



# Post-clientelistic initiatives in a patronage democracy: The distributive politics of India's MGNREGA

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## ABSTRACT

This article analyzes the distributive politics of India's (and the world's) largest workfare program, the Mahatma Gandhi National Rural Employment Guarantee Act. We use a unique dataset that includes census and MGNREGA implementation data at the single-constituency level for the state of Andhra Pradesh (2009–17) across an entire election cycle (2009–14). Using regression analysis, we find that the ruling party does not use the program to buy votes neither in swing, nor in core areas of support, as we find the distribution of jobs to be 'post-clientelistic'. We explain this result – surprising in a 'patronage democracy' – with the lobbying power of big farmers, an important special interest group in India's political economy. Our analysis also shows that the ruling party's distributive strategy consists of compressing job generation in core constituencies, in order to expand expenditure on materials needed for the execution of the projects. In this way, the ruling party can channel resources to contractors, who fund the electoral campaign of the party in return as our qualitative evidence suggests. The article reinforces arguments that predict that political parties will target core areas of support and develops a bi-dimensional model of clientelism that highlights the role of contractors and opaque electoral rules in determining distributive strategies.

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## 1. Introduction

This paper, using mixed methods, analyzes the distributive politics of what is arguably India's (and the world's) largest workfare program, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and disentangles the strategies that the ruling parties adopt when distributing benefits under the program.

Our theoretical interest is to contribute to debates on distributive strategies and in particular on the incentives that political parties have to target specific areas. The debate relies on two classic models of distributive politics. The first one, formulated by [Cox and McCubbins \(1986\)](#) stipulated that risk-averse politicians would prefer concentrating their distributive effort on ideologically kindred voters. The second model predicted that parties would rather target swing voters because this is a more efficient way of distributing scarce resources ([Dixit & Londregan, 1996](#)). Targeting ideologically kindred voters, who would vote for the party anyway, would imply a waste of resources that parties can

use more efficiently to convince neutral voters to switch allegiance or not to vote for the opposition.

Numerous scholars built on these two models to test empirically what kind of strategies political parties actually deploy when distributing benefits. [Golden and Min \(2013, p. 86\)](#) conclude through a comprehensive review of the literature by saying that 'political actors use their control over government resources to reinforce their electoral advantage. They distribute goods to their loyal supporters to reward them for voting, and to swing voters to buy their votes; they target marginal constituencies to preserve a majority in the national legislature; and they time the targeting so that voters will have the provision of government goods and services fresh in their minds when they head to the polls.' More specifically, while some studies find that parties target core voters – especially when political actors have information about the needs of individual voters, either because of the localized nature of the election, or because of their reliance on local brokers for benefit distribution – the majority of the empirical work on distributive politics shows that parties tend to target swing voters and marginal constituencies ([Stokes, Dunning, Nazareno, & Brusco, 2013](#)).

Recent studies, however, complicate the picture. First, [Cox \(2010\)](#) notes that there is a crucial difference between targeting

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swing voters and swing areas – a party could target a swing district, but distribute benefits to core supporters within that district. Second, [Nichter \(2008\)](#) showed that political parties have the incentive to target core voters in order to convince them to turn up at the polling station – a strategy that he calls ‘turnout buying’. Third, it is clear that political parties do not take into account only ‘economic’ considerations when formulating their strategies. Hence, while targeting core voters/areas is an inefficient way to allocate scarce resources, from a political point of view it is certainly rational for parties to nurture their own strongholds ([Gherghina, 2013](#)).

A central assumption of the literature on distributive politics is that political parties in democratic settings formulate their strategies with a single objective in mind, which is to win the maximum number of votes. We contribute to theory development by showing that this might be a secondary, rather than the primary objective of a distributive strategy. We argue, on the basis of empirical evidence from India, that one of the key drivers and determinants of the distributive strategy of ruling parties is the need to secure funds for the electoral campaigns, rather than using state resources to *directly* influence the voters. We suggest that, in contexts where electoral funding regulations are opaque (like in most of the developing world), this might be the key determinant of ruling parties’ distributive strategies. We also suggest that this makes the adoption of a ‘core’ strategy a preferred option for a ruling party which aims at maximizing its electoral prospects.

We build our theoretical argument on [Gherghina and Volinturu \(2017\)](#)’s by-dimensional model of clientelism. They argue that the vertical relationship between a patron and the client(s) (often mediated by brokers) ([Stokes et al., 2013](#)) that most models describe is not the only important dimension in a clientelistic relationship. Equally important is the horizontal dimension that connects patrons with contractors who are awarded government’s contracts thanks to the mediation of the former. In return, the contractors provide electoral funding, which candidates and parties can use to ‘buy’ votes along the vertical (patron-voters) dimension. Our paper not only provides what is, to the best of our knowledge, the first quantitative analysis of this ‘new model of clientelism’, but also applies the model to explore the incentives that political parties have when they formulate their distributive strategies.

This paper uses a unique dataset on the implementation of the MGNREGA to analyze the distributive strategies of the ruling parties in the state of Andhra Pradesh (AP). We find that parties adopt a ‘core’ strategy, but their main objective is *not* to directly influence voters through a disproportionate allocation of jobs, but rather to distribute government contracts to party-affiliated contractors, which in turn provide funds which are then used to buy votes and distribute goods before the elections.

The paper is structured as follows. [Section 2](#) offers a brief overview of the functioning of the MGNREGA and reviews the literature on its distributive politics. [Section 3](#) present our estimation strategy while [Section 4](#) presents the data, the variables and the methodology. In [Section 5](#), we present our results and use qualitative evidence to explain them. Section six concludes.

## 2. The distributive politics of the MGNREGA

The Indian Parliament passed the MGNREGA on 23rd August 2005. The Gazette of India defined it as “(a)n Act to provide for the enhancement of livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work” ([Government of India, 2005](#)). Initially, it was implemented in 200 districts of the country (Phase 1). In April 1, 2007, it was

extended to additional 130 districts (Phase 2). Since September 28, 2007, the program covers all the rural parts of the country (Phase 3).

In other words, *all* adult members of *any* rural household who are willing to work under the program have the *right* to get employment on demand. Following registration at their Gram Panchayat (GP),<sup>1</sup> wage seekers get a job card and they can then submit a written (or, often, oral and informal) application for working under the program. If workers do not get employment within 15 days, they are entitled to an unemployment allowance. The Government of India sets state-wise minimum wages, which workers receive on their bank/post office account weekly. Wages for men and women are equal. The program is largely funded by the central (federal) government (90% of the funds), but is implemented by the states and locally elected village councils (GPs).<sup>2</sup>

A number of studies evaluated the welfare impacts of MGNREGA. These include impact on poverty, education, empowerment of women, dietary intake, infant nutrition, and reduction in violence and distress-led migration ([Afridi, Iversen, & Sharan, 2017](#); [Das, 2015a](#); [Dasgupta, Gawande, & Kapur, 2017](#); [Deininger & Liu, 2013](#); [Government of India, 2012](#); [Imbert & Papp, 2015](#); [Nair et al., 2013](#); [Nayak & Khera, 2009](#)). The studies largely associate participation in the program to these welfare outcomes. An authoritative study based on panel surveys covering more than 45,000 households throughout the country concluded that the MGNREGA alone is responsible for 32 cent of poverty reduction since 2004 and for preventing 14 million families to fall into poverty ([Desai, Vashishtha, & Joshi, 2015](#)). In fact the World Bank called the MGNREGA a ‘stellar example of rural development’ (WDR 2014), which contributed significantly to reduce poverty and provides an important safety net for India’s rural poor ([Desai et al., 2015](#))).

To give an idea of how important the MGNREGA can be on the ground, consider that, according to the Rangarajan committee (set up to review the methodology to measure poverty in 2012), whoever lives in rural areas and earns less than Rs. 32 per day is poor. This translates into an annual income of Rs. 11,680. Since the average MGNREGA income in 2012 was Rs. 132 per day and the average family worked for 45 days, for a single person household at the poverty line (an old widow, for example) the program represented about half of their annual income; for a family with two working-age adults, this represents 25 per cent of the total annual income. In short: the MGNREGA represents an important and often vital source of income for many of India’s rural poor – who amount to 31 per cent of the population according to the committee’s estimates. Additionally, studies show that the MGNREGA is widely used as a safety net by an even larger section of the population, whose income is just above the poverty line ([Shankar & Gaiha, 2013](#)). In fact, according to the latest World Development Indicators, 60.4 per cent of the population lives below the 3.20 dollars/-day (PPP) poverty line.

Given the importance that the MGNREGA has for a sizable part of the Indian voters, there is a clear incentive for elected politicians to use the program as a tool for building political support, especially in light of the evidence that it contributed to the re-election of incumbents, particularly in states where it was well implemented ([Manor, 2011](#); [Zimmermann, 2015](#)). However, by establishing the *right* for everyone to get employment on demand, the MGNREGA is a ‘post-clientelistic’ policy ([Elliott, 2011](#); [Manor, 2013](#)), where local implementers do not have – at least on paper – the power to select beneficiaries according to clientelistic or other considerations. Nevertheless, many studies found that work

<sup>1</sup> The GP is the lower tier of India’s administrative structure. Each GP has an elected local council, headed by the sarpanch.

<sup>2</sup> The MGNREGA Act requires that at least 50 per cent of the funds are spent by the GPs. AP has systematically violated this section of the Act ([Lehne et al., 2014](#)).

is 'rationed' and that implementation faults limit the availability of MGNREGA work that can be distributed, which in turn 'force' local implementer to allocate work discretionally (Das, 2018; Dutta, Murgai, Ravallion, & van de Walle, 2014). Therefore, clientelism does shape implementation, especially at the very local level (Das, 2015b; Maiorano, Das, & Masiero, 2018; Marcesse, 2018; Mukhopadhyay, Himanshu, & Sharan, 2015).

Notably all of these studies are focused on the village level. To the best of our knowledge, only two studies analyzed the distributive politics of the MGNREGA at the level of the Members of the Legislative Assembly (MLAs) of the states. These are important political actors also because the state governments are in charge of the implementation of the programme. Dasgupta (2016), finds that allocation of MGNREGA work in constituencies in Rajasthan where the ruling party barely won receive significantly higher allocations of work, compared to constituencies where it barely lost; Sheahan, Liu, Barrett, and Narayanan (2018), on the other hand, find limited distortion in work allocation in AP.

Our paper is unique within the literature on the MGNREGA as it looks at the distribution not only of jobs in different types of MLAs constituencies, but also of expenditure meant for the execution of the works under the program. The MGNREGA expenditure consists of two main components: wage expenditure pays for the wage of the workers employed under the program; material expenditure covers material and skilled labor and is awarded to contractors. The former, according to the Act, must be no less than 60 per cent of the total, as the designers of the policy intended to maximize employment generation. Overlooking material expenditure limits our ability to understand the distributive politics of the program, as we demonstrate that this is a crucial determinant of the distribution. Moreover, according to the latest available data, expenditure on materials amounts to 29 per cent of the total (and as much as 39 per cent in AP, the state focus of this paper).<sup>3</sup>

We selected the state of AP for this study mainly because the sub-district units in rural areas (mandals) lie entirely within Assembly Constituencies (ACs). This means that in most of the ACs (which elects a single MLA with a First-Past-the Post electoral system) consist of a few mandals and that each mandal is part of only one AC. This feature of AP, which is uncommon among India's major states, made it possible for us to merge census data (collected at the mandal level) with our dataset (more on this in the next section). Furthermore, to the best of our knowledge, AP is the only state that has collected MGNREGA implementation data at the AC-level.<sup>4</sup>

An additional reason why AP represents an interesting case for our study is that the village level governments (the GPs) have been largely excluded from implementation, despite this being a requirement of the national Act (Maiorano, 2014). This means that higher level politicians might have a more prominent role in shaping implementation than in other states, where implementation is largely in the hands of village level elected leaders.

### 3. Data and variables

#### 3.1. Quantitative data and variables

We primarily use AC level data taken from the official Management Information System (MIS) for AP retrieved from the official MGNREGA website from the years 2009–10 to 2015–16. We chose 2009–10 as the starting year for analysis for two reasons. First, by 2009–10, MGNREGA got implemented in all the rural parts of India as well as AP. Our dataset include the entire state. Second, elections

for the state government were held in 2009 and the election cycle continued for five years till 2014. We can therefore analyze distributional patterns across the entire electoral cycle. The MIS data has AC level information on total expenditure incurred under the program in these years as well as the wage and material components. We took electoral data from the website of the Election Commission of India.

For other variables, we used the Census 2011 and the survey of the National Sample Survey Organization (NSSO), among others. It must be noted that Census 2011 gives information on the demographic information at the sub-district level of the state (mandals). All the mandals located in a single AC are mapped to that particular AC using the Delimitation of Parliamentary and Assembly Constituencies Order, 2008 released by the Election Commission of India. Then cumulative proportion of Scheduled Castes (SC) and Scheduled Tribes (ST)<sup>5</sup> along with the proportion of laborers and illiterates were placed in the data sheet. In a few cases, the boundaries of the mandals did not coincide perfectly with the boundaries of the AC. In those cases, we list the villages from that mandal which are situated in the AC and collected the information pertaining to those villages from Census 2011 village level data. As an example, Nandigama mandal is part of Nandigama (SC) as well as Jaggayapeta ACs. However since the Delimitation document lists the villages from the mandal which lie in the two ACs, we were able to collect the relevant information from the Census 2011 village level data. Please note that we dropped the urban ACs from our sample because MGNREGA is not implemented in urban areas.

The main dependent variables used in the paper are:

- (i) Logarithmic value of total expenditure under MGNREGS
- (ii) Logarithmic value of total wage expenditure under MGNREGS
- (iii) Logarithmic value of total material expenditure under MGNREGS
- (iv) Material to wage expenditure defined as the ratio of the material to wage expenditure under the program.
- (v) A categorical variable indicating whether the material to wage expenditure ratio is above 40:60.

The last variable takes the value of 1 if the material to wage expenditure ratio exceeds 40:60 and 0 otherwise. This is to estimate the probability of an AC breaking the rule which prescribes the ratio of the expenditure to remain below 40:60.

The following are the main variables of interest:

- (i) A categorical variable indicating whether the AC is ruled by Indian National Congress (INC) or its allies (INC+) between 2009 and 2014. The variable is allowed to change after a by-election or changes in party alliances. For example, all the ACs ruled by Praja Rajyam Party (PRAP) after 2010 gets the value of 1 since in 2011, PRAP merged into INC. Similarly, in the wake of the split in the INC and the formation of the YSR Congress (YSRC) party a series of by-elections were held and some went from being INC ACs (1) to YSRC ACs (0).
- (ii) A categorical variable indicating whether the AC is a 'swing' constituency and is ruled by INC+. Following (Vaishnav & Sircar, 2011), we define a swing AC if the margin of victory is lower than 10 per cent; otherwise, we consider the AC to be core. This variable takes the value of 0 for all the other ACs.
- (iii) A categorical variable indicating whether the AC is core and ruled by INC+. This variable takes the value of 0 for all the other ACs.

<sup>3</sup> Data are available on the AP MGNREGA state portal: <http://nrega.ap.gov.in/>

<sup>4</sup> Available at: <http://www.nrega.ap.gov.in>

<sup>5</sup> These administrative categories refer to Dalits (or former untouchable castes) and Tribals, respectively. These are the two most disadvantaged communities in India and are the main beneficiaries of the program.

**Table 1**  
Variables used and the sources.

Variable Name	Variable description	Level of data	Data source
Toilets built	Proportion of total toilets built from 2010 to 11 to 2012–13 among all the households without toilet (taken from Census 2011)	District	<a href="https://data.gov.in/catalog/nirmal-bharat-abhiyan-year-wise-district-level-achievements#web_catalog_tabs_block_10">https://data.gov.in/catalog/nirmal-bharat-abhiyan-year-wise-district-level-achievements#web_catalog_tabs_block_10</a> , Census 2011
Proportion of poor	Proportion of poor population in terms of Monthly Per-Capita Expenditure calculated from the 68th round of NSSO under Consumption Expenditure schedule	District	NSSO (2011–12) 68th round Consumption Expenditure Schedule and Planning Commission for poverty line
Proportion of SC/ST	Proportion of SC and ST population	AC	Census 2011
Proportion 6 years or below	Proportion of population 6 years of age or below	AC	Census 2011
Proportion of illiterate	Proportion of illiterate population	AC	Census 2011
Proportion of laborer	Proportion of agricultural and casual laborers	AC	Census 2011
Proportion of regular wage workers	Proportion of regular wage or salaried workers in the total population	District	NSSO (2011–12) 68th round Employment-Unemployment Schedule
AC type in 2009	Whether the AC is reserved for SC/ST/woman candidate. Takes the value of 1 if the AC type is General and 0 otherwise	AC	Election Commission website
Poll % in 2009	Percentage of total voters out of the total electors	AC	Election Commission website
Female winner in 2009	Whether the winner is a female or not (1 and 0 respectively)	AC	Election Commission website
Kharif rainfall less than average	Whether the kharif (crops cultivated during the rainy season) rainfall (June to October) is lesser than the average kharif season rainfall from 2001 to 2010	District	NASA tropical rainfall measuring Mission Project (Giovanni) <a href="https://giovanni.gsfc.nasa.gov/giovanni/">https://giovanni.gsfc.nasa.gov/giovanni/</a> (rainfall measuring unit mm/ month)
Rabi rainfall less than average	Whether the rabi (crops cultivated during the dry winter season) rainfall (November to February) is lesser than the average rabi season rainfall from 2001 to 2010	District	NASA tropical rainfall measuring Mission Project (Giovanni) <a href="https://giovanni.gsfc.nasa.gov/giovanni/">https://giovanni.gsfc.nasa.gov/giovanni/</a> (rainfall measuring unit mm/ month)
Kharif season rainfall shock	Absolute value of the deviation of kharif season rainfall from the average kharif season rainfall from 2001 to 2010 divided by the standard deviation of the kharif season rainfall from 2001 to 2010. (mm/month). As used in Sheahan et al. (2018)	District	NASA tropical rainfall measuring Mission Project (Giovanni) <a href="https://giovanni.gsfc.nasa.gov/giovanni/">https://giovanni.gsfc.nasa.gov/giovanni/</a> (rainfall measuring unit mm/ month)
Rabi season rainfall shock	Absolute value of the deviation of rabi season rainfall from the average rabi season rainfall from 2001 to 2010 divided by the standard deviation of the rabi season rainfall from 2001 to 2010. (mm/month). As used in Sheahan et al. (2018)	District	NASA tropical rainfall measuring Mission Project (Giovanni) <a href="https://giovanni.gsfc.nasa.gov/giovanni/">https://giovanni.gsfc.nasa.gov/giovanni/</a> (rainfall measuring unit mm/ month)
Phase	Dummy variable for districts included in the second and third phase (the first phase is taken as a reference)	District	MGNREGA website
Land Gini coefficient	Computed Gini coefficient of cultivated land	District	NSSO 68th Round Employment-Unemployment Schedule (2011–12)
Total households working	Logarithmic value of total households that got work under MGNREGS	AC	MGNREGA website
MGNREGA wage differential for bottom decile	Difference between MGNREGA wages and the average wages at the bottom decile. As used in Narayanan et al. (2017)	District	NSSO 68th Round Employment-Unemployment Schedule (2011–12)
MGNREGA wage differential for top decile	Difference between MGNREGA wages and the average wages at the top decile. As used in Narayanan et al. (2017)	District	NSSO 68th Round Employment-Unemployment Schedule (2011–12)
Gross irrigated land	Proportion of the total irrigated land	District	AP Human Development Report (2007)

(iv) A categorical variable indicating whether the AC is swing and ruled by any non-INC+. This variable takes the value of 0 for all the other ACs.

(v) A categorical variable indicating whether the AC is core and ruled by any non-INC+. This variable takes the value of 0 for all the other ACs.

We introduce a set of control variables used in the literature in the regression model which can influence the expenditure level in the AC. Some of these controls reflect the socio-economic condition of the ACs and also the local needs of the village (for example, variables pertaining to rainfall, proportion of SC and ST, gross irrigated land and number of toilets built among others). Table 1 describes these variables in detail.

### 3.2. Qualitative data

This paper uses qualitative evidence collected over five years (2012–18) in both urban and rural AP.<sup>6</sup> We conducted over 150

<sup>6</sup> We refer in this instance to the unified AP, now consisting of Andhra Pradesh and Telangana.

semi-structured interviews with program beneficiaries, farmers and their representatives, members of the elected village-level councils (GPs), MGNREGA village staff, officials at various levels of the state's administrative structure, politicians and civil society activists. Although not explicitly used for this paper, our evidence from AP has been supplemented, shaped and informed by interviews conducted in other parts of India (Rajasthan, Uttar Pradesh, West Bengal, and New Delhi). We do not disclose the precise location of the villages where the interviews were conducted to ensure anonymity of all of our interviewees in rural areas (and in certain cases, in urban areas as well). We use qualitative evidence mainly to explain the results of our quantitative analysis.

### 4. Estimation strategy

As already discussed, the main objective of the paper is to look at different components of expenditure in MGNREGS across the ACs and study the distributive politics in form of higher allocation of these components in ACs ruled by INC+. We also examine if these components of spending are higher across competitive and core constituencies based on the theories we discussed. To study this, we use regression analysis to estimate the extent to which

clientelism influences the total expenditure under MGNREGS as well as the two components: wage and material expenditure. For this we rely on time-wise cross-sectional regression as well as district fixed effects regressions.

Formally the cross-section regression model can be specified as:

$$Y_i = \alpha + \beta X_i + \varphi C_i + \varepsilon_i \quad (1)$$

where  $Y_i$  is the total expenditure or the wage or the material expenditure in an AC,  $i$ .  $X_i$  is a dummy variable which takes the value of 1 if the AC is ruled by INC+ and 0 otherwise. Please note that  $X_i$  becomes 1 for all the PRAP ruled ACs after 2010 and becomes 0 for all the YSRC ruled ACs after 2012 by-election. To find the influence of competitive and core INC+ ruled ACs, the variable  $X_i$  changes to a dummy variable indicating if the AC is competitive (swing) and ruled by INC+ or a core constituency of the INC+.  $C_i$  is the vector of all the other possible control variables that can affect the spending under the program at the AC as well as district level. These control variables will be discussed in the next section. The error term is indicated by  $\varepsilon_i$ . The estimation is done through Ordinary Least Squares (OLS) separately from 2009 to 10 to 2013–14, which covers the five-year election cycle.

The district fixed effects model can be formally expressed as:

$$Y_{idt} = \alpha + \beta X_{it} + \varphi C_{idt} + Z_{it} + \delta_d + \mu_t + \varepsilon_{idt} \quad (2)$$

Here  $Y_i$  is the total expenditure or the wage or the material expenditure in an AC,  $i$  in the district,  $d$  at time,  $t$ .  $X_{it}$  is the dummy variable as discussed above for AC,  $i$  at time,  $t$  and  $C_{idt}$  is the vector of all the confounding variables pertaining to district,  $d$  at time,  $t$ .  $Z_{it}$  is the vector of confounding characteristics for AC,  $i$  at time,  $t$ .  $\delta$  and  $\mu$  represents the district and time (year) fixed effects. The error term is indicated by  $\varepsilon$ . Estimations from this regression (Eq. (2)) enable us to get a dynamic and complete picture of MGNREGS wage and material expenditure and clientelistic allocation (Diaz-Cayeros, Estévez, & Magaloni, 2012; Sheahan et al., 2018). In this regression, standard errors are clustered at the AC level.

As a robustness check, we also apply random effects panel estimation, which assumes that the variation across the ACs is random and uncorrelated with the independent variables in the model. Formally this is expressed as:

$$Y_{it} = \alpha + \beta X_{it} + \varphi C_{it} + \varepsilon_{it} \quad (3)$$

where  $\varepsilon_{it} = \lambda_i + v_{it}$

Here  $Y, X$  and  $C$  denote the same variables as described above and the error term,  $\varepsilon_{it}$  comprises of a AC specific random error term,  $\lambda_i$  and  $v_{it}$  is the zero mean, independent and identically distributed error term.

## 5. Results and discussion

We have two main hypotheses. The first one is that the ruling INC+ will target swing constituencies with higher wage expenditure as predicted by most of the models on distributive politics (Golden & Min, 2013; Stokes et al., 2013). This expectation is based on the fact that India in general and AP in particular present several of the factors associated with a swing strategy: a first-pass-the-post electoral system (McGillivray, 2004); high levels of poverty and low human development, which makes it 'cheaper' to buy swing votes (Stokes et al., 2013); a history of vote buying in what has been called a 'patronage democracy' (Chandra, 2004); and a very competitive two party system, where every vote counts to determine the electoral outcomes. We expect to find higher allocation of wage expenditure in swing ACs because this is the most effective way of buying votes. In fact, an average poor voter is

unlikely to be interested in higher material expenditure, but, on the other hand, higher availability of MGNREGA work would make a crucial difference in their livelihoods. Targeting swing constituencies is also the more efficient way for a party to maximize its electoral prospects (Dixit & Londregan, 1996).

Our second hypothesis is that the ruling INC will target core constituencies with higher material expenditure. This expectation is based on our fieldwork and on the insights of Gherghina and Volintiru (2017)'s bi-dimensional model of clientelism. In core constituencies, where the ruling party is more entrenched, the MLAs-contractors links are more firmly established, and the MLAs have a greater control over the bureaucratic apparatus. Accordingly, it should be easier for MLAs to do two things: first, to effectively channel government contracts for the procurement of materials to the 'right' contractors and, second, to extract support in terms of political funding and possibly an illicit fee out of the total material expenditure. This resonates with studies that argue that localities in India with denser party networks have better organizational capacity in terms of the links between communities, politicians and bureaucrats (Auerbach, 2016). Previous research has shown that the material component of the program is systematically affected by corruption (Afridi & Iversen, 2013) and that, in order to steal from a program like MGNREGA which has strong in-built transparency mechanisms, it is necessary to build large corruption networks (Aiyar & Mehta, 2015), which is easier to do for an MLA if their constituency is in an area where their party is more firmly established.

In short, we expect the targeting of material expenditure to be directed at 'core' constituencies, where we do not expect, on the contrary, to find significant distortions in the allocation of wage expenditure, as the need to do this (vote-buying) is relatively less important in this type of constituencies (and comes at a significant cost, as we shall see in greater detail below). As mentioned in the previous section, following (Vaishnav & Sircar, 2011), we define a 'core' constituency as one where the INC won the 2009 elections with a margin of victory higher than 10 per cent and a swing INC constituency as one where the party won by less than 10 per cent.

Before proceeding with the regression analysis, we look at the descriptive statistics, which are presented in Table 2. The total average yearly expenditure per AC in AP is around Rs. 172 million (USD 2.35 million), of which more than Rs. 120 million are spent of wages (USD 1.63 million) and close to Rs. 50 million (USD 682,000) on materials. About 60 percent of the ACs were ruled by the INC government from 2009 to 10 to 2013–14. Among all the ACs, 35 to 40 per cent were the core ones ruled by INC and in about 22 to 26 per cent of the ACs, the INC won by a narrow margin.

Before testing our two main hypothesis, we look at whether INC constituencies get more MGNREGA expenditure compared to opposition constituencies, controlling for other confounding factors. Table 3 shows the results.

Row 1 shows that expenditure in INC constituencies is significantly higher than in non-INC ones. However, as rows 2 and 3 demonstrate, this is not due to higher allocation of work to the people (wage expenditure) (row 2) – as a vote-buying strategy would entail – but rather to higher expenditure on the material component of the program (row 3). On average, we find INC ruled ACs have close to 17% higher material expenditure than a non-INC ruled ACs, other factors remaining the same. Row 4, consistently, shows that INC constituencies have a significantly higher material-to-labor expenditure ratio. Row 5 indicates that INC constituencies are also significantly more likely to exceed the 40 per cent limit on material expenditure. This is significant, as the IT system used to implement the MGNREGA automatically flags violations of the rule. This probably means that the state government is more likely 'not to see' these violation in the ruling party ACs.

**Table 2**  
Descriptive statistics.

Variables	2009–10	2010–11	2011–12	2012–13	2013–14	Total
<i>Dependent variables</i>						
Total expenditure (in lakh) (Rs.)	1767.027	1573.180	1823.077	1745.326	1703.338	1722.390
Total expenditure in wages (in lakh) (Rs.)	1165.128	1223.747	1356.943	1249.080	1186.772	1236.334
Total expenditure in material (in lakh) (Rs.)	601.899	349.433	466.134	496.246	516.566	486.056
Material wage ratio	0.909	0.354	0.432	0.433	0.467	0.519
40:60 rule not adhered	0.744	0.295	0.442	0.474	0.558	0.503
<i>Main variables of interest</i>						
INC rule (proportion)	0.596	0.596	0.667	0.590	0.590	0.608
Core INC (proportion)	0.372	0.372	0.404	0.353	0.353	0.371
Marginal INC (proportion)	0.224	0.224	0.263	0.237	0.237	0.237
Core non-INC(proportion)	0.179	0.179	0.141	0.135	0.135	0.154
Marginal non-INC(proportion)	0.224	0.224	0.192	0.276	0.276	0.238
<i>Time variant control variables</i>						
Female winner in 2009 (proportion)	0.115	0.115	0.122	0.122	0.122	0.119
Kharif season rainfall shock	0.545	0.462	0.474	0.197	0.322	0.400
Rabi season rainfall shock	0.462	1.290	0.244	0.696	0.218	0.582
Kharif rainfall less than average (proportion)	0.917	0.000	1.000	0.737	1.000	0.731
Rabi rainfall less than average (proportion)	0.186	0.000	0.808	0.436	0.821	0.450
Total households provided work	22198.10	18818.38	21088.06	21889.04	21183.60	21035.43
Observations	156	156	156	156	156	780
<i>Time invariant control variables</i>						
Mean/Proportion						
Toilets built	0.159					
Proportion of poor	0.283					
Proportion of SC/ST	0.254					
Proportion 6 years or below	0.108					
Proportion of illiterate	0.495					
Proportion of laborer	0.315					
Proportion of regular wage workers	0.095					
AC type in 2009 (proportion)	0.763					
Poll % in 2009	0.781					
Phase 1 (proportion)	0.282					
Phase 2 (proportion)	0.481					
Phase 3 (proportion)	0.237					
Land Gini coefficient	0.764					
MGNREGA wage differential for bottom decile	-60.282					
MGNREGA wage differential for higher decile	171.704					
Gross irrigated land	0.429					

Notes: Rs. stands for Indian National Rupees (the Indian currency). 1 Lakh equals 100,000.

**Table 3**  
Distribution of MGNREGA expenditure in INC+ constituencies as compared to all other constituencies.

		2009–10	2010–11	2011–12	2012–13	2013–14	District and time FE	R.E. Model
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Total exp. (Log)	0.066 (0.041)	0.112** (0.047)	0.131*** (0.049)	0.029 (0.043)	-0.006 (0.040)	0.063* (0.034)	0.041 (0.028)
2	Total wage exp. (Log)	0.014 (0.046)	0.080* (0.044)	0.011 (0.039)	-0.032 (0.036)	-0.028 (0.035)	0.017 (0.033)	0.043 (0.035)
3	Total material exp. (Log)	0.093 (0.063)	0.173* (0.092)	0.478*** (0.118)	0.162* (0.094)	0.045 (0.074)	0.166*** (0.061)	0.110* (0.057)
4	Material to labor exp. Ratio	0.164* (0.092)	0.055 (0.043)	0.187*** (0.058)	0.100** (0.042)	0.038 (0.031)	0.086*** (0.032)	0.083*** (0.032)
5	60:40 rule break	0.187 (0.434)	0.132 (0.306)	1.562*** (0.396)	0.367 (0.281)	0.257 (0.340)	0.262** (0.122)	0.256** (0.130)

Notes: The regression coefficients along with the standard errors are presented. For column 6, the standard errors are clustered at the AC level. The regressions have been run with all the controls specified in Table 1. R.E. stands for Random Effects. \*\*\*Indicates significant difference at  $p < 0.01$ , \*\* at  $p < 0.05$ , and \* at  $p < 0.10$ . The full regression tables are available in the online Supplementary appendix (Table A1 to A5 and C1).

In terms of other control variables, wage expenditure is found to be significantly higher in ACs with a greater proportion of laborers, probably indicating fair targeting, even though no significant difference is found in ACs with higher proportion of poor and SC/ST. ACs lying in phase 2 and phase 3 districts (relatively more developed than phase 1) have received lesser wage expenditure on average than those in phase 1 district. Material expenditure also is found to be greater on average for ACs with higher proportion of laborers and regular wage workers. Kharif season rainfall shock is

found to have a significantly positive association with both wage and material expenditure. ACs in phase 2 and phase 3 districts have higher material expenditure as well as higher material to wage ratio on average. Chances of not abiding by the rule of 40:60 allotments for material and wage component is higher in ACs situated in these districts as compared to those in phase 1 districts. Further we find if an AC receives lower kharif season rainfall than average in a particular year, it is more likely to flout the rule. (Please refer to Supplementary Tables for the full regression tables).

**Table 4**  
Distribution of MGNREGA total expenditure in different types of constituencies.

	2009–10 (1)	2010–11 (2)	2011–12 (3)	2012–13 (4)	2013–14 (5)	District and time FE (6)	R.E. Model (7)
<i>Ref. Core Non-INC+</i>							
Core INC+	0.106** (0.052)	0.150** (0.061)	0.168*** (0.062)	−0.004 (0.054)	−0.036 (0.050)	0.073* (0.044)	0.051 (0.035)
Marginal INC+	−0.008 (0.059)	0.062 (0.068)	0.083 (0.068)	0.030 (0.059)	−0.007 (0.055)	0.026 (0.048)	−0.001 (0.039)
Marginal Non-INC+	−0.005 (0.059)	0.011 (0.068)	0.011 (0.074)	−0.056 (0.067)	−0.054 (0.063)	−0.020 (0.056)	−0.029 (0.049)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time dummies	No	No	No	No	No	Yes	Yes
District dummies	No	No	No	No	No	Yes	Yes
Observations	156	156	156	156	156	780	780
R squared	0.936	0.914	0.919	0.929	0.932	0.911	0.911

Notes: The OLS regression coefficients along with the standard errors are presented. For column 6, the standard errors are clustered at the AC level. The regressions have been run with all the controls specified in Table 1. R.E. stands for Random Effects. \*\*\*Indicates significant difference at  $p < 0.01$ , \*\* at  $p < 0.05$ , and \* at  $p < 0.10$ . The full regression tables are available in the online Supplementary appendix (Table B1 and C2).

**Table 5**  
Distribution of MGNREGA total wage expenditure in different types of constituencies.

	2009–10 (1)	2010–11 (2)	2011–12 (3)	2012–13 (4)	2013–14 (5)	District and time FE (6)	R.E. Model (7)
<i>Ref. Core Non-INC+</i>							
Core INC+	0.010 (0.060)	0.097* (0.057)	0.022 (0.050)	−0.059 (0.044)	−0.062 (0.043)	0.007 (0.045)	0.035 (0.046)
Marginal INC+	−0.046 (0.067)	0.005 (0.064)	−0.031 (0.055)	−0.019 (0.049)	−0.032 (0.047)	−0.018 (0.047)	0.006 (0.055)
Marginal Non-INC+	−0.054 (0.067)	−0.038 (0.064)	−0.019 (0.060)	−0.034 (0.055)	−0.063 (0.054)	−0.049 (0.050)	−0.060 (0.054)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time dummies	No	No	No	No	No	Yes	Yes
District dummies	No	No	No	No	No	Yes	Yes
Observations	156	156	156	156	156	780	780
R squared	0.951	0.935	0.953	0.953	0.950	0.934	0.929

Notes: The OLS regression coefficients along with the standard errors are presented. For column 6, the standard errors are clustered at the AC level. The regressions have been run with all the controls specified in Table 1. R.E. stands for Random Effects. \*\*\*Indicates significant difference at  $p < 0.01$ , \*\* at  $p < 0.05$ , and \* at  $p < 0.10$ . The full regression tables are available in the online Supplementary appendix (Table B2 and C2).

We now look at the distribution of total MGNREGA expenditure across the three types of ACs: core INC+; swing INC+ and swing non-INC with core non-INC+ as the reference group. We find total expenditure to be significantly higher in core INC ACs than core non-INC ACs in the first three years after election in 2009 (Table 4). However no such relationship is found thereafter and also in the district fixed effects model.

Let us now turn to our first hypothesis, namely that INC swing constituencies will get a higher wage expenditure. Table 5 demonstrates that our hypothesis does not hold the empirical evidence. There is virtually no distortion in wage expenditure across the different types of ACs. Interestingly, non-INC swing ACs – which the ruling INC could target to convince them to switch allegiance – do not receive higher wage expenditure. This indicates that, contrary to the prediction of most models of distributive politics, the INC has no interest in buying votes to retain constituencies that it barely won or to win over those that they barely lost. As far as the distribution of jobs is concerned, the MGNREGA does work as a ‘post-clientelistic policy’ (Manor, 2010; Elliott, 2011).<sup>7</sup>

Our second hypothesis is that the INC will target core constituencies with higher material expenditure, but not with higher wage expenditure. Table 5 corroborates our hypothesis: we do not find any significant distortion in work generation in INC core constituencies, but there is a significant and persistent higher

allocation of material expenditure in this type of constituencies (Table 6). There are also systematic violations of the 40 per cent limit on material expenditure and higher material to labor expenditure ratio (Table 8 and Table 7 respectively). In terms of effect size, in the five years from 2009 to 10 to 2013–14, core INC constituencies have around 19% and 13% higher material expenditure and material-wage expenditure ratio, respectively, than core non-INC constituencies keeping other things constant. The likelihood of a core INC constituency breaking the 40 per cent material expenditure limit rule is found to be almost 43% more on average in comparison to a similar core non-INC AC.

We also ran random effects regressions, which assume that the variations across the ACs are uncorrelated with the independent variables. The estimates from the regressions are shown in Tables 3–8 (column 7). The results show similar findings. In terms of the first hypothesis, we find wage expenditure in INC+ ACs is not significantly higher on average than that in others. However, core ACs ruled by INC+ have higher expenditure in the material component than other ACs. We also find that these ACs have higher material-wage ratio and are more likely to break the material-to-labor ratio rule, thus confirming our second hypothesis.

To test the robustness of our findings, we examined if the ACs that elected INC ‘powerful politicians’ (defined as those who held ministerial positions between 2004 and 2014 plus the speakers of the Legislative Assembly) had higher material and/or wage expenditure. Our expectation was to find a distributional pattern similar to that of the ‘core’ constituencies, as powerful politicians’ ACs are arguably areas where the elected MLAs/Minister can easily

<sup>7</sup> At least at our level of analysis, i.e. at the AC-level. Maiorano (2018) showed that the location of jobs at the village level is affected by clientelism, although it is a relatively minor problem in AP.

**Table 6**  
Distribution of MGNREGA total material expenditure in different types of constituencies.

	2009–10 (1)	2010–11 (2)	2011–12 (3)	2012–13 (4)	2013–14 (5)	District and time FE (6)	R.E. Model (7)
<i>Ref. Core Non-INC+</i>							
Core INC+	0.182** (0.079)	0.235** (0.118)	0.544*** (0.151)	0.091 (0.116)	0.008 (0.091)	0.190*** (0.065)	0.138** (0.061)
Marginal INC+	−0.027 (0.088)	0.147 (0.132)	0.370** (0.166)	0.081 (0.128)	0.014 (0.101)	0.088 (0.080)	0.028 (0.078)
Marginal Non-INC+	0.025 (0.089)	0.063 (0.133)	−0.001 (0.181)	−0.217 (0.145)	−0.103 (0.115)	−0.035 (0.102)	−0.038 (0.099)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time dummies	No	No	No	No	No	Yes	Yes
District dummies	No	No	No	No	No	Yes	Yes
Observations	156	156	156	156	156	780	780
R squared	0.748	0.661	0.676	0.757	0.819	0.641	0.644

Notes: The OLS regression coefficients along with the standard errors are presented. For column 6, the standard errors are clustered at the AC level. The regressions have been run with all the controls specified in Table 1. R.E. stands for Random Effects. \*\*\*Indicates significant difference at  $p < 0.01$ , \*\* at  $p < 0.05$ , and \* at  $p < 0.10$ . The full regression tables are available in the online Supplementary appendix (Table B3 and C2).

**Table 7**  
Distribution of material to wage ratio expenditure in different types of constituencies.

	2009–10 (1)	2010–11 (2)	2011–12 (3)	2012–13 (4)	2013–14 (5)	District and time FE (6)	R.E. Model (7)
<i>Ref. Core Non-INC+</i>							
Core INC+	0.279** (0.117)	0.091 (0.056)	0.232*** (0.075)	0.092* (0.052)	0.045 (0.039)	0.131*** (0.041)	0.128*** (0.041)
Marginal INC+	0.127 (0.131)	0.107* (0.062)	0.177** (0.082)	0.095* (0.057)	0.047 (0.043)	0.083* (0.043)	0.080* (0.043)
Marginal Non-INC+	0.126 (0.132)	0.090 (0.062)	0.052 (0.090)	−0.020 (0.065)	0.023 (0.049)	0.064* (0.038)	0.064 (0.039)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time dummies	No	No	No	No	No	Yes	Yes
District dummies	No	No	No	No	No	Yes	Yes
Observations	156	156	156	156	156	780	780
R squared	0.660	0.348	0.349	0.320	0.498	0.365	0.379

Notes: The OLS regression coefficients along with the standard errors are presented. For column 6, the standard errors are clustered at the AC level. The regressions have been run with all the controls specified in Table 1. R.E. stands for Random Effects. \*\*\*Indicates significant difference at  $p < 0.01$ , \*\* at  $p < 0.05$ , and \* at  $p < 0.10$ . The full regression tables are available in the online Supplementary appendix (Table B4 and C2).

**Table 8**  
Regression to estimate probability of material wage ratio rule breaking in different types of constituencies.

	2009–10 (1)	2010–11 (2)	2011–12 (3)	2012–13 (4)	2013–14 (5)	District and time FE (6)	R.E. Model (7)
<i>Ref. Core Non-INC+</i>							
Core INC+	0.720 (0.581)	0.676* (0.399)	1.451*** (0.455)	0.324 (0.343)	0.606 (0.407)	0.429*** (0.137)	0.438*** (0.146)
Marginal INC+	0.927 (0.678)	0.346 (0.443)	1.422*** (0.511)	0.259 (0.369)	0.163 (0.439)	0.244 (0.174)	0.231 (0.187)
Marginal Non-INC+	1.269* (0.682)	0.924** (0.450)	−0.307 (0.497)	−0.237 (0.436)	0.719 (0.609)	0.253 (0.184)	0.276 (0.195)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time dummies	No	No	No	No	No	Yes	Yes
District dummies	No	No	No	No	No	Yes	Yes
Observations	156	156	156	156	156	780	780
R squared	0.644	0.340	0.489	0.357	0.540	0.279	

Notes: The probit regression coefficients along with the standard errors are presented. For column 6, the standard errors are clustered at the AC level. The regressions have been run with all the controls specified in Table 1. R.E. stands for Random Effects. \*\*\*Indicates significant difference at  $p < 0.01$ , \*\* at  $p < 0.05$ , and \* at  $p < 0.10$ . The full regression tables are available in the online Supplementary appendix (Table B5 and C2).

direct government contracts to ‘their’ contractors through a firmer control over the bureaucracy. Table 9 shows that such constituencies have significantly higher material expenditure than the others (row 3) – specifically, 28% higher than ‘normal’ politicians’ ACs. However, we found no difference in wage expenditure (row 2). Furthermore, similar to what we find in core constituencies, there is also a significantly higher probability of violation of the 40 per cent limit for material expenditure (row 4). This confirms that the key interest of elected politicians is not so much buying votes

through the provision of work, but rather maximizing the expenditure for the procurement of materials through local contractors, at least in core constituencies.

As a second robustness test, we looked at the distribution of MGNREGA expenditure after the elections in 2014, when the opposition Telugu Desam Party (TDP) and its allies won a majority of the seats. The results from the regressions, as shown in Table 7, are similar: difference in wage expenditure between TDP+ and non-TDP+ constituencies is virtually zero. Rather, and similarly to what



**Table 9**  
Distribution of MGNREGA expenditure in constituencies of ‘powerful INC politicians’ (Base category: all other ACs).

		2009–10 (1)	2010–11 (2)	2011–12 (3)	2012–13 (4)	2013–14 (5)	District and time FE (6)
1	Total exp. (Log)	0.068 (0.059)	0.187*** (0.070)	0.173*** (0.064)	0.046 (0.058)	–0.006 (0.054)	0.090* (0.049)
2	Total wage exp. (Log)	–0.013 (0.066)	0.005 (0.064)	0.006 (0.051)	–0.034 (0.048)	–0.016 (0.047)	–0.018 (0.047)
3	Total material exp. (Log)	0.072 (0.090)	0.514*** (0.125)	0.501*** (0.158)	0.207 (0.126)	0.002 (0.099)	0.280*** (0.085)
4	Material to labor exp. Ratio	0.228* (0.131)	0.265*** (0.058)	0.288*** (0.075)	0.133** (0.056)	0.020 (0.042)	0.202*** (0.050)
5	60:40 rule break	–0.504 (0.698)	1.632*** (0.528)	2.205*** (0.702)	0.929** (0.423)	–0.275 (0.423)	0.612*** (0.198)

Notes: The regression coefficients along with the standard errors are presented. For column 6, the standard errors are clustered at the AC level. The regressions have been run with all the controls specified in Table 1. \*\*\*Indicates significant difference at  $p < 0.01$ , \*\* at  $p < 0.05$ , and \* at  $p < 0.10$ . The full regression tables are available in the online Supplementary appendix (Table D1 to D5).

**Table 10**  
Distribution of MGNREGA work after the 2014 elections in TDP + constituencies as compared to non-TDP+ constituencies.

	2014–15 (1)	2015–16 (2)	District and time FE (3)
Total exp. (Log)	0.023 (0.045)	0.075* (0.039)	0.049 (0.035)
Total wage exp. (Log)	–0.018 (0.041)	–0.013 (0.037)	–0.016 (0.040)
Total material exp. (Log)	0.076 (0.075)	0.163*** (0.061)	0.120** (0.051)
Material to labor exp. ratio	0.075 (0.053)	0.191** (0.079)	0.135** (0.052)

Notes: The regression coefficients along with the standard errors are presented. For column 3, the standard errors are clustered at the AC level. The regressions have been run with all the controls specified in Table 1. \*\*\*Indicates significant difference at  $p < 0.01$ , \*\* at  $p < 0.05$ , and \* at  $p < 0.10$ . The full regression tables are available in the online Supplementary appendix (Table E1 to E4).

we find for the INC+ ruled constituencies, the constituencies ruled by TDP+ have higher material expenditure compared to other ACs (Table 10). Further, we find core TDP+ constituencies spending significantly higher on the material component as compared to core non-TDP+ ruled constituencies (Table 11).

To look at this further, we took two types of ACs: Core TDP+ after 2014 election but swing INC+ in 2009–10 and 2010–11 (CTMI) and Swing TDP+ after 2014 election but core INC+ in 2009–10 and 2010–11 (MTCI) and compared their mean material and wage expenditure in the first two years after 2009 elections

(2009–10 and 2010–11) and the first two years after 2014 elections (2014–15 and 2015–16). Fig. 1 and Fig. 2 present the mean material expenditure and mean wage expenditure respectively with 95% confidence interval. We find that the rise in mean material expenditure from 2009–11 to 2014–16 is significant (at 95% level) for CTMI as well as MTCI, but the magnitude is higher for CTMI. However the rise is statistically insignificant for both the types of ACs in terms of mean wage expenditure.

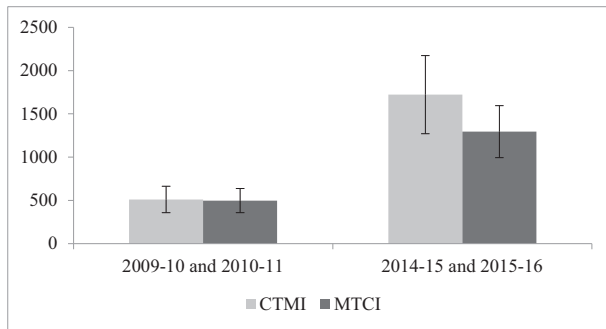
To sum up, our data show that ruling parties do not use the MGNREGA in AP as a vote-buying tool – providing more work to poor voters – but rather as a way to direct government contracts towards contractors in areas where they are more entrenched (core constituencies). On the other hand, jobs under MGNREGA are distributed in a ‘post-clientelistic’ way. This applies to both core and swing constituencies.

What explains these results? Our results are puzzling for two main reasons. First, as most models of distributive politics would predict, ruling parties should have the incentive to distribute more jobs in swing constituencies, in order to maximize their chances of re-election. This is particularly so given the huge importance of the MGNREGA in India’s rural areas. Second, even in core constituencies, where it is less important for ruling parties to buy votes through the program, there should be incentives for politicians to provide as much work as possible in their constituencies, in order to keep their strong areas of support intact, especially in a context like AP which is characterized by intense political competition. In other words, a vote-maximizing strategy would entail using the MGNREGA as a vote-buying tool (wage expenditure) in both swing

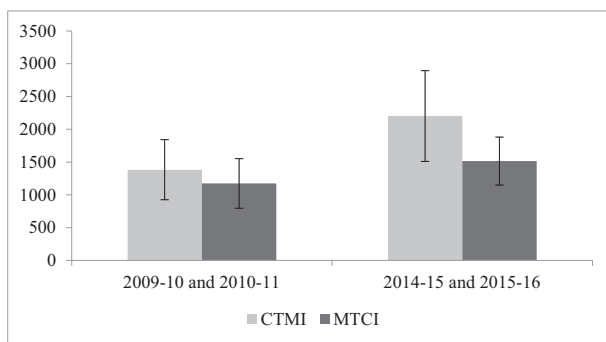
**Table 11**  
Distribution of MGNREGA total wage expenditure in different types of constituencies (post 2014 election).

	Log of wage expenditure			Log of material expenditure			Material to wage expenditure ratio		
	2014–15 (1)	2015–16 (2)	District and time FE (3)	2014–15 (4)	2015–16 (5)	District and time FE (6)	2014–15 (7)	2015–16 (8)	District and time FE (9)
Ref. Core Non-TDP+									
Core TDP+	–0.049 (0.052)	–0.043 (0.048)	–0.047 (0.048)	0.072 (0.097)	0.183** (0.079)	0.127* (0.065)	0.084 (0.068)	0.263** (0.102)	0.174** (0.070)
Marginal TDP+	–0.011 (0.052)	0.022 (0.047)	0.005 (0.044)	0.127 (0.096)	0.155** (0.078)	0.142** (0.071)	0.132* (0.067)	0.135 (0.101)	0.135** (0.062)
Marginal Non-TDP+	–0.027 (0.055)	0.008 (0.050)	–0.009 (0.046)	0.061 (0.102)	0.012 (0.083)	0.036 (0.064)	0.083 (0.072)	0.013 (0.107)	0.045 (0.061)
Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time dummies	No	No	Yes	No	No	Yes	No	No	Yes
District dummies	No	No	Yes	No	No	Yes	No	No	Yes
Observations	156	156	312	156	156	312	156	156	312
R squared	0.940	0.946	0.941	0.766	0.783	0.778	0.239	0.395	0.319

Notes: The OLS regression coefficients along with the standard errors are presented. For column 3, 6 and 9, the standard errors are clustered at the AC level. The regressions have been run with all the controls specified in Table 1. \*\*\*Indicates significant difference at  $p < 0.01$ , \*\* at  $p < 0.05$ , and \* at  $p < 0.10$ . The full regression tables along with the regression of total expenditure are available in the online Supplementary appendix (Table F1 to F4).



**Fig. 1.** Mean material expenditure (in lakhs Indian Rupees) from 2009 to 11 to 2014–16. Notes: The mean material expenditure for the respective period is shown along with the 95% confidence interval. CTMI stands for Core TDP+ after 2014 but Marginal INC in 2009–11 and MTCI stands for Marginal TDP+ after 2014 but Core INC in 2014–16. 1 lakh = 100,000.



**Fig. 2.** Mean wage expenditure (in lakhs Indian Rupees) from 2009 to 11 to 2014–16. Notes: The mean wage expenditure for the respective period is shown along with the 95% confidence interval. CTMI stands for Core TDP+ after 2014 but Marginal INC in 2009–11 and MTCI stands for Marginal TDP+ after 2014 but Core INC in 2014–16. 1 lakh = 100,000.

and core areas – especially given the fact that the program is funded mostly (90%) by the central government, therefore not affecting the state’s resources significantly. Why didn’t ruling parties in AP try to use the MGNREGA to win votes with higher wage expenditure in swing and/or core constituencies?

One possible explanation is that, as argued by Giraudy (2007), not all political parties are equally interested in distributing good clientelistically, because their “ability to entice voters’ support is contingent upon specific economic, cultural, and/or social characteristics of their constituents”. This explanation however, survey data show, is not supported by empirical evidence, as the INC and the TDP’s share of votes among poor people – the main beneficiaries of the MGNREGA and those whose vote is supposedly possible to buy through the program – is high and similar: 42 per cent of ‘very poor’ and 39 per cent of ‘poor’ voters voted for the INC in 2009 (Suri, Narasimha Rao, & Reddy, 2009) and 44 per cent of the ‘poor’ voted for TDP and allies in 2014 (Gupta, 2014). Therefore, they should have similar incentives to use the MGNREGA as a vote-buying tool. This should be particularly true for the INC, which is stronger than the TDP in rural areas.

These incentives, however, are set off by two important counter-incentives to generate work. One is related to the design of the policy; the second counter-incentive is related to the lobbying power of ‘special interest groups’ (Grossman & Helpman, 2001).

The first counter incentive is that there exists a trade-off between material and wage expenditure. The way in which MLAs can shape expenditure is to put pressure on sub-district (mandal) officials to approve a higher (or lower) number of labor- or

material-intensive works to be executed in the villages of a given mandal. As Veeraraghavan (2017, p. 206) shows, the mandal level is where decisions regarding the list and types of works to be executed are taken, whereas lower (village) and higher (district) level authorities do not have a prominent role. The type of works to be executed (either labor- or material-intensive) determines the number of people that can be employed (wage expenditure) and the amount of material needed for executing the works (material expenditure). This implies that MLAs will prioritize what is more important for their political prospects. Importantly, moreover, the mandal level was also where contractors were chosen, and procurement contracts distributed. This makes the MLA in an ideal position to influence both aspects, since each mandal lies within one single constituency and therefore the MLA is the only political authority supervising bureaucrats at the mandal level. This is important, as recent research shows that bureaucrats who are supervised by a single politician tend to respond to the politician’s requests more effectively (Gulzar & Pasquale, 2017). Furthermore, studies show bureaucrats are often the tool through which politicians extract rents (Bussell, 2018, pp. 38–44).

Our interviews reveal that material expenditure is the key interest of the MLAs in the program. According to Jayaprakash Narayan, an MLA from Lok Satta party, his colleagues want to ‘build things’<sup>8</sup> in their constituencies, for which higher material expenditure is necessary.<sup>9</sup> The former Minister of Rural Development (under whose ministry the program is implemented), Dokka Manikiya Vara Prasad Rao, agrees that higher material expenditure is the only thing MLAs are really interested in because they are ‘linked to contractors’.<sup>10</sup> Mr Murali, one of the two senior officials who started the program in AP, concurs: ‘MLAs are mainly interested in the material expenditure’.<sup>11</sup> This is further confirmed by a consultant who advised the state government in relation to the implementation of the MGNREGA. He told us that ‘procurement [of material] is the largest political interest’ of the MLAs.<sup>12</sup> Fourteen different social activists with extensive work experience with the functioning of the MGNREGA at the grassroots also have no doubts that this is what really matters for the MLAs and for lower level politicians.<sup>13</sup> Interviews made by Veeraraghavan (2017, p. 204) also confirms that politicians and contractors have ‘vested interests’ in shaping implementation.

There are two main reasons why this is so, both connected to the need of financing the electoral campaigns. India’s regulations for party financing are notoriously opaque. Since former Prime Minister, Indira Gandhi banned corporate donations to political parties in 1969 – and failed to replace them with any other legal means to fund politics – corruption became a structural feature of India’s political system (Maiorano, 2015, Chapter 2). Even though her successor, Rajiv Gandhi, tried to regulate political funding in the mid-1980s, little changed and even today the lion’s share of party funding comes from ‘black money’ (Bussell, 2018; Gowda & Sridharan, 2012). This compels Indian political parties at all levels of the polity to “innovate in their desperate search for financial rents” (Vaishnav, 2017, p. 19) and to “find alternative sources of funding” (Bussell, 2018, p. 41). This is crucial not only from the point of view of the parties, but even more so from the individual politicians’ point of view, as political parties systematically choose

<sup>8</sup> What the MLA implied is that with lower material expenditure, one cannot build concrete – and visible – structures.

<sup>9</sup> Interview, Hyderabad, 17 December 2012.

<sup>10</sup> Interview, Hyderabad, 5 August 2013.

<sup>11</sup> Interview, Hyderabad, 20 December 2012.

<sup>12</sup> Interview, Hyderabad, 19 December 2012. He requested anonymity.

<sup>13</sup> Interviews conducted in Hyderabad, Vishakhapatnam, Chittoor, Anantapur, Guntur, Karimnagar and Mahbubnagar districts between September 2012 and February 2017. The last three districts are now part of Telangana, following the bifurcation of the state of Andhra Pradesh in June 2014.

candidates who are able to mobilize large amounts of money (Sircar, 2018) and this increases significantly a candidate's likelihood of being (re)elected (Vaishnav, 2017).

The first reason why MLAs are interested in the material component of the program is that, as mentioned by the then Minister for Rural Development just above, MLAs have strong links with local contractors, who fund their electoral campaigns. This is not only in relation to the MGNREGA, but to most development and infrastructure programs in India (Lehne, Shapiro, & Vanden Eynde, 2018). Kapur and Vaishnav (2011) found hard evidence of this connection, particularly with contractors in the construction industry (which is also the key industry with interest in MGNREGA infrastructures). They show that the consumption of cement drops significantly in the month elections take place, presumably because funds are channeled towards political parties and cannot be used to purchase cements and other inputs.

This evidence resonates with our own data from AP. A government consultant with extensive experience with MGNREGA implementation at the grassroots told us that the family of the MLA representing the area where she was working (who was a member of the state Cabinet) had 'a firm control over government contracts: no contractor can get anything without their nod'.<sup>14</sup> Mr Subramaniam, former Principal Secretary of the Rural Development Department (i.e. the senior most official in charge of the implementation of the program) confirmed to us that 'politicians are not interested in the wage program since the wages reach the people directly. They are interested in the material intensive works where the contractors would be interested' [...] 'In the material component of the works they exercise pressures on districts and mandal level officials to select their own people to execute the works'.<sup>15</sup> This view was echoed by Hemnat Rao, a faculty member at the Administrative Staff College in Hyderabad, who explained to us that the MLAs can direct the allocation of procurement contracts to their contractors through district level officials, who in turn influence mandal level bureaucrats.<sup>16</sup> Mr Murali, quoted above, even suggested that the program in the first years of implementation, when the wage component of the program was about 90 per cent, was in danger because 'if they [MLAs] can't make a profit, they would try to kill the scheme. This is why, after the first few years, material expenditure increased significantly'<sup>17</sup> (to about 40 per cent, after 2010).

This evidence suggests that MLAs are keen on directing procurement contracts towards 'their' contractors because they can make a profit, which can then be used to fund their political career, to amass wealth, or to distribute goods on the eve of the elections (or all these three things). Clearly, the MGNREGA is not the state's biggest source of illicit money. Major irrigation projects, mining concessions and real estate are more important sources. However, the MGNREGA remains a source of illicit money for two reasons, both analyzed by Bussell (2018) in a recent study of corruption dynamics in India. First, politicians are not only interested in 'grand' corruption, but also in 'petty' corruption. Second, 'grand' corruption is usually controlled by the Chief Minister and Cabinet ministers, whereas 'petty' corruption is one of the main sources of political funding for the MLAs. In fact, AP is one of the Indian states with the highest rate of cash seizures before the elections (The Hindu, 2012). More generally, vote-buying is widespread in both rural and urban India, as politicians face a prisoner's dilemma: while they know that distributing cash and other goods will not guarantee them their election, failing to do so will definitely hurt their electoral prospects (Chauchard, 2018).

The second (and strictly intertwined) reason why the material expenditure is so important for the MLAs is that it is from this component of the program's expenditure that is possible to siphon off funds. Research by Afridi and Iversen (2013) based on social audit<sup>18</sup> reports of a sample of 300 villages across eight districts of AP demonstrates that the material component of the program is systematically affected by irregularities. Qualitative research also supports this finding. Our interview with the then Gram Rozgar Sahayak (who is responsible for implementation of MGNREGA at the village level) from a village in West Bengal indicates the difficulty in siphoning of funds meant for wages. He reported that in the initial years of MGNREGA, stealing from wage funds was pretty easy. However, with bank payments and other transparency mechanisms introduced, siphoning money has become costly with low benefits. The only way they are able to siphon money now is through the contract of the material components used in the works.<sup>19</sup> Sarpanches in Rajasthan made a similar point in interviews.<sup>20</sup> Jenkins and Manor (2017), on the basis of extensive fieldwork in Rajasthan and Madhya Pradesh, compiled a 'catalogue' of 22 different ways of stealing from the program. Most of these, however, became either impossible or very difficult after that bank payments were introduced to pay the wage of the workers in 2008. What has remained possible is to steal from the material component of the program, even though research from AP by Aiyar and Metha (2015) shows that, in order to do so, it is necessary to build large corruption networks – something that, we assume, is easier to do in areas where the ruling party is more firmly established and rooted. Again, the illicit fee extracted can be used to fund electoral campaigns, amass wealth and/or distribute good to the people just before the elections.

In short, the design of the MGNREGA creates a trade-off between wage and material expenditure. In particular, the fact that both the approval of the list of worksites and the selection of contractors is done at the sub-district (mandal) level<sup>21</sup> has the effect of, on the one hand, creating an avenue for MLAs to shape implementation by pressuring mandal officials to approve the type of worksite that they prefer, either labor- or material-intensive. On the other hand, it becomes possible for MLAs to control government contracts, especially in areas where the ruling party is more firmly established (i.e. core constituencies) and the MLAs can rely on a more solid network involving local bureaucrats, politicians and contractors. This trade-off between material and wage expenditure put MLAs in front of the choice of which of the two strategies they wish to prioritize – either distributing work to voters or contracts to contractors. Our quantitative evidence shows that MLAs tend to prefer the latter option, because, as qualitative evidence shows, this is more important for their political prospects.

Let's now turn to the second – and more puzzling – question: why didn't the INC use the MGNREGA to buy votes? The preceding paragraphs at least partly explain why this is not the case in 'core' constituencies: MLAs, posed in front of a trade-off between higher wage and material expenditure, prefer the latter because they channel government contracts to their contractors, knowing that their electoral prospects will not change significantly in core areas if they do not 'invest' in job creation through the program. Why the ruling party doesn't try to win votes in swing areas is more puzzling. We explain the puzzle with the lobbying power of big farmers, who, our own evidence and the literature on the MGNREGA

<sup>14</sup> Interview, Hyderabad, 7 August 2013.

<sup>15</sup> Interview, Hyderabad, 15 December 2012.

<sup>16</sup> Interview, Hyderabad, 7 December 2012.

<sup>17</sup> Interview, Hyderabad, 20 December 2012.

<sup>18</sup> The government of Andhra Pradesh has institutionalised social audits as a mechanism to check irregularities and to detect corruption in the MGNREGA (and other programs as well). A social audit is an auditing procedure that triangulates official records with beneficiaries' interviews. Every village in the state is social audited every six months.

<sup>19</sup> Interview, Haldibari block, Cooch Behar district, West Bengal, January 2012.

<sup>20</sup> Interviews in Churu and Sirohi districts, Rajasthan, February 2014.

<sup>21</sup> Procurement was later centralised (in 2012/13).

show, strongly oppose higher wage expenditure, for two interconnected reasons.

First, farmers who employ agricultural laborers in their fields resent the increase in wages that the MGNREGA has brought about (Imbert & Papp, 2015; Thomas, 2012), particularly in high performing states like AP (Gulati, Jain, & Satija, 2014). Also, farmers lament the decreasing availability of laborers, which is at least partly due to the availability of MGNREGA work. This is a particularly important issue as many agricultural activities must be conducted within a very short period of time. The President of the farmers' cooperative of Penukonda<sup>22</sup> told us that the lack of workers during the agricultural peak season because of MGNREGA is the second most important problem of peasants in the area, after the lack of rain (Penukonda is in a semi-deserted area).<sup>23</sup> Our interview with farmers across five districts of AP invariably agree that the MGNREGA has been 'very detrimental' for farmers<sup>24</sup> and has caused 'major troubles' to agriculture.<sup>25</sup>

Second, farmers can hardly digest the increased bargaining power that the greater availability of non-farm employment due to MGNREGA gave rise to (Breitkreuz et al., 2017; Carswell & De Neve, 2014; Jakimow, 2014; Krishnaraj, Pandey, & Kanchi, 2004; Maiorano, Thapar-Björkert, & Blomkvist, 2016; Roy, 2014). This is not only due to economic reasons, but it is also connected to the status of big farmers in the village political economy. Simplifying to a certain extent, big farmers usually belong to dominant castes (Srinivas, 1959), while agricultural laborers are usually from former untouchable castes (Dalits). The latter, according to the 'traditional' social order, are expected to be at disposal of the former. The MGNREGA, however, contributed to breaking bonds of dependency between Dalit laborers and dominant caste farmer (Jenkins & Manor, 2017; Pattenden, 2016). One big landowner from Anantapur district expressed his resentment by describing the MGNREGA as 'part of the system of injustice that the government created against the farmers. It is perpetuating the disrespect that we are experiencing from the lower castes. [...] They should worship the God that invented this scheme.'<sup>26</sup> Another landowner from the same village remarked that 'it is very sad that people now feel free to challenge the rules that regulate the village and we can't do anything about that. Sometimes you want to kill yourself because of the humiliation that you have to go through when you deal with them.'<sup>27</sup> Politicians in AP are very well aware of this, as noted by the former Minister for Rural Development: 'landowning communities do not accept the increased bargaining power of the laborers after [the introduction of] the MGNREGA.'<sup>28</sup> Local journalists we spoke to, are also aware of the resentment that MGNREGA has caused among farmers.<sup>29</sup>

Big farmers are a tiny percentage of the rural population – those owning more than 4 ha are less than 5 per cent of the population, according to the 2011 Agricultural census, but they are a powerful lobby in Indian politics. They are a 'special interest group' (Grossman & Helpman, 2001) because their policy preferences differ from that of the poor voter, who, although not perfectly coinciding with the median voter, still represent a very sizable section of the electorate in rural India.

In fact, according to Karuna Akella, former Director of the MGNREGA in AP, farmers are 'a big and powerful lobby' and 'the single most important reason why we are not able to provide

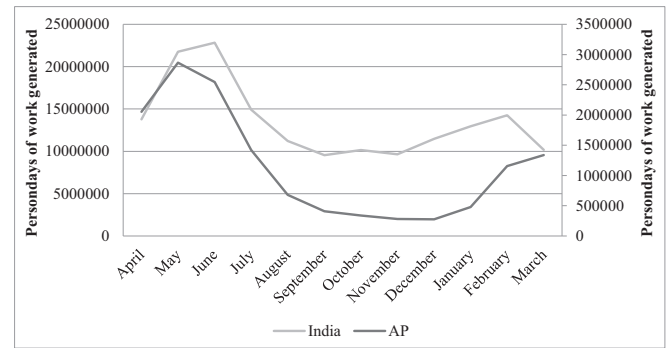


Fig. 3. Distribution of MGNREGA work (number of household employed) during the year 2017/18. Source: Official MGNREGA website [www.nrega.nic.in](http://www.nrega.nic.in) (last accessed on 21st May 2018). Please note that 'India' is plotted on the left axis and 'AP' on the right axis.

100 days of work to everyone'.<sup>30</sup> In another interview she added that she had been contacted by their representatives,<sup>31</sup> and that they are an extremely active lobby at all levels of the polity, a view shared by the then Principal Secretary of the Rural Development Department, who added: 'obviously they are very worried because the [MGNREGA] is changing the productive relations in the village economy. And this is everything. They keep agitating and pressurizing Chief Minister, MLAs, Ministers'.<sup>32</sup> Lower level officials are also subject to pressures from the farmers' lobby. This was confirmed to us by mandal<sup>33</sup> and village level officials.<sup>34</sup> In fact, the lobbying activity of the farmers reached the central government in New Delhi through the Agriculture and Finance ministers (The Asian Age, 2013). An idea of the power of the lobby can be gauged from the fact that the availability of MGNREGA work drops dramatically during the agricultural main season, when farmers need agricultural laborers the most (Fig. 3).<sup>35</sup>

The fact that the farmers oppose higher MGNREGA wage expenditure has two implications. First, it limits the incentive of MLAs to push for higher allocation of work in their constituencies (both core and swing); and, second, it limits the ability of village level implementers to generate enough employment in their own villages (Maiorano et al., 2018). This compresses generation of employment and generates incentives to maximize the material component of the program, also considering that it is not unusual to find members of family of farmers who are contractors themselves.<sup>36</sup>

## 6. Conclusion

This paper analyzed the distributive politics of India's (and the world's) largest workfare program in the state of AP. We show that, despite the clear (theoretical) incentives to use the MGNREGA as a vote-buying tool, elected politicians do not do so. This is true in swing as well as core constituencies. Rather, their key interest is to allocate government contracts for the execution of works under

<sup>30</sup> Interview, Hyderabad, 6 August 2013.

<sup>31</sup> Interview, Hyderabad, 19 December 2012.

<sup>32</sup> Interview, Hyderabad, 5 December 2012.

<sup>33</sup> Interviews with Mandal officials in Karimnagar district, 19 October 2013; Mandal official, Guntur district, 16 February 2017.

<sup>34</sup> Interviews with Field Assistant in Chittoor district, 11 October 2013; Field Assistant in Anantapur district, 8 January 2017.

<sup>35</sup> This also reflects at least partly the lower demand for MGNREGA work by the beneficiaries themselves. However, there is plenty of evidence that a sizable part of the workers still need MGNREGA work during the agricultural season (Maiorano, 2018).

<sup>36</sup> Interview with a sarpanch, Chittoor district, 12 October 2013.

<sup>22</sup> Penukonda is a mandal (sub-district) in Anantapur district.

<sup>23</sup> Interview, Penukonda, 5 January 2017.

<sup>24</sup> Interview, Guntur district, 18 February 2017.

<sup>25</sup> Interview, Anantapur district, 19 January 2016.

<sup>26</sup> Interview, Anantapur district, 6 January 2017.

<sup>27</sup> Interview, Anantapur district, 6 January 2017.

<sup>28</sup> Interview, Hyderabad, 5 August 2013.

<sup>29</sup> Interview to Narasimha Reddy, EENADU newspaper, Hyderabad 5 December 2012.

the program to ‘their’ contractors, so that they can make a profit. The amassed wealth can then be used to buy votes on the eve of the elections, a widespread practice in India in general and AP in particular, and more generally to fund their political careers.

This paper contributes to the literature in four important ways. First, we reinforce theories that predict that parties will target core, rather than swing areas. We do this by analyzing the *type* of expenditure (within the same large scale public employment program) that the ruling party directs to different types of constituencies and show the pivotal role that political funding plays in the distribution of benefits. In this way, we add to the ‘catalogue’ of reasons why political parties should adopt a core strategy, along with the availability of personalized information on voters (Dixit & Londregan, 1996), the dominance of brokers (Stokes et al., 2013), and turnout-buying strategies (Nichter, 2008).

Second, we show that the vertical relationship between a patron and the client(s) (often mediated by brokers) (Stokes et al., 2013) that most models describe is not the only important dimension in a clientelistic relationship. Our findings fit nicely with (Gherghina & Volintiru, 2017)’s by dimensional model of clientelism, which adds an important horizontal dimension (between politicians and contractors) to the standard vertical one (patron-clients) and brings in political funding as a major factor affecting distributional patterns. While they elaborate their model on the basis of evidence from Romania, we provide support to their theoretical model with quantitative and qualitative evidence from a context as different as India. This suggests that the model might well be applicable to many other contexts as well. In fact, Samuels (Samuels, 2002) find a similar link between pork-barreling and contractors who fund electoral campaign in Brazil. This is an important avenue for future research.

Third, we contribute to the literature on MGNREGA and distributive politics. Some studies argued that, by establishing the *right* to be employed on demand, the MGNREGA works as a ‘post-clientelistic’ policy (Manor, 2013), while others found evidence that clientelism still finds a way to shape implementation (Dasgupta, 2016). We show that both arguments are right: while the distribution of jobs is indeed ‘post-clientelistic’, the distribution of expenditure on material to contractors linked to politicians is not. In other words, the politicians’ main interest is not to buy votes through the provision of jobs, but rather to provide government contracts to their network of contractors, who funds their political campaigns in return, so that political leaders can distribute cash, liquor and other goods on the eve of the elections in a ‘classical’ – and widespread, in the Indian context – vote buying strategy.

Finally, we contribute to the debate on whether India – a ‘patronage democracy’ (Chandra, 2004) – is moving towards programmatic politics. Some studies predict that, with economic development – and India has developed a great deal in the last four decades – clientelism will fade away also because it has become too costly (Wilkinson, 2007). Other adopts a more nuanced argument and see that Indian politicians are increasingly resorting to programmatic initiatives *along with* more ‘traditional’ clientelistic strategies, mainly because the latter are less and less effective to ensure re-election (Manor, 2013) and because of the role that competitive party systems and party organizations play (Wyatt, 2013). Still others, on the other hand, do not see patronage going away anytime soon, as this is deeply embedded in South Asia’s cultural and political practice (Piliavsky, 2015). We show that patronage distribution is a crucial dimension of Indian politics, even though it does not necessarily involve direct distribution of government benefits to voters, but is assumes more complex forms. Our findings also resonate with studies showing that clientelistic and programmatic distribution coexist, even within the same policy.

## Conflict of interest statement

We would like to confirm that there are no known conflicts of interest associated with this work and there has been no significant financial support that could have influenced its outcome.

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## Appendix A. Supplementary data

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## References

- Afridi, F., & Iversen, V. (2013). Social audits and MGNREGA delivery: Lessons from Andhra Pradesh. *India Policy Forum*, 10(1), 1–47.
- Afridi, F., Iversen, V., & Sharan, M. R. (2017). Women political leaders, corruption, and learning: Evidence from a large public program in India. *Economic Development and Cultural Change*, 66(1), 1–30.
- Aiyar, Y., & Mehta, S. K. (2015). Spectators or participants? *Economic & Political Weekly*, 50(7), 67.
- Auerbach, A. M. (2016). Clients and communities. *World Politics*, 68(1), 111–148.
- Breitbart, R., Stanton, C.-J., Brady, N., Pattison-Williams, J., King, E. D., Mishra, C., & Swallow, B. (2017). The Mahatma Gandhi national rural employment guarantee scheme: A policy solution to rural poverty in India? *Development Policy Review*, 35(3), 397–417.
- Bussell, J. (2018). *Corruption and reform in India: Public services in the digital age*. Cambridge: Cambridge University Press.
- Carswell, G., & De Neve, G. (2014). MGNREGA in Tamil Nadu: A story of success and transformation? *Journal of Agrarian Change*, 14(4), 564–585.
- Chandra, K. (2004). *Why ethnic parties succeed*. Cambridge: Cambridge University Press.
- Chauchard, S. (2018). Electoral handouts in Mumbai elections. *Asian Survey*, 58(2), 341–364.
- Cox, G. W. (2010). Swing voters, core voters, and distributive politics. In Ian Shapiro, Susan C. Stokes, Elisabeth Jean Wood, & Alexander S. Kirshner (Eds.), *Political representation* (pp. 342–357). Cambridge: Cambridge University Press.
- Cox, G. W., & McCubbins, M. D. (1986). Electoral politics as a redistributive game. *The Journal of Politics*, 48(2), 370–389.
- Das, U. (2015a). Does political activism and affiliation affect allocation of benefits in the rural employment guarantee program: Evidence from West Bengal, India. *World Development*, 67, 202–217.
- Das, U. (2015b). Can the rural employment guarantee scheme reduce rural out-migration: Evidence from West Bengal, India. *Journal of Development Studies*, 51(6), 621–641.
- Das, U. (2018). Accuracy of targeting under the rural employment guarantee programme: A comparison between West Bengal and rest of India. *Journal of International Development*. <https://doi.org/10.1002/jid.3400>.
- Dasgupta, A., Gawande, K., & Kapur, D. (2017). (When) do antipoverty programs reduce violence? India’s rural employment Guarantee and Maoist conflict. *International Organization*, 71(3), 605–632.
- Dasgupta, A. (2016). Strategically greasing the wheels, No. S-89101-INC-1. International Growth Centre. Retrieved from <https://www.theigc.org/wp-content/uploads/2016/08/Dasgupta-2016-Working-Paper.pdf> (accessed on November 2, 2018).
- Deininger, K., & Liu, Y. (2013). *Welfare and poverty impacts of India’s national rural employment guarantee scheme: Evidence from Andhra Pradesh Discussion Paper 01289*. Washington: International Food Policy Research Institute.
- Desai, S., Vashishtha, P., & Joshi, O. (2015). *Mahatma Gandhi national rural employment guarantee act: A catalyst for rural transformation*. New Delhi: National Council of Applied Economic Research.

- Diaz-Cayeros, A., Estévez, F., & Magaloni, B. (2012). "Strategies of Vote Buying: Democracy, Clientelism and Poverty Relief in Mexico." Working Paper. Retrieved from <http://www.stanford.edu/~magaloni/dox/2012strategiesvotebuying.pdf>
- Dixit, A., & Londregan, J. (1996). The determinants of success of special interests in redistributive politics. *The Journal of Politics*, 58(4), 1132–1155.
- Dutta, P., Murgai, R., Ravallion, M., & van de Walle, D. (2014). *Right to Work? Assessing India's employment guarantee scheme in Bihar*. Washington: World Bank.
- Elliott, C. (2011). Moving from clientelist politics toward a welfare regime: evidence from the 2009 assembly election in Andhra Pradesh. *Commonwealth & Comparative Politics*, 49(1), 48–79.
- Gherghina, S. (2013). Going for a safe vote: electoral bribes in post-communist Romania. *Debate: Journal of Contemporary Central and Eastern Europe*, 21(2–3), 143–164.
- Gherghina, S., & Volintiru, C. (2017). A new model of clientelism: political parties, public resources, and private contributors. *European Political Science Review*, 9(1), 115–137.
- Giraudy, A. (2007). The distributive politics of emergency employment programs in Argentina (1993–2002). *Latin American Research Review*, 42(2), 33–55.
- Golden, M., & Min, B. (2013). Distributive politics around the world. *Annual Review of Political Science*, 16, 73–99.
- Government of India (2012). *MGNREGA Sameeksha: an anthology of research studies on the Mahatma Gandhi National Rural Employment Guarantee Act, 2005 2006-12*. New Delhi: Ministry of Rural Development.
- Government of India (2005). The National Rural Employment Guarantee Act, 2005. Gazette of India. New Delhi: Ministry of Law and Justice. Available at <http://nrega.nic.in/rajaswa.pdf> (accessed on November 2, 2018).
- Gowda, M. V. R., & Sridharan, E. (2012). Reforming India's party financing and election expenditure laws. *Election Law Journal: Rules, Politics, and Policy*, 11(2).
- Grossman, G. M., & Helpman, E. (2001). *Special interest politics*. Cambridge, MA: MIT Press.
- Gulati, A., Jain, S., & Satija, N. (2014). Rising farm wages in India—The "Pull" and "Push" factors. *Journal of Land and Rural Studies*, 2(2), 261–286.
- Gulzar, S., & Pasquale, B. J. (2017). Politicians, bureaucrats, and development: evidence from India. *American Political Science Review*, 111(1), 162–183.
- Gupta, P. (2014). Lok Sabha elections in Andhra Pradesh: A tale of two states. *Research Journal Social Sciences*, 22(2), 234–247.
- Imbert, C., & Papp, J. (2015). Labor market effects of social programs: Evidence from India's employment guarantee. *American Economic Journal: Applied Economics*, 7(2), 233–263.
- Jakimow, T. (2014). "Breaking the backbone of farmers": contestations in a rural employment guarantee scheme. *Journal of Peasant Studies*, 41(2), 1–19.
- Jenkins, R., & Manor, J. (2017). *Politics and the right to work: India's Mahatma Gandhi national rural employment guarantee act*. London and New York: Hurst&Co./Oxford University Press.
- Kapur, Devesh, & Milan Vaishnav. (2011). *Quid Pro Quo: Builders, Politicians, and Election in India*. Center for Global Development Working Paper 276.
- Krishnaraj, M., Pandey, D., & Kanchi, A. (2004). Does EGS require restructuring for poverty alleviation and gender equality? *Economic and Political Weekly*, 39(16), 1597–1604.
- Lehne, J., Shapiro, J. N., & Vanden Eynde, O. (2018). Building connections: Political corruption and road construction in India. *Journal of Development Economics*, 131, 62–78.
- Maiorano, D. (2014). The politics of the Mahatma Gandhi national rural employment guarantee act in Andhra Pradesh. *World Development*, 58, 95–105.
- Maiorano, D. (2015). *Autumn of the Matriarch: Indira Gandhi's Final Term in Office*. London: Hurst&Co.
- Maiorano, D., Das, U., & Masiero, S. (2018). Decentralisation, clientelism and social protection programs: a comparative study of India's MGNREGA. *Oxford Development Studies*. <https://doi.org/10.1080/13600818.2018.1467391>.
- Maiorano, D., Thapar-Björkert, S., & Blomkvist, H. (2016). The paradoxes of empowerment: gendering NREGA in the rural landscape of India. *Development in Practice*, 26(1), 127–134.
- Manor, J. (2011). Did the central government's poverty initiatives help to re-elect it? In L. Saez & G. Singh (Eds.), *New dimensions of politics in India - The united progressive alliance in power* (pp. 13–25). Oxon: Routledge.
- Manor, J. G. (2013). Post-clientelist initiatives. In K. Stokke & O. Tornquist (Eds.), *Democratization in the global south: The importance of transformative politics*. New York: Palgrave Macmillan.
- Marcesse, T. (2018). Public policy reform and informal institutions: The political articulation of the demand for work in rural India. *World Development*, 103, 284–296.
- McGillivray, F. (2004). *Privileging industry: The comparative politics of trade and industrial policy*. Princeton: Princeton University Press.
- Mukhopadhyay, A., Himanshu & Sharan, M. R. (2015). NREGS in Rajasthan. *Economic and Political Weekly*, 50(6), 52–60.
- Nair, M., Ariana, P., Ohuma, E. O., Gray, R., De Stavola, B., & Webster, P. (2013). Effect of the Mahatma Gandhi national rural employment guarantee act (MGNREGA) on malnutrition of infants in Rajasthan, India: a mixed methods study. *PLoS One*, 8(9) e75089.
- Narayanan, S., Das, U., Liu, Y., & Barrett, C. B. (2017). The "Discouraged Worker Effect" in public works programs: Evidence from the MGNREGA in India. *World Development*, 100, 31–44.
- Nayak, N., & Khera, R. (2009). Women workers and perceptions of the national rural employment guarantee act. *Economic and Political Weekly*, 44(43), 49–57.
- Nichter, S. (2008). Vote buying or turnout buying? Machine politics and the secret ballot. *American Political Science Review*, 102(1), 19–31.
- Pattenden, J. (2016). *Labour, state and society in rural India: A class-relational approach*. Manchester: Manchester University Press.
- Piliavsky, A. (Ed.). (2015). *Patronage as politics in South Asia*. Cambridge: Cambridge University Press.
- Roy, I. (2014). Reserve labor, unreserved politics: dignified encroachments under India's national rural employment guarantee act. *The Journal of Peasant Studies*, 41(4), 517–545.
- Samuels, D. J. (2002). Pork barreling is not credit claiming or advertising: Campaign finance and the sources of the personal vote in Brazil. *The Journal of Politics*, 64(3), 845–863.
- Shankar, S., & Gaiha, R. (2013). *Battling corruption: Has NREGA reached India's rural poor?* New Delhi: Oxford University Press.
- Sheahan, M., Liu, Y., Barrett, C. B., & Narayanan, S. (2018). Preferential resource spending under an employment guarantee: The political economy of MGNREGS in Andhra Pradesh. *The World Bank Economic Review*, 32(3), 551–569.
- Sircar, N. (2018). How political parties choose their candidates to win elections. *Hindustan Times*.
- Srinivas, M. N. (1959). The dominant caste in Rampura. *American Anthropologist*, 61(1), 1–16.
- Stokes, S. C., Dunning, T., Nazareno, M., & Brusco, V. (2013). *Brokers, voters, and clientelism: The puzzle of distributive politics*. Cambridge: Cambridge University Press.
- Suri, K. C., Narasimha Rao, P., & Reddy, A. V. (2009). Andhra Pradesh: A vote for status quo? *Economic and Political Weekly*, 50(23), 7–8.
- The Asian Age (2013). Ministers spar over NREGA. *The Asian Age*.
- The Hindu (2012). AP "notorious" in using cash during elections. *Hindu*.
- Thomas, J. J. (2012). India's Labour Market during the 2000s. *Economic and Political Weekly*, 47(51), 39–51.
- Vaishnav, M. (2017). *When crime pays: Money and muscle in Indian politics*. New Haven: Yale University Press.
- Vaishnav, M. & Sircar, N. (2011). Core or Swing? The Role of Electoral Context in Shaping Pork Barrel (Tech. rep., Working Paper).
- Veeraraghavan, R. (2017). Strategies for synergy in a high modernist project: Two community responses to India's NREGA rural work program. *World Development*, 99, 203–213.
- Wilkinson, S. I. (2007). Explaining changing patterns of Party-Voter linkages in India. In H. Kitschelt & S. I. Wilkinson (Eds.), *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition* (Vol. 9780521865, pp. 110–140). Cambridge: Cambridge University Press.
- Wyatt, A. (2013). Combining clientelist and programmatic politics in Tamil Nadu South India. *Commonwealth & Comparative Politics*, 51(1).
- Zimmermann, L. (2015). May there be victory: Government election performance and the world's largest public-works program (Discussion Paper 9161). Bonn: Institute for the Study of Labour.