

Does Local Democracy Serve the Poor? Identifying the Distributive Preferences of Village Politicians in India

Mark Schneider
mark_schneider@pitzer.edu

Neelanjan Sircar
nsircar@sas.penn.edu

August 24, 2016

Abstract

What are the consequences of democratic decentralization on distributive outcomes in developing countries, where local leaders have discretion over everyday distribution? In environments with pervasive poverty, we argue that leaders with underlying preferences to target the poorest citizens will be selected through local democracy—which is characterized by local elections in a high-information setting with dense social ties. At the same time, leaders should use their discretion to bias benefits towards their political supporters. We test our theory with data from a behavioral measure that isolates local leaders' "pure" non-strategic preferences over the targeting of selective benefits from the impacts of electoral considerations and other constraints. Our findings challenge the consensus in the literature on vote buying that pro-poor and co-partisan targeting are purely strategic, and advances research in political economy toward incorporating informational contexts and distributive preferences into models of political targeting.

1 Introduction

In 1985, the late Prime Minister Rajiv Gandhi famously declared that only 17% of what the Indian government spent on its people reached its intended target. The implication was clear; as is often the case in the developing world, the state was viewed as too weak to adequately target benefits to its citizens due to lack of capacity and bureaucratic leakage. These concerns sparked off a period of "democratic decentralization" in the 1990s that reached countries as varied as Bangladesh, Brazil, Côte D'Ivoire, Ghana, India, and South Africa (Crook and Manor, 1998; Heller, 2001; Bohlken, 2016). The result was an institutional form we refer to as *local democracy*, where citizens—often in villages or other small settlements—elect local leaders who are given significant fiscal and distributive powers. The goal of this exercise was to harness the power of dense, high-information social networks to increase the efficiency of distribution, while using elections to make leaders accountable to their voters. Yet, despite emerging as a major institutional form in the developing world, the consequences of local democracy on distributive outcomes remain unclear. In developing countries, where local leaders have discretion over everyday distribution, what types of voters are targeted by elected local politicians?

Targeted distribution under local democracy differs from standard political economy models in a number of important ways. First, under the high-information setting of local democracy, elected local leaders can directly observe the socio-economic status of their constituents, and can ensure that benefits reach the beneficiaries they intend to target (Alderman, 2002). This means that the efficiency concerns highlighted in the debate over whether parties should target core or swing voters do not apply in this setting (Cox and McCubbins, 1986; Dixit and Londregan, 1996; Calvo and Murillo, 2004; Stokes, 2005; Calvo and Murillo, 2013). Second, existing models of political clientelism accept that parties, through their local intermediaries, can select beneficiaries according to electoral strategies; however, they largely ignore local leaders' personal non-strategic targeting preferences. In developing countries, elected leaders have significant discretion over whether to grant their constituents requests for targeted benefits or access to higher rungs of the state in their capacity as brokers on a routine basis (Kruks-Wisner, 2015; Dunning and Nilekani, 2013). In such settings, distributive outcomes may simply be driven by personal preferences of leaders, or shaped by voter preferences through procedural democracy. Thus, we argue in this article that understanding the impact of local democracy on governance requires theorizing and precisely measuring local leaders' underlying distributive preferences, given the that their personal discretion is likely to matter for everyday distributional outcomes.

This paper devises an empirical strategy to isolate underlying distributive preferences of elected local leaders from "strategic" electoral, political and institutional calculations. We find that leaders in a setting of local democracy and subsistence-based populations show a significant preference for targeting the poorest members of society, while displaying political biases, namely towards one's own plausible supporters and even more

so towards co-partisans.

Our results are seemingly at odds with models of economic voting, which predict that a leader who aligns himself with the personal economic concerns of the pivotal voter wins the election (e.g., Downs, 1957; Lewis-Beck and Paldam, 2000). Rather, we argue that these results are consistent with a large literature on moral economy which suggests that a broad preference and social expectation to target the poor with subsistence benefits is widespread in contexts where poverty is pervasive (Scott, 1976, 1985). Crucially, this means that politicians with preferences to target the poorest citizens are likely to be elected, and that the institution of democracy may encourage pro-poor targeting.

At the same time, in the intimate setting of local politics, the extent of political support an individual has for a leader constitutes an existing sociopolitical tie between them. The strength and size of the existing political coalition is likely to be important in democratic selection, as an existing large network of supporters makes it more likely to be elected. This implies that those who prefer to target their supporters have a strategic advantage in being selected by local democracy and explains why everyday distributional outcomes may have political biases.

Our arguments extend standard political economy theories of democracy in fundamental ways. First, we provide an alternative explanation for the well-established correlation between targeted distribution and poverty in the literature on vote buying (Brusco, Nazareno and Stokes, 2004; Calvo and Murillo, 2004; Stokes et al., 2013). Our theory suggests that local elections encourage pro-poor targeting because they lead to the selection of politicians with pro-poor targeting preferences, irrespective of electoral strategies designed to win the next election. Moreover, we explain why political biases can persist in locals settings where differential efficiency and misallocation is not a concern. Our democratic selection logic implies that candidates who prefer to target their supporters are simply more likely to be elected.

We test our theory with a behavioral measure of local leaders' everyday distributive preferences based on a lottery conducted in 84 gram panchayats (GPs) across relatively poor villages in rural Rajasthan. To mimic fully discretionary preferences with a budget constraint, we asked village council presidents, or sarpanch, to allocate five tokens among ten voter survey respondents in any denomination they wished, where an (expected) economic benefit accrued to voters for each token allocated to them. The outcome of the exercise remained unrevealed to voters to remove any electoral, political, or institutional incentive resulting from publicly tying the distribution to the leader. We did not ask leaders to directly reveal their distributive proclivities, which would be prone to severe response biases. Instead, we were able to detect these distributive proclivities by comparing the results of this activity with information from the voter survey with potential recipients.

Our method offers several advances over existing approaches. First, we isolate local leaders' preferences from social, institutional, and political constraints, and the influ-

ence of other actors who formally or informally influence the selection of beneficiaries of distribution. This allows us to avoid inferring preferences and strategies of particular actors from policy outcomes, which are the result of multiple actors with different incentives.¹ Second, unlike surveys that ask brokers to directly reveal their distributive preferences, which are prone to response bias (Stokes et al., 2013), our measure employs cross-referenced surveys of elites and citizens that force leaders to select a limited number of beneficiaries under a budget constraint. This is both a more realistic and more reliable approach relative to existing alternatives. Finally, we develop a statistical estimation strategy that accounts for the unique non-independence and multi-level nature of data on distribution under a budget constraint.²

2 Understanding Distributive Preferences Under Local Democracy

In this section, we develop a theoretical framework to explain the distributive preferences of leaders selected through free and fair local elections. In the institutional model of local democracy, elected local leaders are not responsible for making policy or managing the overall economy. Instead, these leaders are primarily judged, from an economic standpoint, on how they distribute benefits and personal favors over which they have discretion. In the Indian setting, elected local leaders have limited discretion over the targeting of anti-poverty benefits, but significantly more discretion over everyday forms of assistance, such as arranging loans, dealing with issues of local infrastructure access, and solving small-scale disputes for citizens (e.g., Daftary, 2014).³ Perhaps most importantly, these leaders control access to bureaucrats and higher-level politicians (Bohlken, 2016; Kruks-Wisner, 2015), mediating access to the Indian state (and its benefits and schemes) in their capacity as brokers. Accordingly, we extend existing models of targeted distribution and democratic representation to account for how dense, high-information social networks impact everyday distribution and assistance under local democracy.

¹This is particularly common in research on below poverty line (BPL) card distribution in India (e.g., Dunning and Nilekani, 2013; Markussen, 2011; Besley et al., 2004). A similar problem concerns inferring party strategies from the allocation of election campaign handouts (Brusco, Nazareno and Stokes, 2004).

²As an important caveat, our method is purely a measurement strategy and we do not identify the impact of local democracy causally, which is not feasible where local democracy is a constant across rural India.

³Naturally, one might be interested the relationship of our study to anti-poverty benefits. This is detailed, with additional laboratory results, in appendix E.

2.1 Local Democracy

Local democracies have two defining features. First, because political leaders are elected by a plurality of voters, candidates must cultivate a large enough coalition to have some chance of winning the election. Second, because electoral constituencies are small, local democracy takes place in a setting of high information and dense social ties, where leaders and constituents know each other well. This differs from parliamentary or state elections, where voters have limited information on candidates and may not easily discern the demographic criteria upon which distribution is based (Chandra, 2004).

Several scope conditions follow from our characterization of local democracy as a context of close contact and low social distance. First, since local leaders know voters personally, they can observe the demographic characteristics of their constituents, and have well-formed beliefs about voters' past reciprocal behaviors and whether they belong to their supporter or co-partisan networks.⁴

Second, voters under local democracy can observe the past behaviors of candidates, which means they can develop reasonably accurate priors on the targeting preferences of candidates and leaders. Recent evidence from India suggests that a pool of local brokers who negotiate between citizens and the state, or "fixers," has emerged often from low-caste backgrounds (Krishna, 2003, 2007). Evidence from Rajasthan and other Indian states suggests that these local fixers increasingly contest elections to sarpanch following the sharp increase in local government budgets in recent years (Kruks-Wisner, 2015; Witsoe, 2013; Bohlken, 2016). The implication of the shift toward fixers as candidates in local elections is a pool of individuals whose preferences to assist villagers of various socio-economic status (e.g., the poorest or richest villagers) is directly observed by the population prior to elections.

Finally, we restrict our analysis of distributive preferences to contexts of subsistence where poverty is pervasive in absolute terms. Subsistence-based societies exhibit key differences from villages where the poor comprise a small minority of the population. First, although poor and non-poor villagers share dense social ties under local democracy broadly, the risks of neglecting the poorest members of society are more dangerous in subsistence-based societies where the poor comprise a larger share of the population (Scott, 1976). Alternatively, it may be possible to employ coercion on a large scale where a large share of the society is vulnerable. We consider this scope condition appropriate given the emphasis of the literature on local governance and patronage in poor communities (see e.g., Auyero, 2001; Weitz-Shapiro, 2012; Chandra, 2004; Dunning and Nilekani, 2013). That said, it is plausible that the implications of local democracy on distributive preferences in more affluent settings, with respect to pro-poor targeting, differ from the pattern we observe under this scope condition.

⁴Extensive research corroborates the high-information nature of village politics (Alderman, 2002; Alatas et al., 2012).

2.2 Distributive Preferences of Local Leaders

In this article, when we refer to distributive preferences of leaders, we mean the "pure" preference to distribute benefits to others, whether they be friends, co-ethnics, or the poor, unfettered by considerations of personal benefit, electoral strategy or institutional obligation. This creates a baseline measure of the preferences of local leaders selected through local elections, which is isolated from the impacts of electoral considerations and institutional constraints. This captures the targeting biases that leaders would act on in a context of pure discretion, and a baseline against which to compare the impacts of electoral and bureaucratic constraints on local targeting. Furthermore, because leaders know their constituents well in the context of local democracy, this intimate knowledge provides an opportunity and the basis for carefully calculated personal discretion in distribution.

Our approach is to adapt what is known about "social preferences" (e.g., fairness, altruism, and reciprocity) from a large literature in psychology and economics (Gintis et al., 2003; Eckel and Grossman, 1996; Fafchamps, 1992) to the everyday distributive preferences of local leaders over a constrained budget. To understand these preferences, we imagine a scenario in which the leader has full discretion in distributing individual-level or household-level goods that are limited in supply. This means that the leader must make decisions about who receives the good and who is excluded from the good, and must use their personal understanding of constituents for this purpose. Importantly, since distributive preferences captures the everyday targeting preferences of elected leaders under pure discretion, it can be interpreted as a measure of bias in targeting under complete discretion rather than as a measure of bias in policy outcomes which are characterized by limited discretion in the context of political, social, and institutional constraints.

2.3 Preferences for Targeting the Poorest Members of Society

In any democratic setting, a winning candidate must procure a plurality of votes. Concretely, this means that the outcomes are consistent with the preferences of pivotal voters who can swing the election (Downs, 1957).⁵ Under the high-information setting of local democracy, where local leaders' distributive preferences can be observed prior to elections, this body of theory implies that distributive preferences of selected leaders are likely to correspond to those of pivotal voters.

If we extend existing political economy models to distributive preferences, we can identify the following three distinct hypotheses on leaders' distributive preferences with

⁵When two candidates are being evaluated by their distance from personal preferences, and there is a single dimension along which politics is being contested, the unique pivotal voter is typically called the median voter.

respect to the socio-economic status of the voters, which we adjudicate between in our study.

If pivotal voters, as is often assumed in standard political economy models (Lewis-Beck and Paldam, 2000), are interested only in increasing their personal assets, then we should expect targeting towards the middle of the wealth distribution (contingent on other relevant factors). This is consistent with democratic selection in more anonymous electoral contexts that have no role for the density of social ties.

H1a: Under local democracy, local leaders with preferences to target pivotal voters, at the middle of the wealth distribution of the constituency, are selected.

When one considers the social structure of the village, predictions are likely to deviate from the above Downsian hypothesis toward the poorest or richest voters in the constituency. If the village exhibits rigid social hierarchy, then the preferences of the pivotal voters may be arrayed so as to enrich the higher status, or dominant, social group (Srinivas, 1959). Dominant social groups control many levers of economic well-being in the village, such as land. In such a setting, pivotal voters may seek to select leaders that prefer to give resources to local elites, if only to prevent retribution in other arenas. In India, this is consistent with (Weiner, 1967)'s depiction of vote bank politics in which lower caste voters showed deference toward influential upper caste leaders (See also Krishna, 2003). It is also consistent with theories of vote buying which suggest that a resource-rich minority contributes funds to buy the votes of the more numerous poor so they may select politicians who will pursue their policy agenda (Kitschelt, 2000). In a context of local democracy, this suggests that elected leaders will have preferences for targeting the most well-off voters, which means that elites can effectively undermine the representative function of local elections.

H1b: Under local democracy, local leaders with preferences to target the richest voters in the constituency are selected.

Finally, in areas where a significant portion of the population is living near subsistence, as in our study, the existing social structure is often used to mitigate economic and security risks in what is referred to as a "moral economy" (Scott, 1976, 1985; Rosenzweig, 1988). In settings where a large share of the society are poor in absolute terms, the theory of the moral economy suggests that a social expectation towards protecting the poorest members of society is widespread. This is the case because to allow a significant portion of the community to fall below subsistence levels would have dire consequences for the entire community in terms of sustainability, health and conflict (Scott, 1976, 1985). Research on social insurance similarly predicts that risk mitigation requires individuals in poor societies—characterized by dense social ties—to protect the poorest members of society. To fail to protect another member of the community in the present is to lose protection in the future (Fafchamps, 1992). Thus, under local democracy, where pivotal voters are themselves poor in absolute terms and the risks of allowing the poorest individuals to fall below subsistence are severe at the society and individual levels, we

should see the selection of leaders with pro-poor distributive preferences.

H1c: Under local democracy, local leaders with preferences to target the poorest voters in the constituency are selected.

2.4 Plausible Targeting Biases Under Local Democracy

In theory, any number of voter attributes, such as ethnicity or partisanship, may serve as the basis for a coalition that includes a plurality of the electorate. The permissible distributive preferences of the selected leader may, thus, be shaped or altered by a pattern of distributive beliefs based on voter attributes other than wealth that can sustain such a large coalition.

In multi-ethnic societies, like India, much attention has been given to the predilection of political leaders to target their co-ethnics. Research on low-information electoral settings suggests that the ethnicity of a candidate (and party leaders more generally) can be used as a cue to voters to signal distributive preferences (Chandra, 2004; Posner, 2005). This means that voters, who are interested in receiving benefits, will vote for such a candidate and a co-ethnic coalition will result. In the high-information context of local democracy, however, the use of ethnicity as an information shortcut is no longer necessary. Although co-ethnic coalitions may form if a particular group is large enough to form a plurality on its own, or if a minority group possess sufficient coercive power to control a plurality of the constituency, under free and fair elections, explicitly targeting one's co-ethnics may generate ethnic polarization, and alienate those not from the same ethnicity. Therefore, it may be desirable to build a cross-ethnic coalition without biases towards co-ethnics who form a narrow subset of the electorate (Dunning and Nilekani, 2013).⁶

H2a: Under local democracy, elected local leaders are unlikely to have preferences to target their co-ethnics.

The role of distribution of benefits to a leader's co-partisans has been a major topic of discussion in the literature on developing world democracies. Cox and McCubbins (1986) argue that a leader should aim to target resources to stable, co-partisan supporters because these voters can be more easily reached with benefits, and this most efficiently mobilizes voters to generate a plurality of supporters in the electorate. Dixit and Londregan (1996) similarly argue that while distributing to the most ambivalent, or swing, voters may seem optimal from the standpoint of building a plurality of voters, targeting such voters is inherently "leaky," and, in practice, cultivating a plurality of supporters may entail targeting more voters with co-partisan leanings (Diaz-Cayeros, Estevez and Magaloni, 2016). However, in contexts like villages where leaders can directly access

⁶Even in communities with a numerically dominant ethnic group, one may observe competing co-ethnic leaders from this ethnic group. In this situation, a minority ethnic group may become a pivotal actor in the election, also generating the need to create a cross-ethnic coalition.

their constituents, the relative efficiency of targeting through the partisan networks is less important because misallocation is unlikely.

Instead, we envision the level of political support as a measure of the strength of a sociopolitical connection between voter and leader. This follows from the highly personal nature of political ties under local democracy. Therefore, we should expect local leaders with discretion, at minimum, to display preferences toward supporters, whom they see as closer to them, and to exclude non-supporters who they perceive as the most socially distant. This is consistent with evidence for positive reciprocity in the lab experimental literature, which shows that individuals are likely to display other-regarding preferences towards those who are believed to have displayed positive preferences towards them (Charness and Rabin, 2005). The principles of democratic selection implies the selection of leaders with a large base of supporters to whom these leaders positively reciprocate.

H2b: Under local democracy, elected local leaders are likely to have preferences for targeting their supporters.

Furthermore, leaders should hold distributive preferences towards those embedded in the same co-partisan network. These voters likely form a more stable and committed base of supporters, due to shared political affiliation. These are voters who are likely socially closer to the leader than ordinary supporters, and the sociopolitical tie should be stronger. Moreover, unlike ethnicity, in principle anyone can become a supporter or a co-partisan of a leader; that is, these forms of sociopolitical ties are more permeable for the general population. Given that direct preferences to target one's own supporters and co-partisans is likely to be an important component of maintaining a coalition, and the strength and size of the existing partisan coalition is likely to be important in democratic selection, this theory predicts that the distributive preferences of selected leaders will exhibit political biases. Simply put, those who prefer to target their supporters and co-partisans have a strategic advantage in being selected through local elections. It further implies that political biases may simply result from selection biases in local democracy, and need not be a function of future electoral prospects.

H2c: Under local democracy, elected local leaders are likely to have preferences to target those who are co-partisans AND supporters.

3 The Case of India

We test our theory in rural India and in the northwestern state of Rajasthan specifically. In this section, we demonstrate that Rajasthan meets the scope conditions of our theory and describe the institution of the gram panchayat (GP), and the role that sarpanch play in everyday distribution.

3.1 The Rise of Local Democracy in India

India held its first national election in 1951 with the Congress Party's landslide victory of 364 of the 489 seats. The Congress Party was essentially the single dominant party in the Indian system until its first electoral defeat in the 1977 parliamentary elections. During the peak of Congress dominance, landed upper caste elites could be relied upon to deliver the votes of blocs of poorer voters (Kothari, 1970; Weiner, 1967). As was the case with tribal chiefs in sub-Saharan Africa under single party regimes (Van de Walle, 2007), the elite-mediated Congress system of the 1950s and 1960s required the targeting of benefits to elites with little need to target benefits to non-elites. Extensive research suggests that this system has broken down and that a much more democratic form of politics has taken its place.

First, Krishna 2003, based on fieldwork from rural Rajasthan, suggests that the influence of upper caste landed elites has receded with the rise of educated, often lower-caste middlemen. Second, the role of coercion in elections has become substantially weaker as the decline in the power of landlords and sharp rise in lower caste political participation attests (Yadav, 1999; Jaffrelot, 2003; Witsoe, 2013). Along with a strengthening of the secret ballot (Sridharan and Vaishnav, 2016), we have seen a rise in the autonomy of the Indian voter (Sircar, 2015). The rise in party competition, heterogeneity in vote preferences among members of the same ethnic groups (Dunning and Nilekani, 2013; Thachil, 2014), and anti-incumbency (Uppal, 2009; Nooruddin and Chhibber, 2008), particularly since the 1990s, suggests that elections in India are free and fair and more likely to reflect the preferences of the pivotal voter than ever before (See also Schneider, 2014).

This local democratization was concretized through the 73rd amendment of the Indian constitution, passed in 1993, which gave the Panchayat Raj (rural local government) system constitutional status and imposed federal requirements for elections of panchayat members and further integration of local government and government development functions. Although this varies across states,⁷ sarpanch in Rajasthan, are directly elected by a plurality of the electorate of the entire GP.⁸ Sarpanch in our data were elected in 2010, which was the fourth election cycle since the 73rd amendment was passed. Moreover, a vigilant, independent Election Commission (ECI) ensures that the ballot is genuinely secret in India (Sridharan and Vaishnav, 2016; Banerjee, 2014). This is consistent with Indian voters' own perceptions of ballot secrecy. The National Election Survey of India (2009) finds that only 13 percent of respondents believe that their votes can be monitored most or all of the time, and the same survey finds that only 16 percent of respondents believe voters feel obliged to vote for those who distribute benefits to them before the election.

⁷Some Indian states (e.g., Karnataka) select the sarpanch indirectly through a vote of directly elected council (ward) members

⁸Note that party symbols are not permitted on the ballot in elections to the GP. Nonetheless, research shows that parties have broadly penetrated the GP (Dunning and Nilekani, 2013).

3.2 Local Leaders and Everyday Distribution

As village council presidents, sarpanch play a central role in mediating access to the state for their constituents as local intermediaries and as local office holders with formal responsibilities over the local implementation of central and state government programs including sanitation (e.g., toilets), water access (e.g., wells), the placement of local infrastructure projects (e.g., village roads), and anti-poverty programs (Bohlken, 2016; Kruks-Wisner, 2015; Pattenden, 2011; Schneider, 2014; Besley, Pande and Rao, 2012; Dunning and Nilekani, 2013). While the decision of sarpanch to respond to requests for mediation comes closest to our scenario of full discretion, understanding targeting biases is also important for understanding how local leaders employ their more limited discretion over policy implementation.

In their role as brokers, sarpanch routinely make requests to state politicians and bureaucrats beyond the village who are needed to facilitate access to government benefits as well as routine government services, which are riddled with red tape in weak institutional contexts such as India (See Kruks-Wisner, 2015; Krishna, 2007). Moreover, sarpanch play a key role in the implementation of anti-poverty programs such as the Mahatma Gandhi National Rural Employment Guarantee program (MGNREGA), which guarantees 100 hours of paid labor (on government infrastructure projects) to all Indian citizens and constitutes the lion share of local government budgets. Sarpanch also have limited but non-trivial discretion over final allocation of below poverty line (BPL) cards, which are required for eligibility to benefits provided through the Public Distribution System (PDS) (Niehaus and Atanassova, 2013; Besley, Pande and Rao, 2012)⁹

In short, sarpanch have everyday discretion over the provision of favors and the location of state services and benefits that are likely to be valuable to a large share of their constituents, particularly in contexts of pervasive poverty represented in this study. In their capacity as brokers, we can view the decision to respond to the requests of their constituents as a matter of full discretion. When it comes to the targeting of selective government benefits, sarpanch are influential but not determinative actors. This means that inferring the preferences or distributive strategies of sarpanch from policy outcomes is problematic. Unlike policy outcomes, our measure uniquely isolates the everyday targeting preferences of sarpanch by creating a scenario in which they have full discretion.

3.3 Political Context

We conducted our study in the predominantly rural state of Rajasthan, which is a competitive state with a 2-party system that has alternated between the BJP and Congress

⁹This includes a range of subsidies from cooking oil to healthcare.

Party in every state assembly election since 1993, usually by small margins of victory.¹⁰ Moreover, Rajasthan's two major parties both compete for the votes of the poor (See Thachil, 2014). This differentiates Rajasthan, and India more broadly, from monopolist contexts of machine politics where the incumbent party is entrenched in power and faces little competition for the votes of the poor (Medina and Stokes, 2007; Stokes, 2005; Calvo and Murillo, 2004). At the same time, Rajasthan has an institutionalized party system relative to other Indian states (Chhibber, Jensenius and Suryanarayan, 2014; Jensenius and Suryanarayan, 2013). This means that local leaders have incentive to construct partisan networks of support that can be leveraged to advance their careers through one of the state's stable political parties.

Rajasthan also provides a hard case to test our theory that elected local leaders should have preferences for multi-ethnic partisan targeting. Existing studies characterize India as a context of patronage politics where access to the state is mediated by ethnic biases (Chandra, 2004; Lodha, 1999; Hoff and Pandey, 2006). Similarly, ethnicity (e.g., caste) is highly socially and politically salient in Rajasthani village life. Village populations are ethnically segregated, caste discrimination is pervasive, (Chauchard, 2014), caste remains a powerful predictor of vote preferences (Lodha, 2009), and local political factions have been historically organized along the lines of jati (sub-caste) or kinship (Narain, 1964). Nonetheless, Rajasthan is characterized by within group heterogeneity in partisan preferences, and the small size of any one caste requires *elected* local leaders to cultivate a multi-ethnic coalition under the constraints of local democracy (Dunning and Nilekani, 2013).

4 Design and Empirical Strategy

4.1 Measuring Distributive Preferences

We continue a recent tradition of lab-in-the-field experiments (Grossman, 2011) that investigate the impact of ethnicity (Whitt and Wilson, 2007; Habyarimana et al., 2009), partisanship (Fowler and Kam, 2007), and democratic selection (Baldassarri and Grossman, 2012), on targeting biases and economic distribution. Our lottery measure of distributive preferences was embedded in cross-referenced elite and voter surveys conducted in 84 GPs across Rajasthan from January to February 2013. We ensured that the GPs were rural, moderately poor (subsistence-based) contexts with some electoral competition.¹¹

¹⁰Of the five most recent state elections in Rajasthan, three had overall margins of victory in vote share below 4 percent. In 1998 and 2013 the Congress Party and BJP each won by 12 percent of the vote, respectively. The median margin of victory at the state assembly constituency level in 2008, the election prior to this study, was 6.6 percent.

¹¹Details of the sampling design are in appendix A.

To identify local politicians' distributive preferences, and the targeting biases therein, we embedded a lottery with a 200 Indian Rupee (\$3.64 USD) prize in a survey of sarpanch to model discretionary preferences under a budget constraint.¹² Sarpanch were shown a page of names and photographs of 10 randomly sampled voters obtained from publicly available voters lists. They were given 5 tokens and asked to allocate them in any way they wished across these 10 villagers. Sarpanch were told that a lottery with a 200 rupee prize (a little more than one day of agricultural wage labor) would be held at the end of the survey, and that each token a particular voter received would make his chance of winning the prize 'much higher' and that multiple tokens could be given to the same villager.

Practically, we included each voter survey respondent's name on slips of paper once and added one additional slip per token given to the respondent. Thus, if a sarpanch gave all of his five tokens to one person, the probability that this individual's name was picked was approximately six times that of all other sampled respondents from his GP. If he gave one token to each person, villagers who received tokens were seven percentage points more likely to win the prize than those who received no tokens. Since every voter had some chance of winning the lottery, it was not possible to infer anything about how the sarpanch allocated tokens from observing the winner of the lottery. Furthermore, the prize was disbursed as an electronic payment in the form of mobile phone credit, and the voters were unaware any such lottery took place.¹³

By keeping token allocation private, we plausibly isolate the everyday distributive preferences of sarpanch from social, political, and bureaucratic constraints. First, sarpanch did not allocate tokens according to an electoral strategy since they cannot receive credit or blame for lottery outcomes, in addition to the institutional disincentives for electorally-motivated behavior discussed above. Second, token allocation is unconstrained by village economic elites, who may pressure sarpanch to target the non-poor, or bureaucrats and politicians from outside the village whose preferences are not shaped by the high-information, socially dense context of the GP. Third, state institutions that determine eligibility criteria do not affect our measure. While these actors and institutions shape targeting outcomes in practice, our measure allows us to isolate the preferences of sarpanch. Most importantly, this method allows us to measure biases in these preferences effectively because sarpanch are unlikely to truthfully self-report their reasons for targeting certain individuals. The extent of targeting biases can be ascertained by cross-referencing the allocation of the sarpanch with the data provided by voter surveys conducted the previous day.

¹²Note that although our lottery prize is relatively modest, a large literature in economics on lab games shows that increasing the size of payoffs has no effect on distributive behavior (Alatas et al., 2012, 2013).

¹³Payments were not announced and took place after the conclusion of this complete survey.

4.2 Cross-Referencing Measures

The dependent variable in the analysis is the number of tokens given to an individual. Our analyses rely on a number of predictors discussed below. These predictors make explicit use of the cross-referencing technique, where the predictors are drawn from voter surveys conducted separately from the allocation activity conducted with sarpanch, as well as self-reported data about voters from the sarpanch.

To test for whether sarpanch prioritize their supporters, we asked the sarpanch whether each of the voters in his GP voted for him. If the sarpanch answered in the affirmative, the individual was coded as a perceived electoral "supporter." Although officially elections at the GP level in India are non-partisan, the partisan affiliation of sarpanch is an open secret.¹⁴ We asked both voters and sarpanch whether or not they feel close to any particular party, and then asked them to name the party to which they feel close. When the voter reported that he or she feels close to the same party reported by the sarpanch, the voter was coded as a "co-partisan." The ethnicity measure categorizes the sarpanch into politically salient caste categories and Muslim religion.¹⁵ We defined a co-ethnic as any voter who fell into the same category as the sarpanch. Finally, to understand distributive preferences vis-à-vis wealth of the voter, we constructed a scale based on an item response model of observable assets of the voter. This is discussed in detail in the following section.

4.3 Statistical Model

The "comparative statics" of our model, of asset wealth and political affiliation, are nested within each GP, given a set of scope conditions. This is explicitly a non-causal exercise, since the attractiveness of allocating to a voter is dependent upon his/her relative attributes as compared to others in the same GP. Rather, we are interested in conducting a descriptive exercise about who is targeted given the voter's relative attributes compared to others in the GP.

There are two major empirical challenges in estimating allocation behavior in this setting. First, the method must account for the fact that the allocator (the sarpanch) can only allocate a maximum of 5 tokens. Thus, the allocation to potential receivers (the voters) in the same GP cannot be treated as truly independent. In particular, giving a token to one individual implies that there are fewer tokens to distribute over the rest of the population. To rectify this problem, one has to recognize that the average number of tokens over the population is always identical (the number of tokens divided by the number of voters). If the sarpanch were randomly choosing recipients for tokens,

¹⁴(Dunning and Nilekani, 2013)2013 find that Rajasthani voters correctly identified the party of their sarpanch 96 percent of the time.

¹⁵We used two different definitions of co-ethnicity, jati and varna, which yield substantively similar results and present results on the former.

then each voter would have the identical number of tokens in expectation (the average). Thus, if a voter has a desirable attribute, we expect her to receive a *premium*, an expected number of tokens above the average. The proposed statistical strategy models these premiums, constraining the average number of tokens over the population properly.

This non-independence property across potential receivers also applies to desirable attributes of voters in the GP. For instance, if the allocator wishes to target only co-partisans (with no other distinction between individuals) and there are five co-partisans, the allocator can give one token to each co-partisan without difficulty. If, however, there are more than five co-partisans, then it is a certainty that at least one co-partisan will receive no token. Thus, the relative premium of being a co-partisan is inversely related to the number of co-partisans in the GP.

The key observation that allows for identification of the empirical model is that mean allocation in a GP is always identical, the number of tokens divided by the number of potential receivers, or $5/10 = 0.5$. If all the predictors are centered around their means in the GP, the constant term in a regression is fixed. In particular, let y_{iv} denote the allocation given to potential receiver i in GP $v \in \{1, \dots, V\}$. Consider predictors x_1, \dots, x_J . Let us denote the mean of predictor x_j in GP v as \bar{x}_{jv} . Since the number of tokens is in the form of count data, a Poisson regression (accounting for over dispersion) is appropriate. A quasipoisson regression model provides the same mean function as poisson regression, λ_i , for observation i , but allows for over dispersion by estimating variance $\sigma^2 \lambda_i$ at observation i .¹⁶ The model can be written as below:

$$y_i \sim \text{Poisson}(\lambda_i, \sigma^2) \text{ where } \sigma^2 \text{ denotes an overdispersion parameter} \quad (4.1)$$

$$\lambda_i = \exp(\beta_0 + \beta_1(x_{1iv} - \bar{x}_{1v}) + \dots + \beta_J(x_{Jiv} - \bar{x}_{Jv}))$$

$$y_i = \lambda_i + \varepsilon_i \text{ where } \varepsilon_i \sim N(0, \sigma^2 \lambda_i)$$

$$\beta_{jv} = \beta_j + b_{jv}; \quad b_{jv} \sim N(0, \sigma_V^2) \quad \text{s.t. } v \in \{1, \dots, V\}$$

where β , σ and σ_V denote parameters in the regression model, x_{iv} denotes a predictor for individual i in GP v .

Looking at the equation above, and given our previous arguments, it is apparent that $\exp(\beta_0)$ is fixed at 0.5 ($\beta_0 = -\ln(2) \approx -0.69$), which effectively addresses the first concern of non-independence due to a budget constraint on the number of tokens. The non-independence due to the effect of the number of individuals with a particular attribute in a GP (like co-partisanship) is addressed by mean-centering variables at the GP level. However, the salience of each attribute may still vary across GPs; in order to address this issue, we fit a two-level hierarchical regression model with the higher level as the GP. In addition, a stochastic term is added to the higher level in order to capture the effect of all other attributes at the GP level that have not been explicitly included in

¹⁶In the standard poisson distribution, the variance is fixed at λ_i , the same as the mean.

the regression equation. This also addresses the concern that the data are clustered by GP.

In order to implement this model for interaction terms, we mean-adjusted each predictor at the GP level (for the main effects), and then took the desired interaction term of the mean-adjusted predictors, which was mean adjusted again.¹⁷ All models were estimated using in a fully Bayesian framework in JAGS; the scripts are provided in appendix D.¹⁸ All results are calculated from posterior distributions generated from these models.

5 Preferences to Target the Poorest Citizens

We use the empirical model described above to investigate the distributive preferences of sarpanch vis-à-vis the wealth of the voter, testing hypotheses H1a-c. As argued in section 2, we are particularly interested in understanding how local democracy functions in subsistence-based areas. We begin the section by demonstrating that our theoretical scope conditions are satisfied in the sample, namely: 1) a sizeable subset of sarpanch have preferences that are likely known to constituents; 2) a significant proportion of the voters can be characterized as poor; and 3) the relative wealth of citizens in the GP is observed, and known, to the sarpanch.

Under these conditions, we find that the underlying distributive preferences of sarpanch involve targeting a disproportionate amount of resources towards the poorest members of the GP, supporting hypothesis H1c. Crucially, we observe this preference to target the poorest villagers, even when there is no constraint to do so. Given that sarpanch are democratically elected, this suggests that such pro-poor targeting is consistent with the voting preferences of a plurality of the electorate. Yet, as we will discuss in the next section, the preferences to allocate to the poorest constituents are mitigated by political biases in targeting.

5.1 Characterizing the Sample

Our theories of local democracy are built upon the assumption of a largely subsistence-based population in the context of reasonably high information about citizens of the GP from the sarpanch and vice versa. We assess whether our sample meets these scope conditions.

In order to construct an asset wealth measure, we relied on readily verifiable information, i.e., those things that could be confirmed by the enumerator. The measure is constructed

¹⁷This is akin to adjusting by the covariance between the predictors at the GP level.

¹⁸The covariance matrix of the random effects has a Wishart prior, and all fixed coefficients have effectively flat priors in the models.

upon whether the respondent owns: 1) a "pucca"/"semi-pucca" dwelling or permanent dwelling structure; 2) a scooter/motorcycle; 3) a bicycle; 4) a television; 5) proper toilet facilities; 6) a refrigerator; 7) a fan; 8) mobile phone; and 9) electric pump set. Table 1 displays the average for each of these (binary) items in the population and compares them against census (or national sample) estimates. The average levels observed in the village (in 2013) are broadly lower than those reported at an all-India level two years before with the exception of scooters and the rapidly growing mobile phone. This suggests that our village sample is quite poor even by average Indian standards (and certainly by most absolute standards).

Item	Mean in Sample	Census/NSS 2011
Pucca House	0.73	0.82
Scooter	0.26	0.21
Bicycle	0.26	0.45
Television	0.33	0.47
Proper Toilet	0.15	0.47
Refrigerator	0.10	0.17*
Electric Fan	0.63	0.66*
Mobile Phone	0.82	0.63
Electric Pump	0.19	—

Table 1: Mean Levels of Assets

* Data are adapted from the 66th round of the National Sample Survey (NSS) because they are not included in the 2011 Indian Census. Data on electric pumps are not available in either dataset.

Each of the items above is a binary variable, and a 2-parameter item response model (Gelman and Hill, 2007) was fit using Markov Chain Monte-Carlo (MCMC) using the program JAGS to construct an asset index.¹⁹ The raw asset score gives approximately ten different "scores," suggesting reasonably high levels of correlation between owning these assets.

We look at the relationship between these 10 values on our asset index and the percentage of the sample at that asset value owning a refrigerator or a proper toilet (two natural markers of economic development). The results are shown in table 2. In both

¹⁹Let $y_{ik} \in \{0,1\}$ denote a binary outcome variable for person i and object k , $1 \leq k \leq K$. A two parameter item response model fits:

$$P(y_{ik} = 1) = \text{logit}^{-1}(\alpha_i - \beta_k)$$

where β_k is a parameter placing the object on a wealth scale and α_i is the value of the asset index for individual i .

cases, even the 80th percentile of wealth does not meet the all-India averages for those amenities. Taken together, this implies that a substantial proportion of these villages are very poor, and, at least in terms of asset ownership, our sample displays a significant level of inequality.

Asset Score	Sample Size	Percentile	% With Toilet	% With Refrigerator
-2.2	34	4	0	0
-1.5	101	16	0	0
-0.9	155	35	0	1
-0.3	161	54	1	4
0.4	150	72	3	13
0.9	92	83	9	22
1.4	75	92	32	36
1.9	39	96	74	67
2.4	25	99	100	100
3.0	7	100	100	100

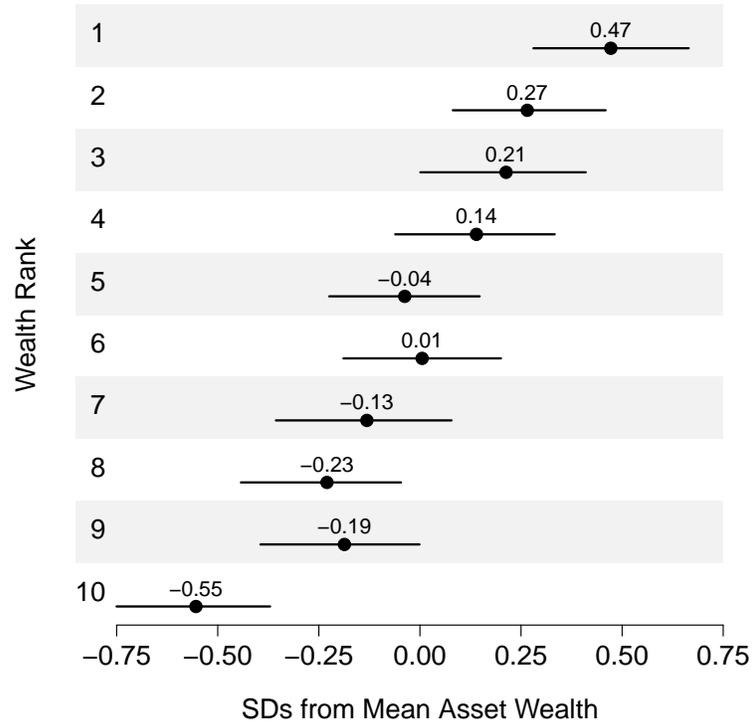
Table 2: Toilet/Refrigerator Ownership by Asset Score

For the analysis, we generated an asset index by standardizing the raw asset score to have mean 0 and standard deviation 1 within each GP. The value of the asset index for an individual can be interpreted as the number of standard deviations the individual's asset score differs from the mean asset score in the GP. Since the asset index is a function of the average asset wealth in the GP, the index has no meaning in terms of *aggregate* wealth, only in terms of *relative* wealth. For instance, if virtually everyone in the GP has each of the items listed above, then a person who is two standard deviations poorer in the GP may only be missing one of the items. If virtually everyone in the GP does not have these items, then an individual missing only one item will be relatively wealthy in the GP.

In order to see whether our relative measure of wealth is consistent with what the sarpanch perceives to be the wealth of individuals, we plotted our average asset index in a GP against a ranking provided by the sarpanch. Concretely, we asked the sarpanch to rank individuals from wealthiest (1) to least wealthy (10). Despite some small non-linearities in the middle, figure 1 shows that our constructed asset measure is broadly consistent with the ranking provided by the sarpanch. The person rated the poorest is on average 0.55 standard deviations poorer than the mean individual in the GP according to our asset measure, and the person rated the wealthiest is on average 0.47 standard deviations wealthier than the average person according to our asset wealth measure.

In a context of local democracy, leaders are directly able to assess the wealth of their constituents, and this strongly related to objective measures of observable wealth, as shown in figure 1. Rather than relying on proxies or brokers for information about wealth as

Figure 1: Sarpanch Assessments of Wealth vs. Asset Measure



in much of the literature (Stokes, 2005; Stokes et al., 2013), both voters and leaders understand that distribution can be based on commonly observed levels of wealth. This implies that leaders can target the poor without much risk of misallocation, and that voters can reliably assess how well the leader is targeting the poorest citizens.

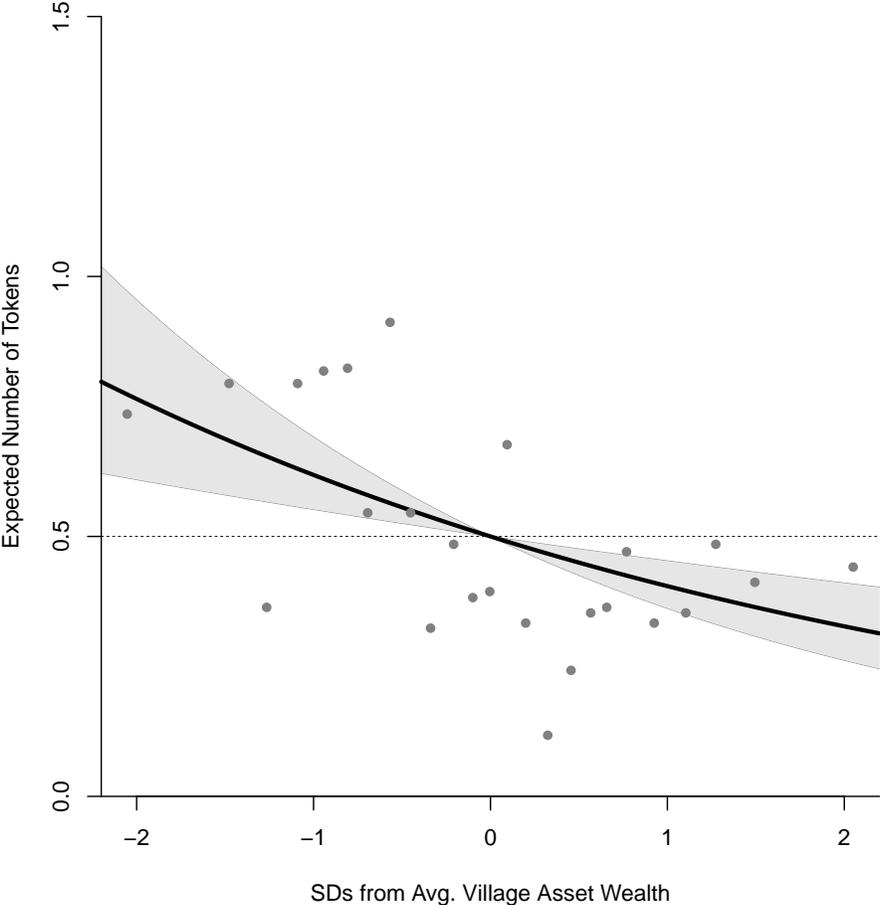
Finally, voters and sarpanch in our sample have reasonably close ties. There are an average of only 1100 households per GP in sampled GPs, and sarpanch reported to know 95 percent of voters personally. Moreover, candidates for sarpanch often served as unelected fixers or elected ward members prior to contesting elections for sarpanch (Kruks-Wisner, 2015; Pattenden, 2011), with 31 percent of sarpanch in our data serving as ward members previously. An additional 32 percent had a family member currently or previously in elective office, which provides voters with information on candidates' families' distributive preferences. This provides strong evidence that voters in our sample can feasibly surmise the distributive preferences of candidates for sarpanch prior to election day.

5.2 The Role of Relative Poverty and Wealth

Appendix C reports 8 different regression models, that adhere to the empirical strategy above, controlling for relative asset wealth in a GP, as well as electoral support,

co-partisanship, and co-ethnicity between voter and sarpanch in various ways. Figure 2 plots the estimated impact of the asset measure on expected number of tokens for the voter. As described above, the asset measure is normalized to have mean 0 and standard deviation 1 inside each GP. The curves and coefficients are to be understood with respect to standard deviations from the mean asset wealth among sampled voters in the GP. For instance, a value of -1 for the asset measure means that the voter is one standard deviation below the mean asset wealth in the GP. The regression coefficient on the relative asset wealth of the voter remains remarkably consistent over each of the models, with the various models predicting a 21-23% increase (premium) in allocation to a voter with asset wealth one standard deviation below the GP mean, holding all else constant.

Figure 2: Expected Number of Tokens vs. Asset Wealth



The gray points in figure 2 are the binned averages of tokens across 25 bins (approximately 34 observations per bin), with cutpoints spaced every 4 percentile points, over the distribution of relative asset wealth. That is, the points display the average number of tokens given to individuals included in a particular bin of relative asset wealth. The effects are quite strong; in the bottom 40 percentile of relative asset wealth, only

one binned average is below 0.5, and in the top 40 percentile of relative asset wealth, only one binned average above 0.5. This suggests that being relatively poor is typically associated with a positive premium on allocation, and being relatively wealthy with a negative premium.

Figure 2 also displays the predictions generated from our core model which controls for relative asset wealth, perceived political support, and the interaction between the two (column 2 in Appendix C). In order to generate the figure, we assumed the level of support was at the GP mean and generated curves from the fixed coefficients in the models (the β_j terms above). This is akin predicting the impact of relative asset wealth controlling for any relationship between wealth and perceived political support, and any differential GP-level effects on the impact of relative wealth. The bold curve is the predicted mean distribution at a particular level of relative wealth. The gray region around the curve is a 90% posterior intervals (generated from the model) at each level of wealth.

It is important to interpret this result alongside information about the empirical context. Given that all laboratory behavior was kept secret, and no constraints were placed on the allocation, it is highly unlikely that the observed behavior is due to electoral strategy but rather genuinely represented the preferred targets of the sarpanch. Below, we provide further evidence that our observations are consistent with the real world, and not just driven by an artificial lab setting or "Hawthorne effects." Furthermore, sarpanch are democratically elected leaders, and thus it stands to reason that a leader who prefers to target to the poorest citizens is consistent with the views of the median/pivotal voter, although these pro-poor preferences may well be correlated with other attributes of the sarpanch. We have greater confidence in the link between pivotal voter preferences and sarpanch preferences because this is a high information setting in terms of relative wealth of citizens and preferences of leaders, as shown above.

Our results, thus, provide an important corrective to study of democratic practice in developing world settings, which often sees the targeting of the poor as a consequence of electoral strategy instead of consonant with median/pivotal voter preferences. Building off of the theory presented in section 2, we suggest that in high information settings, where a substantial proportion of the population is poor, democracy may ameliorate some of adverse effects of poverty by selecting leaders that prefer to target and help the poorest citizens.

6 Ethnic and Political Biases in Targeting Decisions

In this section, we investigate hypotheses H2a-c, which address plausible targeting biases in local democracy. We find that local leaders display preferences to target the poorest citizens but condition allocation on the strength of electoral support and co-partisanship.

That is, while leaders target the poorest members of society, they strongly prefer to allocate towards those whom they believe have electorally supported them, and even more so towards co-partisans. In contrast, we do not find evidence of co-ethnic targeting of citizens in the data.

We then use the results from this section, and section 5, to understand democratic responsiveness of sarpanch in the sample, as well as the relationship between our empirical exercise and real-world perceptions. The results in this section show that the empirical exercise in this paper can be used to make nuanced inferences about leader preferences and behavior.

6.1 The Role of Support and Co-Partisanship

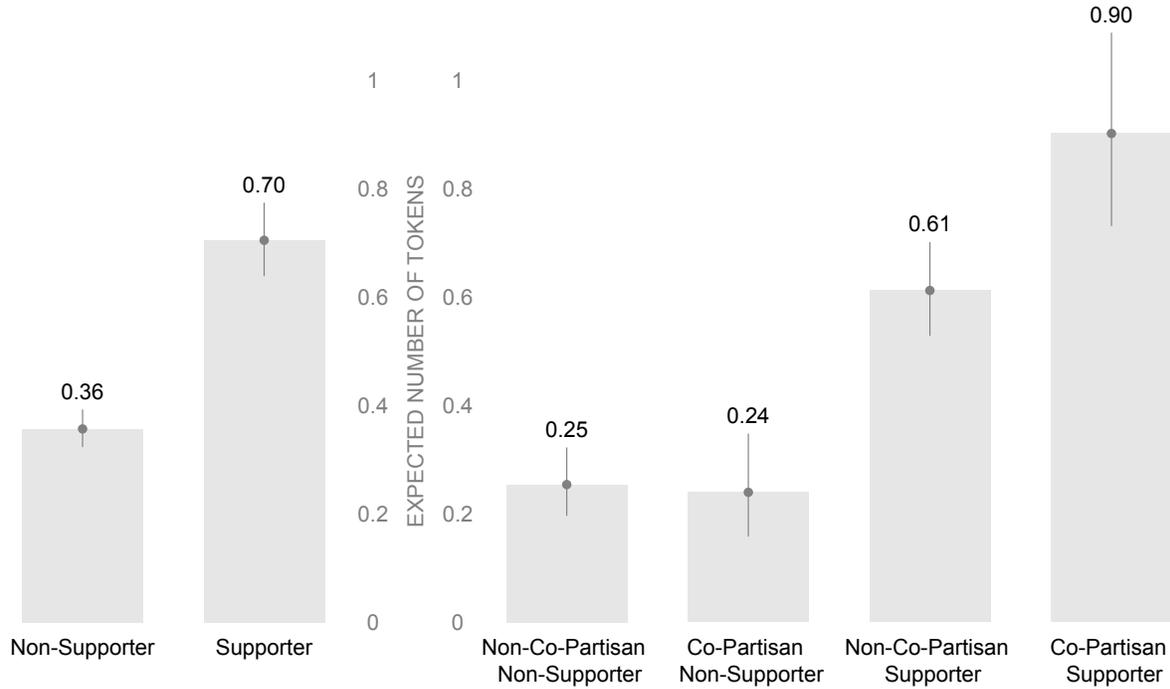
At first blush, there seem to be strong effects of perceived political support and co-partisanship on allocation behavior of sarpanch. The average perceived non-supporter received 0.26 tokens, while the average perceived supporter received 0.61 tokens. When we further subdivide political support by co-partisanship, we see quite a bit of variation. Co-partisan supporters receive 0.81 tokens on average, while non-copartisan supporters receive 0.51 tokens on average. Non-supporters do not receive many tokens on average, whether co-partisan (0.32) or not (0.22). At the same time, these aggregates may be correlated to relative asset wealth, so we must measure these effects within our modeling context.

Figure 3 reports the estimated expected number of tokens for perceived electoral supporters and non-supporters, further subdividing the effects by co-partisanship. The expected number of tokens for supporters and non-supporters are derived from our core model, assuming that the individual has mean wealth in the GP, and that the mean number of supporters in the GP is held at the sample mean of supporters (68%). The expected number of tokens for the interaction between co-partisanship and political support is derived from a more complicated model that controls for the two-way interactions between support and co-partisanship, as well as interactions with relative asset wealth, as shown in column 4 in appendix C, again calculating predicted values at mean GP wealth and the sample mean for each of the categories.

At the mean level of GP wealth, a supporter is predicted to receive nearly twice as much on average, as compared to a non-supporter. When further subdivided by co-partisanship, we see that co-partisanship has little effect on allocation to non-supporters. However, co-partisan supporters are predicted to receive 48% more allocation than non-copartisan supporters at the mean level of GP wealth.²⁰ Taken together, our results strongly confirm hypotheses H2b and H2c of targeting biases towards political supporters, particularly co-partisan political supporters.

²⁰These differences are highly significant with 99% or more of the difference in the posteriors being bounded away from zero.

Figure 3: Expected Tokens and Electoral Support

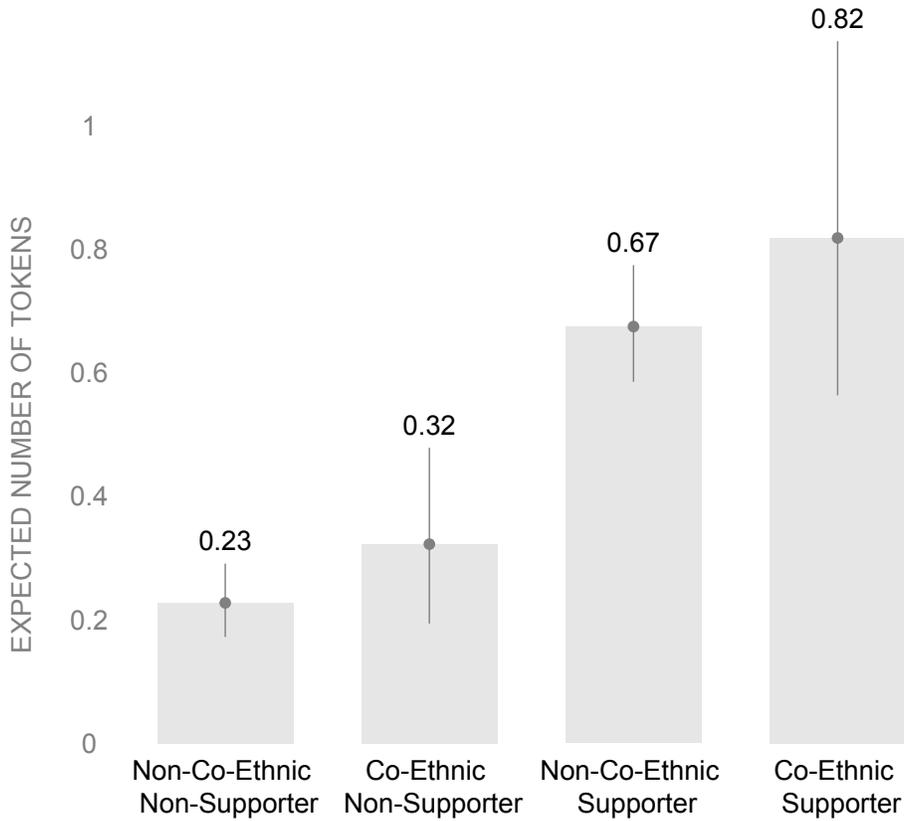


6.1.1 The Role of Ethnicity

The effect of co-ethnicity on allocation is less pronounced. Among non-supporters, a non-co-ethnic receives 0.20 tokens on average, while a co-ethnic receives 0.41 tokens on average. Among supporters, a non-coethnic receives 0.60 tokens on average, while a co-ethnic receives 0.68 tokens on average. Once again, in order to disentangle these effects from relative asset wealth, we calculate the impact of co-ethnicity on allocation through our modeling framework.

Figure 4 displays predicted average token allocation from a model that controls for relative asset wealth, political support, co-ethnicity, and the interactions between these variables, as displayed in column 6 of appendix C. The impact of co-ethnicity is statistically insignificant for both non-supporters and supporters, providing evidence for hypothesis H2a. It is also worth noting that a very complicated model that interacts across political support, co-partisanship, co-ethnicity, and asset wealth, reported in column 8 of appendix C, finds a significant co-partisan effect among non-coethnics but not among co-ethnics. In these models, too, co-ethnicity is not a significant predictor.

Figure 4: Electoral Support and Co-Ethnicity

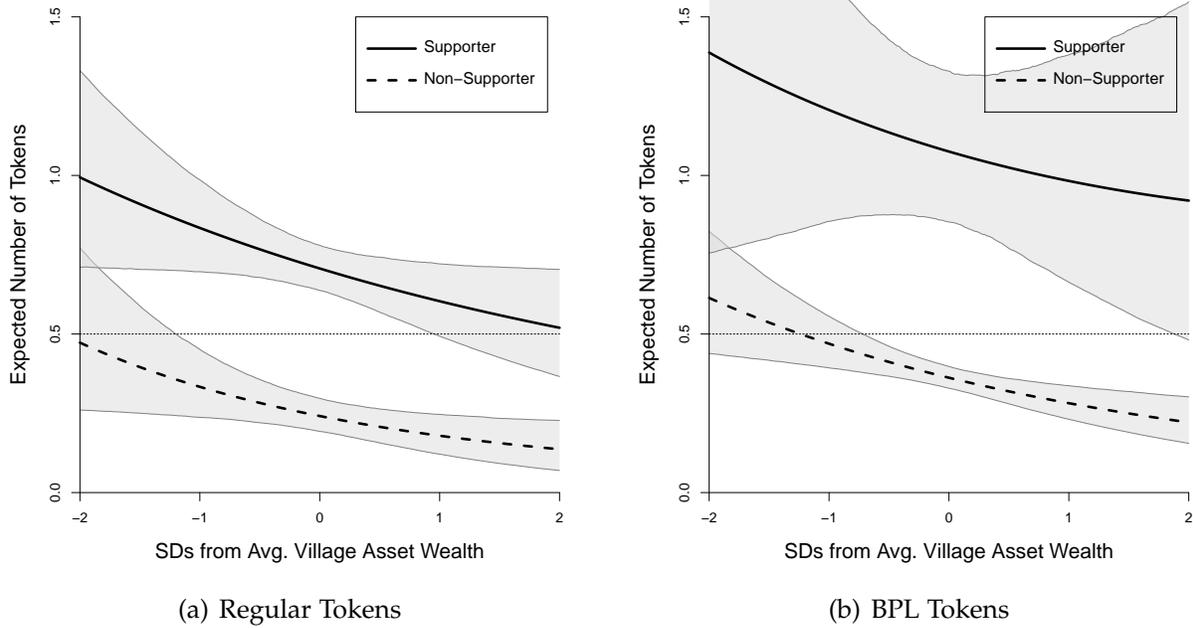


6.2 Interaction Between Wealth and Political Support

Figures 5(a) and 5(b) display the the expected number of tokens at the mean level of electoral support (68%) and at 30% electoral support, respectively, estimated from our core model. The two graphs display very similar behaviors, showing targeting of the poorest citizens in both populations, with far more pronounced targeting of the poorest among electoral supporters. The gap between supporters and non-supporters in allocation is much greater, with even the wealthiest supporters predicted to receive more than the poorest non-supporters in each model.

Our methodological strategy allows us to display some of the more complicated dynamics at play in democratic settings. When number of electoral supporters is low, as in figure 5(b), the premium given to supporters grows across the board. At the same time, the premium to non-supporters *also* grows, with the poorest non-supporters actually getting a positive premium (unlike the mean case). This provides evidence that the sarpanch are democratically responsive. When the number of electoral supporters is low, they also give more to non-supporters, although there is no restriction in our

Figure 5: Electoral Support vs. Asset Wealth



exercise to do so. This shows that sarpanch typically prefer to target benefits to a substantial proportion of the population, even under low political support. Perhaps this is why co-ethnic targeting, to a much narrower population, is seemingly more limited than political targeting in our data.

Once again, we note that these results hold without incentives for electoral strategy. We often view political biases in targeting in strategic terms, but the flip side is also true. Those who are perceived as being more able to target their own political supporters are likely to have an advantage in elections because voters gain positive utility for casting a vote in their favor. Citizens are free to support any candidate they wish, and a previous vote for the sarpanch constitutes a minimal level of support for the elected leader. Co-partisanship reflects a stronger political tie to the local leader because it constitutes a more stable base of support and integration into the leader's partisan network. Evidence supports our expectation that the local leader is likely to use this form of socio-political connectedness as the basis for reciprocating in distribution.

It is important to note, however, that by conditioning targeting to the poor on political support, the leader necessarily biases allocation away from purely targeting the poor. This observation is a feature of many standard political economy models, but the reasons are quite different. In those models, political biases are said to result from increased efficiency in targeting co-partisans or future electoral motivations. In this high information setting, there is little inefficiency in targeting, and strategic electoral motivations are removed from the calculations of the sarpanch. Our logic relies on the understanding of

political support as a sociopolitical tie that is nested within the existing social structure. Thus, while democratic selection can engender targeting to the poor, it may also generate the types of targeting biases associated with making a leader more electable.

6.3 Validity of the Measure and Connection to Actual Distribution

One concern is that the distribution we measure is driven by "Hawthorne effects," that is, sarpanch behave in a way that would satisfy the researcher. In order to understand whether this occurred, we coded whether the sarpanch self-identified whether each of the voters placed in front of him was a supporter after the distribution had taken place. If the sarpanch were attempting to display distribution that is socially desirable, we would not expect to see allocation towards such supporters (since it obviously a deviation from any programmatic ideal of distribution). In order to test whether our results are driven by Hawthorne effects, we test the percentage of GPs in which, according to our data, sarpanch target their supporters more heavily. Supporters were targeted more heavily than non-supporters in 87% of GPs, providing evidence that the observed results aren't purely driven by Hawthorne effects. This demonstrates that our behavioral method is quite effective in picking up social biases that differ from any programmatic ideal.

A second concern is that our lab method is too disconnected from, and thus has little relevance for, the actual distribution of everyday benefits and help. Since this form of discretionary assistance is not characterized by a single large benefit but rather general brokerage or help, we looked to understand the relationship of our measure to general notions of "helpfulness" rather than a single government-regulated benefit (in which the sarpanch would have limited discretion). In particular, we compared our observed lab behavior to voters' perceptions of sarpanch behavior. We asked voters: "Do you believe the sarpanch would help you if you approached him/her for help?" We find a very strong relationship between our token-based measure and voter perceptions of helpfulness. If the voter did not believe the sarpanch to be helpful, she received an average of 0.39 tokens, whereas a voter that believed the sarpanch to be helpful received an average of 0.57 tokens. This constitutes a significant difference, and 48% increase in allocation associated with those who found the sarpanch to be helpful. This suggests that our measure has a natural real-world analogue.

7 Conclusion

Our findings demonstrate that local democracy selects pro-poor leaders in rural, subsistence-based settings. This is substantively important because where state capacity and mechanisms of electoral accountability are weak, as is the case in rural India and many other contexts, the screening mechanism that local elections provide may be voters' best assurance of post-election distribution. At the same time, since local leaders condition allocation on socio-political ties, investments in bureaucratic oversight and the strengthening of democratic accountability mechanisms are needed to incentivize pro-poor targeting among non-supporters. We believe this has broad relevance in the developing world.

We test the observable implications of our framework with data from a behavioral measure that isolates elected local leaders' baseline (non-strategic) targeting preferences, and develop a statistical strategy that precisely identifies targeting biases by taking dependence in the data into account. Along with demonstrating the impact of local democracy on selection, this article has broad relevance to a range of research questions. Most critically, we argue that distributive preferences should be taken into account in models of political targeting. These models develop predictions based on political strategies, which should pressure local leaders, or brokers, to target benefits against their preferences. However, we cannot determine the impact of strategic considerations without a comparison to baseline distributive preferences.

This is particularly important given that our results, which reflect non-strategic distributive preferences, are similar to the distributive outcomes of a range of political economy models that assume that policy outcomes are driven by strategic considerations (See e.g., Stokes, 2005; Calvo and Murillo, 2013; Gans-Morse, Mazzuca and Nichter, 2014). First, we find that elected local leaders have strong pro-poor distributive preferences in contexts of pervasive poverty in a scenario in which electoral incentives do not plausibly apply. Existing work on vote buying also finds that the poor are overwhelmingly targeted, but sees this as the direct result of electoral incentives to increase vote share at minimal cost. For this body of theory, parties target the poor because they are most responsive to low-value electoral handouts (Brusco, Nazareno and Stokes, 2004; Stokes et al., 2013). This article suggests that this research can only determine that poor voters are targeted due to electoral considerations, if a significantly larger share of the poor are targeted with selective government benefits or electoral handouts than would be the case if brokers targeted benefits according to their baseline distributive preferences. Moreover, although brokers are often unelected in this literature, they are broadly understood to be valued by the size of their network of support, have backgrounds in social work, and operate in a context of dense social ties, high-information, and pervasive poverty (Auyero, 2001; Szwarcberg, 2015). It is therefore plausible that brokers, particularly more successful ones who occupy elected positions in local government, will hold similar distributive preferences to what we find with sarpanch in India. We provide an

empirical strategy that allows scholars to examine distributive preferences across a wider range of leaders and to test for whether the outcomes of targeted distribution differ from distributive preferences in future work.

Second, we find evidence of co-partisan targeting in a context where electoral and efficiency considerations do not apply. Our results are quite similar to the pattern of core targeting observed in existing research (Dunning and Nilekani, 2013; Calvo and Murillo, 2004, 2013; Stokes et al., 2013); however, this follows a strikingly different logic. Under local democracy, a baseline preference for core targeting is driven by socio-political ties rather than efficiency concerns because local leaders in our setting can effectively reach those they intend to target. Also, while existing theory suggests that core targeting is an effective electoral strategy for coalition maintenance (Diaz-Cayeros, Estevez and Magaloni, 2016) or vote mobilization (Nichter, 2008), our results cannot plausibly be shaped by these considerations. Similarly to the case above, to determine whether core targeting is the result of such electoral considerations, it must be demonstrated that public allocation at the time of elections favors co-partisans to a greater extent than is the case under allocation according to distributive preferences.²¹ Similarly, if electoral incentives pressure local leaders to target swing voters, which goes against their baseline preferences to target those in their co-partisan networks, we should see more swing targeting than is the case under distributive preferences.

This article also opens up avenues for future research that fell beyond the purview of this project. First, while this article considers the distributive preferences of elected local leaders, which follows from the concept of local democracy under subsistence-based societies, we did not examine the distributive preferences of voters themselves or consider rural settings where the conditions of the moral economy do not hold. A promising area of future research should consider the relationship between our measure and voters' preferences over distribution across contexts (e.g., more affluent villages). Second, as a theory-building exercise, this article considers one political system: local democracy in the relatively institutionalized two-party system of Rajasthan. Although we do not expect our conclusions on pro-poor, partisan distributive preferences to differ in more volatile Indian states, future research should explore the nature of biases in targeting across political contexts. This could be particularly illuminating in settings of party dominance (e.g., South Africa) or in systems where partisan ties are weaker (e.g., Brazil). Finally, our interest in this article concerns the implications of genuine local democracy on distributive preferences in a context where local democracy has been in place for many years. A compelling area of new research would concern how variation in the legitimacy of electoral systems, and the extent to which the the institution of local democracy is entrenched, corresponds to distributive preferences. This may provide a valuable measure of the depth of local democracy.

²¹Although local brokers are not themselves democratically elected, literature from Latin America suggests that their baseline preferences similarly favor the members of their local partisan networks (Auyero, 2001; Stokes et al., 2013).

Above all, this article suggests that procedural democracy at the local level is genuinely representative and leads to the selection of leaders with pro-poor and fairly broad-based distributive preferences. This is a sharp departure from arguments which suggest that democracy is subverted in developing countries. It is also a departure from arguments which suggest that successful politicians will hold a preference for disproportionate co-ethnic targeting, which may create a large degree of opposition among non-co-ethnics. Our findings suggest even when the state lacks adequate capacity to reach its poorest citizens, under the right conditions the institution of local democracy may still engender progressive distributive outcomes.

References

- Alatas, Vivi, Abhijit Banerjee, Rema Hanna, Benjamin A. Olken and Julia Tobias. 2012. "Targeting the Poor: Evidence from a Field Experiment in Indonesia." *American Economic Review* 102(4):1206–1240.
- Alatas, Vivi, Abhijit Banerjee, Rema Hanna, Benjamin A. Olken, Ririn Purnamasari and Matthew Wai-Poi. 2013. "Does Elite Capture Matter? Local Elites and Targeted Welfare Programs in Indonesia." *NBER Working paper* .
- Alderman, Harold. 2002. "Do Local Officials Know Something We Don't? Decentralization of targeted transfers in Albania." *Journal of Public Economics* 83(3):375–404.
- Auyero, Javier. 2001. *Poor People's Politics: Peronist survival networks and the legacy of Evita*. Duke University Press.
- Baldassarri, Delia and Guy Grossman. 2012. "The Impact of Elections on Cooperation: Evidence from a Lab in the Field Experiment in Uganda." *American Journal of Political Science* 56(4):964–985.
- Banerjee, Mukulika. 2014. *Why India Votes?* Routledge.
- Besley, Timothy, Rohini Pande, Lupin Rahman and Vijayendra Rao. 2004. "The Politics of Public Good Provision: Evidence from Indian local governments." *Journal of the European Economic Association* 2(2-3):416–426.
- Besley, Timothy, Rohini Pande and Vijayendra Rao. 2012. "Just Rewards? Local politics and public resource allocation in South India." *The World Bank Economic Review* 26(2):191–216.
- Bohlken, Anjali Thomas. 2016. *Democratization from Above: The Logic of Local Democracy in the Developing World*. Cambridge University Press.
- Brusco, Valeria, Marcelo Nazareno and Susan Stokes. 2004. "Vote Buying in Argentina." *Latin American Research Review* 39(2):66–88.

- Calvo, Ernesto and Maria Victoria Murillo. 2004. "Who Delivers? Partisan clients in the Argentine electoral market." *American Journal of Political Science* 48(4):742–757.
- Calvo, Ernesto and Maria Victoria Murillo. 2013. "When Parties Meet Voters: Assessing political linkages through partisan networks and distributive expectations in Argentina and Chile." *Comparative Political Studies* 46(7):851–882.
- Chandra, Kanchan. 2004. *Why Ethnic Parties Succeed*. New York City: Cambridge University Press.
- Charness, Gary and Matthew Rabin. 2005. "Expressed Preferences and Behavior in Experimental Games." *Games and Economic Behavior* 53(2):151–169.
- Chauchard, Simon. 2014. "Can Descriptive Representation Change Beliefs about a Stigmatized Group? Evidence from rural India." *American Political Science Review* 108(02):403–422.
- Chhibber, Pradeep, Francesca Refsum Jensenius and Pavithra Suryanarayan. 2014. "Party Organization and party Proliferation in India." *Party Politics* 20(4):489–505.
- Cox, Gary W and Mathew McCubbins. 1986. "Electoral Politics as a Redistributive Game." *The Journal of Politics* 48(02):370–389.
- Crook, Richard C and James Manor. 1998. *Democracy and Decentralisation in South Asia and West Africa: Participation, accountability and performance*. Cambridge University Press.
- Daftary, Dolly. 2014. "Development in an Era of Economic Reform in India." *Development and Change* 45(4):710–731.
- Diaz-Cayeros, Alberto, Federico Estevez and Beatriz Magaloni. 2016. *The Political Logic of Poverty Relief: Electoral strategies and social policy in Mexico*. Cambridge University Press.
- Dixit, Avinash and John Londregan. 1996. "The Determinants of Success of Special Interests in Redistributive Politics." *the Journal of Politics* 58(04):1132–1155.
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. Harper.
- Dunning, Thad and Janhavi Nilekani. 2013. "Ethnic Quotas and Political Mobilization: Caste, parties, and distribution in Indian village councils." *American Political Science Review* 107(01):35–56.
- Eckel, Catherine C. and Philip J. Grossman. 1996. "Altruism in Anonymous Dictator Games." *Games and Economic Behavior* 191:181–191.
- Fafchamps, Marcel. 1992. "Solidarity Networks in Preindustrial Societies: Rational peasants with a moral economy." *Economic Development and Cultural Change* 41(1):147–174.
- Fowler, James H. and Cindy D. Kam. 2007. "Beyond the Self: Social Identity, Altruism, and Political Participation." *The Journal of Politics* 69(3):813–827.

- Gans-Morse, Jordan, Sebastian Mazzuca and Simeon Nichter. 2014. "Varieties of Clientelism: Machine politics during elections." *American Journal of Political Science* 58(2):415–432.
- Gelman, Andrew and Jennifer Hill. 2007. *Data Analysis Using Regression and Multilevel Hierarchical Models*. New York City: Cambridge University Press.
- Gintis, Herbert, Samuel Bowles, Robert Boyd and Ernst Fehr. 2003. "Explaining Altruistic Behavior in Humans." *Evolution and Human Behavior* 24(3):153–172.
- Grossman, Guy. 2011. "Lab-in-the-field Experiments." *Newsletter of the APSA Experimental Section* 2(2):1–26.
- Habyarimana, James, Macartan Humphreys, Daniel N. Posner and Jeremy M. Weinstein. 2009. *Coethnicity: Diversity and the Dilemmas of Collective Action*. Russel Sage Foundation.
- Heller, Patrick. 2001. "Moving the State: The politics of democratic decentralization in Kerala, South Africa, and Porto Alegre." *Politics and Society* 29(1):131–163.
- Hoff, Karla and Priyanka Pandey. 2006. "Discrimination, Social Identity, and Durable Inequalities." *The American Economic Review* 96(2):206–211.
- Jaffrelot, Christophe. 2003. *India's Silent Revolution: The rise of the lower castes in North India*. Orient Blackswan.
- Jensenius, Francesca and Pavithra Suryanarayan. 2013. "Party Institutionalization, Economic Voting and Electoral Instability: The case of India."
- Kitschelt, Herbert. 2000. "Linkages Between Citizens and Politicians in Democratic Polities." *Comparative Political Studies* 33(6-7):845–879.
- Kothari, Rajni. 1970. "Continuity and Change in India's Party System." *Asian Survey* 10(11):937–948.
- Krishna, Anirudh. 2003. "What is Happening to Caste? A view from some north Indian villages." *The Journal of Asian Studies* 62(04):1171–1193.
- Krishna, Anirudh. 2007. Politics in the Middle: Mediating relationships between the citizens and the state in rural North India. In *Patrons, Clients, and Policies: Patterns of democratic accountability and political competition*, ed. Wilkinson Kitschelt and Wilkinson Steven. Cambridge University Press pp. 141–158.
- Kruks-Wisner, Gabrielle. 2015. "Navigating the State: Citizenship practice and the pursuit of services in rural India." Harvard University South Asia Institute Working Paper.
- Lewis-Beck, Michael and Martin Paldam. 2000. "Economic Voting: An introduction." *Electoral studies* 19(2):113–121.

- Lodha, Sanjay. 1999. "Caste and Two-Party System." *Economic and Political Weekly* pp. 3344–3349.
- Lodha, Sanjay. 2009. "Rajasthan: Dissatisfaction and a poor campaign defeat BJP." *Economic and Political Weekly* pp. 23–26.
- Markussen, Thomas. 2011. "Inequality and Political Clientelism: Evidence from South India." *Journal of Development Studies* 47(11):1721–1738.
- Medina, Luis Fernando and Susan C. Stokes. 2007. Monopoly and monitoring: an approach to political clientelism. In *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*, ed. Herbert Kitschelt and Steven I. Wilkinson. Cambridge University Press.
- Narain, Iqbal. 1964. "Democratic Decentralization and Rural Leadership in India: The Rajasthan experiment." *Asian Survey* 4(8):1013–1022.
- Nichter, Simeon. 2008. "Vote Buying or Turnout Buying? Machine politics and the secret ballot." *American Political Science Review* 102(01):19–31.
- Niehaus, Paul and Antonia Atanassova. 2013. "Targeting with Agents." *American Economic Journal: Economic Policy* 5(1):206–238.
- Nooruddin, Irfan and Pradeep Chhibber. 2008. "Unstable Politics: Fiscal space and electoral volatility in the Indian states." *Comparative Political Studies* 41(8):1069–1091.
- Pattenden, Jonathan. 2011. "Gatekeeping as Accumulation and Domination: Decentralization and class relations in rural south India." *Journal of Agrarian Change* 11(2):164–194.
- Posner, Daniel. 2005. *Institutions and Ethnic Politics in Africa*. Cambridge University Press.
- Rosenzweig, Mark R. 1988. "Risk, implicit contracts and the family in rural areas of low-income countries." *The Economic Journal* 98(393):1148–1170.
- Schneider, Mark. 2014. "Does Clientelism Work? A test of guessability in India." *Center for the Advanced Study of India Working Paper No. 14-01* .
- Scott, James. 1976. *The Moral Economy of the Peasant: Rebellion and subsistence in Southeast Asia*. Yale University Press.
- Scott, James. 1985. *Weapons of the Weak: Everyday forms of peasant resistance*. Yale University Press.
- Sircar, Neelanjan. 2015. "Tale of Two Villages: Kinship networks and preference change in rural India." *Center for the Advanced Study of India Working Paper No. 15-02* .
- Sridharan, E. and Milan Vaishnav. 2016. "Election Commission of India." In *Rethinking Public Institutions in India*. ed. Devesh Kapur, Pratap Bhanu Mehta, and Milan Vaishnav. Forthcoming.

- Srinivas, M.N. 1959. "The Dominant Caste in Rampura." *American Anthropologist* 61(1):1–16.
- Stokes, Susan. 2005. "Perverse Accountability: A formal model of machine politics with evidence from Argentina." *American Political Science Review* 99(03):315–325.
- Stokes, Susan, Thad Dunning, Marcelo Nazareno and Valeria Brusco. 2013. *Brokers, Voters, and Clientelism: The puzzle of distributive politics*. Cambridge University Press.
- Szwarcberg, Mariela. 2015. *Mobilizing Poor Voters: Machine politics, clientelism, and social networks in Argentina*. Cambridge University Press.
- Thachil, Tariq. 2014. *Elite Parties, Poor Voters: How social services win votes in India*. Cambridge University Press.
- Uppal, Yogesh. 2009. "The Disadvantaged Incumbents: Estimating incumbency effects in Indian state legislatures." *Public Choice* 138(1-2):9–27.
- Van de Walle, Nicholas. 2007. Meet the New Boss, Same as the Old Boss? The evolution of political clientelism in Africa. In *Patrons, Clients and Policies: Patterns of Democratic Accountability and Political Competition*, ed. Herbert Kitschelt and Steven I. Wilkinson. New York: Cambridge University Press.
- Weiner, Myron. 1967. *Party Building in a New Nation: The Indian National Congress*. [Chicago]: University of Chicago Press.
- Weitz-Shapiro, Rebecca. 2012. "What Wins Votes: Why some politicians opt out of clientelism." *American Journal of Political Science* 56(3):568–583.
- Whitt, Sam and Rick K. Wilson. 2007. "The Dictator Game, Fairness and Ethnicity in Postwar Bosnia." *American Journal of Political Science* 51(3):655–668.
- Witsoe, Jeffrey. 2013. *Democracy Against Development: Lower-caste politics and political modernity in postcolonial India*. University of Chicago Press.
- Yadav, Yogendra. 1999. "Electoral Politics in the Time of Change: India's third electoral system, 1989-99." *Economic and Political Weekly* pp. 2393–2399.

A Sampling Strategy

The voter and sarpanch surveys sampled 96 gram panchayats in seven districts, twelve blocks and six of Rajasthan's seven administrative divisions.²² As mentioned in the article, one GP President, or sarpanch, could not be interviewed, which yielded a sample of 95 sarpanch. The sample in this article was further reduced to 84 sarpanch on account of coding mistakes on the tokens measure made by our survey team.

The sample generalizes to voters and local politicians in rural contexts with a moderately high share of households below the poverty line and moderate inter-party competition. To build the sample frame for this population, we used 2001 census data on the rural composition of blocks,²³ data from the Government of Rajasthan on the share of below poverty line (BPL) households across blocks in 2001, and Election Commission data on political competition in panchayat samiti election— the tier of the panchayat raj system above the gram panchayat, which aligns with administrative blocks.²⁴

We restricted the sample to blocks with a 75 percent rural population according to the 2001 census to reduce the chance of sampling GPs that function as suburbs, and excluded blocks with less than 20 percent of households in the BPL category in 2001 to ensure that the chance of sampling voters eligible for anti-poverty programs at random was non-trivial. This ensures that our sample is one of pervasive poverty and that the lottery benefit is salient in this population. We also excluded blocks where the median margin of victory across elections to all ward representative elections to the Panchayat Samiti— a sub-district, or block, level electoral body one tier above the GP— was greater than 15 percent to increase the chance that we selected competitive GPs.²⁵

After this restriction was applied, approximately 60 of 249 blocks were eligible for sampling in the state. Logistical concerns required that we sample two blocks in each district to the extent possible. This reduced the list to approximately 50 blocks. I randomly sampled one district in 5 of Rajasthan's seven divisions from a pool of districts in which three or more blocks were eligible for sampling according to these criteria. Two blocks were randomly selected from the pool of eligible blocks in each district. In Udaipur, the sixth division selected, three eligible blocks did not exist in any one district; As a practical alternative, we randomly selected one block each from two neighboring districts in the division: Udaipur and Rajsamand.

Once 12 blocks were sampled, one of us collected data on political competition across

²²Rajasthan has 33 districts, 249 blocks, 7 administrative divisions, and 9177 gram panchayats in all.

²³Government data on the share of BPL households across gram panchayats was from 2001. More recent data was not available at the time of fieldwork in 2013.

²⁴This is the lowest level of aggregation at which election commission data is available from a central source and the lowest level that permits party symbols on the ballot.

²⁵Each member of this block-level legislative body is elected from one single ward and elected according to a first past the post electoral rule. We use the median margin of victory across ward elections to the Panchayat Samiti as gram panchayat electoral data could not be obtained during fieldwork.

gram panchayats through interviews.²⁶ Members of the research team interviewed block party presidents– party organizers immersed in the politics of gram panchayats in their block? who were asked to characterize the level of competition between Congress and the BJP as non-competitive, somewhat competitive, or very competitive. Of the 452 GPs in 12 sampled blocks, 180 were described as non-competitive, 133 as somewhat competitive, and 139 as very competitive. To increase the chance that the target population would be sampled, given resource constraints, non-competitive GPs were dropped from the pool for sampling. In each block, 4 GPs were randomly sampled among those coded as somewhat competitive and among those coded very competitive respectively.

Subsequently, one ward in each sampled GP (with an average of 100 households per ward) were randomly sampled.²⁷ We randomly sampled household in sampled wards using the gram panchayat voters? list, which is public information provided by the Election Commission. We sampled (predominantly male) heads of household in randomly sampled households because they are generally the household member most engaged in village politics and citizen-state relations.²⁸ The elite survey was fielded the day after the vote survey was completed in a given GP.

²⁶This was necessary because electoral commission data on gram panchayat elections is not available from a centralized source.

²⁷This was done according to the design of another article from this survey project which required that all sampled voters lived in one GP member?s ward.

²⁸To identify heads of household, interviewers were instructed to request to speak to the head of household upon approaching each sampled household. If heads of household were not at home, interviewers were instructed to either interview them in the fields in which many of them worked or to return to the household later in the day. If they did not return, supervisors provided alternative respondents who were also randomly selected from a voters list.

B Descriptive Statistics

Table 3: Voter Characteristics

Statistic	N	Mean	St. Dev.	Min	Max
Upper Caste	839	0.094	0.292	0	1
Rajput	839	0.105	0.307	0	1
Jat	839	0.105	0.307	0	1
Other Backward Caste	839	0.316	0.465	0	1
Scheduled Caste	839	0.167	0.373	0	1
Scheduled Tribe	839	0.068	0.252	0	1
Muslim	839	0.086	0.280	0	1
Illiterate	839	0.327	0.469	0	1
Some Primary School	839	0.230	0.421	0	1
Class 5 Pass	839	0.194	0.396	0	1
Class 8 Pass	839	0.138	0.345	0	1
Class 10 Pass	839	0.050	0.218	0	1
College Degree	839	0.089	0.285	0	1
Supporter	839	0.682	0.466	0	1
Co-Partisan	839	0.352	0.478	0	1

Table 4: Sarpanch Characteristics

Statistic	N	Mean	St. Dev.	Min	Max
Upper Caste	84	0.107	0.311	0	1
Rajput	84	0.155	0.364	0	1
Jat	84	0.083	0.278	0	1
Other Backward Caste	84	0.238	0.428	0	1
Scheduled Caste	84	0.202	0.404	0	1
Scheduled Tribe	84	0.048	0.214	0	1
Muslim	84	0.048	0.214	0	1
Illiterate	84	0.167	0.375	0	1
Some Primary School	84	0.226	0.421	0	1
Class 5 Pass	84	0.226	0.421	0	1
Class 8 Pass	84	0.143	0.352	0	1
Class 10 Pass	84	0.036	0.187	0	1
College Degree	84	0.202	0.404	0	1
Congress Member	84	0.619	0.489	0	1
BJP Member	84	0.333	0.474	0	1

C Regression Results

Table 5: Regression Results

	<i>Dependent variable:</i>			
	Expected Number of Tokens			
	(1)	(2)	(3)	(4)
Assets	-0.239* (0.140)	-0.212*** (0.068)	-0.192*** (0.065)	-0.192*** (0.068)
Supporter		1.091*** (0.193)		
Supporter x Assets		0.165 (0.216)		
Non-Co-Partisan Supporter			0.928*** (0.195)	0.904*** (0.194)
Co-Partisan Non-Supporter			-0.045 (0.287)	-0.057 (0.286)
Co-Partisan Supporter			1.352*** (0.206)	1.298*** (0.209)
Non-Co-Partisan Supporter x Assets				0.203 (0.229)
Co-Partisan Non-Supporter x Assets				-0.408 (0.339)
Co-Partisan Supporter x Assets				-0.075 (0.237)
σ^2	3.353	0.674	0.620	0.589
Observations	839	839	839	839
Number of GP	84	84	84	84
pD	835.6	497.1	507.1	496.7
DIC	1947.5	1857.5	1872.0	1861.0

Note:

* $\underline{\pi} < 0.1$; ** $\underline{\pi} < 0.05$; *** $\underline{\pi} < 0.01$

The regressions described above follow the protocol described in section ???. Results report estimates from a 3750 posterior simulations from a regression model estimated in a Bayesian framework through Markov Chain Monte Carlo (MCMC) with 3 chains and diffuse priors on all parameters, using the program JAGS. Standard deviations of the posteriors on the respective parameters are given in parentheses. Statistical significance in the model is given with respect to the posterior distribution. In particular, let $\hat{\pi}$ be a vector of values drawn from the posterior distribution of a parameter of interest. Then, we define $\underline{\pi} = 2 * P(\hat{\pi} < 0)$. The deviance information criterion (DIC) is a measure of fit that is defined as the sum of one-half of the estimated variance of deviance (pD) and the expected value of the deviance. The lower value of DIC is taken to be a better fit, with pD entering as a penalty for overfitting the data.

Table 6: Regression Results (continued)

	<i>Dependent variable:</i>			
	Expected Number of Tokens			
	(5)	(6)	(7)	(8)
Assets	-0.188*** (0.067)	-0.201*** (0.065)	-0.200*** (0.064)	-0.193*** (0.069)
Non-Co-Ethnic Supporter	1.142*** (0.206)	1.133*** (0.212)		
Co-Ethnic Non-Supporter	0.412 (0.348)	0.458 (0.369)		
Co-Ethnic Supporter	1.307*** (0.272)	1.331*** (0.298)		
Non-Co-Ethnic Supporter x Assets		0.085 (0.222)		
Co-Ethnic Non-Supporter x Assets		0.107 (0.327)		
Co-Ethnic Supporter x Assets		0.291 (0.324)		
Co-Partisan Non-Co-Ethnic Non-Supporter			-0.029 (0.332)	-0.199 (0.356)
Non-Co-Partisan Co-Ethnic Non-Supporter			0.503 (0.353)	0.390 (0.375)
Co-Partisan Co-Ethnic Non-Supporter			0.641 (0.526)	0.436 (0.554)
Non-Co-Partisan Non-Co-Ethnic Supporter			0.975*** (0.220)	0.924*** (0.218)
Co-Partisan Non-Co-Ethnic Supporter			1.414*** (0.218)	1.303*** (0.222)
Non-Co-Partisan Co-Ethnic Supporter			1.176*** (0.312)	1.141*** (0.315)
Co-Partisan Co-Ethnic Supporter			1.670*** (0.353)	1.604*** (0.350)
Co-Partisan Non-Co-Ethnic Non-Supporter x Assets				-0.452 (0.394)
Non-Co-Partisan Co-Ethnic Non-Supporter x Assets				-0.069 (0.392)
Co-Partisan Co-Ethnic Non-Supporter x Assets				-0.646 (0.587)
Non-Co-Partisan Non-Co-Ethnic Supporter x Assets				0.152 (0.235)
Co-Partisan Non-Co-Ethnic Supporter x Assets				-0.190 (0.241)
Non-Co-Partisan Co-Ethnic Supporter x Assets				0.169 (0.331)
Co-Partisan Co-Ethnic Supporter x Assets				-0.073 (0.432)
σ^2	0.685	0.677	0.616	0.578
Observations	839	839	839	839
Number of GP	84	84	84	84
pD	520.9	514.7	456.8	535.0
DIC	1877.4	1871.5	1816.5	1901.2

Note:

* $\bar{\pi} < 0.1$; ** $\bar{\pi} < 0.05$; *** $\bar{\pi} < 0.01$

The regressions described above follow the protocol described in section ???. Results report estimates from a 3750 posterior simulations from a regression model estimated in a Bayesian framework through Markov Chain Monte Carlo (MCMC) with 3 chains and diffuse priors on all parameters, using the program JAGS. Standard deviations of the posteriors on the respective parameters are given in parentheses. Statistical significance in the model is given with respect to the posterior distribution. In particular, let $\hat{\pi}$ be a vector of values drawn from the posterior distribution of a parameter of interest. Then, we define $\bar{\pi} = 2 * P(\hat{\pi} < 0)$. The deviance information criterion (DIC) is a measure of fit that is defined as the sum of one-half of the estimated variance of deviance (pD) and the expected value of the deviance. The lower value of DIC is taken to be a better fit, with pD entering as a penalty for overfitting the data.

D Relevant Code

D.1 Code for Item Response Model (Asset Index)

R Code:

```
N <- length(dat2$gpnumber[valid])

gp <- as.numeric(as.factor(dat2$gpnumber[valid]))
n.gp <- max(gp)
y <- cbind(pacca, scooter, bicycle, tv, toilet, fridge, fan, mobile, pump)[valid,]
K <- ncol(y)
item <- NULL; for (i in 1:K) item <- c(item, rep(i, N))
person <- rep(1:N, K)
y <- as.vector(y)
n <- length(y)

itr.data <- list("y", "n", "person", "item", "N", "K")
itr.inits <- function(){
list(a.raw=rnorm(N), b.raw=rnorm(K), sigma.person=runif(1,0,3),
sigma.item=runif(1,0,3), mu.a.raw=rnorm(1), mu.b.raw=rnorm(1))}
itr.par <- c("a", "b", "sigma.person", "sigma.item", "mu.b.raw")
itr.model2p <- jags(data=itr.data, inits=itr.inits, parameters.to.save=itr.par,
model.file="itemresponse2p.txt", n.iter=5000)

assets <- itr.model2p$BUGS$mean$a
```

JAGS Code – itemresponse2p.txt

```
model{
  for (i in 1:n){
    y[i] ~ dbern(p[i])
    logit(p[i]) <- mu[i]
    mu[i] <- a[person[i]] - b[item[i]]
  }
  for (i in 1:N){
    a.raw[i] ~ dnorm(0, tau.person)
    a[i] <- a.raw[i]
  }
  for (i in 1:K){
    b.raw[i] ~ dnorm(mu.b.raw, tau.item)
    b[i] <- b.raw[i]
  }
}
```

```

}
mu.a.raw ~ dnorm(0,.0001)
mu.b.raw ~ dnorm(0,.0001)
tau.item <- pow(sigma.item, -1)
tau.person <- pow(sigma.person, -1)
sigma.person ~ dunif(0,100)
sigma.item ~ dunif(0,100)
}

```

D.2 Code for Regression Model (> 1 predictor)

R Code

```

X <- as.matrix(Xadjmat[[i]]) ## GP-mean-adjusted matrix

y <- dat2$tokens_s[valid]

gp <- as.numeric(as.factor(dat2$gpnumber[valid]))
n.gp <- max(gp)
K <- ncol(X)
W <- diag(K)
n <- length(y)

cons <- rep(NA, length(gp))
for (i in 1:length(gp)){
  con --s[i] <- 5/sum(gp == gp[i]) }

token.data <- list("y", "X", "W", "n", "gp", "n.gp", "K", "cons")
token.inits <- function(){
  list(Tau.B=diag(K), mu.beta=rnorm(K), sigma.epsilon=runif(1,0,100))}
token.par <- c("mu.beta", "B", "Sigma.B", "sigma.epsilon")
token.model <- jags(data=token.data, inits=token.inits,
  parameters.to.save=token.par, model.file="qpoismultilevel.txt", n.iter=20000)

```

JAGS Code – qpoismultilevel.txt

```

model{
  for (i in 1:n){
    y[i] ~ dpois(lambda[i])
    log(lambda[i]) <- -log(cons[i]) + X[i,] %*% B[gp[i],1:K] + epsilon[i]
    epsilon[i] ~ dnorm(0,tau.epsilon)
  }
  for (j in 1:n.gp){

```

```
B[j,1:K] ~ dmnorm(B.hat[j,], Tau.B[,])
B.hat[j,1:K] <- mu.beta[]
}
for (j in 1:K){
mu.beta[j] ~ dnorm(0,.0001)
}
Sigma.B[1:K,1:K] <- inverse(Tau.B[,])
Tau.B[1:K,1:K] ~ dwish(W[,], df)
df <- K+1
tau.epsilon <- pow(sigma.epsilon, -2)
sigma.epsilon ~ dunif(0,100)
}
```

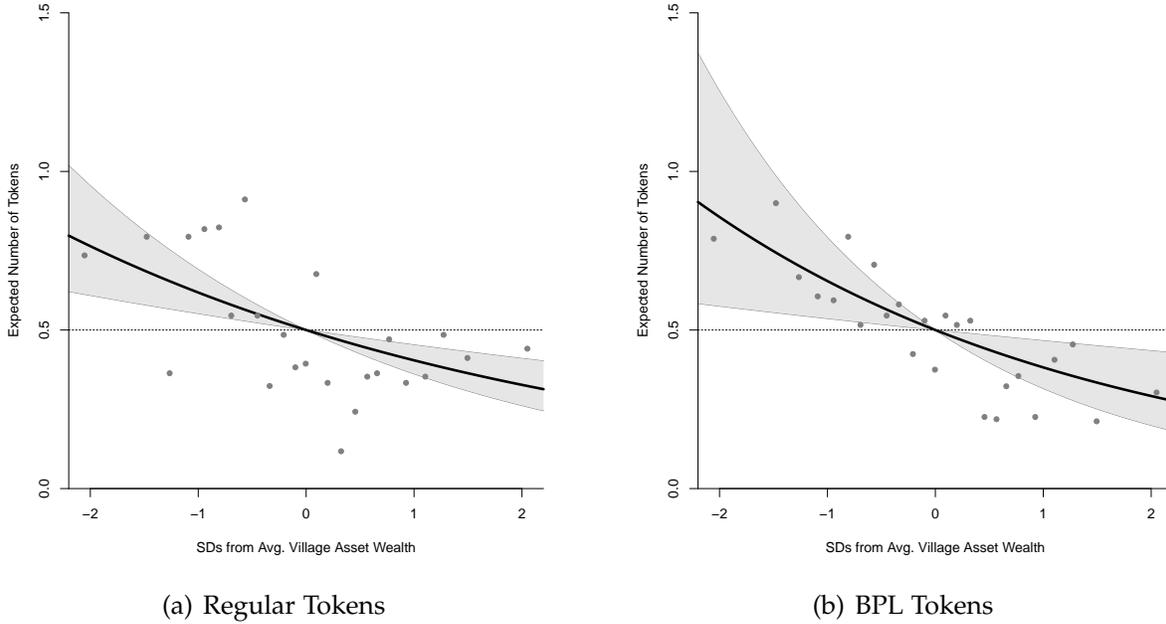
E Anti-Poverty Benefits

Our protocol was primarily geared towards understanding the underlying distributive preferences of sarpanch, which captures the targeting biases that local leaders will apply to the extent that they have discretion over everyday allocation. In weaker state capacity contexts, like in this study, these preferences likely have a relationship to behavior related to benefits with serious institutional constraints. In order to understand the role of personal preferences in distributive outcomes, we designed a "pro-poor cue." In this exercise, we asked the sarpanch to repeat the exercise above, but in a manner as if they were newly allocating below-poverty-line (BPL) benefits, i.e., welfare benefits in the Indian system. We also stipulated that no economic benefits would accrue to recipients of tokens in this exercise. This was done to remove discernible economic incentives for biased targeting. The pro-poor cue, thus, was designed to maximally remove biases from personal preferences in distribution in a weak state capacity scenario, but, as we will see below, such biases still persist in the data. While this may seem like a weak constraint, our results below demonstrate that this "pro-poor" cue has discernible effects on behavior, and observed behavior in this pro-poor cue exercise is quite related to actual distribution of benefits.

E.1 Asset Effects of the "Pro-Poor" Cue

Figure 6 plots the estimated impact of the asset measure on expected number of tokens for the voter, comparing models without (regular tokens) and with (BPL tokens) an explicit cue for targeting the poor. As described above, the asset measure is normalized to have mean 0 and standard deviation 1 inside each GP. The curves and coefficients are to be understood with respect to standard deviations from the mean asset wealth among sampled voters in the GP. For instance, a value of -1 for the asset measure means that the voter is one standard deviation below the mean asset wealth in the GP. The model predicts an 19% increase in allocation without the pro-poor cue and a 23% increase in allocation.

Figure 6: Expected Number of Tokens vs. Asset Wealth Comparison



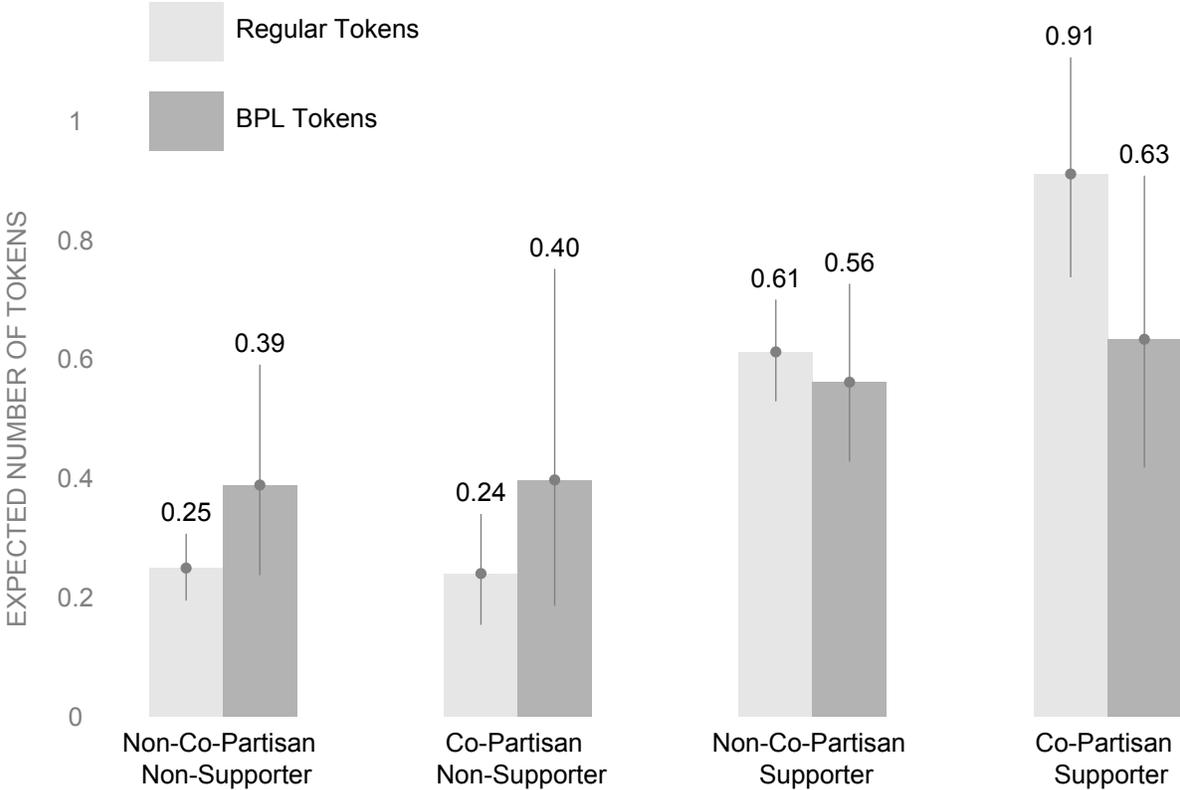
The gray points in figure 6 are the binned averages of tokens across 25 bins (approximately 34 observations per bin), with cutpoints spaced every 4 percentile points, over the distribution of relative asset wealth. That is, the points display the average number of tokens given to individuals included in a particular bin of relative asset wealth. Consistent with our expectations, the coefficient on asset wealth is significant in both regressions, with the magnitude greater when there is an explicit pro-poor cue. This demonstrates the noticeable targeting of poorest voters in the data regardless of cue, and provides some evidence that sarpanch are further responsive to explicit pro-poor cues, perhaps due to institutional prerogatives.

E.2 Political Biases under the "Pro-Poor" Cue

Figure 7 reports the estimated expected number of tokens for perceived electoral supporters and non-supporters without and with the pro-poor cue and further subdivides the effects by co-partisanship. As in the main text, under regular tokens the sarpanch believes the voter supported him in the last election, then he is willing to give significantly more tokens to that voter as compared to a non-supporter. When we further subdivide the results by whether the voter is a co-partisan of the sarpanch, we see more nuanced results. When there is no pro-poor cue, the sarpanch allocates more towards co-partisans; however, when we introduce a pro-poor cue, this co-partisan effect disappears, suggesting that the impact of sociopolitical ties are impacted by institutional constraints. Even in the case of the supporter effect, while the magnitude is large, the

difference is not significant under a pro-poor cue.

Figure 7: Political Biases Comparison



E.3 Comparison to Actual Distribution

A natural concern is that our pro-poor cue is too disconnected from, and thus has little relevance for, the actual distribution of anti-poverty benefits. In order to understand the applicability of our measured preferences for actual distribution, we compared our lab behavior to the actual distribution of benefits. In particular, we focus our comparison on whether voters received two benefits, below poverty line (BPL) status and Indra Awas Yojana (IAY) benefits. The first benefit entitles a household to purchase foodstuffs at a reduced price, and the second benefit entitles households to build a home using a government grant. There are only a small number of households that receive IAY benefits, and they must have BPL status to qualify for these benefits. As such, the intended recipients of IAY benefits are particularly needy households that should be targeted more heavily. We verified receipt of a BPL card by asking respondents to show interviewers their ration cards. Although IAY benefits were self-reported, new homes built through this program can be visibly identified as beneficiaries.

Figure 8: Relation Between Lab Measures and Actual Distribution

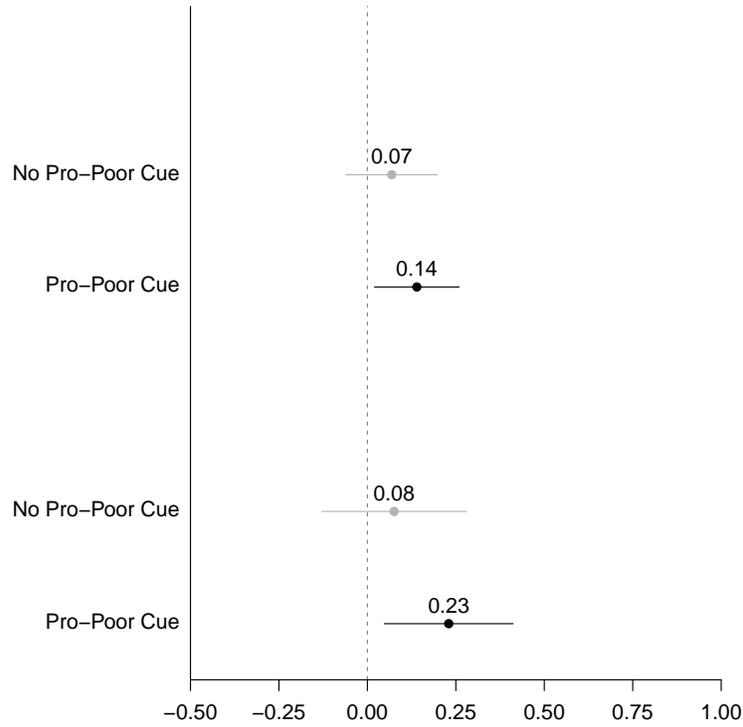


Figure 8 displays the coefficients of an overdispersed Poisson model, relating whether a voter has a benefit (BPL and/or IAY) and whether he or she received a token, using the regression formulation described above. While the coefficients are positive, when there is no pro-poor cue, voters do not receive significantly more tokens if they have a benefit. On the other hand, when there is a pro-poor cue, we find that voters who have benefits are also much more likely to receive a token, and the effects are significant. Consistent with the discussion above, the estimated coefficients are much larger for the IAY benefits than for BPL status. Having BPL status raises the expected number of tokens to a voter by 15% under the pro-poor cue, and receipt of IAY benefits raises the expected number of tokens to a voter by 26% under the pro-poor cue. This provides very strong evidence that our lab setup, when removing disincentives to allocate to the poor (i.e., institutional constraints), can be reasonably associated with actual distribution. Furthermore, we believe our basic setup, without a pro-poor cue, reasonably approximates underlying distributive preferences where the leaders are not constrained by the pressures of future electoral motivations and have low social or institutional pressures to distribute benefits in a particular manner.