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Local funds and political competition: Evidence from the National Rural Employment Guarantee Scheme in India

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Abstract

The National Rural Employment Guarantee Scheme (NREGS) in India is one of the largest public employment programmes in the developing world. It was introduced by the central government led by Indian National Congress (INC). While its implementation is, in principle, based on demand for work from households, we investigate how political competition affects intra district allocation of funds under the scheme. Using longitudinal data on funds allocated to blocks and elections held at the block level and addressing the issue of endogeneity by focusing on a subsample of blocks which had close elections, we find that the funds allocated were 22 percent higher in blocks where the INC seat share was less than 39 percent in the previous election. We provide a mechanism by for the effect by showing that the results are only true when the MP of the district, a member of the body that approves the block fund allocation, is from INC.

Keywords:

Political economy, local elections, NREGS, India

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1 Introduction

Central governments, all over the world, often introduce flagship public schemes that not only have large budgetary outlays, but lead people to identify the scheme with a particular political regime. For example, Bolsa Familia in Brazil is often identified with the Lula administration and is believed to have resulted in his victory in presidential elections in 2006. Similarly, the National Rural Employment Guarantee Scheme (NREGS), which guarantees 100 days of employment to rural households in India, is a flagship programme of the Indian National Congress party (INC) and was touted as one of the main reasons for INC's re-election to the central government in 2009.

In the context of developing countries, the NREGS is an interesting experiment in policy implementation, since it requires active participation of elected local representative bodies in rural areas (called the *panchayati raj institutions*: PRI). While such decentralisation, in principle, may lead to better implementation, it also lends itself to local capture. This can often take the shape of elites receiving a disproportionate share of benefits from a scheme, especially when the intended beneficiaries are uninformed about the scheme (Bardhan and Mookherjee, 2000). At the same time, policy implementation can also be affected by local political competition: in particular, competition between parties in local elections. Political will to implement the scheme can, in principle, be driven by ideologies of parties (as captured by Candidate-Citizen models of Besley and Coate, 1997). However, recent evidence finds that political opportunism can often dictate how policies get implemented. For example, Bardhan and Mookherjee (2010), in the context of West Bengal in India, find that areas which are subject to close legislative assembly elections often see better implementation of land reforms. They find that the relation between implementation and political strength (in terms of seats) is an inverted U**,** with parties not implementing the reform policy if they have a very low or very high representation in an assembly constituency. Similarly, there can be an interplay of party politics with clientelism. This would involve transfer of public resources to individuals/specific groups associated with the ruling political party (Grossman and Helpman, 1996).

In the context of NREGS, there is no major ideological difference between the major parties about the scheme per se;[1] the difference in posture, if any, has more to do with the fact that the rural polity may identify the scheme with INC, since it is one of its flagship programmes. This may decrease the will of other political parties to implement the scheme. This leakage of benefits (or lack of it) when parties implement policies has been studied in the context of centre-state transfers. For example, Arulampalam et al. (2009) study the impact of national and state assembly compositions on centre-state transfers. In their context, the goodwill from centre to state transfers is lost to 'leakage' if the governments at the state and centre are from

[1]The major parties of India are largely left of centre, especially in the context of the rural economy. The differences in rhetoric come largely from posturing during elections. For an interesting take on this issue, refer to:
http://debrajray.blogspot.in/2013/08/namomania.html

different parties. This affects the transfers the centre is willing to make to the state. The case of NREGS is similar. While the scheme is largely funded by the centre, the funds are channelled through local bodies that may have key political personnel who are not aligned to the party at the centre. Hence, this paper explores whether the funds allocated at the local level are affected by local political competition.

The analysis presented in the paper uses data from two panchayat samiti elections (in 2005 and 2010) and NREGS fund allocation to all blocks for the years 2009 and 2012 in the Indian state of Rajasthan.[2] Confounding determinants of demand for funds are controlled for by using block-level data from 2001 and 2011 census. Moreover, we carry out block-level fixed effects estimation and allow for appropriate trends. We model the funds allocated to a block as a function, among others things, of the existing seat share of the Indian National Congress (INC) in each block. To allay fears of endogeneity, we focus on a subset of close elections over the two elections (2005 and 2010). Close elections are defined in terms of vote margins of no more than 4 percent difference between the vote share of INC (BJP) and the closest rival.[3] We find that, for close elections, the relationship between INC seat share and funds allocated is negative. On average, 22 percent higher funds are allocated to blocks where the seat share of INC is below 39 percent. Such blocks form around a quarter of blocks where there were close elections. Thus there is evidence that funds are 'used' to influence voters where INC is weaker, as compared to where it is stronger. This may be feasible within areas with close elections because voters are not necessarily biased towards any one party.

Moreover, we provide further proof that these outlays reflect political strategies by INC. The result that there are higher funds to low INC seat share blocks is only obtained when the district Member of Parliament (MP) is from INC. The MP is part of the district panchayat, the body that approves the block plans, and is a key political personnel in the district. We find no such result for BJP, thus pointing out that, perhaps, BJP does not find it optimal to use NREGS funds, since it is identified with the INC- led central government, especially post general elections in early 2009.

The paper contributes to three strands of the literature. Firstly, it contributes to the empirical literature on the impact of local political competition on public policy implementation. It gives further evidence that political opportunism guides how parties act on policies. After 2008, INC was in power both at the centre and the state**.** Hence, we are able to abstract away from any centre-state issues and focus narrowly on local elections.[4] This analysis is also unique in that we consider fund flow for a policy at the block level. Similar information at this level of disaggregation for implementation of policies is tough to obtain, especially in developing countries. What

[2]A block is roughly the same as a panchayat samiti. We consider the set of panchayat samitis that correspond to blocks. Hence, we refer to them interchangeably in this paper.
[3]Four percent is the lowest margin difference we can use for this paper, due to sample size issues.
[4] INC-led coalition has been in power at the centre since 2004 and formed the state government from 2008 to 2013.

is also useful about this exercise is that it is clear how political parties can affect outcomes, since political appointees have a declared role in fund allocation decisions.

These results are in contrast to empirical results that find evidence of political patronage in local politics (Besley et al. 2004). This paper is similar in spirit to Bardhan and Mookherjee (2010), which shows that party seat shares matter for policy implementation. However, some of the context is different in this paper and this paper uses close elections for identification, in contrast to using vote shares in other general elections as instruments. The difference between the two exercises is commented on in a later section of the paper. These results are also in contrast to the literature that points out that pre-election transfers of funds are only useful in getting voters to election booths and not for affecting their voting choice (Cox and Kousser 1981).

The second strand of literature for which this paper is relevant is the role of local politics in affecting economic outcomes. Recent work on India, by Cole (2009) and Novosad and Asher (2013), shows how local elections and politicians can affect farm credit and employment, respectively. Since NREGS funds affect employment rates and have also been found to have impacts on poverty (Ravi and Engler, 2009; Klonner and Oldiges, 2012), by providing some evidence on how politics affect NREGS funds, our paper is indicative of a path for how politics and economic outcomes are connected.

The third strand of literature to which this paper contributes is the nascent evidence on NREGS. The scheme is one of the largest public policies in a developing country context. With an allocation of Rs.396.54 billion in 2012-2013 (around 6.42 billion USD at PPP), it is bigger than PROGRESSA and has the potential to change the lives of an unprecedented number of people. Studies looking at its impact (Azam, 2012; Imbert and Papp, 2012) are besotted with identification issues, since the intensity of the programme in any area and over time is not random. In providing a political explanation for funds allocated, this paper provides a potential identification channel to examine its impact.[5]

In Section 2, we describe the institutional setting of funds allocation across administrative units and how they are related to the local political structure. Section 3 provides description of the data. In Section 4, we lay out an empirical model and describe variables used in a multivariate panel regression model. Further, we describe our identification strategy. Section 5 describes results, while Section 6 offers an explanation for the results obtained. Robustness checks are discussed in Section 7 and we conclude in Section 8.

[5]Needless to say, this is contextual, as for many outcome variables, the exclusion criterion may not be met if political competition affects them directly.

2 Institutional setting

The National Rural Employment Guarantee Act (NREGA) provides a legal guarantee for at least 100 days of employment in every financial year to adult members of any rural household willing to do unskilled manual work at the notified wage. The National Rural Employment Guarantee Scheme (NREGS), which operationalised the Act, started in the financial year 2005-2006 and was rolled out in phases. Initially restricted to the 200 poorest districts of India (February 2006), it was extended to 130 more districts in phase II (May 2007) and to all districts by 1st April 2008.

The legal entitlement of work implies that NREGS is, in principle, a demand-based scheme. Thus, various modi operandi are laid out on how demand from households is to be registered and how funds will flow through the system (Mukhopadhyay 2012). A gram panchayat (local government that represents a collection of villages) is responsible for identifying projects in the area under its jurisdiction (through local meetings called gram sabha meetings). The plans are then sent to the block level (the next highest tier) before the start of the financial year (this is often referred to as a 'labour projection' as well as 'suggested shelf of works'). All project proposals received are integrated into the Block Plan. The panchayat samiti (PS), along with a block-level administrative officer (called the Programme Office[6]) vets the block level plan, and forwards it to the panchayat at the district level for final approval. A panchayat samiti (also referred to as an intermediate panchayat) is a democratically elected council, which contains members of multiple gram panchayats that come under its jurisdiction.[7,8] The district panchayat (also an elected body, but at the district level), along with an administrative officer (usually the district collector) finalise and approve the block plans. The MP is also a member of the district panchayat and can potentially have influence on the process of approval. Based on these plans, funds are approved for panchayat samitis, and funds then flow to gram panchayats and subsequently to households that work on NREGS projects.

While NREGS is, in principle, a demand-based scheme, there is overwhelming evidence that the scheme is supply driven. Based on a village survey of 320 villages in Rajasthan, Himanshu et al. (2013) find that around 52 percent of villages believe that households only get work when there is some project available and not based on their demand.[9] Moreover, Imbert and Papp (2012) report that many people are unaware of their full set of rights under the programme; in practice, very few job card holders formally apply for work, while the majority tend to wait passively for work to

[6] The Block Development Officer (BDO) is often appointed the Programme Officer. The Programme Officer provides preliminary approval based on verification of maintenance of 60:40 ratio of wage to materials in terms of cost.
[7] Most panchayat samitis map perfectly onto a census unit called a block. A district is a collection of blocks.
[8] The elected heads of gram panchayats are also members of panchayat samitis. In contrast to members elected directly into the council, they have no declared party affiliation.
[9] This is based on a focus group discussion in each village.

be provided. Other research on Andhra Pradesh (Ravi and Engler, 2009; Afridi et al., 2013) also indicates that the programme is supply rather than demand driven.[10]

While fund allocations may not be completely demand driven, it is implausible to think that they are random. Given the various levels of local political institutions involved in the collation of demand requests, it is possible that they can influence the funds that are finally allocated. While there can be political forces at play that decide funds at the district level and at the state level, we focus, in this paper, on the intra district allocation of funds (that is, to blocks).[11] Further, we look at the relationship between seat shares of each party in panchayat samiti elections to subsequent block level approved funds. Panchayat samiti elections are the lowest tier of local elections, for which seat shares are recorded partywise (by the state election commission).[12] In addition, we look at the influence of the MP, who is a member of the district panchayat, a body that finally approves block plans.[13]

While other layers of politics can matter for allocation of funds under NREGS, what makes the particular context we examine useful is that the political structure at higher tiers of governance stayed the same during the period of our study. Both the central government and the state governments were headed by the same party: INC.

3 Data and descriptives

This analysis uses data from Rajasthan, a northern state of India. Rajasthan is touted as a success story in terms of the implementation of the scheme, since funds have been used to provide employment in this state, in contrast to most other states of India, where its implementation has been poor.[14] We seek to investigate whether NREGS fund allocation to blocks, in a financial year, depends on the existing seat share of each political party within the panchayat samiti electorate.[15] We exploit the fact that elections for panchayat samitis took place in the years 2005 and 2010, which led to a change in the seat share of each party, and examine the fund

[10]The bureaucratic response to how fund allocation happens is mechanical. It is a view stated by almost all officials that the fund allocation is based only on the labour projection budgets and the shelf of works. However, it is hard to see how this is consistent with people reporting that their demand for work is not met.

[11]Once funds are approved for gram panchayats, there can be further local political forces at play. For example, Himanshu et al. (2013) find that in multi-village gram panchayats, the village of the head of the gram panchayat (called the sarpanch) gets more NREGS work.

[12]These elections are the lowest tier, where candidates can declare parties. While elected leaders at lower levels of governance (heads of gram panchayats) often have party affiliations, these are informal and never officially declared.

[13]We do not look at the party composition of the district panchayat, since the members are elected at the same time as the panchayat samiti members. The MP is elected through a national election, which was held separately.

[14]The total funds for Rajasthan for the years 2009 and 2012 were Rs. 82027.25 million and Rs. 37757.78 million, respectively. The state government, in many press releases, has claimed that there is decreasing demand for NREGS, which needs to be investigated. The drop in overall funds for NREGS in Rajasthan has also been noted by Mukhopadhyay (2012).

[15]We choose to look at fund allocations instead of expenditures, because the latter are subject to issues of corruption and village politics, which are not relevant for testing our hypothesis.

allocations in the financial years 2009-2010 and 2012-2013. The choice of the years is dictated by the fact that NREGS was implemented in all districts of India (and consequently all blocks of Rajasthan) by mid-2008. Hence 2009-2010 is the first financial year for which we have data for all districts (and blocks).[16] The choice of 2012-2013 was dictated by the fact that, given the complicated machinery of NREGS, it is plausible that it would take time for the newly elected local politicians to learn about how NREGS funding works. Indeed, 2010-2011 showed a sharp dip in total NREGS funds for the state. We also consider 2012-2013 so as to ensure that the unspent balances from previous years that often get extended to the funds available in the next financial year belong to the same political regime (post-2010). Our results stay the same, even if we look at fund allocations in 2011-2012.

The block-level approved funds for NREGS for a financial year include fresh funds sanctioned as well as outstanding balance from the previous year.[17] Data on these are sourced from the official website of the Government of India.[18] The data are obtained for 219 blocks for financial years 2009-2010 and 2012-2013 (for ease of presentation, we refer to them as 2009 and 2012, respectively).[19] The average block-level funds for Rajasthan for the years 2009 and 2012 were Rs. 173.36 million and Rs 108.04 million, respectively (Table 1.A).

The data on seat share for each party are obtained from the state election commission website.[20] Data are obtained on panchayat samiti elections held in 2005 and 2010. Each panchayat samiti is divided into wards, and members are elected from each ward. The number of wards in each panchayat samiti varies depending on population. We divide the seats a party gets by the total number of seats across all wards in a panchayat samiti to calculate a party's seat share. Rajasthan politics is dominated by the two main national parties of India: the Indian National Congress (INC) and Bharatiya Janata Party (BJP). The average seat share of INC in 2005 was 44.1 percent, while it increased to 48.8 percent in 2010. The BJP's seat share decreased from 41.7 percent in 2005 to 34.7 percent in 2010. The two seat shares together account for around 80 percent of the seats. Figures 1 and 2 show the spatial distribution of INC seat shares across the state for the election years 2005 and 2010, respectively. As can be seen, there is fair heterogeneity in seat shares for both years. It is also important for our analysis that even within a district, there is a fair degree of heterogeneity across blocks in seat share. The striped portions reflect blocks where

[16]It may be argued that results are affected by the inclusion of the election year. The choice of 2009 is dictated by the spread of the programme. By 2009, all the districts (and blocks) had NREGS running in full swing. A previous year would have meant this allocation would be zero for many districts and blocks which were dealing with the scheme for the first time. Moreover, the national elections were held in early 2009. Hence 2008-09 allocations are likely to be equally distorted by the national elections. However, we do provide evidence in a robustness section that the results are true if we exclude the election year from our sample.

[17]The proportion of outstanding balance to total funds was 0.22 and 0.19 for the years 2009 and 2012, respectively.

[18]http://nrega.nic.in/netnrega/home.aspx

[19]There are 248 blocks in total. We drop blocks which could not be mapped onto panchayati samitis, the area delimited for election purposes.

[20]http://www.rajsec.rajasthan.gov.in

the elections were close, i.e., where the INC vote margin (for the whole block) was less than equal to 4 percent.[21] As can be gleaned from the figures, close elections are not concentrated in any particular region. A comparison of Figures 1 and 2 also shows that the seat shares have temporal variation.[22]

The block-level funds are matched to panchayat samiti seat shares. As noted before, we are able to match these perfectly for 219 blocks and use this subsample for our analysis. The unconditional correlation between INC seat share and funds, after pooling the data for the two years, is 0.20, while that for BJP seat share and funds is much weaker, at 0.02. However, these correlations could also be driven by other factors: those that affect the household demand for work. Intra-district analysis alleviates some of these concerns. The presence of confounding factors, however, requires that we model the correlation between funds and seat shares in a multivariate framework. The data on demographic variables are sourced from Census 2001 and 2011. Rainfall data is available only at the district level and is sourced from the Indian Meteorological Department. Rainfall shocks are derived by taking deviations from a 20-year average for each district. The descriptive statistics for these variables are summarised in Table 1.A for all panchayat samitis and in Table 1.B for panchayat samitis that had close elections.

[21]Vote shares of each party are not available for each ward. However, in so far as wards often cut through different villages, the block is the lowest level where funds can be mapped onto party affiliation of the elected members, for the state of Rajasthan. Parties are not officially registered, for example, at the level of the gram panchayat.

[22]INC is relatively weaker in the north eastern blocks. However, even there, there is intra district variation in seat shares of INC.

Figure 1: TIME PERIOD - I

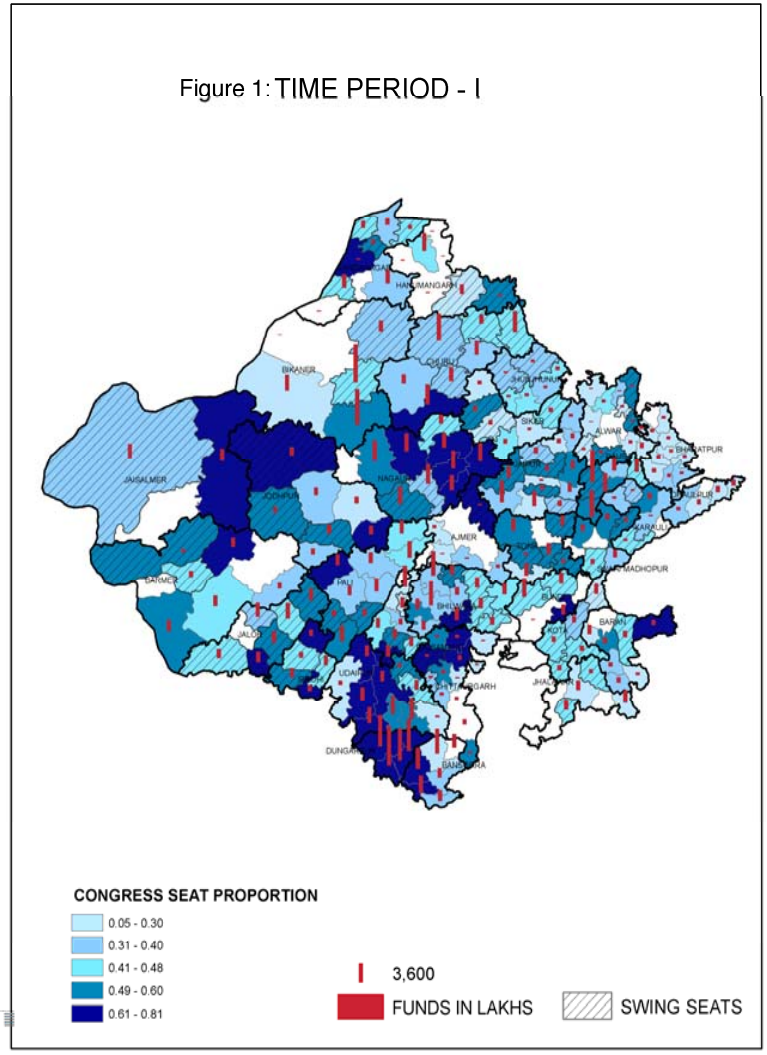


Figure 2: TIME PERIOD - II

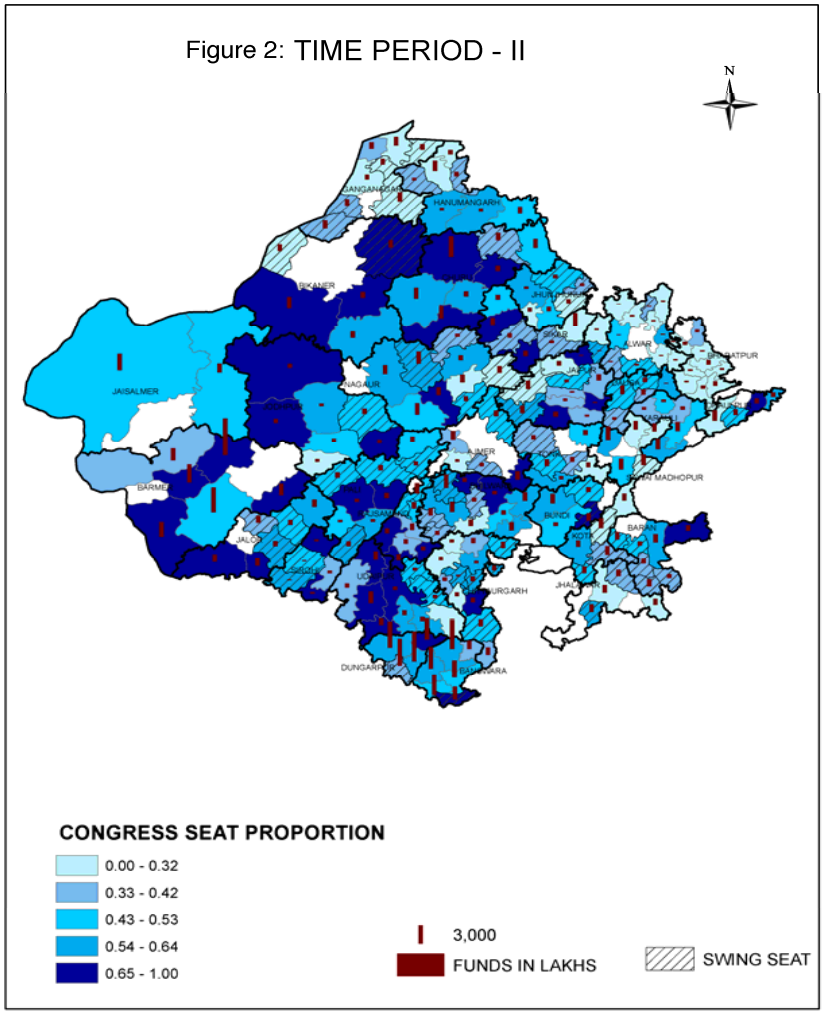


Table 1.A. Summary statistics of all the panchayat samitis

	Overall			Time period 0			Time period 1		
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
Funds (In Rs 100,000)	438	1408.82	1239.05	219	1733.61	1396.39	219	1084.04	956.93
Log of funds	438	6.9	0.88	219	7.13	0.85	219	6.67	0.84
Total no. of wards	438	21.89	5.48	219	22.21	6.28	219	21.57	4.54
INC seat share (%)	438	46.46	17.43	219	44.11	16.34	219	48.82	18.19
Square of INC seat share (%)	438	2461.95	1709.34	219	2211.36	1490.64	219	2712.55	1873.2
BJP seat share (%)	438	38.2	18.23	219	41.7	16.84	219	34.7	18.92
Square of BJP seat share (%)	438	1791.12	1464.94	219	2021.43	1415.96	219	1560.81	1480.01
INC MP	438	0.48	0.5	219	0.15	0.35	219	0.82	0.38
BJP MP	438	0.5	0.5	219	0.85	0.35	219	0.16	0.36
Rain shock	438	-0.06	0.44	219	-0.35	0.25	219	0.22	0.4
Avg. prop. of land irrigated	438	0.39	0.22	219	0.39	0.22	219	0.39	0.22
Infrastructure index of block	438	0.2	1.36	219	0.2	1.36	219	0.2	1.36
Total population	438	213223.34	85308.08	219	195207	73501.86	219	231239.68	92377.71
Proportion of SC	438	0.18	0.07	219	0.18	0.07	219	0.19	0.08
Proportion of ST	438	0.15	0.21	219	0.15	0.2	219	0.16	0.21
Proportion of females	438	0.48	0.01	219	0.48	0.01	219	0.48	0.01
Proportion of illiterates	438	0.52	0.08	219	0.56	0.08	219	0.48	0.07
Close seats (INC)	438	0.34	0.47	219	0.38	0.49	219	0.29	0.46
Close seats (BJP)	438	0.31	0.46	219	0.37	0.48	219	0.25	0.43

Table 1.B. Summary statistics of close election panchayat samitis

	Time period 0			Time period 1		
	N	Mean	S.D.	N	Mean	S.D.
Funds (in Rs 100,000)	147	1340.32	1054.3	136	1372.41	1064.76
Log of funds	147	6.93	0.79	136	6.97	0.74
Total no. of wards	147	21.28	5.21	136	21.17	4.99
INC seat share (%)	147	45.62	10.6	136	44.99	10.3
Square of INC seat share (%)	147	2193.21	996.42	136	2129.43	932.51
BJP seat share (%)	147	42.96	13.5	136	45.47	10.62
Square of BJP seat share (%)	147	2026.53	1054.72	136	2179.63	955.26
INC MP	147	0.39	0.49	136	0.34	0.47
BJP MP	147	0.59	0.49	136	0.65	0.48
Rain shock	147	-0.16	0.39	136	-0.2	0.37
Avg. prop. of land irrigated	147	0.43	0.23	136	0.42	0.23
Infrastructure index of block	147	0.12	1.32	136	0.1	1.35
Total population	147	193418.03	75736.46	136	188816.88	71471.64
Proportion of SC	147	0.2	0.07	136	0.2	0.06
Proportion of ST	147	0.12	0.14	136	0.12	0.12
Proportion of females	147	0.48	0.01	136	0.48	0.01
Proportion of illiterates	147	0.52	0.08	136	0.52	0.08

4 Empirical model and identification

Our main hypothesis is that, controlling for other factors that affect demand for funds, political factors, such as party politics, have a role to play in fund allocations across blocks. In particular, we test what the nature of this role is. It is not clear a priori what the relation should be. For example, models of patronage imply that funds should be transferred, where it is possible to do so, to where the vote-bank of parties are. Alternatively, it may be optimal, in some contexts, to transfer funds to swing areas where the marginal impact of fund transfers on votes is the highest. In other contexts still, greater funds may be transferred (if such transfer is possible) to constituencies where a party is weakest if vote buying is cheap and funds are not constrained.

To fix ideas, let *p* stand for the panchayat samiti; let *d* refer to the district where p is situated. The dependent variable in this analysis is the log of funds *(Ln_funds$_{pdt}$)*; where *t* takes the value 0 for the year 2009 and 1 for 2012. In our main regression, we take the percentage of seats won by INC in a panchayat samiti as our main political economy variable *(INC_seatshare$_{pdt}$)*. Since share of seats of all parties within a panchayat samiti add up to 100, the marginal effect of *INC_seatshare* measures the impact of a marginal change of seat share of INC relative to other parties, in particular the BJP. In line with Bardhan and Mookherjee (2010), we allow for non-linearity by considering, in addition to the linear term, a quadratic term *(INC_seatshare$^2_{pdt}$)*. Further, the number of wards in a panchayat samiti *wards$_{pdt}$* may reflect the level of competition in a panchayat samiti. Since the number of wards is typically a function of population, the number of wards varies over time because of the growth of population, even though the demarcation of panchayat samitis does not change.

To eliminate the impact of demand on NREGS funds, we control for variables that may affect the demand. We posit that the demand for NREGS funds depends on rainfall shock *(rain_dev$_{dt}$)*, as NREGS has been put in place to mitigate the effects of droughts. Moreover, funds allocated may depend on the population of a block *pop$_{pdt}$*. One would expect more funds would be allocated to areas where there was a higher proportion of the relatively less prosperous communities. Hence the proportion of Scheduled Castes (*SC$_{pdt}$*) and Scheduled Tribes (*ST$_{pdt}$*) in the block are included as control variables. Moreover, the labour force participation of women in NREGS has been huge in Rajasthan. Hence we include the proportion of females in the population (*fem$_{pdt}$*) as an explanatory variable. Further, to measure underdevelopment at the block level, which may lead to a higher NREGS demand, we take into account the illiteracy rate *ILL$_{pdt}$*.

To alleviate concerns that unobserved variables may influence fund allocations, we include panchayat samiti dummy variables (δ_{pd}) to take into account panchayat samiti idiosyncrasies, for example, its geographic location. Moreover, we allow for a secular trend δ_t to take into account falling funds for NREGS in Rajasthan. We also include

district trends (ρ_{dt}) over the period to take into account trends in alternative employment opportunities (wages) at the district level. In addition, we allow for a trend that depends on a development index for a block ($Infra_{pd0}$)[23] and another trend that depends on the amount of irrigated land within a block Irr_{pd0}. Both these variables are measured in 2001 and reflect base values.[24] Hence the empirical model we estimate is:

$$Ln\_funds_{pdt} = \alpha + \delta_t + \delta_{pd} + \rho_{dt} + \rho_1 Irr_{pd0} * t + \rho_2 Infra_{pd0} * t + \beta_1 INC\_seatshare_{pdt} + \beta_2 INC\_seatshare^2_{pdt} + \beta_3 wards_{pdt} + \mu' Z_{pdt} + \varepsilon_{pdt}$$

where Z is a vector that includes all the other control variables.

To estimate this model, we use a balanced panel of blocks and apply a fixed effects estimator. This eliminates the panchayat samiti time invariant idiosyncrasies. It also eliminates rainfall shock, as that is measured at the district level, and is therefore collinear with the district trend. The district trend also eliminates the need to include district funds as a variable. We are then interested in examining the sign and statistical significance of β_1, β_2 and β_3.

It may be contended that the share of seats won by INC may itself be affected by funds. While this is unlikely for the 2005 election (NREGS was not around), it is plausible that funds allocated in 2009-10 affect election outcomes in 2010. This would violate the strict exogeneity restriction. In order to alleviate this problem, we look at close elections. We define a close election for INC as one where INC won or lost by a vote margin of less than four percentage points. Over the two elections, there are 147 panchayat samitis with close elections with respect to INC. We use data from both the 2005 and 2010 elections to gain enough sample size.

The sample of close elections is unbalanced. There are 27 panchayat samitis that repeat in both years and it is not practical to run a fixed effects model on this sub-sample of a balanced panel. We therefore estimate this model using a random effects model. For panchayat samitis that do not repeat over the years in the sample, the exclusion concern is moot.

Since the use of random effects on the sample of close elections comes at the cost of not being able to eliminate the possible effect of idiosyncratic differences between panchayat samitis, it is important to emphasise what problems it addresses. First, as

[23] $Infra_{pd0}$ is created using principle component analysis taking into account average number of schools per village, proportion of villages with power supply, proportion of villages with a medical facility.

[24] The data for these variables are sourced from 2001 census. Similar data are not available currently for the 2011 census at the block level.

pointed out, a fixed effects estimator would require that the funds in 2009 do not affect the proportion of seats won by INC in the 2010 elections. We contend that the use of close elections alleviates this problem. To show this, for the sample of close elections, we regress the proportion of seats won by INC in 2010 $INC\_seatshare_{pd1}$ on the log of funds in 2009 as well as other baseline covariates, and include district fixed effects. An insignificant coefficient for log of funds in 2009 would indicate that the problem described above is not true for our subsample. We repeat this for the sample of panchayat samitis that have close elections in both years. Further, it is possible that the probability of a panchayat samiti having a close election in 2010 is a function of funds, which would lead to a sample selection bias. To show that this is not the case, for 2010, we run a linear probability model where the dependent variable takes the value 1 if the panchayat samiti had close elections and 0 otherwise. After controlling for all the confounding factors, we test whether funds in 2009 affect the probability of close elections. Our exercise would be invalid if, in any of the regressions above, the coefficient of the log of funds was significant.

The use of cross-sectional variation in the random effects model opens up the possible problem of contemporaneous endogeneity. The question that one needs to address is whether the variation in $INC\_seatshare_{pd1}$ is indeed quasi random. We contend that the close elections, by their character, make the variation random. We offer two pieces of suggestive evidence to indicate this. First, among blocks with close elections, the percentage of seats to INC varies from 24 percent to 76 percent. Second, to provide evidence for quasi-randomness of the seat share among closely contested elections in 2010, we regress the INC seat share in 2010 on the INC seat share in 2005 elections. We contend that if there was any unobservable that was correlated to the INC seat shares in each year, this would imply that the INC seat shares in 2010 would be correlated to the INC seat shares in 2005 elections. As can be seen in (Figure 3), there is a positive correlation between INC seat shares if the whole sample is considered. However, this relation disappears when we take the subset of close elections (Figure 4). Regressions are used to test these correlations statistically. We repeat this with and without taking into accounts NREGS funds in 2009.

Analogous to the above specifications with INC, we estimate models where the *INC_seatshare* is replaced by the *BJP_seatshare.* To maintain comparability, close elections are defined in terms of victory and loss vote margins for BJP.[25]

Next, we test the hypothesis of whether key political appointees matter for funds sanction within close elections. We focus on the Member of Parliament. The MP is a member of the district panchayat, which, together with the administrative officer, approves block-level fund allocations. We construct a variable: *INC_MP*, which takes the value 1 if the district MP is from INC*, 0* otherwise.[26] Thus, we modify

[25]The number of panchayati samitis where BJP has close elections is 136.
[26]Anecdotally, it would seem that the pradhan (head of the panchayat samiti) and the head of the district panchayat are also important in getting higher funds for a block. However, the

equation (1) to include this variable by interacting it with the linear and quadratic terms of *INC_seatshare.*[27] Thus:

$$Ln\_funds_{pdt} = \alpha + \delta_t + \delta_{pd} + \rho_{dt} + \rho_1 Irr_{pd0} * t + \rho_2 Infra_{pd0} * t +$$
$$+ \beta_1 INC\_seatshare_{pdt} + \beta_2 INC\_seatshare^2_{pdt}$$
$$+ \beta_3 wards_{pdt} + \beta_4 INC\_seatshare_{pdt} * INC\_MP_d$$
$$+ \beta_2 INC\_seatshare^2_{pdt} * INC\_MP_d +$$
$$\mu' Z_{pdt} + \varepsilon_{pdt}$$

We estimate a similar regression for *BJP_MP*.

The reported standard errors are robust and are clustered at the panchayat samiti level.[28]

elections for the district and panchayat samiti take place at the same time and the heads are chosen from within the elected members. Hence we look at the district MP, who was elected at the beginning of 2009 via national elections for a period of five years.

[27] The variable, in its uninteracted form, is collinear with the district trend.

[28] Results do not change if we cluster at the district level. In the case when sample size drops below 65, as it does in a few sub cases, we do not cluster. These are usually specifications that deal with one time period and for which we include district fixed effects.

Figure 3: All Panchayat Samiti Elections

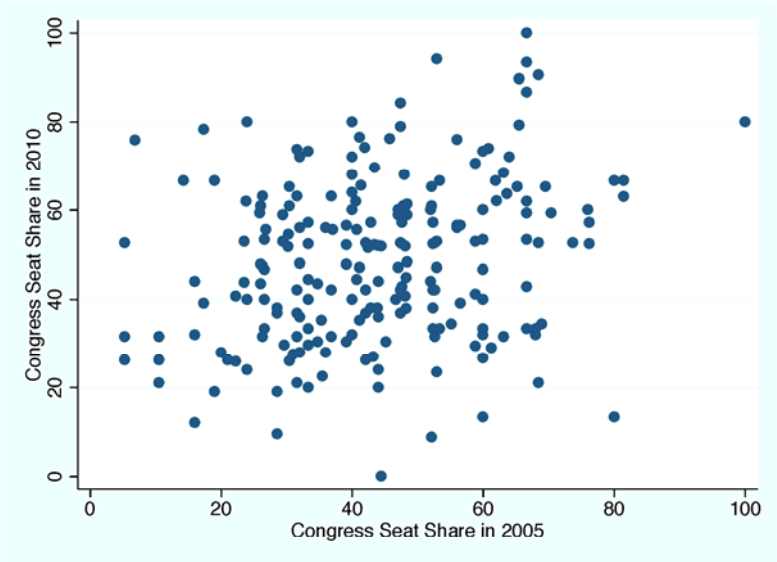
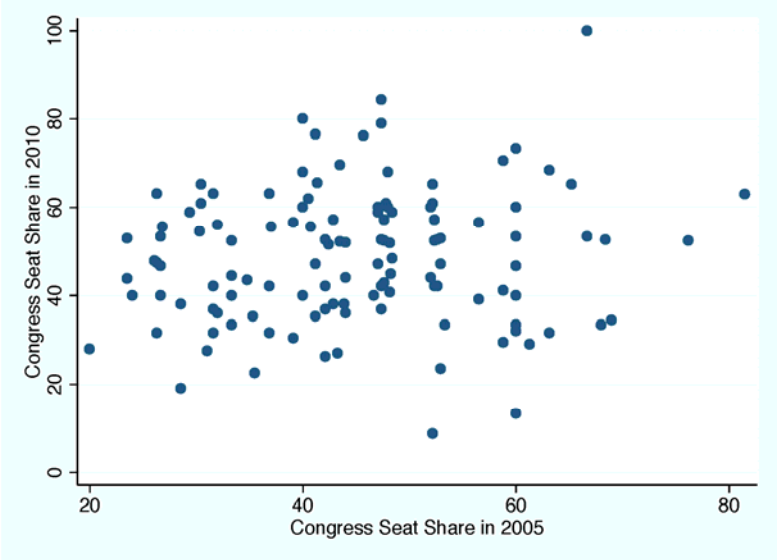


Figure 4: Close Panchayat Samiti Elections



5 Results

To begin with, we present results from a pooled OLS regression without district fixed effects (Table 2; Column 1), with district fixed effects (Table 2; column 2) and with both district fixed effects and district trends (Table 2; column 3). The coefficients of *INC_seatshare* and its coefficients are insignificant, but, more importantly, the marginal effects are also insignificant at all levels of *INC_seatshare*. We turn to these results later in order to look at the signs of other variables that form important determinants of fund allocations. The political economy variables, however, start to become important as soon as we account for unobserved panchayat samiti-level heterogeneity (Table 2; columns 4 and 5). In column (4), we report results with just the linear term *INC_seatshare* and in column (5) we report the results with the quadratic term as well. The coefficient with just *INC_seatshare* is negative, which implies that larger funds are available where the seat share of INC in the block is low. A block with a one percentage point lower *INC_seatshare* has 0.6 percent higher funds.[29] While the inclusion of the square term, in column (5), makes the coefficients individually insignificant, the marginal effects are significant and negative for all values of *INC_seatshare* above 10 percent.[30] The positive square term implies that the marginal difference in funding at higher levels of INC gets smaller, though the fact that R squares across the two specifications are the same implies that one should not make too much of the quadratic term in this specification.

Some patterns emerge from these regressions. First, the inclusion of district fixed effects seems to matter. Even though the marginal effects are insignificant in columns (2) and (3), they are already negative, even before we include block fixed effects. Otherwise, it is clear to see that other variables that are natural predictors of funds largely come out to be significant and have the correct sign across most specifications. The total number of wards is correlated with the population size in a block, hence they are positive (and the population is insignificant, because it is highly correlated with the number of wards). In column (1), the proportion of irrigated land is, as expected, negatively correlated with funds, since lesser funds are needed if blocks already have capacity to deal with droughts. Larger funds go to blocks where the proportion of relatively poorer communities (Scheduled Castes and Tribes) is higher or which have a low infrastructure index. Similarly, higher funds go to where there are higher proportions of illiterates and where the proportion of females is high (as stated earlier, in Rajasthan, the female labour force participation in NREGS is high). These coefficients are roughly the same, though insignificant as one loses variation by adding fixed effects. Therefore it is clear that NREGS funds do vary by characteristics that they should, in principle, be determined by. However, these characteristics do not by themselves explain all the funds that are available, especially when we move to intra district variations. The relatively high R squares in the regressions are not merely reflective of the high number of variables that we

[29]Everything else the same, the ratio of funds at two levels of *INC_seatshare* one percentage point apart, is equal to exp(-0.00697)=1.006.
[30]This quadratic term is important for later regressions. Hence for consistency, we retain this specification.

Table 2. Whole sample

Log of funds	(1) INC-OLS	(2) INC-OLS	(3) INC-OLS	(4) INC-FE	(5) INC-FE
INC seat share	0.00899	-0.00180	-0.00103	-0.00697***	-0.00875
	(0.00698)	(0.00630)	(0.00565)	(0.00219)	(0.00574)
Sq. of INC seat share	-6.09e-05	-5.10e-06	-1.57e-05		1.91e-05
	(6.74e-05)	(6.20e-05)	(5.65e-05)		(5.24e-05)
Total no. of wards	0.0497***	0.0418***	0.0458***	0.0374***	0.0373***
	(0.00957)	(0.00706)	(0.00592)	(0.0102)	(0.0102)
Prop. of land irr.	-0.566**	0.0925	-0.147		
	(0.232)	(0.236)	(0.245)		
Infra. index	-0.0600	-0.0110	-0.0104		
	(0.0409)	(0.0330)	(0.0331)		
Prop of land irr. X trend	-0.00239	-0.0653	0.306	0.289	0.284
	(0.242)	(0.249)	(0.264)	(0.249)	(0.249)
Infra index X trend	-0.0874**	-0.115***	-0.115***	-0.109***	-0.109***
	(0.0421)	(0.0423)	(0.0399)	(0.0403)	(0.0404)
Total pop.	6.61e-07	3.46e-07	1.73e-07	-3.96e-07	-4.74e-07
	(5.47e-07)	(5.09e-07)	(5.21e-07)	(1.51e-06)	(1.53e-06)
SC pop.	2.219***	0.989	0.913	-8.838*	-8.851*
	(0.845)	(0.743)	(0.768)	(5.165)	(5.181)
ST pop.	0.987***	0.232	0.358	0.644	0.619
	(0.330)	(0.328)	(0.336)	(1.263)	(1.262)
Prop. of females	11.86***	7.595*	2.822	2.319	2.352
	(3.938)	(4.343)	(4.278)	(7.570)	(7.561)
Prop. of illiterates	2.163***	1.083	0.762	0.489	0.518
	(0.730)	(0.705)	(0.716)	(1.503)	(1.515)
Rain shock	-0.416***	-0.125			
	(0.131)	(0.144)			
Constant	-1.750	1.067	2.864	6.796*	6.823*
	(1.917)	(2.176)	(2.157)	(4.099)	(4.097)
Panchayat samiti FE	No	No	No	Yes	Yes
District FE	No	Yes	Yes	.	.
District trends	No	No	Yes	Yes	Yes
Observations	438	438	438	438	438
R-squared	0.400	0.692	0.813	0.766	0.766
Number of id				219	219

Robust standard errors (in parentheses) are clustered at panchayat samiti Level
*** p<0.01, ** p<0.05, * p<0.1

consider (the inclusion of trends does increase the number of variables). Even with just district fixed effects, we are able to explain around 69 percent of the variation.

The results for BJP (Table 3) find results that have the opposite sign. Funds are increasing in BJP seat share. This is not surprising, since the correlation between the seat share of BJP and INC is -0.5. However, it raises the question of how to interpret our results. Does this reflect a difference in strategy between the two parties or is this just a reflection of the two shares being negatively correlated? We come to this issue later.

Table 3. Whole sample

Log of funds	(1) BJP-OLS	(2) BJP-OLS	(3) BJP-OLS	(4) BJP-FE	(5) BJP-FE
BJP seat share	0.0115**	0.00186	0.00395	0.00518***	0.00648
	(0.00575)	(0.00551)	(0.00509)	(0.00199)	(0.00639)
Square of BJP seat share	-9.87e-05	-8.41e-06	-3.12e-05		-1.56e-05
	(7.54e-05)	(6.77e-05)	(6.23e-05)		(8.44e-05)
Other controls	Yes (As in Table 2)				
Panchayat samiti FE	No	No	No	Yes	Yes
District FE	No	Yes	Yes	.	.
District trend	No	No	Yes	Yes	Yes
Trend	Yes	Yes	.	.	.
Observations	438	438	438	438	438
R-squared	0.403	0.690	0.813	0.758	0.758
Number of id				219	219

Robust standard errors (in parentheses) clustered at panchayat samiti level
*** p<0.01, ** p<0.05, * p<0.1

We now move to the basic identification strategy by considering the subset of close elections. Before we discuss the results of the regression of interest, we present the results of our investigation on the use of close elections. As described above, we offer three kinds of evidence. First, recall that NREGS funds can affect only 2010 elections. Hence we consider whether the seat share of INC, among the blocks with close elections in 2010, is affected by funds in 2009. Results are presented in Appendix Table A1.1 (columns (1) and (3)). In column (1) we regress the INC seat share in 2010 elections on the log of funds in 2009. In column (3), we add to the regression presented in column (1), all other controls that correspond to period 0 (the same as the basic specification except all the trend terms). The coefficient of log of funds is insignificant in all specifications. In column (4), we present a regression on the subset of blocks which have close elections in both years. Even for these blocks, log of funds have no explanatory power, though it is possible that this regression is severely underpowered (for this reason, for the regression in column (4), we drop all other variables).

Second, the probability of close elections in 2010 may itself be affected by the funds in 2009. We present results of a linear probability model in *Appendix Table* A1.2. Column (1) shows that the log of funds in 2009 has no significant correlation with the probability of close elections. This verdict does not change, even when you add other controls (column (2)). Further, even if one were to restrict the sample to the set of blocks with close elections in 2005, the probability of close elections in 2010 does not depends on the funds in 2009.

Third, we offer suggestive evidence that the seat share of INC does not reflect any innate characteristic for the subset of blocks that have close elections. This can be gleaned in Appendix Table A1.3. In column (1) we consider all the blocks; in column (2), we consider the subset of blocks with close elections in either year; in columns

(3) and (4), we present the results for the subset of blocks with close election in each year. While for the overall sample, seat shares are correlated over time, this correlation disappears when we look at the subset of blocks which had close elections in 2010. It is important to point out here that the random effects estimator does not use the temporal variation. The motivation behind these regressions is to make the point that if each block, among the close elected sample, had some idiosyncratic fixed factor relevant to explain *INC* seat shares, then one would expect some correlation between seat shares over time. The lack of any correlation suggests that, perhaps, the seat shares, among the blocks with close elections, do not pick up something systematically different about the blocks.[31]

Given these results, which support our close election strategy, we present two results in Table 4. In column (1) we provide results of our basic specification with random effects. While the coefficients are insignificant, what matters for us are the marginal

Table 4. Close seats

	(1)	(2)	(3)	(4)
Log of funds	INC-RE	BJP-RE	INC-RE	BJP-RE
INC seat share	-0.0286			
	(0.0069)			
Square of INC seat share	-0.000229			
	(0.000346)			
BJP seat share		0.239		
		(0.0063)		
Square of BJP seat share		-0.0024		
		(0.00166)		
Dummy INC seat share <39%			0.207**	
			(0.104)	
Dummy BJP seat share >41%				0.175*
				(0.102)
	Other controls as in Table 2			
District FE	Yes	Yes	Yes	Yes
District trend	Yes	Yes	Yes	Yes
Observations	147	136	147	136
No. of panchayat samitis	120	112	120	112

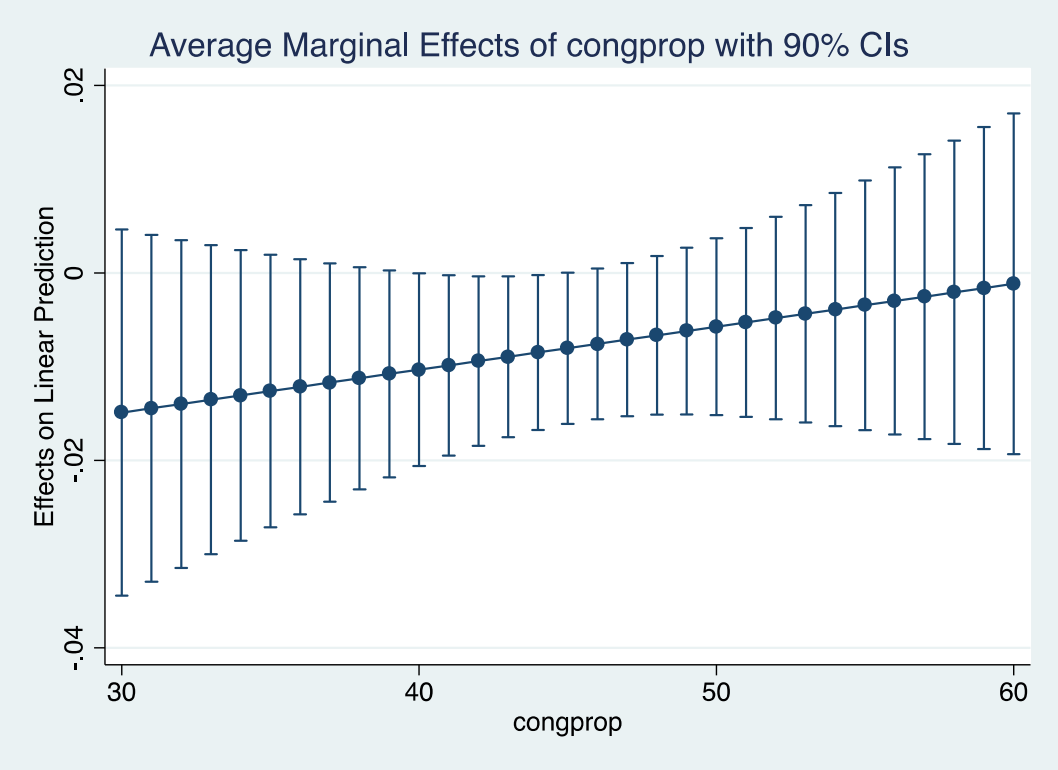
Robust Standard Errors (in parentheses) clustered at the District level

*** p <0.01, **p<0.05, * p<0.1

[31]Similar results are obtained with the sample of close elections for BJP. Results available on request.

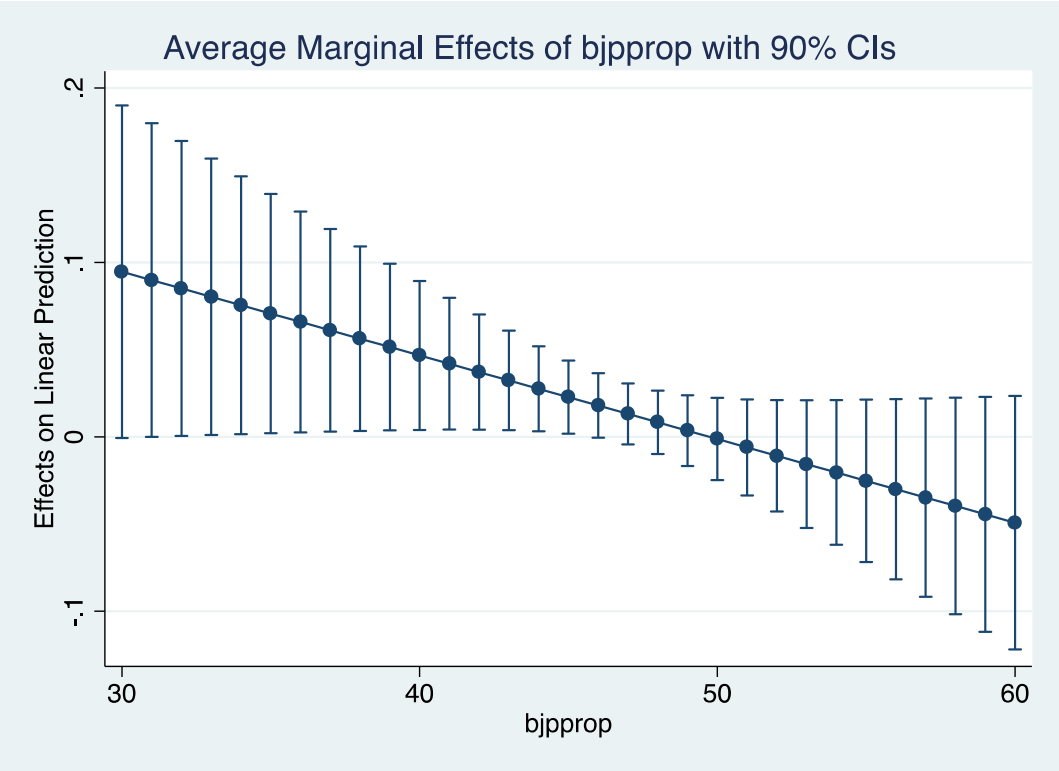
effects. These are displayed in Figure 5. It can be seen that the marginal effect is negative and significant (at 10 percent) between 40 percent and 45 percent *INC_seatshare*. The marginal effect point estimates are between -0.01 (at 40 percent) and -0.008 (at 46 percent). However, this implies the following interesting result: that the funds allocated to blocks are higher for *INC_seatshare* less than 39 percent. They fall gently between 40 and 45 percent and then remain static. To see this more clearly, we also provide results of another specification in column (3), where *INC_seatshare* and its square is replaced by a dummy that takes the value 1 if *INC_seatshare* is less than 39 percent and 0 otherwise. As can be seen, the log of funds is 0.21 higher when *INC_seatshare* is less than 39 percent. Thus, they are around 22 percent higher than when *INC_seatshare* is above 39 percent.

Figure 5: Marginal Effects (INC Seat Share): Random Effects Model (Close Elections)



Next we ask if the results change if we replace INC by BJP (Table 4, column (2)). Figure 6 plots the marginal effects and finds the coefficient significantly positive between 35 percentage and 45 percent of BJP seat share. This result becomes clearer when we look at column (4), which reports that the log of funds is higher when the seat proportion for BJP is greater than 45 percent. However, the negative correlation between BJP and INC seat share is even stronger, at -0.55 when we consider the subsample of close seats for *BJP.* These results then mirror results obtained with INC seat share.

Figure 6: Marginal Effects (BJP Seat Share): Random Effects Model (Close Elections)



As pointed out above, since the results of seat shares from INC and BJP mirror each other, there are two explanations possible. First, it may be the case that higher funds are allocated when BJP shares are high (among close elections). This may be a political strategy of BJP to 'channel' funds for patronage. Second, it may be INC that targets funds where its seat share is low, especially among blocks which, in the immediate past, had close elections.

To investigate this further, we delve deeper into a mechanism that may drive this result. We use the fact that NREGS funds are not akin to party funds that are available to parties to allocate. These are public funds that are allocated with involvement of the administrative machinery. For any political strategy to work, there must a way to influence public funds. This would require the presence of party members in key positions in the fund allocation process. For this, we look at the results from estimating equation (3). We posit that since the funds are approved by a district panchayat comprising of the district MP, it is more likely that strategies can be implemented for any party when the district MP is from the same party.

In Table 5 we report four marginal effects from two regressions. In columns (1) and (2) we estimate equation (3) for INC and BJP. The marginal effects for INC and BJP are plotted in Figures 7 and 8, respectively. Figures 7a and 7b show that the significant marginal effects are in the range of 38 and 45 and are obtained only when when the MP is from INC. There is no significant result when the MP is not from INC. A test of hypothesis, however, cannot rule out that the two marginal effects are

Table 5. Close seats

	(1)	(2)	(3)	(4)
Log of funds	INC-RE	BJP-RE	INC-RE	BJP-RE
INC seat share	-0.0289			
	(0.0386)			
Square of INC seat share	0.00028			
	(0.00004)			
INC MP X INC seat share	-0.0210			
	(0.069)			
INC MP X square of INC seat share	0.00011			
	(0.00075)			
BJP seat share		0.0506		
		(0.052)		
Square of BJP seat share		-0.00043		
		(0.0006)		
BJP MP X BJP seat share		-0.0.134*		
		(0.0746)		
BJP MP X square of BJP seat share		0.00013		
		-0.0008		
Dummy (INC<39 %)			0.0502	
			(0.0107)	
Dummy (INC <39 %) X INC MP			0.443*	
			(0.227)	
Dummy (BJP seat share >41 %)				0.543**
				(0.213)
Dummy (BJP seat share >41 %) X BJP MP				-0.595**
				(0.265)
	Other controls as in Table 2			
District FE	Yes	Yes	Yes	Yes
District trend	Yes	Yes	Yes	Yes
Observations	147	136	147	136
No. of panchayat samitis	120	112	120	112

Robust Standard Errors (in parentheses) clustered at the District level

*** p <0.01, **p<0.05, * p<0.1

statistically the same. The problem comes from the fact that the marginal effects from the regression are noisy when the MP is not from INC. We therefore test an alternate specification, where the dummy (INC<39 percent) is interacted with a dummy of whether the MP is from INC. Results obtained in column (3) clearly show that this interaction term is positive and significant. The coefficient of 0.443 implies that the funds allocated to blocks with close elections and which have a seat share of less than 39 percent are 55 percent higher when the MP is from INC as compared to when she is not.

Figure 7a: Marginal Effects (INC Seat Share); Random Effects Model (Close Elections): when MP is from INC

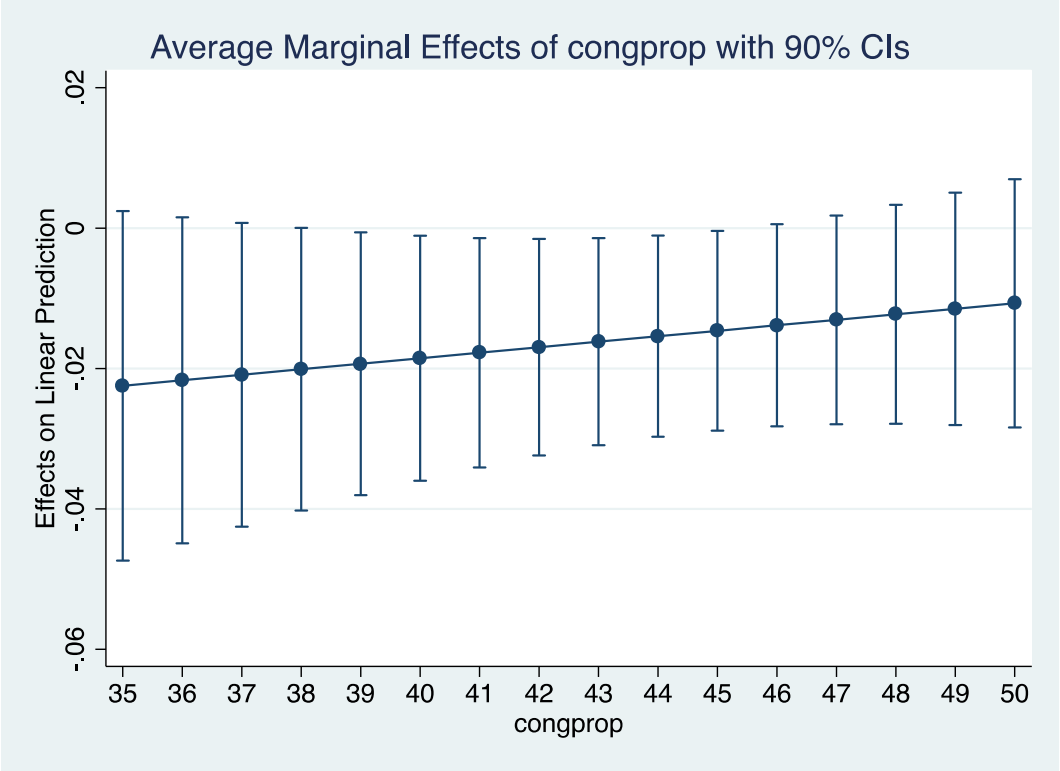
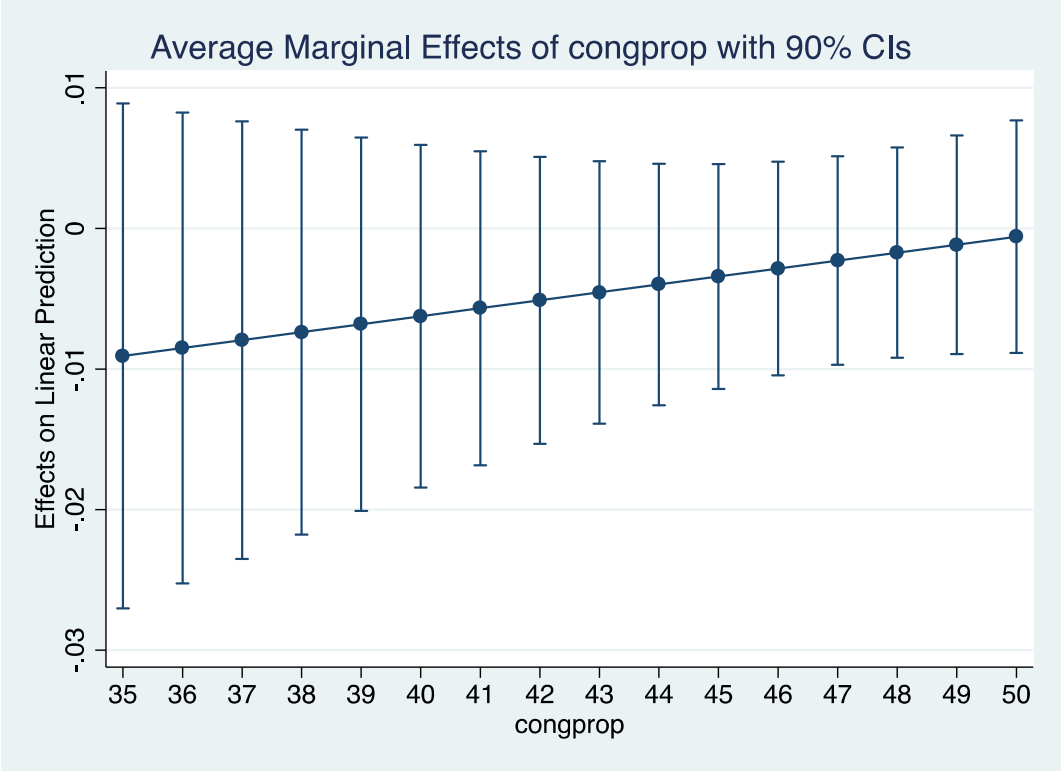


Figure 7b: Marginal Effects (INC Seat Share); Random Effects Model (Close Elections): when MP is *NOT* from INC



Figures 8a and 8b show that the effect for BJP comes only when the MP is not from BJP. This is confirmed when one looks at Table 5 (column (4)). The coefficient of the interaction between the dummy variable that indicates that BJP has greater than 45 percent seat share and the dummy variable that indicates that the MP is from BJP is insignificant. The former dummy is significant in its un-interacted form. Hence the effect for BJP is only true when the MP is not from BJP, that is, she is from INC.

The two sets of results put together suggest that the position of the district MP being from INC is crucial and that it is her involvement that ensures that the strategy of the INC is played out.

Figure 8a: Marginal Effects (BJP Seat Share); Random Effects Model (Close Elections): when MP is from BJP

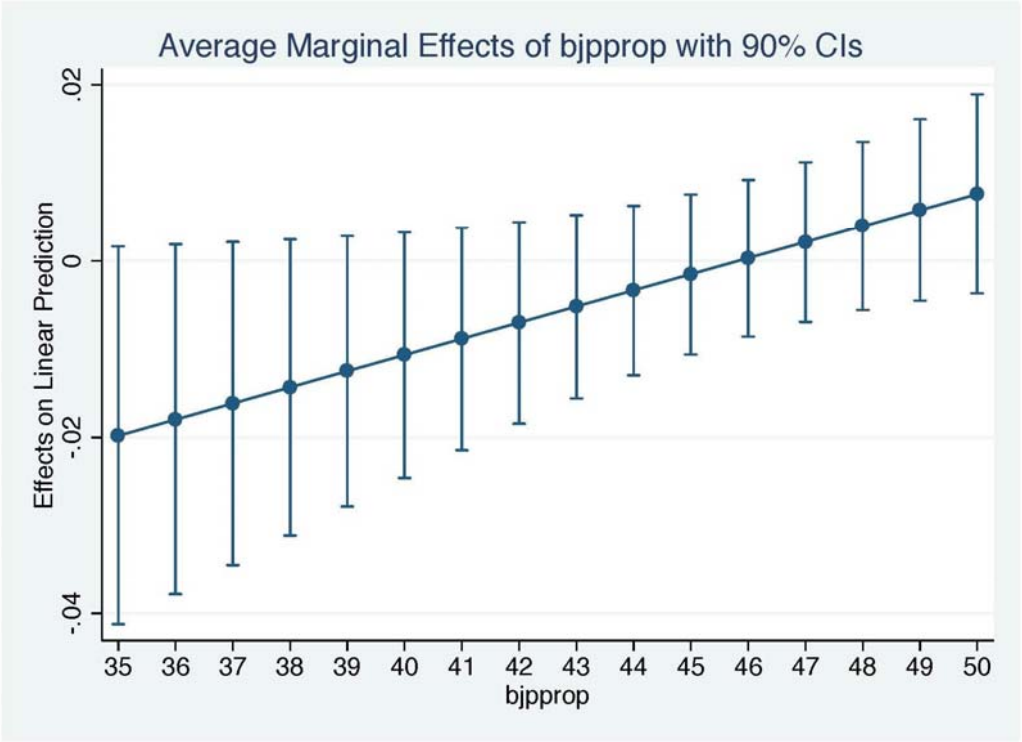
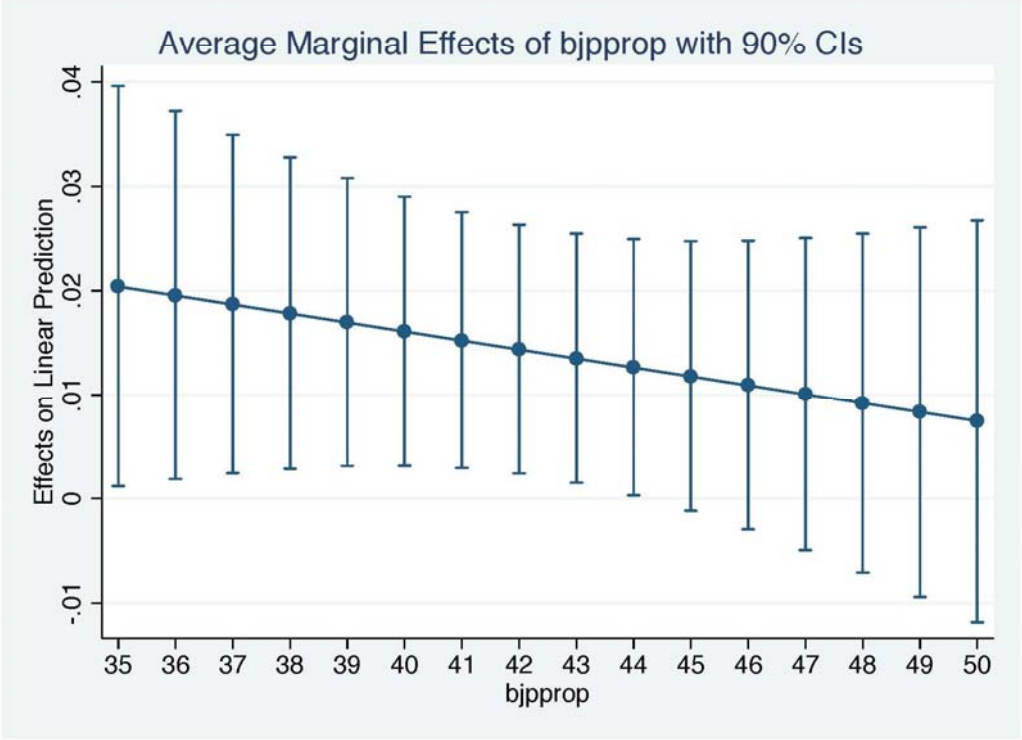


Figure 8b: Marginal Effects (BJP Seat Share); Random Effects Model (Close Elections): when MP is *NOT* from BJP



6 Discussion

The results indicate an allocation of funds to where INC was weaker. The results are better identified using close elections. However, they are suggested even in the fixed effects estimation. What would explain these results? A convenient tethering point is Bardhan and Mookherjee (2010), which adapts the Gross Helpman model to look at the issue of political influence over policy.

In their model, the relationship between seat share and policy implementation is an inverted U. There is, however, a key fundamental difference in the context we look at. Fund allocation is not necessarily an indication of actual policy implementation. While it is correlated with policy implementation (which would be better measured by expenditure), it can be better described as an intent. Given evidence of political economy possibilities at lower levels of governance (for example at the level of the sarpanch; see Himanshu, Mukhopadhyay and Sharan, 2014), it is difficult to believe that a party can control expenditure all the way to a village.[32] This point is important because in the Bardhan and Mookherjee (2010) model, a big driver of the lower policy implementation, when the seat share of a party is low, is its low ability to implement its favoured policies. Here, as we show, the ability to allocate funds rests with the district panchayat. While bureaucracy has a key role to play in this, our results show that the MP too has an important role to play. This role is not merely implied, but is explicitly designed into the fund allocation process, as the MP is a part of the district panchayat.

To complete the narrative, one needs to reconcile why we do not observe results similar to INC for BJP. The ability to use funds for political mileage is critically linked to attribution. One explanation that can rationalise our results is that it not optimal for BJP to use funds from NREGS, since it is primarily thought of as a central government scheme. Hence there may be leakage of goodwill that defeats the purpose of using these funds to influence voters in a close election. Some of the reticence to use NREGS funds for political purposes may be based on historical reasons. The state government, governed by BJP, was important in implementing NREGS in its initial stage between 2006 and 2008. However, INC seemed to have got all the credit from it in the 2009 general election (Zimmerman 2012).

How big is the distortion due to political economy? Recall that the political economy results are obtained even after controlling other characteristics that should determine NREGS fund allocations. Hence, this marginal effect is not the total impact of political economy variables. Party politics can, for example, lead to better resources for marginalised communities. But these effects are already captured by inclusion of the variables like the proportion of marginalised communities in our regression. In this paper we have tried to characterise the effect of party politics over and above its

[32] In many states of India, village leaders have a fluid party affiliation, since it does not need to be declared. This is in contrast to, for example, West Bengal, a state studied by Bardhan and Mookherjee, where even village elections are fought on party lines.

effects through other variables. This, then, is a distortion to the fund allocating process. The results show that blocks with INC seat share below 39 percent receive 22 percent higher funds. A back-of-the-envelope calculation yields that this amount to higher funds to the tune of Rs 29.4 million per block when its vote share is below 39 percent. This amounts to around an extra 1.5 million person days per block (at the going wage of 133 Rupees per work day and assuming that 70 percent of the funds have to be used for labour payments). Among the 147 considered, 37 blocks have INC seat share of less than 39 percent.[33]

7 Robustness

In this section we carry out two robustness checks. First, we check whether results change a lot if we choose narrower vote margins. In this exercise, we are constrained by sample size. Hence specifications change to accommodate the fall in sample size. We check our results first with a 3 percent vote margin. To test this, we cannot take into account the district trends (we keep all the controls, the trend term as well as district fixed effects). However, now we need to control for the changing amount of district funds over time. Hence we include district funds as a control variable. We choose the specification with the dummy variable, which indicates if INC seat share is less than 39 percent. Results in Table 6 (column (2) shows that the results are still similar with 3 percent vote margin. To check further at 2 percent vote margin, we need to drop all other control variables. We retain just the trend term; the district fixed effects as well as the district funds. Results are still significant at 2 percent vote margin. The magnitude of the impact of the dummy rises if we choose smaller and smaller vote margins.

Second, we drop the sample from time period 0. We do this to explore if our results are driven by taking into account the election year, that is 2009 (t = 0). We use all controls but at t = 1 (thus the trend terms drop out). We include district dummies. A simple OLS regression yields a negative coefficient for INC seat share (though insignificant at all levels of INC seat share) (Table 7 column (1)). However, in column (2), the dummy that indicates that INC has less than 39 percent seat share, comes out to be positive and significant.

[33]The total number of person days of job generated for the state in 2012-2013 was 204 million.

Table 6. Robustness (alt. def. of 'close')

	(1)	(2)	(3)
Log of funds	INC-RE	INC-RE	INC-RE
Close seats:	4%	3%	2%
Dummy (INC<39 %)	0.207**	0.287**	0.317**
	(0.104)	(0.125)	(0.155)
District funds		7.95e-05***	7.93E-05
		(1.48e-05)	(1.68e-05)
Controls as in Table 2	*YES*	*YES*	*No*
District FE	Yes	Yes	Yes
District trend	Yes	No	No
Trend	.	Yes	Yes
Observations	147	115	78
No. of panchayat samitis	120	95	67

Robust Standard Errors (in parentheses) clustered at the panchayat samiti level
*** p <0.01, **p<0.05, * p<0.1

Table 7. Robustness (only 2010 election results)

	(1)	(2)
Log of funds	INC-OLS	INC-OLS
Close seats:	CLOSE ELECTIONS (2010)	CLOSE ELECTIONS (2010)
INC Seat share (2010)	-0.0072	
	(0.011)	
Dummy (INC <39 % in 2010)		0.374*
		(0.215)
	Controls similar to Table 2 but for t=1	
District FE	Yes	Yes
Observations	64	64

Robust Standard Errors (in parentheses)
*** p <0.01, **p<0.05, * p<0.1

8 Conclusion

In this paper, we provide evidence on how political competition affects fund allocations for the National Rural Employment Guarantee Scheme. We use the particular context of the National Rural Employment Guarantee Scheme (NREGS) in Rajasthan, a state in India. This scheme was introduced by the Indian National Congress (INC). Using panel data techniques, we show that funds allocated to blocks are negatively correlated with the INC seat share. To avoid problems of endogeneity and we consider close elections, that is, the sample of blocks, where INC won or lost closely. We find that larger funds were sanctioned in areas where INC seat share was less than 39 percent. We offer an explanation for these results in terms of a mechanism. In particular, we point out to the importance of the MP, since results seem to be driven by whether a district has an MP from INC.

The literature on the National Rural Employment Guarantee Scheme has a plethora of identifying assumptions. Some researchers use timing of the NREGS in districts since the implementation was phased. Others use intensity of *NREGS*, assuming that it is exogenous. This paper offers a deeper explanation in trying to understand what determines the fund allocation to blocks, albeit in one state of India. The political economy explanation is by no means the sole explanator of fund allocation in any state of India, but this paper suggests it is a significant one.

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APPENDIX TABLE A1.1

Dependent Variable: INC Seat Share in time period 1 Subscript 0 refers to time period 0	(1) INC-OLS Close Elections	(2) INC-OLS Close Elections	(3) INC-OLS Close Elections	(4) INC-OLS Close Elections in Both Years
Log of Funds$_0$	3.038		1.316	3.81
	(3.300)		(5.341)	(3.11)
INC Seat Share$_0$		0.0769	0.0089	-0.08
		(0.198)	(0.255)	(0.30)
Other Controls$_0$	NO	NO	YES (as in Table 2)	NO
District Fixed Effects	YES	YES	YES	NO
Observations	64	64	64	27
R-squared	0.578	0.573	0.625	0.058

Robust standard errors (in parentheses) clustered at District level except column (4) where it clustered at the Panchayat Samiti level

*** p<0.01, ** p<0.05, * p<0.1

APPENDIX TABLE A1.2

Dependent Variable: Probability of *Close* Election for INC in period 1 Subscript 0 refers to time period 0	(1) LPM Whole Sample	(2) LPM Whole sample	(3) LPM Close Election in period 0
Log of Funds$_0$	0.000757	0.0592	-0.0283
	(0.0778)	(0.0874)	(0.243)
INC Seat Share$_0$		-0.0039	0.0012
		(0.0029)	(0.0069)
Controls$_0$ (As in Table 2)	NO	YES	YES
District Fixed Effects	NO	YES	YES
Observations	219	219	83
R-squared	0.177	0.235	0.444

Robust standard errors (in parentheses) clustered at District level

*** p<0.01, ** p<0.05, * p<0.1

APPENDIX TABLE A1.3

Dependent Variable: INC Seat Share in time period 1 Subscript 0 refers to time period 0	(1) INC-OLS Full Sample	(2) INC-OLS Close Elections in either year	(3) INC-OLS Close Election (t=0)	(4) INC-OLS Close Elections (t=1)
INC Seat Share$_0$	0.27	0.118	0.09	0.06
	(0.03)	(0.098)	(0.181)	(0.097)
Constant	36.84***	43.02***	45.17***	42.29***
	(5.62)	(4.25)	(8.18)	(4.57)
District Fixed Effects	NO	NO	NO	NO
Observations	219	120	83	64
R-squared	0.06	0.01	0.004	0.006

Robust standard errors (in parentheses) clustered at District level

*** p<0.01, ** p<0.05, * p<0.1

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