

Does Local Democracy Serve the Poor?

Identifying the Distributive Preferences of Village Politicians in India

October 31, 2017

Abstract

What are the consequences of democratic decentralization on distributive outcomes under weak state capacity, where local leaders have significant discretion over distribution? We suggest that targeting biases follow from democratic selection in high-information village contexts where voters and leaders share dense social ties, rather than concerns of efficiency or vote buying highlighted in existing research. Focusing on subsistence-based villages, we argue that elected leaders prefer to target their own supporters, especially the poorest among them, consistent with the preferences of pivotal voters in the constituency. To test our theory, we develop a behavioral measure that isolates elected leaders' distributive preferences in 84 villages in the Indian state of Rajasthan. We find that elected leaders prefer to distribute 94% more to political supporters and 17% more to supporters one standard deviation below the mean village wealth. Thus, local democracy encourages targeting to the poorest villagers, albeit with political biases.

Word Count: 9,930

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 a lack of capacity and bureaucratic leakage. These concerns sparked off a period of "democratic decentralization" in the 1990s that reached countries like 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 local 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 in a context of weak state institutions mediate access to the state and have discretion over distribution, what types of voters do elected local leaders favor with private benefits and personal responsiveness?

Existing research on the distributive behaviors of local leaders has typically focused on targeting outcomes and biases in a small set of government welfare programs (e.g., Besley et al., 2004; Bardhan and Mookherjee, 2006; Galasso and Ravallion, 2005; Olken, 2006; Penfold-Becerra, 2007). Empirically, however, local leaders spend most of their time attending to the economic grievances of their constituents, petitioning the state on issues of land and public goods, determining the location of public goods, and mediating access to routine public services, in addition to playing a role in the targeting of government benefits. Thus, while local leaders rarely have explicit policymaking pow-

ers, they de facto control local economic distribution through personal discretion over which citizen's requests will be addressed and substantial discretion over the explicit allocation of private and public goods (Bohlken, 2016; Kruks-Wisner, 2015). This means that leaders' personal "distributive" preferences over their constituents often explain a wide range of targeting outcomes.

While the extension of democracy at the local level has proven to add greater legitimacy to the decisions of leaders and efficient targeting in specific programs (Olken, 2010; Drazen and Ozbay, 2016; Grossman and Baldassarri, 2012), there is less understanding of the implications of local democracy for overall distributive outcomes and biases in targeting. Prominent political economy models analyze allocation decisions in large constituencies (e.g., legislatures, municipalities) where there is great social distance between voters and their representatives. In these scenarios, elected leaders do not have detailed information about the political preferences of their constituents, nor do voters typically have regular previous interactions with most other voters in their constituency or their leaders. Here, leaders must often rely on the existing party network or political intermediaries or brokers to reach voters (Calvo and Murillo, 2004; Stokes et al., 2013), and biases in distribution are often driven by electoral strategy and the relative efficiency of reaching targeted voters (Dixit and Londregan, 1996; Cox and McCubbins, 1986).

The local democratic setting differs from the more anonymous settings depicted in standard political economy models in three important ways. First, because a local setting implies regular interaction and social dependence between citizens, voters are more likely to display concern for their fellow villagers, especially the poor, rather than purely basing their judgements of candidates by their impact on personal economic outcomes. Second, leaders have direct access to their constituents and thus are not particularly reliant on partisan networks organized by intermediaries for efficiently targeting them. Furthermore, their distributive preferences are more cleanly aligned with pivotal voters

in the constituency due to greater information about leader preferences among voters. Finally, weak state capacity in tandem with weaker reliance on partisan networks allows leaders to use significant discretion in carrying out a wide range of tasks without constraints from other institutions, i.e., distributive outcomes are to a greater degree a function of the leader's own preferences.

Accordingly, this article studies the implications of local democracy for the underlying distributive preferences of elected local leaders in a particularly important set of cases: subsistence-based villages. We argue that since voters have a strategic incentive to vote for leaders that will likely distribute back to them, elected leaders necessarily display significant targeting biases towards their supporters. At the same time, voters understand that to fail to distribute to the poorest members of a subsistence-based village – where many voters live on the edge of survival – has dire consequences for the long-term sustainability of the village in what is often termed a "moral economy" (Scott, 1976). In such settings, voters will select leaders with a predilection for targeting their poorest supporters, yielding substantial targeting to the poor, albeit with exclusion of non-supporters including the extreme poor.

To test our argument, we devise a novel behavioral measure of local leaders' distributive preferences conducted across 84 villages in the Indian state of Rajasthan that isolates these underlying preferences from "strategic" electoral, political and institutional calculations. Consistent with our argument, we find that leaders in a setting of local democracy show a significant preference for targeting their supporters, especially the poorest villagers among them. Thus, even in contexts of weak state capacity, local democracy may produce leaders that are willing to target the poor, albeit with noticeable political biases.

Our argument and results differ from existing research in several ways. First, while the political economy literature has focused on issues of electoral strategy and efficiency

to understand why political leaders may target their poorest supporters, our argument suggests that this pattern may simply result from selection effects in local democracy. Second, unlike existing work on local targeting that often infers local leaders' strategies and preferences from policy outcomes, which may be shaped by a variety of actors outside the village (Besley et al., 2004; Dunning and Nilekani, 2013), our theory and empirical strategy directly captures elected leaders' personal biases in isolation from such constraints. Finally, we extend standard political economy models of voting behavior to account for social proximity between voters and politicians.

2 Distributive Preferences Under Local Democracy

In contexts of weak state capacity, elected or unelected local governance actors are given significant discretion in targeting selective benefits and providing general assistance to citizens.¹ When these actors are given such discretion, their underlying preferences on whom to assist or target with selective benefits – what we refer to as *distributive preferences* – are likely to determine many observed outcomes. In this study, we are interested in the observed distributive preferences of local governance actors selected through elections – an institutional process we refer to as *local democracy*. Since targeting behaviors are not rule-bound as in contexts of strong state capacity, it is important to characterize biases in the distributive preferences of elected local office holders who have such discretion.

Distributive preferences shape outcomes over which local governance actors have complete or substantial discretion. In India and many other developing countries this is particularly pertinent to the "everyday assistance" that local leaders give to their constituents, such as filling out a form or contacting an important bureaucrat or politician to make sure a benefit is delivered, as well as in the targeting of welfare benefits, which

¹Local governance actors refer to any local actors with authority over state distribution.

empirically constitutes the vast majority of their work (Kumar, 2006). Unlike government schemes that only target a narrow subset of the population (e.g., pensions), this form of assistance impacts the economic well-being of all citizens. Since local leaders have broad authority over economic distribution in the village (and little policymaking power), we assume that voters' preferences are primarily driven by concerns over the allocation of targeted benefits and personal responsiveness rather than programmatic issues.

Under these scope conditions, we develop a theory to understand how the institution of local democracy "selects" leaders with particular sets of distributive preferences in subsistence-based societies. In particular, voters have a strategic incentive to select leaders who are likely to favor them in everyday assistance and targeted distribution. In the high-information setting of local democracy, this means that political leaders who prefer to target their coalition of supporters will be elected.² Furthermore, because of the social imperative to target the poor in subsistence societies, pivotal voters will select leaders who display a preference to target their poorest supporters, and therefore will likely have poorer villagers – who are living at subsistence – in their coalition of supporters. This "political selection" logic, thus, yields leaders that target a significant proportion of the poorest villagers, albeit with serious political biases that may exclude the poor among non-supporters.

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, and adhere to the principles of electoral democracy, to have some chance of winning the election. Second, because electoral constituencies are small, local democracy takes place in a set-

²In a non-programmatic context where leaders only have authority over the allocation of favors and a limited supply of selective benefits this is particularly true.

ting 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). Since local leaders know voters personally, they can observe the demographic characteristics (e.g., economic need) of their constituents.³ This means that local leaders can efficiently target benefits and favors to the voters they wish to target. At the same time, 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 prior to the election. This is especially true in local democratic settings because the most popular candidates are those whom have established reputations for effectiveness and responsiveness (See Auerbach and Thachil, 2016).

Together, this means that voters can observe local candidates' distributive preferences and that elected local leaders possess the information required to efficiently target benefits according to voters' demographic characteristics and visible associations with political leaders in the village.⁴ In contrast to models that emphasize efficiency concerns over targeting (Cox and McCubbins, 1986; Dixit and Londregan, 1996), this means that targeting biases are largely a function of leaders' underlying distributive preferences in a context of great discretion. Moreover, as in any democratic setting selecting a single leader, a winning candidate must procure a plurality of votes. In local democracies, where elections are free and fair and where voters can accurately observe leaders' distributive preferences ex ante, this means that the outcome of the election is consistent with the distributive preferences of pivotal voters who can swing the election (Downs,

³Extensive research corroborates the high-information nature of village politics (Alderman, 2002; Alatas et al., 2012).

⁴While the ballot is genuinely secret (REDACTED), interviews suggest that local leaders can accurately identify those who belong to their local partisan networks.

1957).

2.2 Political Biases Under Local Democracy

Under the institution of local democracy, elected leaders are often asked to take the place of rule-bound bureaucrats for the purposes of distribution. While this may have a positive impact on increasing accountability between citizens and local office holders, it may also generate targeting biases. These biases follow from the logic of electoral democracy, which requires candidates to develop and maintain minimum winning coalitions of voters in order to win the election. This means that voters have a strategic incentive to support a candidate that can plausibly win and who will be responsive to supporters rather than non-supporters (otherwise, there is no strategic benefit to voting for the candidate).

Since we are interested in the preferences of the elected leader, we may restrict our discussion to candidates with a feasible chance of winning. Such a candidate will already have a significant base of political support, perhaps through existing work in the village as a broker or intermediary or due to a family history in politics. In principle, this stable or "core" base of support may be a function of co-partisanship, co-ethnicity, or some other social tie. Because core voters are likely to have close sociopolitical ties with the leader, and given the leader's incentive to maintain their personal networks and encourage supporters with weaker ties to the leader to more closely affiliate with the leader (Stokes et al., 2013; Auyero, 2001), it stands to reason that any candidate will have a preference for targeting their core base of voters.

In any competitive electoral system with regular alternation in power, however, a winning candidate will have to appeal beyond this core base to less committed "supporters" to reach a plurality of support. Therefore, candidates who may feasibly win the election must demonstrate distributive preferences that include plausible support-

ers in addition to core supporters. That is, since voters strategically select candidates that are most likely to distribute back to them, elections necessarily yield leaders with preferences for targeting their supporters to the exclusion of non-supporters. Moreover, when there is no dominant ethnic group in the constituency, as in our study, one expects the core base and plausible supporters to be made up of a multi-ethnic coalition of co-partisans (Dunning and Nilekani, 2013).

Finally, as implied by the high-information context of local democracy, elected local leaders can target their political supporters efficiently, particularly relative to the case in larger constituencies. Thus, rather than distribution being driven by concerns of efficiency in delivery, we argue that political biases in distribution may simply be a result of the selection effects of local democracy according to voters' strategic incentives. Furthermore, the literature on clientelism assumes that political actors who are quite poor at targeting their own supporters must rely on existing partisan networks for this purpose, thereby generating biases towards "core" political supporters who can be more easily reached by partisan networks (Cox and McCubbins, 1986; Dixit and Londregan, 1996; Calvo and Murillo, 2013). In contrast, our logic implies that voters select leaders who have a preference to target their core supporters in a context where efficiency concerns do not apply.

2.3 Variation in Political Biases and Pro-Poor Targeting

In any democratic setting, a winning candidate must procure a plurality of votes. If pivotal voters, as is often assumed in standard political economy models (Meltzer and Richard, 1981; Alesina and Rodrik, 1994), judge the distributive preferences of candidates based on whether it will increase their own assets, then we should expect pivotal voters to select leaders who have preferences that disproportionately target themselves in distribution. This is consistent with democratic selection in more anonymous electoral

contexts that have no role for the density of social ties.

The context of dense social ties among voters, however, changes the nature of voters' distributive preferences. In areas where a significant portion of the population is living at subsistence levels, the existing social structure is often used to mitigate economic and security risks in what is referred to as a "moral economy" (Scott, 1976). 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. Furthermore, in contexts of dense social ties such as a village where the poorest voters and pivotal voters interact with one another and belong to the same village social networks, unlike the case in more anonymous settings, there is reason to expect pivotal voters to exhibit preferences for targeting those who are poorer than themselves. This is consistent with research on social preferences which shows that non-poor respondents are more supportive of welfare programs when either there is a low degree of social distance between them or when they fear the personal cost of excluding the poor from distribution (Fafchamps, 1992; Rueda and Stegmueller, 2016).

The prevalence of pro-poor preferences in subsistence societies has important implications for the observed preferences of elected political leaders. First, because of the concerns of the moral economy, a coalition that excludes the poor is not politically sustainable; candidates who are unwilling to distribute to the poor and do not have the poor in their coalition cannot plausibly win an election. Thus, a reasonable proportion of the subsistence level population must be included in any winning coalition. Second, because the moral economy entails protecting those most likely to fall below subsistence levels, the leader should target the poorest members of his coalition disproportionately.

Unlike the predictions of models with economically self-interested voters, our theory predicts substantial targeting to the poorest citizens due to democratic selection in this context.

2.4 Hypotheses

In sum, we expect there to be significant political biases in the distributive preferences of elected leaders in local democracy. However, there is significant variation in the amount of political bias demonstrated towards a citizen. The imperatives of the moral economy and general pro-poor preferences imply that elected leaders should display the greatest political bias towards their poorest supporters.

H1. Political Bias: *The elected leader will display a preference to target her own supporters, and an even greater preference for targeting her co-partisan base of supporters.*

H2. Pro-Poor Preferences: *Among those in the leader's political coalition, the leader will display the greatest preference for the poorest citizens.*

3 The Case of India

We test our theory in rural regions in the Indian state of Rajasthan. In this section, we demonstrate that Rajasthan meets our definition of local democracy and describe the institution of the village council (gram panchayat or GP), and the role that the sarpanch plays in distribution.

3.1 The Rise of Local Democracy in India

During the peak of Congress dominance in the 1950s, landed upper caste elites could be relied upon to deliver the votes of blocs of poorer voters (Kothari, 1970). 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 local elites with little need to target benefits to non-elite voters. This was feasible because land-owning, upper caste elites held influence over the large number of poor agricultural laborers whom they employed and dominant castes also held sway in a context of rigid caste hierarchies at a time when they were not yet challenged by lower caste political movements (Srinivas, 1959). Although the conditions for local democracy – which requires that voters can vote according to their preferences – may not have been present in rural India the 1950s, research suggests that this system has broken down in recent decades 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). Along with a strengthening of the secret ballot by a vigilant, independent Election Commission (ECI) (Sridharan and Vaishnav, 2017), we have seen a rise in the autonomy of the Indian voter (REDACTED).⁵ The rise in party competition, heterogeneity in vote preferences among members of the same ethnic groups in local and higher-level elections (Dunning and Nilekani, 2013; Thachil, 2014),

⁵Although local elections are managed by state election commissions rather than the federal Elections Commission of India, recent research attests to the secret ballot in GP elections (Anderson, Francois and Kotwal, 2015; Bohlken, 2016).

and anti-incumbency (Uppal, 2009), 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.

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, sarpanch in Rajasthan among other north Indian states, are directly elected by a plurality of the electorate of the entire GP.⁶ Sarpanch in our data were elected in 2010, which was the fourth election cycle since the 73rd amendment was passed.⁷ The 73rd amendment also instituted a system of rotating quotas for marginal groups and women for elected positions in the GP. This has had important consequences for village politics, although recent work and our results suggest that these quotas have not fundamentally impacted distributive outcomes (Dunning and Nilekani, 2013; Chauchard, 2017).

3.2 Local Leaders and Everyday Distribution

Village council presidents (sarpanch) play a central role in mediating access to the state for their constituents through everyday responsiveness to personal requests and through their 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; Pattenden, 2011). While the decision of sarpanch to respond to citizens'

⁶In our data, a GP includes approximately 1100 households—according to the 2001 census of India.

⁷Prior to the 73rd amendment, Rajasthan also held local elections under different requirements (Narain, 1964).

requests for mediation comes closest to our scenario of full discretion, understanding distributive preferences is also important for understanding how local leaders employ their more limited discretion over policy implementation. For example, sarpanch play a key role in the implementation of anti-poverty programs such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which guarantees 100 days of paid labor (on government infrastructure projects) to all Indian citizens and currently constitutes the lion's share of local government budgets. Sarpanch also have more 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).⁸ In short, we can view the decision of sarpanch to respond to the routine requests of their constituents to be a matter of full discretion; sarpanch are influential but not determinative actors when it comes to the targeting of selective government benefits.

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 Party in every state assembly election since 1993, usually by small margins of victory. Although party symbols are not permitted on the ballot in GP elections, parties have broadly penetrated the GP; recent studies including this one show that partisanship is salient to local distribution.⁹ Moreover, Rajasthan's two major parties both compete for the votes of the poor (Thachil, 2014). This differentiates Rajasthan, and India more broadly, from monopolist contexts of machine politics where the "machine" party is en-

⁸This includes a range of subsidies from cooking oil to healthcare.

⁹Dunning and Nilekani (2013) find that Rajasthani voters correctly identified the party of their sarpanch 96 percent of the time.

trenched in power and faces little competition for the votes of the poor (Medina and Stokes, 2007; Calvo and Murillo, 2004). At the same time, Rajasthan has an institutionalized party system relative to other Indian states (Chhibber, Jensenius and Suryanarayan, 2014). 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 two major parties.

4 Design and Empirical Strategy

We continue a recent tradition of lab-in-the-field experiments (Grossman, 2011) that investigate the impact of ethnicity (Habyarimana et al., 2009), partisanship (Fowler and Kam, 2007), and democratic selection (Baldassarri and Grossman, 2011), on targeting biases and economic distribution. Our lottery measure of distributive preferences was embedded in cross-referenced sarpanch and voter surveys conducted in 84 GPs across Rajasthan from January to February 2013. The sample frame was rural, poor contexts characterized by some degree of electoral competition and voter respondents were restricted to heads of household.¹⁰ Specifically, we restricted sampling to sub-districts (blocks) with average margins of victory in block-level (i.e., panchayat samiti) ward elections of 15% or less and that were at least 75% rural. GPs with below poverty line (BPL) rates of 20% and contested local elections were randomly sampled in blocks that met these criteria.¹¹ Our sample frame allows us to capture contexts of local democratic competition and subsistence societies where the implications of political selection for responsiveness to the poor is particularly important.

¹⁰The restriction to predominantly male heads of household maximized the chance that leaders and voters interacted in the past

¹¹Further details on the sampling procedure are provided 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 targeting 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. Crucially, this design forced sarpanch to allocate tokens to no more than 50% of sampled villagers, which makes the measurement of targeting biases possible.

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 how the sarpanch allocated tokens from observing the winner of the lottery. Furthermore, the prize was disbursed as an unannounced 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 isolate the everyday distributive preferences of sarpanch from social, political, and bureaucratic constraints. First, sarpanch did

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).

¹³Sarpanch were not told who won the lottery

not plausibly allocate tokens according to an electoral strategy since they cannot receive credit or blame for lottery outcomes. 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. 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.¹⁴ 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 were ascertained by cross-referencing the token allocation of the sarpanch with the data provided by voter surveys conducted the previous day.

4.1 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.¹⁵ To capture

¹⁴We designed a BPL card allocation version of the tokens game and show that there is substantially more pro-poor distribution with less partisan bias than is the case in our distributive preferences measure in appendix E; this is consistent with the institutional constraints of BPL card allocation.

¹⁵This measure broadly captures voters who the sarpanch does not consider to be certain non-supporters.

ties, we asked 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 based on voters' self-reported identities.¹⁶ 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 the wealth of the voter, we constructed a scale based on an item response model of observable assets of the voter.

4.2 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 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.

The statistical 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, then each voter would have the identical number of tokens in expectation (the average). Thus, if a

¹⁶We used two different definitions of co-ethnicity, jati and varna, which yield substantively similar results and present results on the former. Reflecting ethnic politics in India, Muslims were coded as a separate category in both measures.

voter has a desirable attribute, we expect him 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.

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 overdispersion) is appropriate. A quasipoisson regression model provides the same mean function as poisson regression, λ_i , for observation i , but allows for overdispersion by estimating variance $\sigma^2 \lambda_i$ at observation i .¹⁷ Because the relative impact of each variable is likely to be different in each GP, we fit a hierarchical model varies coefficients by GP. 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, and x_{iv} denotes a predictor for individual i in GP v .

¹⁷In the standard poisson distribution, the variance is fixed at λ_i , the same as the mean.

5 Scope Conditions

As argued in section 2, we are particularly interested in understanding how local democracy functions in subsistence-based societies. We begin the section by demonstrating that our theoretical scope conditions are satisfied in the sample, namely: 1) politics is reasonably competitive at the local level; 2) a sizeable subset of sarpanch have preferences that are likely known to constituents; 3) a significant proportion of voters can be characterized as poor; and 4) the relative wealth of citizens in the GP is known to the sarpanch.

5.1 Characterizing the Sample

Our theory of local democracy is built upon the assumption of free and fair elections in 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 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 sampled villages (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).

[TABLE 1 ABOUT HERE]

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 Rasch model (Gelman and Hill, 2007) was fit using Markov Chain Monte-Carlo (MCMC) using the program JAGS to construct a raw asset score.¹⁸ 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 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.

[TABLE 2 ABOUT HERE]

¹⁸Let $y_{ik} \in \{0,1\}$ denote a binary outcome variable for person i and object k , $1 \leq k \leq K$. A two parameter Rasch 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 .

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

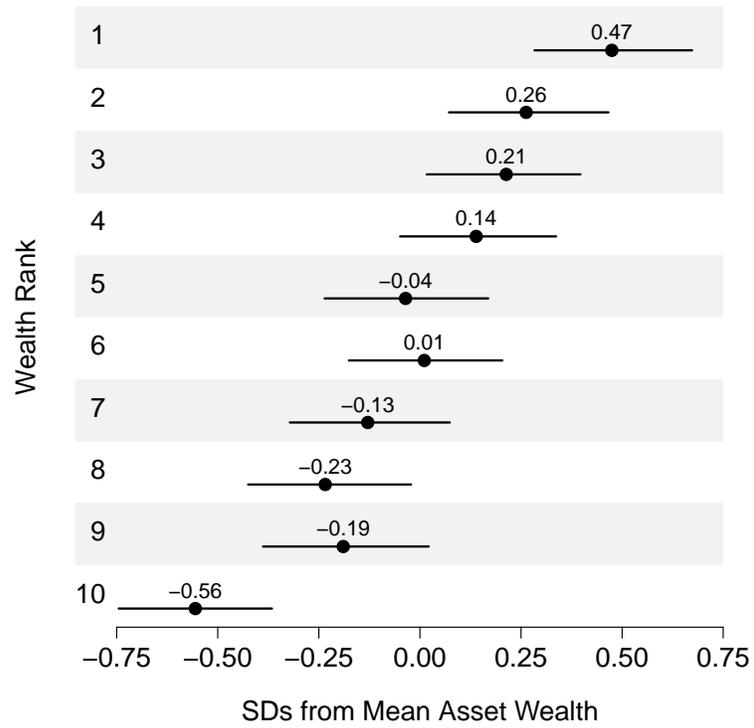
Table 2: Toilet/Refrigerator Ownership by Asset Score

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.

To establish that sarpanch observe the relative wealth of their constituents, 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 0.56 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.

[FIGURE 1 ABOUT HERE]

Figure 1: Sarpanch Assessments of Wealth vs. Asset 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 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.

Voters and sarpanch in our sample have reasonably close ties. As stated, there is an average of only 1100 households per GP in sampled GPs, and sarpanch reported to know 95 percent of sampled voters personally. Moreover, candidates for sarpanch often served as unelected fixers or elected GP ward members prior to contesting elections for sarpanch (Kruks-Wisner, 2015; Pattenden, 2011), with 31 percent of sarpanch in our data serving as GP ward representatives previously.¹⁹ 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.

Finally, local democracy requires some degree of competition for the screening mechanisms of elections to take effect. At the outset, the sample frame includes GPs that were considered moderately or very competitive by block-level party leaders and non-competitive GPs were excluded. Second, we coded partisan competition at the polling booth level for each polling booth in our sample for the 2014 parliamentary election.²⁰

¹⁹Ward representatives are elected council members of the GP, which is led by the sarpanch.

²⁰We chose to link our data to polling booth results to verify that our GPs capture multi-party competition. While this election – the only one that could be accurately linked to our data at the time of writing – was substantially less competitive than is the case with lower level elections, we show substantial multi-party competition at the local level even when one party (The Bharatiya Janata Party) was a

The median (and average) effective number of parties/candidates (ENP) at the polling booth level is 2.1. If two parties each received exactly 50% vote share, ENP would take the value of 2; as such, ENP values greater than 2 are typically seen as a reasonable measure of a competitive electoral scenario. Third, while GP election data is unavailable, 90% of sampled sarpanch were serving their first term and interviews suggest that these elections are often hotly contested.²¹ Given that our electoral setting displays high levels of alternation and competition, we can be reasonably certain that voters are making genuine choices and that their preferences and strategic incentives are reflected in their elected leaders.

6 Characterizing Political Biases in Allocation

In characterizing targeting biases, we remind the reader that an "unbiased" allocation would put the expected number of tokens at 0.5. Anything above this value can be viewed as evidence for a *premium* in allocation for the voter. At first blush, there seem to be a strong premium for perceived political support. The average perceived non-supporter received 0.26 tokens, while the average perceived supporter received 0.61 tokens. We regard the set of voters that report being co-partisans of the sarpanch in addition to supporters as a more stable base of supporters due to partisan affinity.²² 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

decisive winner overall.

²¹This level of first-term sarpanch is plausibly due to a system of rotating caste and gender quotas which often makes the incumbent ineligible to run for reelection; nonetheless, this means that there is substantial alternation in power at the GP level.

²²In Indian village politics, parties have an incentive to make sure their supporters vote for a leader from the same party, so that this leader can hook into the larger party organization across the state.

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). Similarly, we show in appendix D that non-supporters also receive substantially fewer tokens when co-ethnicity is taken into account. At the same time, these aggregates may be correlated to relative asset wealth, so we must measure these effects within our modeling context. 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 measured in various ways.

[FIGURE 3 ABOUT HERE]

Figure 2: Expected Tokens and Electoral Support

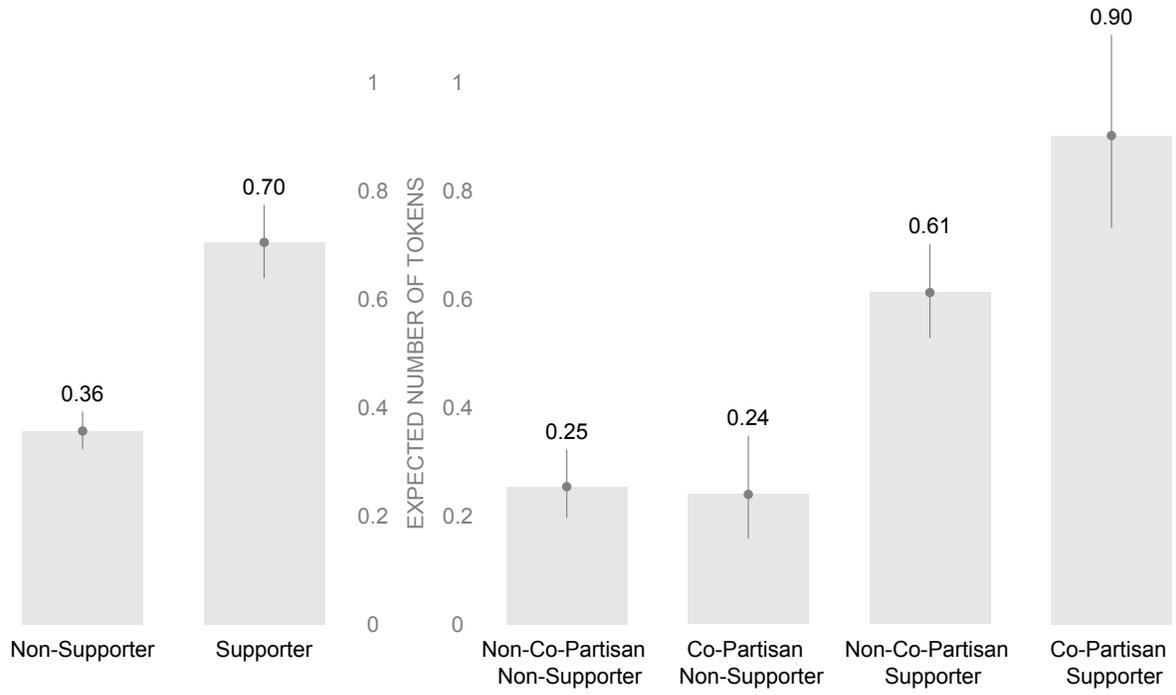


Figure 2 reports the estimated expected number of tokens for perceived electoral supporters and non-supporters, further subdividing the effects by co-partisanship (with 95% posterior/credible intervals). The expected number of tokens for supporters and non-supporters are derived from our core model, 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 of appendix C, 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 (94%), as compared to a non-supporter. To test whether the strength of the sociopolitical tie affects the level of allocation, we test whether there is a discernible increase in allocation to co-partisan supporters (whom we view as more stable supporters). 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.²³ Taken together, our results strongly confirm the expectation of targeting biases towards political supporters in hypothesis 1; this effect is particularly pronounced for more stable co-partisan political supporters.²⁴

²³These differences are highly significant with 99% or more of the difference in the posteriors being bounded away from zero.

²⁴We note that we do not find statistically significant effects for co-ethnicity. A full discussion of the results is included in Appendix D. This provides some support for the idea that minimum winning coalitions in multi-ethnic societies tend to be built around political and partisan identities (Dunning and Nilekani, 2013).

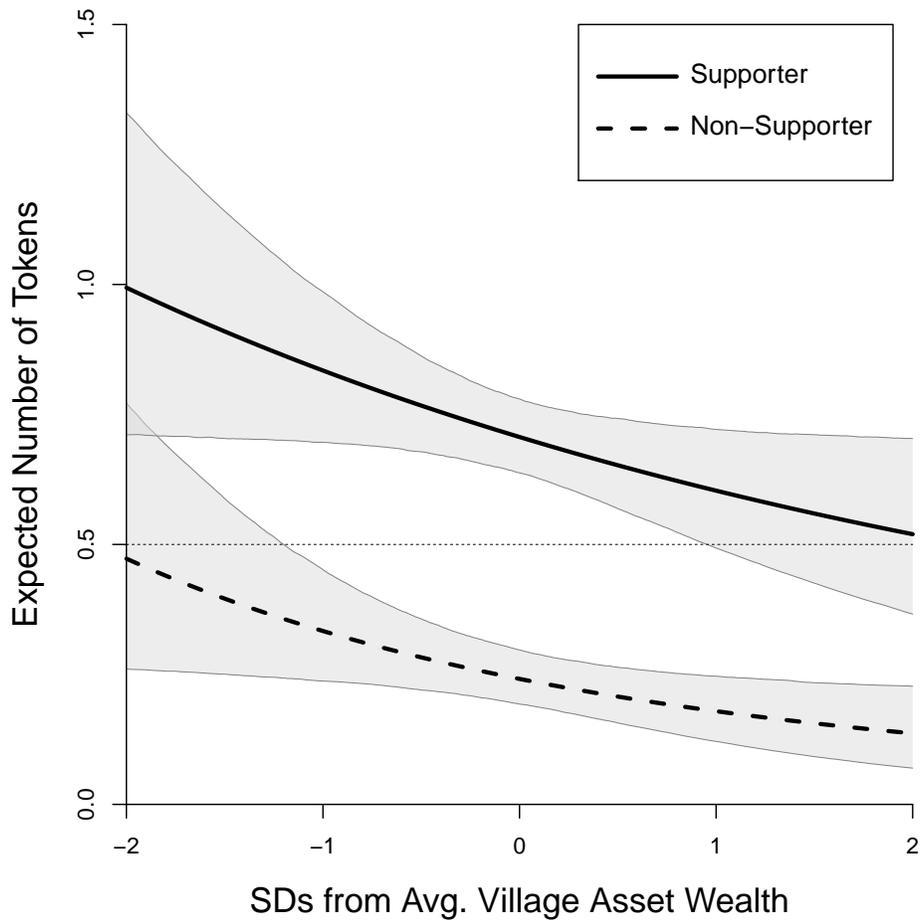
7 Targeting of the Poor in Allocation

In this section, we investigate our second hypothesis, that an elected leader will have a preference to target the poorest members of his supporter coalition. We also consider the welfare implications of this pattern of distribution later in this section. Figure 3 plots the estimated impact of the asset measure on the expected number of tokens allocated to the voter, broken down by whether the voter is perceived to be a supporter of the sarpanch (with 95% posterior/credible bands). 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.

Figure 3 displays the the expected number of tokens at the mean level of electoral support (68%) estimated from our core model. The graph shows that targeting of the poorest citizens among both supporters and non-supporters, 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. Among political supporters, a one standard deviation decrease in wealth from the mean is associated with a 17% increase in the expected number of tokens. This supports our expectation that elected leaders will bias distribution toward their poor supporters while excluding poor non-supporters even when they are extremely poor.

[FIGURE 3 ABOUT HERE]

Figure 3: Electoral Support vs. Asset Wealth



7.1 Welfare Implications for the Poor

We have shown that the expected allocation is substantially greater among poorer supporters of the elected leader, while the poor among non-supporters are often excluded. But what are the aggregate welfare implications of this pattern of allocation, i.e., does it result in overall targeting towards the poorest in the GP?

At the outset, it is important to note that in 81% of GPs, the sarpanch allocated a token to an individual with a raw asset score less than zero, i.e., an individual likely living at subsistence levels who is poorer than the median citizen in our sample. Thus,

there is substantial targeting to individuals living at subsistence in this system. But are the poorest people in a village systematically targeted? In appendix E, the regression coefficient on the relative asset wealth of the voter remains remarkably consistent over each of the eight models, with the various models predicting a 21-23% increase in allocation to a voter with asset wealth one standard deviation below the GP mean, holding all else constant. This implies, that even controlling for the most relevant voter characteristics, substantial targeting towards the poorest citizens of the GP is observed.

FIGURE 4 ABOUT HERE

Figure 4: Expected Number of Tokens vs. Asset Wealth

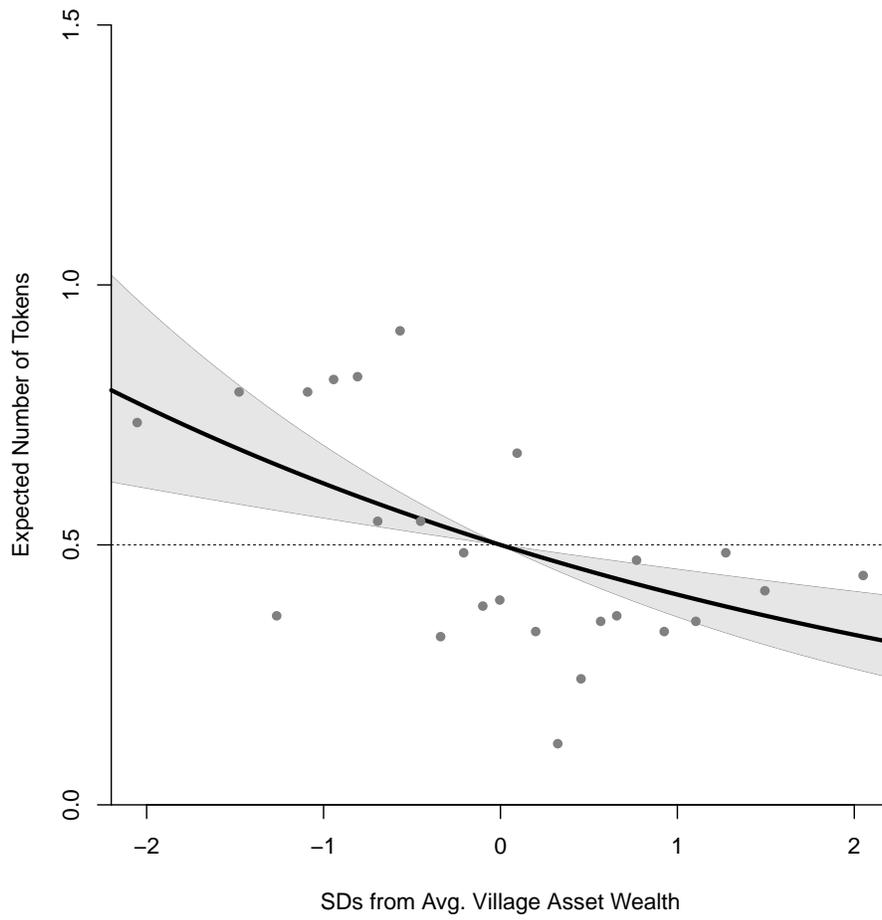


Figure 4 displays the predictions generated from our core model, which controls for relative asset wealth, perceived political support, and the interaction between the two (column 2 in Appendix C). In order to generate the figure, we assumed the level of support was at the GP mean and generated curves from the fixed coefficients in the models. The gray region around the curve is the 95% posterior interval (generated from the model) at each level of wealth.

The gray points in figure 4 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, no binned average is above 0.5. We also note that repeat the laboratory measure of discretionary distribution for anti-poverty benefits in appendix F, yielding substantially similar biases (and aggregate welfare impacts) to those described above.

This suggests that there is overall targeting towards those that are relatively poor in the village. Thus, even though targeting is quite politically biased, substantial targeting to the poorest villagers is observed.

8 Robustness and Connection to Actual Distribution

Our results may vanish once we consider a larger set of voter characteristics correlated with assets and political support in the models, and vary the effects by sarpanch attributes (namely that the effects are only driven by a subset of non-elite sarpanch). In table 7 in the appendix, we consider a large set of possible voter/sarpanch characteristics as confounders to our core model (with 29 predictors) and find that the magnitudes of

the variables of interest remain very similar.

Another 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 is a deviation from any programmatic ideal of distribution). In order to test whether our results are driven by Hawthorne effects, we calculate 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. Moreover, if Hawthorne effects are strong, we should see that sarpanch provide tokens to the those whom they personally identify as one of the two poorest individuals in the village, even when they are non-supporters. This was also often not the case; only 40% of non-supporters ranked as among the two poorest individuals received any tokens as compared to 75% of supporters. This demonstrates that our behavioral method is quite effective in picking up social biases that differ from any programmatic ideal and that the observed results aren't purely driven by Hawthorne effects.

A final 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 a 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. We also note that when we model sarpanch discretion for anti-poverty benefits (yielding similar political and pro-poor biases), the resulting behavior tracks the true distribution of anti-poverty benefits well (see appendix F).

9 Discussion

This article shows that local democracy selects leaders with distributive preferences that are sufficiently broad to include a plurality of voters in the locality, and in the context of subsistence-based societies, select those who prioritize the poorest members of that coalition. This implies significant distribution to the poor in the village.

This article advances research on distributive politics in important ways. We consider the consequences of local democracy – a high-information context where efficiency concerns do not apply – on distribution. Existing models suggest that pivotal swing voters should be targeted where they can be efficiently targeted (Dixit and Londregan, 1996; Cox and McCubbins, 1986; Stokes, 2005). However, we find a baseline preference for core targeting due to the strength of sociopolitical ties, even where efficiency concerns don't apply. Moreover, while existing theory suggests that core targeting can be 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 such strategic concerns given the private nature of our measure of distributive pref-

erences. Rather, our evidence of core targeting is driven by political selection in local democracy. Furthermore, we argue that to determine whether core targeting is the result of electoral considerations, it must be demonstrated that public allocation favors co-partisans to a greater extent than would be the case if local governance actors simply targeted according to their baseline distributive preferences. The method we develop in this article makes this analysis possible.

We also provide an alternative logic for the targeting of poor citizens that is rooted in representation in subsistence-based societies, where a moral economy to target the extreme poor is likely to be salient. Our logic differs from research on clientelism which suggests that the poor are most likely to be targeted because they are most responsive to low-value handouts and other targeted benefits, whether this refers to vote buying or the mobilization of co-partisans (Brusco, Nazareno and Stokes, 2004; Stokes et al., 2013; Nichter, 2008; Szwarcberg, 2015). Importantly, this logic suggests that pro-poor distribution is driven by a strategy to increase vote share or to increase the size of one's network. Our theory, far from the "perverse accountability" posited in the vote buying literature, suggests that the poor are targeted in subsistence-based societies precisely because of a properly functioning democracy, namely because pivotal voters with pro-poor preferences select pro-poor leaders.

Above all, this article suggests that procedural democracy at the local level leads to the selection of leaders who prefer substantial targeting to the poor in subsistence-based settings. This is important because where state capacity is weak, as is the case in rural India and many other contexts, the screening mechanism that local elections provide may be the best assurance of post-election distribution and everyday responsiveness to the poor. At the same time, since local leaders condition allocation on political ties, strengthening bureaucratic oversight and social pressure may be necessary to reach the poorest citizens without political biases.

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. <Available at: <http://www.nber.org.ccl.idm.oclc.org/papers/w18798>>.
- 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.
- Alesina, Alberto and Dani Rodrik. 1994. "Distributive Politics and Economic Growth." *Quarterly Journal of Economics* 109(2):465–490.
- Anderson, Siwan, Patrick Francois and Ashok Kotwal. 2015. "Clientelism in Indian villages." *The American Economic Review* 105(6):1780–1816.
- Auerbach, Adam and Tariq Thachil. 2016. "Who Do Brokers Serve? Experimental Evidence from Informal Leaders in India's Slums." Presented at the Annual Meeting of the American Political Science Association. <Available at: <https://sites.duke.edu/urbanpoverty/files/2014/11/AdamAuerbach.pdf>>.
- Auyero, Javier. 2001. *Poor People's Politics: Peronist survival networks and the legacy of Evita*. Duke University Press.
- Baldassarri, Delia and Guy Grossman. 2011. "Centralized Sanctioning and Legitimate Authority Promote Cooperation in Humans." *Proceedings of the National Academy of Sciences* 108(27):11023–11027.

- Bardhan, Pranab and Dilip Mookherjee. 2006. "Pro-Poor Targeting and Accountability of Local Governments in West Bengal." *Journal of Development Economics* 79(2):303–327.
- 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.
- 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.
- Chauchard, Simon. 2017. *Why Representation Matters: The Meaning of Ethnic Quotas in Rural India*. Cambridge University Press.
- 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(2):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.

- 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.
- Drazen, Allan and Erkut Ozbay. 2016. "Does 'Being Chosen' to Lead Induce Non-Selfish Behavior? Experimental Evidence on Reciprocity." CEPR Discussion Papers. <Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2798127 >.
- 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.
- 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.
- Galasso, Emanuela and Martin Ravallion. 2005. "Decentralized Targeting of an Antipoverty Program." *Journal of Public Economics* 89(4):705–727.
- Gelman, Andrew and Jennifer Hill. 2007. *Data Analysis Using Regression and Multilevel Hierarchical Models*. New York City: Cambridge University Press.
- Grossman, Guy. 2011. "Lab-in-the-field Experiments." *Newsletter of the APSA Experimental Section* 2(2):1–26.
- Grossman, Guy and Delia Baldassarri. 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.
- Habyarimana, James, Macartan Humphreys, Daniel N. Posner and Jeremy M. Weinstein. 2009. *Coethnicity: Diversity and the Dilemmas of Collective Action*. Russell 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.
- 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.
- Kruks-Wisner, Gabrielle. 2015. "Navigating the State: Citizenship practice and the pursuit of services in Rural India." Presented at the Harvard South Asia Institute. <Available at: <http://southasiainstitute.harvard.edu/website/wp-content/uploads/2013/07/GKW/SAI-working-paper/2015.pdf>>.
- Kumar, Girish. 2006. *Local Democracy in India: Interpreting Decentralization*. SAGE Publications.
- 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.
- Meltzer, Allan H. and Scott F. Richard. 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89(5):914–927.

- 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.
- Olken, Benjamin. 2010. "Direct Democracy and Local Public Goods: Evidence from a field experiment in Indonesia." *American Political Science Review* 104(2):243–267.
- Olken, Benjamin A. 2006. "Corruption and the Costs of Redistribution: Micro evidence from Indonesia." *Journal of Public Economics* 90(4):853–870.
- Pattenden, Jonathan. 2011. "Gatekeeping as Accumulation and Domination: Decentralization and class relations in rural south India." *Journal of Agrarian Change* 11(2):164–194.
- Penfold-Becerra, Michael. 2007. "Clientelism and Social Funds: Evidence from Chavez's misiones." *Latin American Politics and Society* 49(4):63–84.
- Rueda, David and Daniel Stegmüller. 2016. "The Externalities of Inequality: Fear of crime and preferences for redistribution in Western Europe." *American Journal of Political Science* 60(2):472–489.
- Scott, James. 1976. *The Moral Economy of the Peasant: Rebellion and subsistence in Southeast Asia*. Yale University Press.
- Sridharan, E. and Milan Vaishnav. 2017. Election Commission of India. In *Rethinking Public Institutions in India*, ed. Devesh Kapur, Pratap Bhanu Mehta and Milan Vaishnav. Oxford University Press.

- 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.
- 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.²⁵ 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,²⁶ 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.²⁷

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

²⁵Rajasthan has 33 districts, 249 blocks, 7 administrative divisions, and 9177 gram panchayats in all.

²⁶Government 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.

²⁷This 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.

than 15 percent to increase the chance that we selected competitive GPs.²⁸

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 gram panchayats through interviews.²⁹ 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

²⁸Each 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.

²⁹This was necessary because electoral commission data on gram panchayat elections is not available from a centralized source.

per ward) were randomly sampled.³⁰ 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.³¹ The elite survey was fielded the day after the vote survey was completed in a given GP.

³⁰This 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.

³¹To 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
Landless	84	0.167	0.375	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:

* $\pi < 0.1$; ** $\pi < 0.05$; *** $\pi < 0.01$

The regressions described above follow the protocol described in section 4.2. 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)

	Dependent variable:			
	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:

* $\pi < 0.1$; ** $\pi < 0.05$; *** $\pi < 0.01$

The regressions described above follow the protocol described in section 4.2. 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 $\pi = 2 * P(\hat{\pi} < 0)$. 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 7: Coefficients for Robustness Regression

Dependent Variable: Expected Number of Tokens

Assets	-0.199* (0.121)	Assets x OBC Sarpanch	0.009 (0.201)
Supporter	1.285*** (0.271)	Assets x SC Sarpanch	0.005 (0.245)
Assets x Supporter	0.100 (0.214)	Assets x ST Sarpanch	-0.418 (0.414)
Rajput Voter	0.033 (0.380)	Assets x Muslim Sarpanch	0.254 (0.466)
Jat Voter	-0.340 (0.378)	Assets x Meena Sarpanch	0.214 (0.286)
OBC Voter	-0.006 (0.295)	Assets x Illiterate Sarpanch	0.151 (0.267)
SC Voter	-0.065 (0.328)	Assets x Landless Sarpanch	-0.076 (0.253)
ST Voter	0.257 (0.440)	Supporter x OBC Sarpanch	-0.008 (0.499)
Muslim Voter	0.093 (0.525)	Supporter x SC Sarpanch	-0.066 (0.746)
Meena Voter	-0.006 (0.495)	Supporter x ST Sarpanch	-1.387 (1.651)
Literate Voter	-0.572 (0.377)	Supporter x Muslim Sarpanch	-2.422*** (1.186)
Some Primary School Voter	0.594 (0.381)	Supporter x Meena Sarpanch	-0.277 (0.651)
Class 5 Pass Voter	0.613 (0.382)	Supporter x Illiterate Sarpanch	0.326 (0.832)
Class 8 Pass Voter	0.722* (0.386)	Supporter x Landless Sarpanch	-0.247 (0.725)
Class 10 Pass Voter	0.582 (0.434)		
σ^2	0.583	Observations	839
		Number of GP	84
		pD	518.5
		DIC	1892.1

Note:

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

The regression described above follow the protocol described in section 4.2. The table on the left reports coefficients from voter-side variables, and the table on the right reports (interacted) coefficients by sarpanch characteristics. 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.

D The Role of Ethnicity

The effect of co-ethnicity on allocation is less pronounced than that of co-partisan supporters. 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-co-ethnic 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 ABOUT HERE]

Figure 5: Electoral Support and Co-Ethnicity

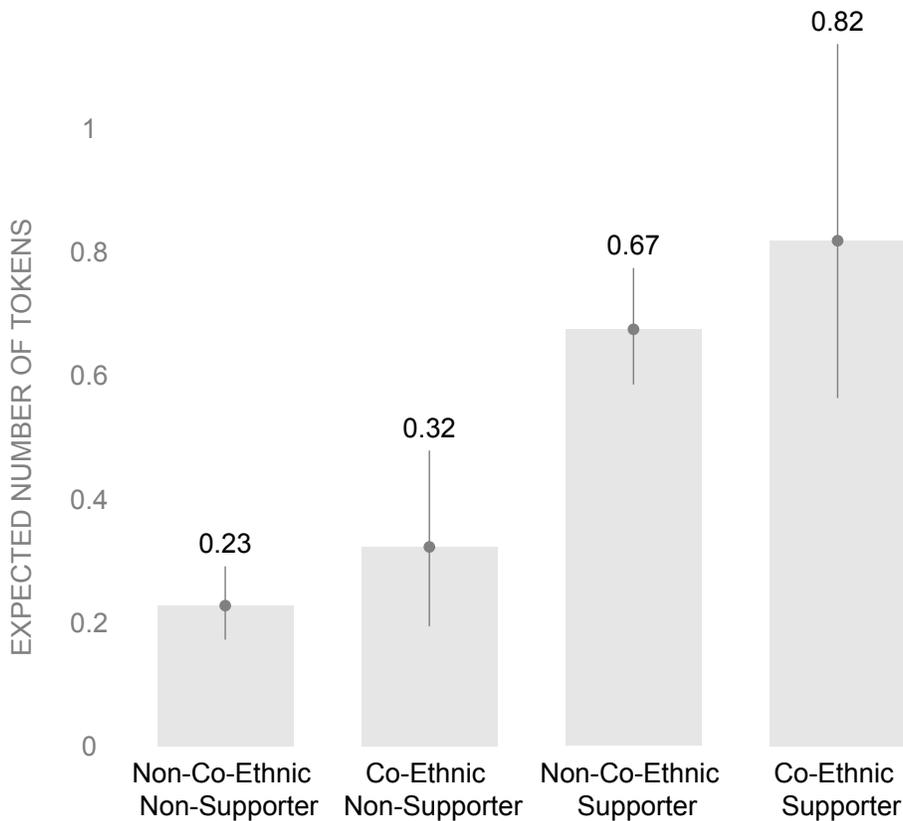


Figure 5 displays predicted average token allocation from a model that controls for relative asset wealth, political support, co-ethnicity, and the interactions between these variables, as displayed in column 6 of appendix C. The impact of co-ethnicity is statistically insignificant for both non-supporters and supporters, providing evidence for the assertion that elected leaders do not typically have preferences to narrowly focus on one ethnic group. This provides further support for the idea that minimum winning coalitions in multi-ethnic societies tend to be built around political and partisan identities (Dunning and Nilekani, 2013).³²

E Relevant Code

E.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
```

³²It 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.

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)
}
```

E.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=runiform(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)
}

```

F Anti-Poverty Benefits

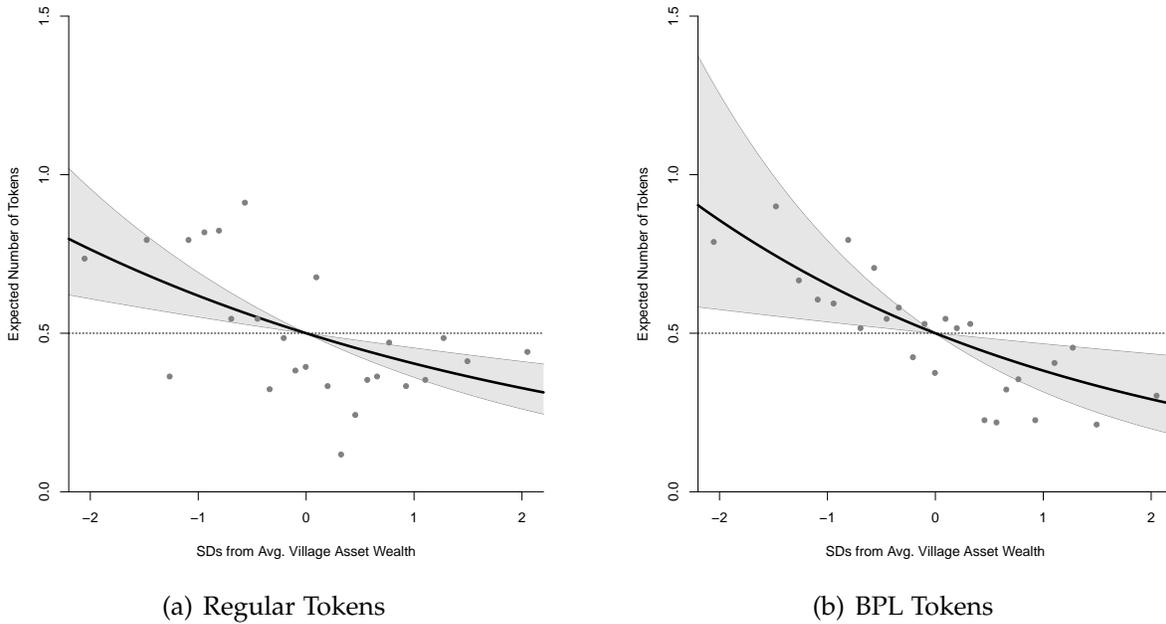
Our protocol was primarily geared towards understanding the underlying distributive preferences of sarpanch, which captures the targeting biases that local leaders will apply to the extent that they have discretion over everyday allocation. In weaker state capacity contexts, like in this study, these 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.

F.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.

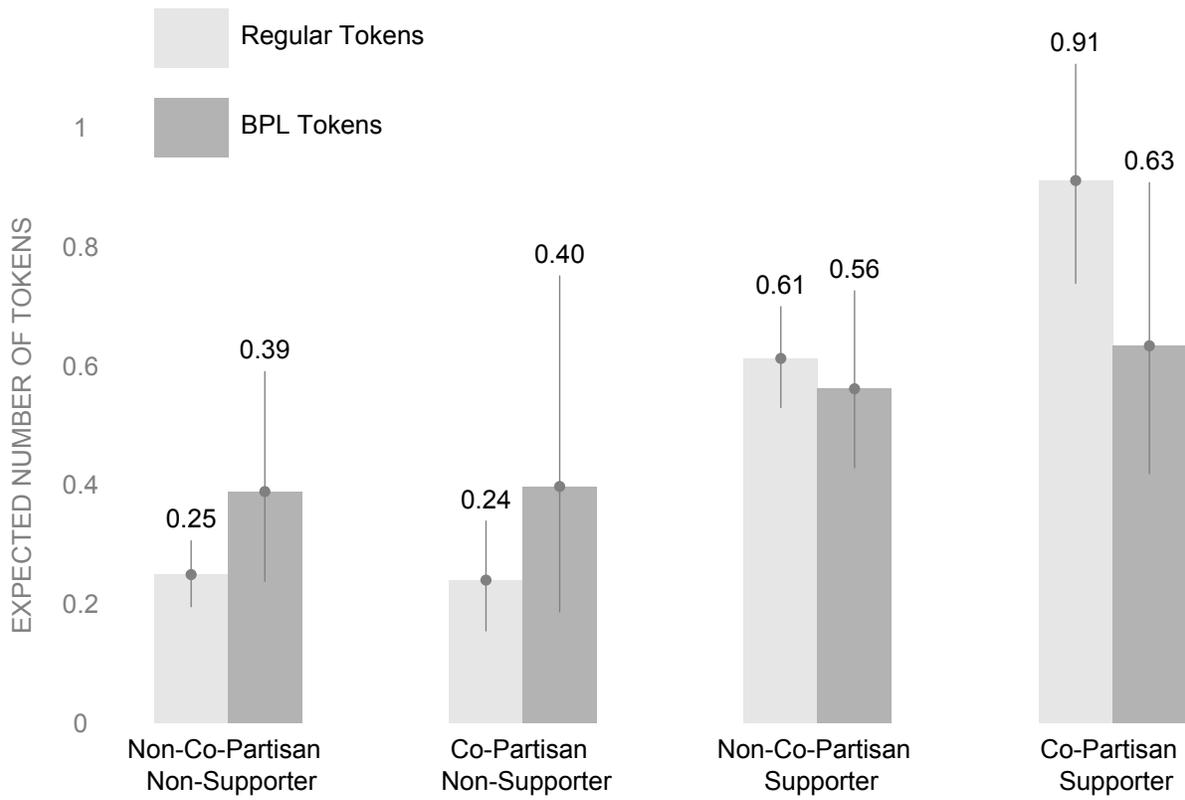
F.2 Political Biases under the "Pro-Poor" Cue

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.

F.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 Indira 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

Figure 7: Political Biases Comparison



built through this program can be visibly identified as beneficiaries.

Figure 8: Relation Between Lab Measures and Actual Distribution

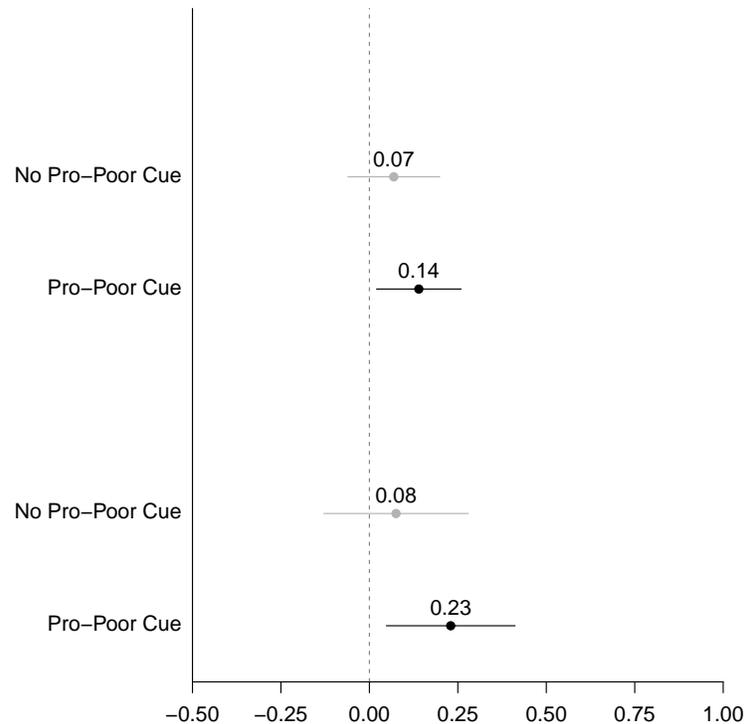


Figure 8 displays the coefficients of an overdispersed Poisson model, relating whether a voter has a benefit (BPL and/or IAY) and whether he or she received a token, using the regression formulation described above. While the coefficients are positive, when there is no pro-poor cue, voters do not receive 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.