Politics as Usual?
Local Democracy and Public
Resource Allocation in South India [*]

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Abstract

It is often argued that the traditional forces of economic and social hierarchy inhibit processes of democratization in low-income countries. This paper uses data on the functioning of elected village councils in South India to examine this contention. We identify democratization by one of its less attractive attributes – the extent to which politicians benefit from the public resource allocation process. We find in favor of a model in which public resource allocation, both across and within villages, reflects politicians' self-interest.

1   Introduction

A key issue in political economy is how to design democratic institutions that align politician self interest with the selection of policies that fairly represent voter preferences. The modern political economy literature as surveyed, for example, by Persson and Tabellini (2001) gives a rich picture of political incentives shaped by two main conflicts of interest – that between voters with heterogeneous interests and that between voters and their representatives. Empirical evidence from rich democracies identifies how these conflicts interact with institutional constraints such as the electoral system (Persson, Roland and Tabellini 2003), patterns of districting (Baqir 2002) and systems of political accountability in place (Besley and Case 1995) to shape final policy outcomes. "Politics as usual" in rich democracies thus conjures an image of politicians who, unless otherwise constrained, use the political system to their own advantage.

However, when it comes to thinking about the policy process in low income countries, there is a long tradition for believing that politics works differently (for an overview, see Bardhan 2002). Social custom and traditional influence through clan and caste are frequently invoked as forces that emasculate standard political incentives. It is often conjectured that "politics as usual" implies a political system beholden to the traditional forces of economic and social hierarchy with policy outcomes reflecting the interests of the traditional elite. This mode of thinking has been particularly prevalent in the context of debates about decentralization of public service provision down to the local level. However, it seems fair to say that these conjectures lack any firm empirical foundation.

This paper studies the political economy of government activism in an Indian context using a newly collected data-set from four south Indian states. We use data from 522 villages to assess the functioning of elected village councils, Panchayats, and to examine where local politicians have been most active. We argue for this context that standard political incentives are alive and well. In line with an agenda-setter model of political decision-making, we find investments in village public goods are greatest in the village of the chief village councillor (Pradhan). Within villages, politicians are relatively more likely to receive household public goods. There is little evidence that our measures of traditional influence play a significant role in resource allocation.

This paper is related to three broad programs of research in the political economy of development (i) the study of political opportunism, especially

corruption, (ii) the impact of polarization and inequality on policy outcomes, (iii) the consequences of decentralization in developing countries. We discuss each in turn.

Economists have suffered a loss of innocence in thinking about the role of the state. The charge that state activities are beholden to problems of corruption and inefficiency is now widespread and has lead to a reappraisal of the proper role of government. But to get from widespread concern to specific recommendations, it is necessary to understand precisely what forms political opportunism may take. Much of the current critique of government is based on broad-brush measures such as corruption measures generated at country level (Mauro 1995). This paper takes a much more micro-view of the resource allocation process and the way in which politics works. Specifically, we expect political opportunism to be a function of two things – (i) the proposal power of politicians and (ii) the spill-overs in the public programs being studied. One key feature of our approach comes from studying different kinds of public programs – those where the benefits are broadly shared in a geographic region (a village) and those where the benefits accrue more narrowly (to the household). We find robust and interpretable effects consistent with a simple, but reasonable model of political incentives.

There is now a wide body of evidence which argues that polarization and inequality shapes the way in which public resources are allocated. Even when political influence is channelled through the political process, we expect polarization and inequality to matter. This is shown in the model of Alesina, Baqir and Easterly (1999). But there is also the possibility that such fractionalization and inequality affects policy-making through extra-democratic means. The kinds of aggregative measures of government that are used in this literature offer little insight into the mechanism at work.

The issue of whether greater decentralization of policy making improves policy outcomes in the developing world is widely debated.[1] Attempts to look at this in cross-country data, such as Triesman (2002) and Enikopolopov and Zhuravskaya (2004) have been equivocal. This comes a no great surprise. First, attempts at theoretical modeling, such as Bardhan and Moorkherjee (2000) have observed that benefits, such as better use of local information, can come at the expense of increasing the likelihood of local capture. Second, it is incredibly difficult to find comparable cross-country decentralization experiences. Even within in India, there are cross-state differences in how

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[1]See Bardhan (2002) for an excellent review of the issues.

Panchayats are run and the extent of authority that they are given (see Chaudhuri (2003)).

Thus, before grander questions about the merits of decentralization can be sorted out, it is necessary to understand the resource allocation process at the local level. Here, there is an emerging body of work on India to which this paper contributes. Chattopadhyay and Duflo (2004a) examine the impact of women's reservation on spending patterns in West Bengal and Chattopadhyay and Duflo (2004b) exploits the practice of political reservation in favor of low castes to examine whether resource allocation at the village level is sensitive to low caste representation and residence of chief village councillor. Bardhan and Mookherjee (2003) examine the role of elected village councils in affecting land reform. Finally, Foster and Rozensweig (2001) examine how decentralization interacts with land ownership patterns to affect public good outcomes. Here, we build on these contributions and expand the study to a very different part of India.

The remainder of the paper is organized as follows. In the next section, we discuss some background information on the institutional setting that we study. In section three, we discuss some theoretical issues. Section four discusses the data and empirical analysis while section five concludes.

2 Background

In India, a 1993 constitutional amendment made a three-tier elected local government obligatory throughout the country. These three tiers are defined at different administrative levels with the village being the lowest, then the block and finally, the district. Our focus is on the lowest tier of local self-government. This is a popularly elected village council – the Gram Panchayat (GP).

A GP typically consists of 1-5 revenue villages, and its demarcation is done on a population basis. The Panchayat Act of every Indian states mandates the population criteria to be followed in that state.[2] Every GP consists of up to twenty wards.[3] Elections are at the ward-level, and the elected ward members constitute the GP council. The head of this council is the Pradhan.

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[2]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 and 7 thousand.

[3]For our sample states the population per ward varies between 300 and 800.

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.

The 73rd constitutional amendment mandated political reservation of a certain fraction of the Pradhan positions in a state in favor of historically disadvantaged castes and tribes, scheduled castes and tribes (hereafter, SC/ST) and women. Two of our sample states also extended Pradhan reservation to other backward castes (OBC). Political reservation for a group implies that only individuals belonging to that group can stand for election to the reserved position. The 73rd constitutional amendment also requires that the extent of caste reservation in a state reflect the SC/ST population share, and that one-third of Pradhan positions in every state be reserved for women. No GP be reserved for the same group for two consecutive elections.

A GP has responsibilities of civic administration with limited independent taxation powers.[4] While the ambit of GP policy influence varies across Indian states GPs typically perform (at least) two distinct policy tasks. The first is beneficiary selection for central and state welfare schemes. This includes identification of 'below poverty line' households, employment in public works and provision of household public goods such as housing and private electricity and water supply. Most household public good provision schemes require that a minimum fraction of beneficiaries be SC/ST. The second area of GP policy activism is the construction and maintenance of village public goods such as street-lights, roads and drains. The GP decides the distribution of these public goods within the village, and the quality of such public good provision.[5]

Panchayat legislation requires that the Pradhan consult with villagers (via village meetings) and ward members in deciding the choice of beneficiaries and allocation of public goods. However, final decision-making powers in a GP are vested with the Pradhan.

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[4]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.

[5]Schedule XI of the Constitution defines the functional items for which states may devolve responsibility to Panchayats.

3   Theoretical Considerations

In this section, we lay out a simple theoretical structure to mirror the institutional context that we are studying. Political authority in our villages is in the hands of elected politicians. The GP is headed by a chief executive, the Pradhan. In our base line model, the Pradhan is modelled as an agenda setter within the GP. We contrast the empirical implications of this view for resource allocation (both within and across villages) with models of legislative universalism and elite capture respectively. We distinguish between household-level and village-level policies on the basis of whether they can be targeted towards a specific household or have spill-overs at the village-level.

In principle, resource allocation can depend on (at least) three features of the political system. First, the selection procedure for politicians and, specifically the Pradhan. Second, factors that influence the extent to which an elected politician is advantaged or disadvantaged by formal constraints or by the exercise of traditional authority. In the most extreme view of traditional authority, public resource allocation is determined entirely outside the political system at this stage of the model. Third, re-election and other career concerns that might fall to politicians. Here, we focus on the first two of these features. We describe the economic environment, and then discuss, in turn, the role of institutional constraints and the selection procedure.

Suppose that a GP comprises V villages, indexed by $v = 1, ..., V$, each represented in the council by one representative. Village v is populated by m_v households. These households are heterogeneous. Assume each individual has some type κ_j with the set of types being denoted by $\kappa_j \in \{\kappa_1, ..., \kappa_T\}$ where type T can be thought of as the "village elite" and think of the type being an indicator of a household's social and economic status. Let π_{jv} be the fraction of j in village v. Let $\kappa_r(v)$ be the elected type of each village. The Pradhan's village is denoted by $\hat{v}$.

We are interested in public resource allocation both across and within villages. Suppose that there are K types of public goods to be financed out of a resource pot allocated by the Panchayat. Let the vector of local public goods (roads, drains etc) be denoted by $g_{1v}, ..., g_{Kv}$ with associated price vector $(p_{1v}, ..., p_{Kv})$ which vary by village.[6] Let G_v be total public expenditure in village v. The village council is charged with dispensing

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[6]Price variation could reflect the topographical conditions or the size of the target group for a particular good.

public goods across the villages given by a vector $(G_1, ..., G_V)$.

We suppose that the village representative allocates goods across different kinds of public spending with in a village.[7] These goods vary in the spill-overs that they generate. Suppose that each good is broken down in the quantity consumed by each household within the village, then $g_{1v} = (g_{kv1}, ..., g_{kvm})$ for good k. The utility that citizen j gets from this allocation, can be thought of as $\sum_{i=1}^{m} \lambda_{ki} g_{kvi}$ where λ_{ki} is a parameter which captures these spill-overs. A pure local public good has $\lambda_{k1} = ... = \lambda_{km}$. A pure transfer is $\lambda_{kj} = 1$ for some j and zero for all other j.

Let $u(g_{1v}, ..., g_{Kv}, \kappa_j)$ be the utility of a citizen in village v of type κ_j. We assume there is a fixed budget T to be allocated so that the budget constraint is: $\sum_{v=1}^{V} G_v = T$. Let

$$U(G_v, p_v, \kappa_r(v)) = \arg \max_{(g_{1v}, ..., g_{Kv})} \left\{ u(g_{1v}, ..., g_{Kv}, \kappa_r(v)) : \sum_{k=1}^{K} p_{kv} g_{kv} = G_v \right\}$$

$$(1)$$

be the utility of an elected representative who has captured resources G_v for his village. This determines the within village resource allocation.

We expect the allocation of resources within a village to vary according to the spill-overs generated by a particular good. For pure household level transfers, we expect that elected representatives to do better to the extent that they exercise self-interest. We would expect the neighborhoods of elected representatives to do better for goods that are specific to the neighborhood such as road surfaces, drainage and lighting. To the extent that there is solidarity between groups, members of the (caste or economic) group with which the representative is affiliated should do better. We don't expect specific groups to benefits from goods where spill-overs are village-wide.

3.1 Institutional Constraints

We begin by examining resource allocation by a legislative council comprised of representatives from each village belonging to the council.

The Agenda Setter Model Suppose that the Pradhan has agenda setting power and needs only to assemble a minimum winning coalition among the

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[7]This is a simplification since each village typically has a number of representatives (ward-members). If they are heterogeneous, then it would be necessary to model the collective choice procedure used within a village.

remaining villages in the GP to get their preferred allocation accepted.[8]   If the village council cannot agree to an allocation of public goods, then the status quo is that each district gets at least $\underline{G}$ and the Pradhan's village gets $T - \underline{G}$. Then, each village faces a status quo utility level of $U(\underline{G}, p_v, \tau_r(v))$ which can depend on the type of the politician in the village.

The Pradhan (in village 1) is an agenda setter. He picks the allocation of public goods to maximize his welfare subject to building a minimum winning coalition of villages that will implement this allocation. The Pradhan knows that he can offer $\underline{G}$ to $(V-1)/2$ of the villages and get $T - \underline{G}\frac{(V-1)}{2}$ for himself. The remaining villages get nothing which exceeds what he would get in the status quo. While this is simple and extreme, it is indicative of what will happen in a wide variety of circumstances where there is a fixed agenda power.[9]   Thus, resource allocation n the agenda setting model has:

$$G_v = \begin{cases} T - \underline{G}\frac{(V-1)}{2} & if\, v = \hat{v} \\ \underline{G} & if\, v\, is\, in\, the\, winning\, coalition \\ 0 & otherwise. \end{cases}$$

The key observation, therefore, from the agenda setter model of a GP is the the resource advantage for the Pradhan's village.

In this simple model of agenda setting power, we do not expect Pradhan characteristics, such as his/her social or economic status, to matter for cross-village resource allocation. Politician characteristics should, however, influence the within-village resource allocation since it is determined according to equation (1).

Universalism   Suppose instead that the Pradhan enjoys no particular advantage in allocating resources. At the other extreme to the agenda setter view is the so-called universalism model due to Weingast (1979) and applied to local public goods allocation by Weingast, Shepsle and Johnsen (1981). They argued (in the context of the U.S. congress) that resources would be allocated uniformly across districts. They had in mind the outcome of some long-run game in which cooperation is sustained by egalitarian resource allocation.

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[8]The classic analysis of agenda setting is by Romer and Rosenthal (1978). Roker (1962) first proposed the importance of minimum winning coalitions in legislative bargaining.

[9]Things are more complex in models such as Baron (1992) where agenda setting power varies randomly over time.

In its simplest form, the norm of universalism in our setting implies that:

$$G_v = \frac{T}{V} \, for \, all \, v.$$

Thus, there is no advantage to being the Pradhan's village. As in the agenda-setter model, we would not expect the social and economic status of the Pradhan (or any other representative) to affect the resources that flow to the village. However, we expect the type elected from the village to affect the within-village allocation according to (1).

Elite Capture of the Policy Process The above discussion takes a very stylized model of political resource allocation where election and post-election incentives are key in determining within- and between- village resource allocation. We now contrast this with a model where some particular group (an elite) has complete authority in resource allocation. This could reflect either economic (such as land) or social power (such as caste). Here, we assume type κ_T is the elite.

Suppose that the elite ignore the political process and choose their preferred public resource allocation. That is, public resource allocation maximizes the joint surplus of the group T citizens across the villages. Thus, the objective function of the political process is

$$W\left(G_1, ..., G_V, p\right) = \sum_{v=1}^{V} \pi_{vT} U\left(G_v, p_v, \tau_T\right)$$

where π_{Tv} is the fraction of type T citizens in village v. Thus, we have:

$$G_v = G_v^*\left(\pi_{vT}, p_v, \tau_T\right) \, for \, all \, v$$

where $G^*\left(\cdot\right)$ is increasing π_{vT}. This model predicts that villages with more type T citizens would get a larger share in the resource allocation across villages. Conditional on the distribution of type T citizens, this model predicts no effect of being in the Pradhan's village. It also predicts that reservation will have no impact on resource allocation within villages which follows the preference of the type T group. Within villages resources are skewed towards goods preferred by elite groups.[10]

Thus, with elite capture, both across- and within- village resource allocation reflects the preferences of the local elites and is unaffected by the exercise of formal political power.

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[10] An intermediate model of elite influence supposes that the selection and election of

3.2 Selection Procedure

In the above models resource allocation between villages is independent of politician type. However, politician type affects within-village resource allocation. This leads us to examine the selection of politicians.

Elections Elections, by determining the type of politician, affects within-village resource allocation over priorities. Specifically, within-village resource allocation is $(g_{1v}^* (\kappa_r(v), p, G_v), ..., g_{Kv}^* (\kappa_r(v), p, G_v))$. We expect the allocation of such goods to reflect the politician's preference. For group-specific goods this will show up as more goods for that group within the village. For household goods this will show up as politicians obtaining more transfers for themselves.

In all models of between-village resource allocation considered, the resources available to a village only depend on whether the Pradhan resides in the village. For now, assume this probability is independent of politician type and let ϕ_v be the probability that village v is the Pradhan's village. Let

$$\hat{U}_{jr}^v (G, p, \delta) = u \left((g_{1v}^* (\kappa_r(v), p_v, G), ..., g_{Kv}^* (\kappa_r(v), p_v, G)), \kappa_j \right)$$

be the utility of a citizen of type j with a representative of type r given a budget of size G where δ is an indicator variable which is equal to one if the individual in question is a politician. Since the politician may gain a personal advantage from holding office (if there are some goods which can be targeted at the household level) we use $\hat{U}_{rr}^v (G, p, 1) \left(\geq \hat{U}_{rr}^v (G, p, 0) \right)$ to denote the utility of a politician while in office.[11]

Given this, we can associate an expected utility level with each type of citizen j when the elected citizen is of type k:

$$\phi_v \hat{U}_{jr}^v (G_1, p_v, \delta) + (1 - \phi_v) \hat{U}_{jr}^v (G_0, p_v, \delta)$$

politicians is controlled by elites. In this case, political authority could affect resource allocation across villages as in the agenda setting model, but would not affect resource allocation within villages. The latter would still be captured by elites. This would be relevant when the links between the elites are weak across villages, but strong within them. This model would be consistent with a Pradhan's village effect.

[11]For simplicity, we assume that the utility of all citizen's who are not politicians depend only on their type. A more general model could each citizen to care about which citizen is elected as in Besley and Coate (1997). This could reflect their personal connections to the politician.

where G_1 are resources in the Pradhan's village and G_0 are resources in non-Pradhan villages.

It is most straightforward to model the election using the citizen-candidate approach of Osborne and Slivinsky (1986) and Besley and Coate (1997). There are three stages to the election – entry, voting and policy making. We have already studied the latter. At the voting stage, we suppose that voting decisions must form a Nash equilibrium. Finally, let c be the cost of entry. If we assume that an appropriate ordering property holds and entry costs are low enough, then there is always an equilibrium in which the median type runs and is elected unopposed.[12] However, other equilibria are possible too. It is not necessary to be specific.

The equilibrium from the citizen candidate game generates a probability distribution over the type of politician who holds office. Heterogeneity in within-village resource allocation within a GP is driven solely by differences in the composition of the villages which affects the median type and possiblly by differences in the equilibrium of the citizen candidate being played. Following Pande [2003] and Chattopadhyay and Duflo [2004a], we can view political reservation as disrupting the political equilibrium, e.g. by selecting a politician who does not have the median public good preference.

Choosing the Pradhan In our sample, we observe two Pradhan selection procedures – indirect and direct. Under the indirect method the Pradhan is selected from among the elected council representatives. This can be modelled as a citizen candidate game among the set of council members. Pradhan election matters only if the Pradhan enjoys some advantage from his/her agenda setting power. Notice that since the number of representatives per village is increasing in village population we would expect the Pradhan to come from larger villages.[13]

The other mode of Pradhan selection is direct, which can be modelled as

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[12]The ordering property says that for any pair of candidates, (τ_A, τ_B) where $A > B$, then all citizens with $\tau_j > \tau_A$ prefer candidate A and all citizens with $\tau_j < \tau_B$ prefer candidate B.

[13]With elections we may expect ϕ_v to be a function of the Pradhan's type in so far as this affects the likelihood that he/she is picked as Pradhan. This would involve citizens understanding the equilibrium of the Pradhan selection game when they choose what candidate type to vote for in the village election. In our model, since the type does not affect the resource allocation of an agenda setter, we might safely think of these characteristics being randomly distributed in the population and being unrelated to τ_r.

a citizen-candidate game across an electorate comprising citizens from the whole population within a GP. If the Pradhan has agenda setting power, then there will be a clear advantage to the largest village.

To summarize, under either regime and in a manner similar to council member selection, Pradhan type will affect the mix of spending ex post. Further, increases in the number of villages in a GP will mechanically reduce the likelihood that any single village gets the Pradhan. We also conjecture that more populated villages do better in getting the Pradhan when the number of villages in the GP is larger.

Elite Capture of Elections Our model of elections assumes that any citizen could run and be elected. However, we may posit that the traditional elite would capture the electoral process by preventing candidates from other groups standing for office. This would imply that the candidate in each village would be of type τ_T. This would lead to allocation of resources within the village to reflect the interests of that group. A model in which there is elite capture in village elections does not resolve the conflict of interest between villages if the Pradhan is still able to exercise agenda setting power. In this case, we would expect to observe the Pradhan's village gaining an advantage even if the elections are captured at the village level. However, unlike a citizen candidate model of elections, there is no obvious reason to expect village population and number of villages to affect the selection of Pradhan village in a GP. Finally, political reservation in favor of historically disadvantaged caste groups is likely to reduce the extent of electoral capture by the elite. This is less likely to be true of reservation for women, since the traditional elite can simply choose to field female family members.[14]

4 An Empirical Analysis

The above simple models have distinct implications for public resource allocation across and within villages. In this Section, we use survey data from South India to examine the empirical relevance of these models. We examine three aspects of the political process. First, the selection of politicians. Second, whether resource allocation between villages is affected by being in

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[14]This leaves open the possibility that the elected low caste politicians could be "captured" by the village elite after the election.

the Pradhan's village. Third, resource allocation across households within a village.

4.1 Data

Survey Design

Our data come from a village- and household- level survey conducted by us in the four Southern States of India – Andhra Pradesh, Karnataka, Kerala and Tamil Nadu. The survey was conducted between September and November 2002. At this point at least one year had lapsed since the last GP election in every state.[15]

We followed a multi-stage sampling procedure which consisted of purposive sampling up to the block-level and random sampling within these blocks. Our sampling procedure and sample representativeness is discussed in detail in Besley, Pande, Rahman and Rao (2004b). Briefly, for each state pair two districts (one in each state) that shared a common boundary were selected. For each district pair (which shared a common boundary) the three most 'linguistically similar' blocks (defined in terms of households' mother tongue) were chosen.[16]

We randomly sampled 6 GPs per block in every state except Kerala. The population per GP in Kerala is roughly double that in the other three states. Therefore, relative to these states, we under-sampled GPs (3 GPs per Block in Kerala) and over-sampled villages/wards in Kerala. This procedure gave a total of 201 GPs. We sampled all villages in a GP if the GP had 3 or fewer villages. If it had more than three villages, then we selected the Pradhan's village and randomly selected two other villages.[17] In Kerala, we directly sampled wards instead of villages (as villages tend to be very large) - we sampled 6 wards per GP. This gave us a final village sample size of 522 villages.

In a random sub-sample of 3 GPs per block we conducted household interviews in all sampled villages (259 villages in total).[18] Within a village twenty

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[15]The last GP elections in these states occurred in August 2001 in Andhra Pradesh, February 2000 in Karnataka, and October 2001 in Tamil Nadu.

[16]Linguistic similarity was computed using 1991 census block level language data.

[17]We excluded villages with less than 200 persons from our sampling frame. Hamlets with population over 200 were considered as independent villages in drawing the sample.

[18]In Kerala we randomly selected 2 GPs in one block and one GP in the other block (the selection of which block to sample how many GPs from was also random), and within

households were sampled, of which four were SC/ST, giving us a household sample size of 5180 households..[19] In all villages an elected Panchayat official was interviewed - 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 selected. However, in these cases the investigator usually went back and interviewed the Pradhan. Hence our sample of elected officials exceeds the number of sampled villages and stands at 540.

Variables

We use a combination of household-level and village-level data collected during September-November 2002 in 522 villages. Table 1 describes the main variables.

The household survey was conducted in a sub-sample of 259 villages. For each interviewed household we construct measures of economic, social and political power. Economic measures include a wealth measure based on consumer-durable ownership, landownership and literacy. 29% of our sample households are wealthy, while 38% are landless. 27% of our respondents are illiterate. Social power is measured by caste identity – 23% of our households belong to SC/ST. Finally, we measure political influence by a dummy for whether any family members hold/ have held a political position.

In every village we held a village meeting in which we got information on the village caste and land distribution. We use these data to construct measures of village demographics – land inequality is relatively high in our villages with a land gini of 0.58. The average village has over 300 households of which roughly 20% are SC/ST and 28% upper caste.

Data on public resource allocation comes from multiple sources. For village public goods we use public good-wise information on the number of investments. This information was collected during our village meeting. For each public good category we construct a standardized investment measure by subtracting the mean for reserved Pradhan village and then dividing by the standard deviation in this sample. We aggregate across categories to get

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sampled GPs we conducted household interviews in all sampled wards.

[19]The survey team leader in every village walked the entire village to map it and identify total number of households. This was used to determine what fraction of households in the village were to be surveyed. The start point of the survey was randomly chosen, and after that every Xth household was surveyed such that the entire village was covered (going around the village in a clockwise fashion).

a measure of overall activism.

For household public goods we use information from the household survey. Every Indian household with a household income below a state-specific income level is entitled to a Below Poverty line (BPL) card. A BPL cardholder is entitled to a number of monetary benefits ranging from subsidized food to free hospitalization. In our sample 21 percent of households have a BPL card. Our second measure of personal benefit from government activism is employment in government public work schemes – 4% of the households in our sample have a household member working in such a scheme. Our third measure is whether the household ever had a toilet constructed, drinking water or electricity provided under a government scheme, and the fourth is whether these household improvements occurred after the last election. Twenty percent of our households have ever benefitted from these schemes, with 5% having done so after the last election.

Finally, we use data on household perceptions of the political process.

4.2   Selection

Politicians

We have argued that a politician's policy preferences are likely to influence within-village allocation. If an individual's economic, social or political characteristics shape his/her policy preferences then one measure of the efficacy of the electoral process is whether individuals who, on these dimensions, are representative of their village population are selected as politicians. Moreover, if political reservation enables members of historically disadvantaged groups to contest elections then we would expect the profile of elected politicians to vary with the reservation status of their post.

We use the combined politician and non-politician household sample to provide some evidence on these issues. Let p_{vj} be a dummy variable which is equal to one if the respondent in household j is a politician in village v. We estimate a linear probability model of the form:

$$\Pr ob\left(p_{vj} = 1\right) = \alpha_v + \kappa x_{jv} + \varepsilon_{jv}$$

where α_v are village fixed effects and x_{jv} a vector of household characteristics. This includes three economic characteristics – whether the household is wealthy (defined in terms of consumer durables ownership), whether it owns land and whether the respondent was literate. As a measure of group

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identity we include a dummy for whether the household is SC/ST. Finally, we capture a household's political history by a dummy variable for whether some member of the household has held a political position in the past. We cluster standard errors at the village-level.

This estimation procedure exploits within-village variation in household characteristics for identification. In column (1), Table 2 we observe that wealthy individuals are 4% more likely to be politicians, while landless and illiterate individuals are less likely to be politicians (by 4% and 6% respectively). Most striking is the finding that an SC/ST individual is 3% more likely to be a politician. However, when we split the sample by politician reservation status, we find this effect is restricted to reserved politicians, columns (2) and (3). For both groups we continue to find evidence of selection on economic and political characteristics. While the wealth differences between reserved and unreserved politicians are limited, unreserved politicians are less likely to be landless or illiterate and more likely to have other family members who hold/have held a political position. In column (4) we consider SC/ST politicians and find the wealth effect absent for this group.

In columns (5)-(8) we restrict our sample to politicians, and examine Pradhan selection. We estimate regressions of the same form as above, but control for GP fixed effects and cluster standard errors at the GP level. Pradhans resemble other politicians on all dimensions except wealth – Pradhans are roughly 30% more likely to be wealthy, column (5). This wealth effect is true of both reserved and unreserved Pradhans, columns (6) and (7). It is, however, not true for SC/ST politicians. On other economic dimensions reserved and unreserved Pradhan characteristics differ in a manner similar to that for politicians at large.

Politicians appear to be relatively wealthier than those they represent. However, reservation mitigates this effect. In Table 2(c) we explore which village and GP characteristics influence the extent to which the Pradhan controls other important economic and political positions in villages in their GP. During our survey, we conducted village meetings in which villagers were asked about the extent of such control. In Table 2(b) we examine the determinants of this. While we cannot directly estimate whether the introduction of elected village councils displaced traditional leaders, we can examine whether the extent of Pradhan oligarchy is sensitive either to GP characteristics, such as village population, which would influence electoral outcomes absent elite capture or to the introduction of political reservation. We find no evidence that number of villages in a GP influence the extent of

Pradhan oligarchy, and limited evidence that it responds positively to village population size. However, increases in the fraction of SC/ST population in a village enhance overall economic and political concentration Pradhan reservation in favor of SC/STs reduces such concentration. This effect is much weaker, and almost always insignificant, in the case of reservation for women.

Villages

In our sample there is substantial variation in the number of villager per GP. This variation is driven by cross-state differences in the population criteria used for GP definition, and within-state differences in village size. However, in every state, irrespective of number of villages per GP, there is only one Pradhan per GP, and therefore a single Pradhan village per GP. If Pradhans behave as agenda-setters then each village would like to be home to the Pradhan. If the electoral process works well then the nature of representative democracy suggests that relatively larger villages in the GP will be more likely to be Pradhan villages. In addition, number of villages per GP should matter – more villages per GP would mechanically lower the likelihood that any village in the GP gets the Pradhan. Finally, if villages compete to get the Pradhan then we would expect more populous villages to be at a greater advantage when the number of villages in the GP is higher.

To examine the relative empirical significance of these factors we estimate a linear probability model. Our estimation equation is of the form

$$(P_{vgb} = 1) = \beta_b + \delta_1 X_{vgb} + \delta_2 H_{vgb} + \delta_3 N_{gb} + \delta_4 (N_{gb} = 2) + \delta_5 (N_{gb} \geq 3) +$$

$$\delta_6 H_{vgb} \times (N_{gb} = 2) + \delta_7 H_{vgb} \times (N_{gb} \geq 3) + \eta_{vgb}$$

β_b denotes block fixed effects, and X_{vgb} a vector of village controls. This vector includes a GP headquarter dummy, the fraction of SC/ST households, the fraction of upper caste households, the village land gini, village literacy rate (measured in the 1991 census) and total land area. We measure population effects by the log number of households in a village (H_{vgb}). N_{gb} is the number of villages per GP. In every GP we sampled the Pradhan's village and upto two other villages. For GPs with 3 or more villages the number of villages sampled is independent of number of villages in GPs. Hence, to measure how changes in village number affects the probability of being Pradhan we exploit the fact that in a subset of sampled blocks the number of villages in some

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GPs is less than three. We therefore include dummy variables for whether it is a two village GP ($(N_{gb} = 2)$) or three or more village GP ($(N_{gb} \geq 3)$). Finally, we include the interactions of these two dummy variables with number of households in a village to examine whether population effects vary with number of villages in a GP.

Aside from whether a village was already the GP Headquarter, we find no evidence that village characteristics matter. Village population size and village number affect the likelihood of being the Pradhan's village in a manner consistent with a one person-one vote electoral process, Table 3 column (1). More populous villages are more likely to be Pradhan village. In contrast, relative to one village GPs, villages in a multi-village GP are less likely to have a Pradhan. Finally, the population effect is more pronounced in GPs with more villages. Our estimation exploits within block variation in number of villages per GPs. Arguably, such within-block variations in number of villages are driven by geography and are uncorrelated with village characteristics which predict the village's political clout. To investigate this further we restrict our sample to blocks where the difference in number of villages sampled across GPs is one. Variations in the number of villages per GP in such blocks are particularly unlikely to reflect systematic differences across GPs. We continue to find the probability of a village being the Pradhan's village remains positively correlated with village population, and negatively with number of villages per GP, column (2). The population effect continues to vary with number of villages in a GP.

4.3   Between Village Allocations

We examine whether Pradhan identity affects resource allocation across villages within a GP in two ways. First, is public good provision higher in Pradhan villages? Second, do Pradhan characteristics affect the extent of public good provision.

Suppose that Y_{vgb} is a measure of public good provision in village v in GP g. Then we are interested in estimating a regression of the form:

$$Y_{vgb} = \beta_b + \rho P_{vgb} + \pi X_{vgb} + \varepsilon_{vgb} \tag{2}$$

where β_b are block fixed effects, P_{vgb} is an indicator variable equal to one if the observation is for the Pradhan's village and X_{vgb} are the village control variables used to explain the Pradhan's viilage above.

As we have cross-sectional data we cannot directly compare public good provision in 2002 with that before the Panchayat system was instituted. However, as a baseline in Table 4a we report the findings for an array of 1991 census public goods. In no case, do we find the Pradhan village to be doing better. Instead the main positive predictor of public good provision appears to be village population.

In Table 4(b) we consider our village-level measure for overall GP activism during 2001-2002 as the dependent variable. Column (1) Table 4a shows that being the Pradhan's village is positively correlated with GP activism. In column (2) we introduce GP fixed effects and find that this effect persists within GPs. However, one may continue to be concerned that GP activism and Pradhan village identity are jointly determined. For instance, residents in politically powerful villages may be good at both getting the Pradhan and lobbying for public goods. To address this concern, column (3) presents IV estimates of this relationship where we instrument for Pradhan village by the two- and three- village dummies and their interactions with number of households. From Table 3 we know that, controlling for total number of villages in a GP, moving from one-village to two- or three or more- village GPs reduce the likelihood that a village in a GP has the Pradhan. In contrast, the population effect is stronger for two- or three or more- village GPs. We use these population interactions and dummies for number of villages as instruments. Note that we separately control for the number of villages within a GP. We look at this in two ways. First, we consider the entire sample and second, look only those blocks where the number of villages in our sample varied by one, columns (3) and (5).

In Table 4(c), we examine disaggregated measures of Pradhan activism. Here, we find a consistent pattern with road water, sanitation and educational activism being higher in the Pradhan's village. These are all issues where the attention of the Pradhan could be potentially important and are village wide public goods.

To examine whether, in line with our model, Pradhan characteristics have no impact on the resources allocated to the village we can include a vector of Pradhan's characteristics in (2) so that

$$B_{vgb} = \beta_b + \rho P_{vgb} + \theta \left(P_{vgb} \times C_{gb} \right) + \pi X_{vgb} + \varepsilon_v$$

where C_{gb} is a vector of Pradhan personal characteristics.

Table 4(d) reports the results – there is no effect of Pradhan characteristics on public good provision.

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Taken together, these results are broadly supportive of the idea that resource allocation across villages exploits the Pradhan's agenda setting power. The village level variables do a fairly poor job at explaining the allocations across villages (maybe this is the point to mention something about the between GP allocations?). Moreover, variables which explained the Pradhan's power as reported in the PRA do not seem to explain across village resource allocation either.

4.4 Within Village Allocation

We now turn to the allocation of household-level public goods. Let y_{jvk} be an indicator variable which equals one if household j receives a benefit from program k in village v. We estimate a regression of the form:

$$y_{jvk} = \alpha_v + \gamma p_{jv} + \rho x_{jv} + \varepsilon_{jvk}$$

where p_{jv} is equal to one if the household is of a serving politician, x_{jv} are household characteristics and α_v is a village fixed effect. We include controls for (durables) wealth, literacy, landlessness, SC/ST status and whether a family member has served in a political office in the past.

Table 5 considers the allocation of household level public goods where we distinguish between public goods on the basis of whether they are group-targeted. In our sample poorer, illiterate, landless and SC/ST households are more likely to have a BPL card, column (1) Table 5. However, so are politicians. A family history of political participation is uncorrelated with having a BPL card which suggests that current political control is key. Column (2) shows that this effect holds only for politicians in non-reserved seats. In column (3) we rely on within-block rather that within-village variation and find that households in the Pradhan village are not more likely to have a BPL card. This points to the politician effect being an expression of power within the village. Next, we examine what kind of households are more likely to have member(s) employed in public works projects. There appears to be weaker targeting of these programs than BPL card ownership. Once again, being a politician is positively correlated with participation in public works projects. Here there is no significant difference between reserved and unreserved politicians.

We turn next to group targeted public programs. Here, the pattern of household controls is very similar to the non-group-targeted programs.

Being a politician per se has no significant correlation with access. However, when we split out the reserved and unreserved politicians, we observe that the latter are significantly more likely to benefit. This is true if we confine ourselves to benefiting only since the last election – indeed the effect becomes even more significant. Once again, these appear to be pure within village allocation effects and there is no impact of being in the Pradhan's village.

Taken together, these results provide suggestive evidence that politics as usual in an Indian context means the use of political power for personal gain. Moreover, this appears true for reserved politicians and unreserved politicians.

4.5   Perceptions

We now delve a little deeper by looking at expressions of satisfaction with politicians in our household sample. The results are contained in Table 6. We start by examining whether the Pradhan is perceived to be looking after the village's need. Within villages, the households who have a past history of political involvement are more optimistic as are wealthier households. Illiterate and landless households are less likely to believe this to be the case. In column (2), we look between blocks and find a significant Pradhan's village effect. This is consistent with our earlier results on between village resource allocation. This satisfaction also shows up in column (4) which looks for correlates to answering that the Pradhan keeps his promises. Again, the Pradhan's village appears more optimistic. Since these answers come from the household data and the previous measures of activism from the village meetings data, it is reassuring that we find consistent evidence across surveys.

In columns (5)- (7) we examine the determinants of both politicians and other villagers perceptions regarding quality of own village facilities relative to neighboring villages. Politicians are consistently optimistic in their assessment of this. Whether this is reality, over-confidence or hubris is not entirely clear. The patterns that show up for the household controls do, however, suggest that this may also have something to do with the way in which access to facilities within villages. It is also interesting to note that there is a positive and significant effect of being in the Pradhan's village. Throughout this analysis, there is significant difference between reserved and unreserved politicians.

Finally, in columns (8) through (10), we matched the problem ranking

from the household questionnaire with that from the village meetings to get a sense of whether the problems of the village are perceived differently by different groups. The main finding here is that politicians (reserved or not) are consistently better matched suggesting that it is not absence of information that is driving the politicians choice to allocate more public resources to themselves and Pradhan village.

4.6   Villager Activism

The results provide evidence that political influence affects public resource allocation in our context. The evidence points on favor of the agenda-setter view of the Pradhan's village. This rejects the most extreme view of political power in which the political process is entirely subverted to the traditional power bases. However, this does not preclude the possibility that traditional forces affect resource allocation.

In Table 7 we examine whether villager information or political activism differs across Pradhan and non-Pradhan villages. We find no differences which is one more piece of evidence that it is not differences in types of villagers which drives the Pradhan village effect.

5   Concluding Comments

This paper has investigated how political influence is used in allocating public resources using a sample of south Indian villages. The analysis has investigated both between and within village resource allocation. The patterns are robust and transparent – political influence is used exactly as one might expect when politicians enjoy considerable discretionary authority.

Our finding of "politics as usual" is double-edged. On the one hand, it tells us that insights from standard political economy models may work just as well even in countries where there are complex social and economic constraints On the other, we uncover evidence of political opportunism which plays to the hands of pessimists who seek non-governmental alternatives to public service delivery problems.

The results also hold some lessons for the decentralization of authority. The exercise of political power coincides with the kinds of spillovers from the goods in question. Agenda setting power in the allocation of goods where the benefits are experienced mostly at the village level results in inequitable

allocations of activism. The case for unitary political authority in these cases seems clear.

References

[1] Alesina, Alberto, [1988], "Credibility and Policy Convergence in a Two-Party System with Rational Voters," *American Economic Review*, 78(4), 796-806.

[2] Alesina, Alberto, Reza Baqir and William Easterly, [1999], "Public Goods and Ethnic Divisions," *Quarterly Journal of Economics*, 114(4), 1243-1284.

[3] Bardhan, Pranab, [2002], "Decentralization of Government and Development," *Journal of Economic Perspectives*, 16(4), 185-205.

[4] Bardhan, Pranab and Dilip Mookherjee, [2000], "Capture and Governance at Local and National Levels," *American Economic Review*, 90(2), 135-139.

[5] Bardhan, Pranab and Dilip Mookherjee, [2003], "Political Economy of Land Reforms in West Bengal 1978–98 ," *mimeo Boston University*.

[6] Baron, David, [1991], "Majoritarian Incentives, Pork Barrel Programs and Procedural Control," *American Journal of Political Science*, 35(1), 57-90.

[7] Barro, Robert, [1973], "The Control of Politicians: An Economic Model," *Public Choice*, 14, 19-42.

[8] Baqir, Reza, [1973], "Districting and Government Overspending," *Journal of Political Economy*, Vol.110, no. 6.

[9] Besley, Timothy and Anne Case, [1995], "Does Electoral Accountability affect Economic Policy Choices? Evidence from Gubernatorial Term Limits," *Quarterly Journal of Economics*, 769-798.

[10] Besley, Timothy and Anne Case, [2003], "Political Institutions and Policy Choices: Evidence from the United States," *Journal of Economic Literature*, 41(1), 7-73.

[11] Besley, Timothy and Stephen Coate, [1997], "An Economic Model of Representative Democracy," *Quarterly Journal of Economics*, 112(1), 85-114.

[12] Besley, Timothy, Rohini Pande, Lupin Rahman and Vijayendra Rao, [2004a], "The Politics of Public Good Provision: Evidence from Indian Local Governments," forthcoming in the *Journal of the European Economics Association.*

[13] Besley, Timothy, Rohini Pande, Lupin Rahman and Vijayendra Rao, [2004b], "Decentralization in India: A Survey of South Indian Panchayats," *mimeo, LSE.*

[14] Chattopadhyay, Raghabendra and Esther Duflo, [2004a], "Women as Policy Makers: Evidence from a India-Wide Randomized Policy Experiment," forthcoming in *Econometrica.*

[15] Chattopadhyay, Raghabendra and Esther Duflo, [2004b], "Efficiency and Rent-seeking in Local Governments," mimeo *MIT.*

[16] Chaudhuri, Shubham, [2003], "What difference does a constitutional amendment make? The 1994 Panchayati Raj Act and the attempt to revitalize rural local government in India," typescript, Columbia University.

[17] Enikolopov, Ruben and Ekaterina Zhuravskaya, [2004], "Decentralization and Political Institutions," mimeo, Intitute for Advanced Study, Princeton.

[18] Foster, Andrew and Mark Rozensweig, [2001], "Democratization, Decentralization and the Distribution of Local Public Goods in a Poor Rural Economy," mimeo, Brown.

[19] La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert W. Vishny, [1999], "The Quality of Government," *Journal of Law, Economics and Organization*, 15(1), 222-79.

[20] Mauro, Paulo, [1995], "Corruption and Growth," "," *Quarterly Journal of Economics*;110 (3) pp. 681-712.

[21] Pande, Rohini, [2003], "Minority Representation and Policy Choices: The Significance of Legislator Identity," *American Economic Review*; 93(4), 1132-1151.

[22] Persson, Torsten, Gerard Roland and Guido Tabellini, [2003], " How Do Electoral Rules Shape Party Structures, Government Coalitions, and Economic Policies? ", *mimeo, IIES,*

[23] Riker, William, [1962], *The Theory of Political Coalitions*, Yale University Press: New Haven.

[24] Romer, Thomas and Howard Rosenthal [1978], "Political Resource Allocation, Controlled Agendas, and the Status Quo", *Public Choice*, 33 (4), 27-43.

[25] Triesman, Daniel, [2000], "The Causes of Corruption: A Cross National Study," *Journal of Public Economics*, 76, 399-457.

[26] Triesman, Daniel, [2002], "Decentralization and the Quality of Government," mimeo, UCLA.

[27] Weingast, Barry, [1979], "A Rational Choice Perspective on Congressional Norms," *American Journal of Political Science*, 23, 245-262.

[28] Weingast, Barry, Kenneth Shepsle and Christopher Johnson, [1981], "The Political Economy of Benefits and Costs: A Neoclassical Approach to Distributive Politics," *Journal of Political Economy*, 89, 642-664.

6 Appendix: Definitions of Key Variables

Household variables

Wealthy equals one if the household owns a watch, a television/radio and a fan.

*to be completed

Table 1: Descriptive Statistics

Household Demographics	Mean
Wealthy	0.29
Landless	0.386
Illiterate	0.276
SC/ST	0.23
Family member holds/ held political position	0.076

Village Demographics	
Total households	327.94
Fraction SC/ST	0.208
Fraction Upper caste	0.284
Land Gini	0.58
1991 census literacy rate	0.413

Public Goods	
Overall GP activism	0.097
BPL card	0.219
Public Works employment	0.043
House improvements ever	0.204
House improvements since last election	0.051

Perceptions	
Pradhan looks after village needs	0.365
Pradhan keeps promises	0.343
Village facilities better than neighbors	0.089
Own and village meeting problem ranking match	0.794
Know Chief Ministers name	0.572
Seen Pradhan	0.558

Pradhan Characteristics	
Caste Reservation	0.203
Sex Reservation	0.28

GP Characteristics	
One village GP	0.11
Two village GP	0.09
Three or more village GP	0.77

Dependent variable	Politician				Pradhan			
Sample	Politicians and Villagers				Politicians			
	All	Unreserved	Reserved	SC/ST	All	Unreserved	Reserved	SC/ST
	(1)	(2)	(3)	(4)	5	(6)	(7)	(8)
Wealthy	0.047***	0.028***	0.020***	-0.006	0.278***	0.134**	0.144**	-0.011
	(0.009)	(0.007)	(0.006)	(0.004)	(0.078)	(0.054)	(0.061)	(0.038)
Illiterate	-0.046***	-0.030***	-0.017***	-0.008**	-0.194	-0.109*	-0.086	0.048
	(0.005)	(0.004)	(0.005)	(0.004)	(0.132)	(0.063)	(0.137)	(0.068)
Landless	-0.058***	-0.034***	-0.024***	-0.007**	0.146	-0.01	0.156**	0.136**
	(0.006)	(0.005)	(0.005)	(0.003)	(0.089)	(0.050)	(0.079)	(0.064)
SC/ST	0.031***	-0.004	0.035***		0.162**	-0.014	0.176**	
	(0.009)	(0.006)	(0.007)		(0.081)	(0.045)	(0.075)	
Family member holds/	0.128***	0.082***	0.046***	0.017*	0.064	0.082*	-0.018	0.003
held political position	(0.021)	(0.017)	(0.015)	(0.010)	(0.077)	(0.049)	(0.063)	(0.043)
Political experience					0.130***	0.076***	0.054*	0.034**
					(0.047)	(0.027)	(0.032)	(0.017)
Will run for same position					-0.069	-0.031	-0.038	-0.066
in next election					(0.077)	(0.050)	(0.059)	(0.042)
Fixed effects	Village	Village	Village	Village	GP	GP	GP	GP
R-squared	0.52	0.5	0.55	0.54	0.29	0.41	0.44	0.5
Number observations	5669	5669	5669	5669	536	536	536	536

OLS regressions. Robust standard errors are reported in parentheses. In columns (1)-(4) these are clustered by village while in columns (4)-(6) they are clustered at GP-level. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 2c: Pradhan Political and Economic Power

	Political Power					Economic Power			
	Overall	Panchayat position	Village lobbyer	Traditional leader	MLA/MP	Overall	10+ acres land	Contractor/ family owner	Ration/liquor shop owner
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Caste reservation	-0.174***	-0.041	-0.096**	-0.062	-0.025	-0.315***	-0.287***	-0.104*	-0.071**
	(0.051)	(0.027)	(0.042)	(0.038)	(0.026)	(0.072)	(0.066)	(0.053)	(0.032)
Sex reservation	-0.046	0.009	-0.079**	-0.041	-0.019	-0.084	-0.083	-0.016	-0.002
	(0.050)	(0.032)	(0.034)	(0.032)	(0.025)	(0.062)	(0.056)	(0.046)	(0.023)
Total households	-0.007	-0.018	-0.022	-0.007	0.013	0.026	-0.013	0.055*	-0.006
	(0.030)	(0.014)	(0.021)	(0.022)	(0.021)	(0.034)	(0.029)	(0.031)	(0.011)
Fraction SC/ST households	0.198**	0.253***	-0.025	0.009	0.117*	0.217**	0.145	0.140*	0.090*
	(0.091)	(0.081)	(0.064)	(0.062)	(0.067)	(0.097)	(0.088)	(0.081)	(0.054)
Fraction upper caste households	-0.137	-0.152*	-0.089	-0.121*	0.097	0.157	-0.041	0.104	0.023
	(0.107)	(0.084)	(0.073)	(0.063)	(0.080)	(0.113)	(0.104)	(0.097)	(0.047)
Village land gini	-0.154	0.03	-0.102	-0.056	-0.037	-0.311**	-0.280**	0.026	-0.09
	(0.120)	(0.077)	(0.091)	(0.084)	(0.090)	(0.136)	(0.132)	(0.105)	(0.060)
1991 Village literacy rate	0.386	0.159	0.057	0.267**	0.066	0.586*	0.711***	0.212	-0.004
	(0.279)	(0.211)	(0.136)	(0.132)	(0.185)	(0.318)	(0.266)	(0.275)	(0.096)
Number of villages in GP	0.002	0.008	-0.008	0.004	0.002	0.008	0.014	0.003	0
	(0.008)	(0.005)	(0.005)	(0.005)	(0.005)	(0.010)	(0.010)	(0.009)	(0.004)
Fixed effects	Block	Block	Block	Block	Block	Block	Block	Block	Block
Observations	498	504	501	500	500	501	500	504	504
R-squared	0.3	0.27	0.28	0.14	0.51	0.32	0.31	0.31	0.12

OLS regressions. Robust standard errors clustered at the GP-level are reported in parentheses.
 * significant at 10%; ** significant at 5%; *** significant at 1%

Table 3: Determinants of Pradhan residence

Dependent variable:	Pradhan village	
sample:	all blocks	single variation blocks
	(1)	(2)
GP Headquarter	0.231***	
	(0.084)	
Total households	0.037**	0.172***
	(0.017)	(0.036)
Two village GP	-1.436***	-1.336***
	(0.293)	(0.271)
Two village GP* total	-1.167***	-0.788**
households	(0.250)	(0.386)
Three or more village GP	0.188***	0.190***
	(0.048)	(0.049)
Three or more village GP*	0.119***	0.074
total households	(0.039)	(0.067)
Number of villages in GP	0.004	0.007
	(0.003)	(0.005)
Fraction SC/ST households	-0.04	
	(0.093)	
Fraction upper caste households	0.170*	
	(0.097)	
Village land gini	0.195	
	(0.127)	
1991 Village literacy rate	0.047	
	(0.182)	
Fixed effects	Block	Block
R-sq	0.36	0.35
Number observations	504	147

OLS regressions. Robust standard errors adjusted for clustering at the GP
in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 4a: Political power and Village Public good provision: 1991 census outcomes

	Pucca approach road	Tubewell available	Power available	Telephone available	Middle school	Primary health center
	(1)	(2)	(3)	(4)	(5)	(6)
Pradhan Village	0.044	0.015	0.011	0.033	0.075	-0.011
	(0.033)	(0.027)	(0.012)	(0.033)	(0.066)	(0.034)
GP Headquarter	0.028	0.031	0	0.155***	0.204**	0.075
	(0.047)	(0.036)	(0.021)	(0.055)	(0.094)	(0.047)
Log total households	0.069**	0.019	-0.002	0.085***	0.164**	0.113***
	(0.032)	(0.019)	(0.011)	(0.027)	(0.066)	(0.031)
Number of villages in GP	-0.001	-0.010**	-0.001	-0.001	-0.011	0.005
	(0.007)	(0.005)	(0.003)	(0.007)	(0.018)	(0.005)
Fraction SC/ST households	-0.019	-0.05	-0.015	-0.002	0.129	-0.034
	(0.084)	(0.046)	(0.023)	(0.065)	(0.147)	(0.065)
Fraction upper caste households	-0.151*	0.028	-0.016	-0.105	-0.035	-0.159*
	(0.079)	(0.053)	(0.043)	(0.085)	(0.178)	(0.087)
Village land gini	0.162	-0.043	-0.078	0.086	0.033	-0.03
	(0.099)	(0.067)	(0.057)	(0.122)	(0.218)	(0.149)
1991 Village literacy rate	0.841***	0.272	0.132	0.508**	3.479***	0.618***
	(0.306)	(0.184)	(0.133)	(0.224)	(0.611)	(0.237)
Fixed effects	Block	Block	Block	Block	Block	Block
Observations	488	491	489	477	493	492
R-squared	0.45	0.74	0.44	0.85	0.59	0.3

OLS regressions reported. Robust standard errors clustered at GP are in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4b: Political power and Village Public good provision: Overall

	Overall GP activism				
	All blocks			Single variation blocks	
	OLS	OLS	IV	OLS	IV
	(1)	(2)	(3)	(4)	(5)
Pradhan Village	0.156***	0.136**	1.065**	0.012	1.725**
	(0.052)	(0.067)	(0.448)	(0.082)	(0.786)
Log total households	0.098**	0.091	-0.032	0.160***	-0.325
	(0.040)	(0.059)	(0.092)	(0.049)	(0.252)
Number of villages in GP	0.004		0.005	-0.016	-0.019
	(0.010)		(0.010)	(0.016)	(0.017)
GP Headquarter	0.047	0.001	-0.229		
	(0.068)	(0.098)	(0.165)		
Fraction SC/ST households	0.116	0.053	0.154		
	(0.125)	(0.148)	(0.157)		
Fraction upper-caste households	-0.077	-0.16	-0.224		
	(0.142)	(0.207)	(0.188)		
Village land gini	-0.181	0.099	-0.344*		
	(0.145)	(0.183)	(0.203)		
1991 Village literacy rate	0.851***	1.01	0.878**		
	(0.287)	(0.651)	(0.339)		
Fixed effects	Block	GP	Block	Block	Block
Observations	504	504	504	147	147
R-squared	0.38	0.72	0.04	0.4	

Robust standard errors clustered at GP in parentheses. The instruments are two village and three or more-
village dummies and the interaction of these dummies with number households in village.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4c: Political power and Village Public good provision: Components

	Pradhan village	
	OLS	IV
Roads	0.336***	1.360**
	(0.113)	(0.617)
Transport	0.201	1.268
	(0.131)	(0.991)
Water	0.216**	1.744**
	(0.109)	(0.789)
Sanitation	0.136	2.430**
	(0.100)	(0.969)
Irrigation	0.118	0.531
	(0.099)	(0.722)
Electricity	-0.074	-0.517
	(0.114)	(0.527)
Education	0.193*	1.298**
	(0.099)	(0.625)
Health	0.122	0.405
	(0.091)	(0.439)

All regressions include block fixed effects. OLS regressions include
the controls listed in column (2), Table 4(b) while IV regressions those in
column (3), Table 4(b). The instruments are two village and three or more-
village dummies and the interaction of these dummies with number
households in village. * significant at 10%; ** significant at 5%;
*** significant at 1%

Table 4d: Pradhan village effect and Pradhan characteristics

	Overall GP activism
	IV
Pradhan Village	1.122**
	(0.505)
Caste reservation	-0.038
	(0.146)
Sex reservation	0.022
	(0.065)
Pradhan is wealthy	0.015
	(0.071)
Pradhan is landless	0.042
	(0.098)
Pradhan is illiterate	0.011
	(0.118)
Pradhan is SC/ST	0.034
	(0.141)
Pradhan experience	-0.031
	(0.043)
Pradhan family political history	-0.012
	(0.063)
Other village controls	yes
Fixed effect	Block
R-squared	0.18
Number of observations	476

Regression includes controls reported in column (3), Table 4 (b). The instruments are two village and three or more- village dummies and the interaction of these dummies with number households in village. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 5: Political Power and Private Good Provision

	Government provided private goods											
	Not group targeted						Group Targeted House Improvements					
	BPL card			Public Works			Ever			Since last election		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Politician	0.080**	0.157***	0.109**	0.055***	0.050**	0.077***	0.034	-0.017	-0.019	0.031*	-0.008	0.002
	(0.033)	(0.048)	(0.043)	(0.020)	(0.025)	(0.023)	(0.025)	(0.029)	(0.019)	(0.016)	(0.013)	(0.011)
Reserved politician		-0.156**	-0.081*		0.01	-0.035		0.104**	0.054*		0.079***	0.060***
		(0.066)	(0.047)		(0.039)	(0.027)		(0.049)	(0.033)		(0.030)	(0.022)
F-test		0	0.63		3.79	3.83		4.76	1.7		6.18	8.7
		(0.98)	(0.42)		(0.05)	(0.05)		(0.02)	(0.19)		(0.01)	(0.003)
Pradhan village			-0.025			0.001			0.011			0.009
			(0.017)			(0.008)			(0.016)			(0.010)
Family member holds/	-0.012	-0.015	-0.026	0.016	0.016	0.012	-0.001	0.001	0.017	-0.009	-0.008	-0.001
held political position	(0.021)	(0.021)	(0.020)	(0.013)	(0.013)	(0.013)	(0.023)	(0.023)	(0.019)	(0.013)	(0.013)	(0.011)
Wealthy	-0.089***	-0.089***	-0.093***	0.003	0.003	0.002	-0.058***	-0.058***	-0.055***	-0.034***	-0.034***	-0.039***
	(0.014)	(0.014)	(0.017)	(0.006)	(0.006)	(0.007)	(0.014)	(0.014)	(0.012)	(0.009)	(0.009)	(0.007)
Illiterate	0.031**	0.032**	0.033**	0.014*	0.014*	0.017**	0.029**	0.029**	0.028**	0.016**	0.016**	0.015**
	(0.014)	(0.014)	(0.015)	(0.008)	(0.008)	(0.008)	(0.013)	(0.013)	(0.013)	(0.008)	(0.008)	(0.007)
Landless	0.076***	0.077***	0.077***	0.012*	0.012*	0.008	0.027*	0.027*	0.032**	0.014*	0.014	0.013
	(0.015)	(0.015)	(0.016)	(0.007)	(0.007)	(0.006)	(0.016)	(0.016)	(0.015)	(0.009)	(0.009)	(0.008)
SC/ST	0.148***	0.151***	0.137***	0.057***	0.057***	0.051***	0.197***	0.195***	0.184***	0.037***	0.035***	0.034***
	(0.019)	(0.019)	(0.023)	(0.012)	(0.012)	(0.011)	(0.021)	(0.021)	(0.022)	(0.011)	(0.011)	(0.011)
Village controls	no	no	yes	no	no	yes	no	no	yes	no	no	yes
Fixed effects	Village	Village	Block	Village	Village	Block	Village	Village	Block	Village	Village	Block
R-squared	0.4	0.4	0.24	0.21	0.21	0.07	0.25	0.25	0.16	0.16	0.16	0.06
Number observations	5669	5669	5298	5634	5634	5265	5666	5666	5296	5669	5669	5449

OLS regressions. Robust standard errors clustered at the village-level are reported in parentheses. The F-test tests for whether the reserved politician effect differs from zero. The village controls are those listed in column 2, Table 4 (b). * significant at 10%; ** significant at 5%; *** significant at 1%

Table 6: Perceptions about Politicians and Public Good Provision

	Sample: Villagers				Sample: Villagers and Politicans					
	Pradhan looks after village needs		Pradhan keeps election promises		Village facilities better than neighbors			Own and PRA problem ranking match		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Politician					0.120***	0.093**	0.128***	0.064***	0.07***	0.041
					(0.032)	(0.044)	(0.033)	(0.025)	(0.034)	(0.027)
Reserved politician						0.052	-0.021		-0.011	0.026
						(0.063)	(0.042)		(0.048)	(0.034)
F-test						9.88	13.51		2.72	6.22
						(0)	(0)		(0.09)	(0.01)
Pradhan's village		0.126***		0.124***			0.032**			-0.007
		(0.026)		(0.022)			(0.013)			(0.030)
Family member holds/	0.052*	0.059**	0.103***	0.118***	0.034	0.035*	0.018	0.007	0.007	0.002
held political position	(0.029)	(0.029)	(0.028)	(0.028)	(0.021)	(0.021)	(0.020)	(0.022)	(0.02)	(0.022)
Wealthy	0.069***	0.077***	0.072***	0.075***	0.030**	0.030**	0.036***	0.002	0.002	-0.016
	(0.017)	(0.017)	(0.016)	(0.016)	(0.012)	(0.012)	(0.012)	(0.01)	(0.01)	(0.015)
Illiterate	-0.100***	-0.090***	-0.098***	-0.097***	-0.013	-0.013	-0.017*	-0.014	-0.014	-0.011
	(0.016)	(0.016)	(0.015)	(0.015)	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)	(0.014)
Landless	-0.042**	-0.038**	-0.036**	-0.028*	-0.025**	-0.025**	-0.025**	0.008	0.008	-0.005
	(0.018)	(0.018)	(0.016)	(0.011)	(0.011)	(0.011)	(0.015)	(0.01)	(0.01)	-0.009
SC/ST	0.004	-0.005	0.014	0.007	0.030**	0.030**	-0.031***	-0.011	-0.011	-0.015
	(0.022)	(0.021)	(0.021)	(0.020)	(0.012)	(0.012)	(0.012)	(0.016)	(0.016)	(0.018)
Village controls	no	yes	no	yes	no	no	yes	no	no	yes
Fixed effects	Village	Block	Village	Block	Village	Village	Block	Village	Village	Block
Observations	5133	4793	5133	4793	3826	3826	3516	5430	5430	5069
R-squared	0.25	0.17	0.25	0.18	0.29	0.29	0.09	0.4	0.39	0.08

OLS regressions. Robust standard errors clustered at villahe-level in odd columns, and GP-level in even columns are reported in parentheses. The F-test tests for whether the reserved politician effect differs from zero. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 7: Villager Information and Activism

	knows CM			Read newspaper			Affiliated with party			See Pradhan		Attend Gram Sabha	
	(1)	(2)	3	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Politician	0.231***	0.227***	0.239***	0.232***	0.297***	0.309***	0.405***	0.426***	0.430***				
	(0.023)	(0.029)	(0.021)	(0.028)	(0.035)	(0.026)	(0.030)	(0.041)	(0.030)				
Reserved politician		0.008	-0.003		-0.134**	-0.150***		-0.044	-0.04				
		(0.044)	(0.030)		(0.052)	(0.036)		(0.058)	(0.040)				
F-test		52.49	98.35		42.4	79.98		90.11	168.25				
		[0]	[0]		[0]	[0]		[0]	[0]				
Pradhan's village			0.018			0.021			0.018		0.225***		0.015
			(0.016)			(0.014)			(0.017)		(0.024)		(0.016)
Family member political position	0.081***	0.081***	0.064***	0.093***	0.091***	0.089***	0.248***	0.247***	0.228***	-0.01	-0.060**	0.057**	0.049**
	(0.024)	(0.024)	(0.021)	(0.023)	(0.023)	(0.020)	(0.028)	(0.028)	(0.026)	(0.025)	(0.024)	(0.024)	(0.020)
Wealthy	0.133***	0.133***	0.137***	0.116***	0.115***	0.124***	0.008	0.008	0.007	-0.001	-0.021	-0.039**	-0.051***
	(0.015)	(0.015)	(0.014)	(0.017)	(0.017)	(0.015)	(0.013)	(0.013)	(0.012)	(0.017)	(0.016)	(0.016)	(0.014)
Illiterate	-0.311***	-0.311***	-0.312***	-0.378***	-0.377***	-0.373***	-0.019	-0.018	-0.005	-0.088***	-0.051***	-0.068***	-0.053***
	(0.017)	(0.017)	(0.016)	(0.014)	(0.014)	(0.014)	(0.013)	(0.013)	(0.013)	(0.017)	(0.017)	(0.013)	(0.012)
Landless	-0.058***	-0.058***	-0.045***	-0.053***	-0.052***	-0.042***	-0.007	-0.007	-0.017	0.017	0.037**	0.021*	0.030***
	(0.016)	(0.016)	(0.015)	(0.013)	(0.013)	(0.012)	(0.014)	(0.014)	(0.013)	(0.017)	(0.017)	(0.012)	(0.011)
SC/ST	-0.030*	-0.030*	-0.030*	-0.038**	-0.035**	-0.023	0.076***	0.077***	0.059***	0.001	-0.022	0.041***	0.030**
	(0.018)	(0.018)	(0.016)	(0.016)	(0.016)	(0.015)	(0.016)	(0.016)	(0.015)	(0.018)	(0.018)	(0.016)	(0.014)
Village controls	no	no	yes	no	no	yes	no	no	yes	no	yes	no	yes
Fixed effects	Village	Village	Block	Village	Village	Block	Village	Village	Block	Village	Block	Village	Block
Observations	5669	5669	5449	5669	5669	5449	5669	5669	5449	5651	5432	5669	5449
R-squared	0.36	0.36	0.3	0.38	0.38	0.31	0.48	0.48	0.4	0.31	0.15	0.19	0.12

OLS regressions. Robust standard errors clustered at village-level reported in parentheses. * significant at 10%; ** significant at 5%;
*** significant at 1% .