by village literacy rate in 1991, affect political selection. Consistent with the idea that higher returns from holding political office cause the relatively affluent to enter politics, we observe that politicians in villages with relatively higher Pradhan salary are more educated and own more land; see column (4). In column (5) we consider literacy rate as a proxy for

information flows in a village. Relatively more educated respondents are selected as politicians in villages with higher literacy rates. Further, respondents belonging to groups eligible for reservation are more likely to enter politics in villages with a higher literacy rate.

Overall, the results suggest that village institutions that reduce the dominance of major castes increase the presence of economically disadvantaged groups in politics, while those that improve returns to politics and information flows (as proxied for by literacy) are associated with the selection of more educated politicians.

5.2   Policy

We now examine how political selection affects the targeting of private goods provided by GPs. We consider three outcomes – whether the household has a BPL (below poverty line) card, whether it has benefited from a government funded house improvement since the last election, and whether it participates in a public works program. In Table 4, we report results from estimating regressions of the form (**??**).

In column (1) we observe that BPL cards are targeted towards economically disadvantaged households. A SC/ST household is 16% more likely to get a BPL card. Households with a more educated head and/or more land holdings are less likely to have a BPL card. Finally, family political history does not affect a household's propensity to have a BPL card. However, being a politician does. In column (2) we observe that a politician household is 7% more likely to have a BPL card. This is all the more striking in view of the results in Table 2 which demonstrated that politician households are more likely to be landed and educated. In column (3) we examine the role of politician characteristics. Politician opportunism is invariant to most politician characteristics, except for education. Political opportunism is lower among more educated politicians. An extra year of education for a politician makes him or her 1.5% less likely to have a BPL card.[20]

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[20]We have also examined party effects in the distribution of BPL cards. There is no evidence

Columns (4) through (6) considers home improvements as the dependent variable. Once again, we observe that while economically disadvantaged households are targeted by this scheme, politicians behave opportunistically. However, political opportunism is limited to reserved politicians; see column (6). This may reflect the fact that many home improvement schemes restrict eligibility to SC/ST households and/or the fact that unreserved politicians come from richer households which already have the home improvements (such as toilets) provided under these schemes. It is very likely that these two factors also underlie the fact that politicians from politically connected families are less likely to enjoy these home improvements.

Columns (7) through (9) look at participation in public works. In all specifications SC/ST households are 5% more likely to participate confirming the importance of targeting in such programs. We find in column (7) that political connections are important. However, once being a politician is included as in column (8), this is not longer significant. Politician characteristics, as included in column (9), do not explain increased or reduced participation in public works programs.

Table 5 examines the role of village characteristics in constraining political opportunism. Here, we focus solely on the private good with the highest incidence in our sample – BPL card ownership. This, in part, reflects the fact that ownership of a BPL card is a prerequisite for eligibility for most government sponsored schemes. BPL card ownership it is also the public good most likely to reflect pure opportunism on the part of the relatively rich. This is, because, unlike home improvements acquisition of this card is not going to be mechanically negatively correlated with what the household already had. And, unlike working in a public works program there is no cost to having a BPL card.

that sharing the party affiliation of the main party at the state-level matters. However, sharing the party affiliation of the Pradhan increases a household's likelihood of getting a BPL card by 8%. This effect is absent among politicians, suggesting that nepotism along party lines is restricted to non-politician households.

Our regressions in Table 5 include controls for household demographics. In addition, for brevity, we replace the controls for landownership and education, by a disadvantage dummy which equals one if the household head is illiterate or the household is landless. Column (1) considers the implications of caste dominance. Increases in the size of the largest caste in the village makes it more likely that a politician has a BPL card. Column (2) considers reservation of the Pradhan's position for women. The likelihood of politicians having a BPL card is higher with a female Pradhan, which could reflect personal aggrandizement on part of the Pradhan or a more limited ability to monitor other politicians. In contrast, column (3) shows that SC/ST reservation makes it more likely that SC/ST households and reserved politicians have a BPL card. This points to SC/ST Pradhans having preferences for members of their own group.

Column (4) considers the Pradhan's salary relative to the agricultural wage. In the case of BPL cards we find that, while political opportunism is unchanged, targeting of both SC/ST and economically disadvantaged groups is improved. Column (5) and (6) considers the impact of village literacy and whether the village had a Gram Sabha meeting in the last year. Gram Sabha meetings are intended to be a forum at which villagers can discuss their problems with the GP officials, and also monitor GP activities. Higher village literacy and holding a Gram Sabha meeting significantly reduces the likelihood that a politician has a BPL card. Increases in these variables is also associated with improved targeting.[21]

Taken together these results illustrate the importance of selection and incentives in affecting public resource allocation. Selection is manifested in more educated politicians being less opportunistic. Incentives are shaped by village meetings in which villagers ratify beneficiary lists chosen by politicians.

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[21]In Besley, Pande and Rao (2005) we show that villages with higher literacy are more likely to hold Gram Sabha meetings. Importantly, economically disadvantaged households are relatively more likely to attend these meetings.

5.3 Perceptions, Voting Behavior and Performance

This section considers two further issues relevant to our general themes. We begin by examining how voters perceive the performance of opportunistic Pradhans. If voters dislike opportunism, then we would expect politicians to be less popular when they benefit from government transfers. This issue is explored in Table 8 where we use data on villagers' perceptions of the quality of their Pradhan.[22] The survey asked whether households thought that their Pradhan "looked after village needs" and whether they "kept their promises".[23]

Columns (1) and (3) demonstrate that Pradhans who have a BPL card are perceived as worse on both indicators of Pradhan quality by those who live in their GP. This is consistent with our interpretation of politician participation in government transfer programs as being a form of rent-seeking which is disapproved of by citizens. Columns (2) and (4) show that educated Pradhans are better regarded by villagers in their GP – further confirming our earlier result on education. That said, female and SC/ST Pradhans are regarded as worse even though we did not find any evidence of greater opportunism among these groups of politicians. This may, therefore, be due to the fact that these groups have specific policy agendas. It could also be a reflection of respondents at large being biased against traditionally disadvantaged groups.[24] Finally, more landed Pradhans are perceived as (weakly) worse, while a politician's family political history does not affect villager perceptions. This is interesting as political history and land ownership strongly predict selection, but do not reduce political opportunism. A possible interpretation is that

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[22]This question was only asked about ward members and Pradhans. However, our data does not allow us to match villagers to their ward members and so we focus on Pradhans

[23]Since the survey question is about the Pradhan, the variation is at the GP rather than the village level. Hence, fixed effects in Table 8 are at the block level with village and GP level controls included directly.

[24]Duflo and Topolova (2004) also find that, despite no observable differences in performance, women Pradhans are perceived as being of worse quality.

land ownership and political history proxy for barriers for entry which prevent entry by the relatively landless and politically unconnected.

The second issue is motivated by an observation from the theory – that voting along group lines diminishes the extent to which politician quality is reflected in voting decisions. Hence, we expect an equilibrium with bad politicians to be more likely when villagers vote along lines of group identity. To test this idea, we look directly at the relationship between the citizens' self-reported basis for voting and whether the Pradhan holds a BPL card and whether he/she is educated.

We construct two measures of the way in which citizens cast their votes. First, we use the respondent's report of whether they voted for a candidate based on their caste, gender, religious or regional identity to construct a measure of the fraction of the citizens who vote on the basis of group identity. Second, we use responses to question asking whether respondents used the candidate's qualifications/previous work in the village as their basis for voting. We conjecture that more group based voting measured this way should lead to lower quality Pradhans and voting based candidate characteristics as leading to higher quality Pradhans.

The results are in Table 9. The findings in both columns confirm that greater group based voting is correlated with Pradhans who take BPL cards and have fewer years of education. There is, however, little evidence that reported voting on candidate characteristics makes a difference.

While the evidence presented in this section is only suggestive, it further confirms the interpretation of the results in the previous two sections. It also supports our interpretation of the mechanism that links political selection and government quality in these data.

6 Concluding Comments

This paper has three key findings. First, the political class is selected on the basis of political connections and economic advantage. Second, politicians are on the whole opportunistic and benefit disproportionately from public transfer programs. Third, the education level of politicians has a consistently positive effect on selection and a negative effect on opportunism. This suggests that more educated politicians are better and are recognized as such by voters. However, whether education matters directly or because it is correlated with other characteristics that make an individual fit for public office cannot be discerned from out results. Nonetheless, the results add to a growing appreciation among economists that education may be important because of its role in inculcating civic values.[25] The unique observation about its role in politics given here also offers a fresh perspective on the value of human capital investments in low income countries.

The results also demonstrate an important interplay between village level variables and the process of political selection and the targeting of public resources. For the most part, these were consistent with the theory laid out in section 3. For example, increased literacy at the village level reduces political opportunism, while measures of political dominance are correlated with targeting of resources. We also find evidence suggestive of barriers to entry – while land ownership and political connections predict selection but not behavior when in office.

Our finding that educated politicians are better both in terms of both actual and perceived performance suggests, in line with the opening quote from V.O. Key, that it *is* important to focus on factors that select better politicians as a step towards improving the quality of government. More generally, the results and analysis in the paper reinforce the observation that formal institutions of democracy are no guarantee of effective government. It is essential that the preconditions exist for

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[25]See, for example, Dee (2004) and Milligan et al (2004).

sorting in the right kinds of people – the talented, the virtuous and those who give political voice to the disadvantaged. This paper is a first effort to study this issue empirically. But clearly there is much more to be done to gain a deeper understanding of political selection in democratic settings.

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Appendix A: Theory

Proof of Proposition 1: Suppose not. Then the number of good candidates in the race is:

$$m_g = int\left(\frac{\delta_d}{B(g,I)}\right) \geq 1.$$

This uses the fact that all good candidates win with equal probability in any voting equilibrium. We require that no bad would wish to enter. This requires that:

$$\frac{1-q}{m_g+1}B(b,I) < \delta_d.$$

But clearly this cannot hold for large enough $B(b,I)$ – a contradiction. QED

Proof of Proposition 2: This is a special case of Proposition 3.

Proof of Proposition 3: We first show that a least one bad candidate of type d would wish to enter. This follows from the fact that:

$$\lambda^d(d) - \lambda^d(0) + B(b,I) > \delta_d.$$

We now show that there is a voting equilibrium in which no good candidate would wish to enter. Suppose that there is a single bad candidate in the race. If a good candidate of d chooses to enter and is identified as such, then he will win in any voting equilibrium which eliminates weakly dominated strategies. If he is not identifies as good, he will win with probability one half. We now look at the incentives of such as candidate to enter. He will wish to enter if :

$$\lambda^d(d) + \left[q + \frac{1-q}{2}\right]B(g,I) - \frac{1-q}{2}C(b,I) - \delta_d > \lambda^d(d) - C(b,I).$$

which reduces to the condition in the Proposition. The condition holds a fortiori if there is more than one bad candidate in the race.

Suppose that a candidate who is not of type d enters and is identified as good. Then since:

$$\lambda^d(d) - \lambda^d(k) > C(b, I)$$

then we can construct a voting equilibrium in which the bad candidate from group d wins in any voting equilibrium which eliminates weakly dominated strategies. (This follows from the definition of political dominance.) Thus, no good candidate will choose to enter. QED.

Proof of Proposition 4: To prove this, we construct a political equilibrium in which only bad candidates run. First, we show that both candidates would wish to run. Each candidate wins with probability $\frac{1}{2}$. Then candidate 1 will be willing to run if:

$$\frac{1}{2}\left[\lambda^1(1) + \lambda^1(2)\right] - \delta > \lambda^1(2)$$

which follows from the condition in the Proposition. A symmetric condition holds for the candidate for group 2. Second, we construct a voting equilibrium in which no good candidate would want to enter. Suppose that there is a good candidate from group 1 in the race. Then from the condition in the Proposition since

$$\left[\lambda^1(1) - \lambda^1(2)\right] - C(b, I) > 0.$$

Thus, the bad candidate of type 1 is not ranked lowest by group 1 voters. Thus, we construct a voting equilibrium in which the good candidate of type 1 gets no votes. In this case, he loses for sure and hence loses δ by entering. A symmetric argument works for candidates of type 2. Thus, we have constructed a voting in which no good candidate has an incentive to enter. QED.

Table 1: Descriptive Statistics

		Mean	s.e.
Respondent characteristics			
Education	All	4.49	(0.06)
	Politicians	7.58	(0.27)
Land Owned	All	2.26	(0.06)
	Politicians	5.98	(0.54)
% Eligible for reservation	All	60.90	(0.70)
	Politicians	48.70	(0.31)
% with Family political history	All	6.70	(0.3)
	Politicians	25.30	(2.7)
Perceptions and Voting Behavior			
% of non-politician households who			
Believe Pradhan looks after village needs		38.40	(0.7)
Believe Pradhan keeps election promises		36.10	(0.7)
Vote for group identity		8.72	(0.39)
Vote for candidate quality		36.08	(0.66)
Household characteristics			
% with BPL card	All	21.70	(0.6)
	Politicians	24.20	(2.6)
% with Home improvements	All	6.40	(0.32)
	Politicians	7.59	(1.14)
Institutions			
Fraction households of single largest non SC/ST caste		42.19	(.30)
Pradhan reservation (% of GPs)		32.17	(2.91)
Female non SC/ST		19.79	(0.52)
SC/ST		13.08	(0.44)
Salary		1.64	(0.01)
Literacy rate		42.20	(1.16)
Gram Sabha meetings (% of villages)		77.95	(2.60)

Notes:

1. Education refers to respondent's years of education. Land owned is amount of land, in acres, owned by respondent's household. A respondent is eligible for reservation if female or SC/ST. A respondent has a family political history if any member of his/her household holds or as held a political position.

2. Vote dummies refer to Gram Pradhan election. The Vote for group identity dummy equals one if respondent says he voted for the candidate with the same caste/religion/gender/place of residence. The Vote for candidate quality dummy equals one if respondent says she voted for candidate with good policy promises/candidate active in the village/good reputation.

2.BPL card refers to having a Below the Poverty line card. Home improvements refers to having had improvements to own house, home electricty, private drinking water or toilet facility under a government scheme since the last election.

3. Salary is defined as the ratio of log Pradhan salary to log Village male agricultural wage rate. Literacy rate is the village literacy rate according to the 1991 census. Gram Sabha is a dummy for whether the village conducted a Gram Sabha meeting in the last year.

Table 2: Individual Characteristics and Politician Selection

Sample	Politician			Pradhan		
	All	Female	SC/ST	All	Female	SC/ST
	(1)	(2)	(3)	(4)	(5)	(6)
Eligible for reservation	0.007 (0.007)			0.003 (0.010)		
Education	0.007*** (0.001)	0.006*** (0.001)	0.011*** (0.002)	0.005*** (0.001)	0.004** (0.002)	0.006* (0.004)
Land owned	0.007*** (0.002)	0.003 (0.002)	0.002 (0.004)	0.008*** (0.002)	0.002 (0.002)	0.032** (0.014)
Family political history	0.122*** (0.021)	0.137*** (0.032)	0.068 (0.045)	0.095*** (0.029)	0.086** (0.039)	0.059 (0.090)
Fixed effects	Village	Village	GP	Village	Village	GP
R-squared	0.08	0.12	0.11	0.09	0.11	0.22
N	5397	2644	1245	2065	1011	436

Notes:

1. OLS regressions reported with robust standard errors, clustered by village, in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

2.Pradhan regressions restrict sample to Pradhan and non politician households in the Pradhan's village. All regressions include control for respondent age.

3. Eligible for reservation is an indicator variable which equals one if respondent is female or SC/ST. Land ownership is the land (in acres) owned by the respondent's household. Education refers to respondent's years of education. Family political history is an indicator variable which equals one if any family member of respondent has held/holds a political position.

Table 3: Institutional Form and Politician Selection

Institution	Political Dominance			Formal returns and literacy	
	Caste Dominance	Female Reservation	SC/ST Reservation	Salary	Literacy Rate
	(1)	(2)	(3)	(4)	(5)
Eligible for reservation	0.013	-0.014**	-0.01	-0.069	-0.022
	(0.013)	(0.006)	(0.006)	(0.064)	(0.016)
Eligible for reservation*	-0.005	1.039***	1.036***	0.046	0.073**
Institution	(0.025)	(0.006)	(0.007)	(0.039)	(0.034)
Education	0.007***	0.006***	0.006***	-0.006	0.003
	(0.002)	(0.001)	(0.001)	(0.007)	(0.002)
Education*Institution	0	-0.005***	-0.003***	0.008*	0.010**
	(0.003)	(0.001)	(0.001)	(0.004)	(0.004)
Land owned	0.003	0.006***	0.008***	-0.026*	0.002
	(0.003)	(0.002)	(0.002)	(0.015)	(0.004)
Land owned*	0.011*	-0.006***	-0.007***	0.021**	0.016
Institution	(0.006)	(0.001)	(0.002)	(0.010)	(0.011)
Family political history	0.059	0.086***	0.114***	0.045	0.068
	(0.044)	(0.019)	(0.020)	(0.217)	(0.051)
Family political history*	0.146	-0.081***	-0.131***	0.048	0.109
Institution	(0.096)	(0.020)	(0.022)	(0.133)	(0.108)
Fixed effects	Village	Village	Village	Village	Village
R-squared	0.08	0.25	0.26	0.09	0.09
N	5397	5397	5397	5376	5187

Notes:

1. OLS regressions reported with robust standard errors, clustered by village, in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

2. All regressions include respondent age as a control variable. Explanatory variables are as defined in Table 2 notes.

3. Caste Dominance is the fraction of households belonging to the largest non SC/ST caste. Female reservation equals one if the politician's post is reserved for all women, and SC/ST reservation equals one if the position is reserved for a SC/ST individual. Salary is log Pradhan salary/log male agricultural wage. Literacy rate is the village literacy rate in the 1991 census.

Table 4: Politician Characteristics and Beneficiary Selection

Dependent variables	BPL card			Home improvement			Public works		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
SC/ST household	0.164***	0.162***	0.166***	0.059***	0.059***	0.056***	0.055***	0.054***	0.053***
	(0.019)	(0.019)	(0.019)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Household head's education	-0.008***	-0.008***	-0.004***	-0.002**	-0.002**	-0.003***	-0.0001	-0.0003	-0.0002
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Respondent's education	-0.003*	-0.003**	-0.008***	0.0004	0.0003	-0.002**	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Land owned	-0.004***	-0.004***	-0.003*	-0.002***	-0.002***	-0.003***	0.0004	0.00002	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Family political history	-0.011	-0.02	-0.029	-0.007	-0.01	0.002	0.024*	0.017	0.021*
	(0.020)	(0.020)	(0.019)	(0.013)	(0.013)	(0.015)	(0.013)	(0.013)	(0.012)
Politician		0.076**	0.235***		0.022	-0.046		0.054***	0.054
		(0.033)	(0.086)		(0.016)	(0.034)		(0.019)	(0.051)
Pradhan			-0.091			0.048			0.0002
			(0.065)			(0.036)			(0.043)
Politician*Reserved			-0.105			0.083**			0.033
			(0.071)			(0.035)			(0.041)
Politician*Education			-0.015**			0.002			-0.004
			(0.007)			(0.004)			(0.005)
Politician*Land owned			0.001			0.005*			0.004
			(0.003)			(0.003)			(0.003)
Politician*Family political history			0.073			-0.084***			-0.024
			(0.083)			(0.030)			(0.040)
Fixed effects	Village	Village	Village	Village	Village	Village	Village	Village	Village
R-squared	0.36	0.36	0.36	0.11	0.11	0.11	0.12	0.13	0.13
N	5366	5366	5366	5366	5366	5366	5335	5335	5335

Notes:

1. OLS regressions with robust standard errors clustered by village in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

2. All regressions include as household controls: household size, head's age, fraction elderly and fraction children. Other variables are as defined in Table 2 notes.

3. The dependent variables are indicator variables: BPL card=1 if respondent's household has a BPL card. Home improvements=1 if respondent's house had improvements, or it got drinking water, electricity or toilet facility under a government scheme since last election. Public works=1 if any member of the respondent's household worked on a government public works program over the last 365 days.

Table 5: Institutional form and Beneficiary Selection for BPL cards

Institution	Political Dominance			Formal returns, literacy and information		
	Dominant caste	Female Pradhan reservation	SC/ST Pradhan reservation	Salary	Literacy rate	Gram Sabha
	(1)	(2)	(3)	(4)	(5)	(6)
Politician	-0.07	0.090*	0.133***	0.533*	0.445***	0.305***
	(0.093)	(0.048)	(0.050)	(0.294)	(0.101)	(0.098)
Politician*Institution	0.354*	0.472*	-0.416*	-0.252	-0.769***	-0.243**
	(0.193)	(0.249)	(0.214)	(0.176)	(0.184)	(0.104)
Reserved politician	0.117	-0.053	-0.102	1.052*	-0.13	-0.334**
	(0.157)	(0.081)	(0.081)	'(0.614)	'(0.178)	'(0.144)
Reserved politician* Institution	-0.391	-0.470*	0.440*	-0.252	-0.769***	-0.243**
	(0.348)	(0.275)	(0.245)	(0.176)	(0.184)	(0.104)
SC/ST household	0.181***	0.172***	0.129***	-0.386*	-0.039	0.112***
	(0.044)	(0.019)	(0.028)	(0.221)	(0.040)	(0.040)
SC/ST household* Institution	0.001	0	0.130***	0.340**	0.512***	0.073
	(0.100)	(0.000)	(0.050)	(0.136)	(0.092)	(0.045)
Economic Disadvantage	0.088***	0.091***	0.090***	-0.194	-0.031	0.054***
	(0.026)	(0.014)	(0.013)	(0.147)	(0.028)	(0.017)
Economic Disadvantage* Institution	-0.001	-0.019	-0.051	0.171*	0.274***	0.039*
	(0.051)	(0.021)	(0.040)	(0.090)	(0.071)	(0.023)
Family political history	-0.075*	-0.031	-0.015	-0.108	0.025	0.016
	(0.041)	(0.023)	(0.022)	(0.201)	(0.042)	(0.034)
Family political history* Institution	0.111	0.017	-0.065	0.051	-0.109	-0.057
	(0.088)	(0.049)	(0.064)	(0.124)	(0.097)	(0.041)
Fixed effects	Village	Village	Village	Village	Village	Village
R-squared	0.36	0.36	0.36	0.37	0.37	0.36
N	5202	5369	5369	5348	5159	5287

Notes

1. OLS regressions with robust standard errors clustered by village in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

2. Regressions include the household controls defined in notes to Table 5, and a dummy for whether it is a Pradhan's household. Other variable definitions are in notes to Tables 2 and 5.

Table 6: Pradhan Characteristics and Villager Perceptions

Dependent variables	Pradhan looks after village needs		Pradhan keeps election promises	
	(1)	(2)	(3)	(4)
Pradhan has BPL card	-0.079***		-0.097***	
	(0.033)		(0.030)	
Pradhan eligible for reservation		-0.074***		-0.074***
		(0.028)		(0.025)
Pradhan's education		0.006**		0.005**
		(0.003)		(0.002)
Pradhan's land ownership		-0.002		-0.003*
		(0.002)		(0.002)
Pradhan's family political history		0.006		0.003
		(0.028)		(0.029)
Individual controls	Yes	Yes	Yes	Yes
GP and Village controls	Yes	Yes	Yes	Yes
R-squared	0.2	0.19	0.2	0.19
N	4854	4674	4854	4674

Notes:

1. OLS regressions with robust standard errors, clustered by GP in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

2. The dependent variables are dummies: looks after village needs=1 if respondent says Pradhan looks after village needs, and keeps election promises=1 if respondent believes Pradhan keeps his election promises.

3.The GP control includes number of villages in GP. Village controls include literacy rate, pradhan village dummy, GP headquarter dummy, total households, fraction SC/ST households.

Table 7: Pradhan Characteristics and Voting Patterns

Dependent variables	Pradhan	
	BPL card	Years of Education
	(1)	(2)
Fraction voting for group identity	1.159**	-12.212*
	(0.523)	(6.709)
Fraction voting for candidate characteristics	0.015	0.509
	(0.284)	(3.350)
Literacy rate	-0.497*	8.160***
	(0.291)	(2.592)
Control	District	District
R-squared	0.1	0.12
N	90	90

Notes:

1. These are GP level OLS regressions with robust standard errors, clustered by GP in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

2. The dependent variables are a dummy for whether the Pradhan has a BPL card, a dummy for whether the Pradhan has a home improvement and years of education for the Pradhan. The literacy rate is the average literacy rate for the sampled villages in the GP.