# Local Funds and Political Competition: Evidence from the National Rural Employment Guarantee Scheme in India*

Bhanu Gupta† and Abhiroop Mukhopadhyay‡

$22^{nd}$ January, 2014

**Abstract**

This paper examines how local politics affects public fund allocations. It uses the context of the National Rural Employment Guarantee Scheme in India which was introduced by the Indian National Congress (INC). Using longitudinal data on funds sanctioned and election results from two rounds of elections in Rajasthan, a state in India, we show that larger funds are allocated to blocks where INC has lower initial vote share. These results are stronger when we consider blocks where INC won or lost by a close margin in a previous election. We give evidence of a mechanism which highlights the role of a political representative in the funds sanctioning process. Further, we show that the strategy by INC was beneficial to gaining vote share.

*We wish to thank the Effective States and Inclusive Development Research Centre (University of Manchester), the Centre de Science Humaines and the Planning and Policy Research Unit (Indian Statistical Institute, Delhi) for funding this research.

†Indian Statisical Institute, Delhi

‡Indian Statistical Institute, Delhi and IZA, Bonn

# 1 Introduction

Central governments, all over the world, come out with 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 program of the Indian National Congress party (INC) and was touted to be one of the main reasons for INC getting re-elected to the central government in 2009.

In the context of developing countries, the NREGS is an interesting experiment since it is implemented with the active participation of elected local representative bodies in rural areas (called the *panchayati raj institutions*: PRI). While such decentralization, in principle, may lead to better implementation, it also lends itself to local capture. These can often take the shape of elites getting disproportionate share of benefits from a scheme, especially when the beneficiaries are uninformed about the scheme (Bardhan and Mookherjee, 2000). At the same time, they 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 land reforms in West Bengal in India, finds 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 caring about policy implementation if

they are very low or very high in number in an assembly constituency (within a state).

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 programs. 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 government at the state and centre are from different parties. This affects the transfers the centre is willing to make to the state. While NREGS, by design, is largely centrally funded, it uses the local political machinery to implement it. Hence, this paper explores whether it is affected by local political competition at the local level.

The results of our investigation show that funds allocated to blocks are affected by political competition. Using longitudinal data from all blocks for the years 2009 and 2012 in Rajasthan, a state in India, and controlling for correlates of block level demand for NREGS funds, we show that where the vote share of INC in block level "panchayat samiti" councils was lower, the subsequent NREGS funds allocated to them were higher.[2] To allay concerns that there may be something systematically different about constituencies where parties are very weak or very strong, we show that these results are equally true (in fact stronger) when we consider only blocks where INC won or lost narrowly in the

[1] The major parties of India are largely left of centre, especially in the context of the rural economy.

[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 interchangebly in this paper.

previous election (less than equal to a margin of 4 percent vote share). On the other hand, the vote share of Bharatiya Janta Party (BJP), the main opposition party, has no impact on the funds allocated to the block, even in blocks where BJP won or lost narrowly. These results can be reconciled if one were to assume that INC is be able to benefit from mobilizing NREGS money for constituencies where it was weaker since it gets, entirely, the goodwill from the benefit the scheme brings. In the case of BJP, since the goodwill leaks, perhaps entirely, to the other party, it may not find it optimal to mobilize NREGS funds.

Moreover, we give further proof that these outlays reflect political strategies by INC. The negative correlation between vote shares of INC and subsequent fund allocations are only true when a key functionary involved in approval of block level budgets, the head of district panchayat, is from INC. On the other hand, there is no similar result for BJP when the functionary is affiliated to the BJP. Hence the will to implement NREGS for electoral gains is limited to INC, which is consistent with our previous result. Further, we show that the strategy by INC was beneficial as it gained vote share in blocks by allocating funds to areas where it's vote share was low in the previous election.

The paper contributes to three strands of the literature: 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. By considering a scenario where INC was in power both at the centre and the state**,** we are able to abstract away from any centre-state issues and focus narrowly on local elections.[3] 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 are tough to get, especially in developing countries. What is also useful about this exercise is that

[3] INC-led coalition has been in power at centre since 2004 and formed the state government from 2008-13.

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 funds being largely used for political patronage when left to local politics (Besley et al 2004). This paper shows that parties may transfer more funds to areas where they are weakest and may be able to gain vote share by doing so. These results are also in contrast to the literature that points out that pre-election transfer 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 by Cole (2009) and Novosad (2013) show how local elections and politicians in India can affect employment and firm credit 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 that this paper contributes is to 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 (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 (Alam 2012, Imbert and Papp 2012) are besotted with identification issues since the intensity of the program 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.[4]

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

In section 2, we describe the institutional setting of funds allocation across administrative units and how they are related to 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. We conclude in section 7.

## 2 Institutional Setting

The National Rural Employment Guarantee Act (NREGA) provides a legal guarantee for atleast one hundred 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 operationalized the act, started in the financial year 2005-2006 and was rolled out in phases. Initially restricted to 200 "poorest" districts of India (February 2006), it was first 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 modus 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 identification of 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 higher tier). All project proposals received are integrated into the Block Plan. The *Panchayat Samiti* (PS), along with a block level administrative officer ( called the Program Office[5])

[5]The Block Development Officer (BDO) is often appointed the program officer. The Pro-

vets the block level plan, and forwards it to the District 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 it's jurisdiction.[6][7]. The District Panchayat (also an elected body, but at the district level), along with an administrative officer (usually the district collector) finalize and approve the block plans. The head of the district panachayat plays a key role in the approval. Based on these plans, funds are approved for Panchayat Samitis, and funds then flow to Gram Panchayats and subsequent to households that have worked on the scheme.

While NREGS is, in principle, a demand based scheme, there is overwhelming evidence that the scheme is top-down. 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 on based on their demand.[8] Moreover, Imbert and Papp (2012) report that "many people are unaware of their full set of rights under the program"; "in practice, very few job card holders formally apply for work while the majority tend to wait passively for work to be provided." Other research on Andhra Pradesh (Ravi and Engler, 2009; Afridi et al., 2013) also indicate that the program is supply rather than demand driven.

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

gram Officer provides preliminary approval based on verification of maintenance of 60:40 ratio of wage to materials in terms of cost.

[6] Most Panchayat Samitis map on perfectly to a census unit called block. A district is a collection of blocks.

[7] The elected heads of Gram Panchayats are also member of Panchayat Samitis. In contrast to members elected directly into the council, they have no declared party affiliation.

[8] This is based on a focus group discussion in each village.

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).[9] Further, we look at the relationship between vote share 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 vote shares are recorded party wise (by the state election commission).[10] In addition, we look at the influence of the head of the district panchayat, another politically elected body that finally approves block plans.

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: the Indian National Congress (INC).

# 3 Data & Descriptives

This analysis uses data from Rajasthan, a northern state of India. Rajasthan is touted as a success story of the scheme since funds have been used to provide employment in this state, in contrast to other states of India, where its implementation has been poor.[11] We seek to investigate whether NREGS fund allocation to blocks, in a financial year, depend on the vote share of each political party within the panchayat samiti electorate.[12] We exploit the fact that

[9] 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.

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

[11] The total funds for Rajasthan for the years 2009 and 2012 were Rs. 820272.52 lakhs and Rs 377577.81 lakhs 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 over all funds for NREGS in Rajasthan has also been noted by Mukhopadhyay (2012).

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

elections for panchayat samiti took place in the years 2005 and 2010, which led to a change in the vote share of each party, and examine the fund 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 the end of 2008. Hence 2009-2010 is the first financial year for which we have data for all districts. 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[13]. Data on these are sourced from the official website of the Government of India.[14] The data are obtained for 218 blocks for financial years 2009-2010 and 2012-2013 (for ease of presentation, we refer to them as 2009 and 2012 respectively).[15] The average block level funds for Rajasthan for the years 2009 and 2012 were Rs. 1733.612 lakhs and Rs 1084 lakhs respectively (*Table* 1).[16]

The data on vote share for each party are obtained from the state election commission website[17]. Data are obtained on panchayat samiti elections held

hypothesis.

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

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

[15] This is a near census of all the blocks. There are 248 blocks in total. We drop blocks for which fund data was missing and which could not be mapped onto panchayati samitis, the area delimited for election purposes.

[16] 1 lakh=100,000

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

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 vary depending on population. While the total number of votes for each party from each ward are not reported, the over all votes for each party for the entire panchayat samiti are recorded.[18] We divide the votes a party gets by the total number of votes cast to calculate a party's vote share. Rajasthan politics is dominated by two main national parties of India: the Indian National Congress (INC) and Bharatiya Janata Party (BJP). The average vote share of INC in 2005 was 41.1 percent while it increased to 42.3 percent in 2010. The BJP's vote share decreased from 40.3 percent in 2005 to 36.7 percent in 2010. The two vote shares together account for around 80 percent of the votes. *Figures* 1 and 2 show the spatial distribution of INC vote share across the state for the election years 2005 and 2010 respectively. As can be seen, there is fair heterogeneity in vote share for both years. It is also important for our analysis that even within a district, there is fair degree of heterogeneity across blocks in vote share. The striped portions reflect blocks where the vote margin was less than equal to 4 percent. As can be gleaned from the figures, narrow margin elections are not concentrated in any particular region. A comparison of figures 1 and 2 also shows that the vote shares have temporal variation.[19]

The block level funds are matched to panchayat samiti vote shares. We are able to match these perfectly for 219 blocks and use this subsample for our analysis. The unconditional correlation between INC vote share and funds, after pooling the data for the two years, is 0.28 while that for BJP vote share and funds is much weaker at 0.13. However, these correlations could also be driven by other factors: those that affect the household demand for work. For example, rainfall is a determinant of demand for funds since NREGS is conceived

[18] The Panchayat Samiti is, anyways, the level of aggregation relevant for block level funds.
[19] INC is relatively weaker in the north eastern blocks. However, even there, there is intra district variation in vote shares of INC.

as a scheme to mitigate shocks[20]. Raw correlations show blocks that got less rainfall have a higher vote share for INC. Hence it could well be the case that the correlation between the INC vote share and funds is driven by rainfall. Intra-district analysis alleviates some of these concerns. The presence of such confounding factors requires that we model the correlation between funds and vote share in a multivariate framework.

# 4 Empirical Model and Identification

Our main hypothesis is that, controlling for other factors that affect demand for funds, political competition has a role to play in fund allocations across blocks . In particular, we test what the nature of this role is. It is not clear apriori 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. This can be especially relevant in contexts where there are no strong preferences for any party and where the benefits of a transfer accrue, with no leakage, to the party making the transfer.

We focus, in particular, on the INC and the BJP, the two largest parties in Rajasthan and the share of votes in panchayat samiti elections to each party. To fix ideas, let $p$ stand for the panchayat samiti/block; 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

[20] Rainfall data is available only at the district level (IMDB). The rainfall for the months June to September for the years 2009 and 2012 was 549 mm and 689 mm respectively (*Table* 1).

our main regression, we take the vote share of INC in a panchayat samiti as our main political economy variable ($INC\_voteshare_{pdt}$). Since votes shares of all parties within a panchayat samiti add up to 100, the marginal effect of $INC\_voteshare$ measures the impact of a higher share of INC relative to other parties, including the BJP. In line with Bardhan & Mookherjee (2010), we allow for non linearity by considering, in addition to the linear term, a quadratic term $\left(INC\_voteshare^2_{pdt}\right)$. Further, the number of wards in a panchayat samiti $wards_{pdt}$ may reflect the level of competition in a block. While the number of wards are typically a function of population, the number of wards between 2005 and 2010 went up from 21.89 to 22.21 though the demarcation of panchayat samitis did not change.

To eliminate the impact of demand on funds, we control for variables that may affect the demand for NREGS funds. We posit that the demand for NREGS funds depends on rainfall shock ($rain\_dev_{dt}$) as NREGS has been put in place to mitigate 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, given that the labor force participation of women in NREGS has been so huge in Rajasthan, we include the proportion of female population ($fem_{pdt}$) as a 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 ($\delta_{pd}$) to take into account panchayat samiti idiosyncrasies, for example, its geographic location. Moreover,

we allow for a secular trend ($\delta_t$) to take into account falling funds for NREGS in Rajasthan. We also include district trends ($\rho_{dt}$) 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 ($Infra_{pd0}$) [21] 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.[22]. Hence the empirical model we estimate is:

$$\begin{aligned} Ln\_funds_{pdt} &= \alpha + \delta_t + \delta_{pd} + \rho_{dt} + \rho_1 Irr_{pd0} * t + \rho_2 Infra_{pd0} * t + \\ &+ \beta_1 INC\_voteshare_{pdt} + \beta_2 INC\_voteshare^2_{pdt} \\ &+ \beta_3 wards_{pdt} + \mu' Z_{pdt} + \varepsilon_{pdt} \end{aligned} \quad (1)$$

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 $\beta_1$, $\beta_2$ and $\beta_3$.

It may be contended that since vote shares are not random, very high or low vote shares of INC may reflect a different polity. If this leads to a different demand for NREGS funds, then our estimates are inconsistent. To address this concern, we bifurcate the sample in terms of whether the election in 2005 was "$narrow\ margin$". We define an election as narrow margin (for INC) where

[21] $Infra_{pd0}$ is created using principle component analysis taking into account Average No of Schools per village, Proportion of Villages with power supply, Proportion of villages with a medical facility.

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

the margin of victory or loss for INC was less than 4 percent. These are places where the election was close in 2005. Hence voters among this selected sample are more or less similar in being relatively ambivalent about the choice of party in 2005.[23]

Analogous to the above specifications with $INC$, we estimate models where the $INC\_voteshare$ is replaced by $BJP\_voteshare$. To maintain comparability, $narro$ is defined in terms of victory and loss margins for $BJP$.

Next, we test the hypothesis if key political appointees matter for funds sanction. We focus on the district panchayat, which finally approves block plans. The head of this council is an important political appointee who presides over block level fund allocations. We construct a variable: $INC\_District\_head$ which takes the value 1 if the head of the district panchayat is from $INC$, 0 otherwise.[24] Thus we modify equation (1) to include this variable by interacting it with the linear and quadratic terms of $INC\_voteshare$[25].Thus:

[23] It is econometrically incorrect to consider a sample of narrow margins for both years. This sample is unbalanced in our context. This is because, in so far as funds in period $t$ may affect the the margins of victory in period $t+1$, the selection of only narrow margin panchayat samitis in the second period is an endogenous sample, in the presence of any autocorrelation structure for the error terms. Hence we select panchayat samitis only on the basis of the base period. To control for the fact that some of these panchayat samitis may not have had a narrow margin verdict in the second period, we include the dummy variable $narro_{pdt}$ as a regressor. This variable takes the value 1 for narrow margins elections for INC and 0 otherwise. Our choice of panchayat samitis imply $narro_{pd0} = 1$ for the selected sample.

[24] Anecdotally, it would seem that the pradhan (head of the panchayat samiti) is also important in getting higher funds for a block. However, it is difficult to identify the role of the pradhan since a party's vote shares are necessarily positively correlated with the election of the pradhan.

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

$$
\begin{aligned}
Ln\_funds_{pdt} \quad = \quad & \alpha + \delta_t + \delta_{pd} + \rho_{dt} + \rho_1 Irr_{pd0} * t + \rho_2 Infra_{pd0} * t + \\
& + \beta_1 INC\_voteshare_{pdt} + \beta_2 INC\_voteshare^2_{pdt} \\
& + \beta_3 wards_{pdt} + \beta_4 INC\_voteshare_{pdt} * INC\_District\_head_{dt} + \\
& + \beta_5 INC\_voteshare^2_{pdt} * INC\_District\_head_{dt} + \\
& + \mu' Z_{pdt} + \varepsilon_{pdt} \qquad (2)
\end{aligned}
$$

We estimate a similar regression for $BJP\_District\_head$.

As a contrast, for equation (1), we also present results from a pooled OLS as well as regression with only district fixed effects and district trends. Standard errors reported are robust and are clustered at the block level.[26]

# 5 Results

Block level fund allocations for NREGS are clearly a function of political variables (*Table* 2($A$)). In the crudest specification (column (1)), we report estimates from a pooled OLS regression. While the coefficient of $INC\_voteshare$ and its square are insignificant, the marginal effect of $INC\_voteshare$ is positive and significant when it is evaluated at vote shares above 22 percent (*Table* 2($B$)).[27] However, the coefficients start changing sign as soon as we account for unobserved heterogeneity by including fixed effects (at various levels of disaggregation) and include district level trends. In particular, district fixed effects and trends (Table 2(A): column (2)) turns the linear term negative (but insignificant). The marginal effects are insignificant too. Our preferred specifications are, however, reported in columns (3) and (4). In column (3), we report re-

[26] Results do not change if we cluster at the district level.

[27] If we include just the linear form, it is positive and significant. However, we prefer to model the non linearity because it becomes important for other specifications.

sults after we control for Panchayat samiti fixed effects and allow for district trends. The negative coefficient on $INC\_voteshare$ implies that larger funds are available where the vote share of INC in the panchayat samiti constituency (block) is low. While the square term is positive (though insignificant), a marginal effects calculation yields the result that the marginal effect is significant (at 10 percent) and negative when $INC\_voteshare$ is less than 36.5 percent (pooling over the two years, this forms around 25 percent of the sample) ($Table$ $2(B)$). This implies higher funds are available in places where INC has very low vote share from previous elections. The coefficient of total number of wards in a panchayati samiti ($wards$) is positive and significant. A plausible explanation for this is that larger the number of elections within the panachayati samiti, greater the amount of funds. However, this may also be picking up the effect of population though that has been controlled for as a regressor.

However, as we have pointed out above, these results may be biased. Hence, to look at constituencies which are more comparable, we estimate the model using a sample of panchayat samitis where INC lost or won with a margin of 4 percentage points. Results ($Table$ $2(A)$: column (4)) show a similar relation of funds to $INC\_voteshare$. The marginal effects are negative till 39 percent (this forms 27 percentage of the pooled sample) ($Table$ $2(B)$: column (4)). Everything else the same, the funds to panchayat samitis where $INC\_voteshare$ is, for example, 30 percent is 1.5 times larger than when it is at 38 percent; the funds are almost 3 times where the $INC\_voteshare$ is around 20 percent ($Figure$ 3).[28] The effect of an increase in total number of wards is also significant and higher in magnitude than when we look at the over all sample. In $Table$ $2(A)$: column (5) we also report the results from looking at blocks where elections were not close in 2005. The marginal effect of $INC\_voteshare$ is

[28] These effects are even larger if we were to consider the sample of blocks which had close elections in both periods.

similar in sign though it becomes insignificant at around 23 percent vote share (*Table* 2(*B*): column (5)).

To identify the impact of other variables, it is perhaps more intuitive to look at column (1) since in other specifications, the low temporal change, along with the fact that we use intra district variation renders most variables insignificant. Blocks in districts with better rainfall shock received lesser funds. Blocks with higher amount of land irrigated (in 2001) received lesser funds. A similar result is obtained when we look at the infrastructure index and funds. Blocks with higher infrastructure receive lesser funds and this is especially true in 2012. While the cross section results indicate that areas with higher Schedule Caste and Schedule Tribe communities in Rajasthan receive higher funds, results which use temporal variation (columns 2-4), indicate the relationship between caste and funds is insignificant. If anything, the results in column (5) indicate that the higher the proportion of Schedules castes, the lower the funds that are allocated (the result is true at a p value of 0.09). However, the omitted group includes Other Backward Classes (OBCs); hence this does not necessarily imply that the funds do not transfer to the disadvantaged castes. NREGS funds are higher where there are more women according to column (1). Given the large participation of women in NREGS program in Rajasthan, this is plausible. However, given the insignificance of this variable in any other specification, it does not seem to drive intra district allocations. The results on the proportion of illiterates are similar: significant and positive in the pooled cross section but insignificant in any other specification.

The results above raise the natural question: does the rival party have a similar strategy? If yes, our qualitative results should not change if we run the regression replacing INC with BJP. However, this is not case as *Tables* 3(*A*) and 3(*B*) show. The marginal effect of $BJP\_voteshare$ on funds is positive

and increasing as long as its vote share is above 25 percent when we run the pooled cross sectional analysis. However as soon as we move to any specification with fixed effects and trends, the marginal effect is insignificant at any value of BJP vote share.[29] This is equally true if we consider panchayat samitis where BJP won or lost with a narrow margin of less than 4 percent. This seems to indicate either an inability of BJP to use the funds to target voters or that they have a different strategy.

To investigate this further, we delve deeper into a mechanism that may drive this result. For this, we look at the results from estimating equation (3) . Recall, we seek to test whether INC are able to implement their strategies depends on whether the head of district panchayat, a key personnel in approving block level plans, is from INC. *Table* 4 reports the marginal effects from the whole sample and narrow margin seats. It is clear to see that when the district head is not from INC, the marginal effect of $INC\_voteshare$ is always insignificant. However, when the district head is from INC, the marginal effects of $INC\_voteshare$ are similar to what is obtained above: they are negative and significant when $INC\_voteshare$ is less than 38 percent.[30] Further, the results are borne out if we use the subsample of narrow margin seats. The impact of district panchayat head being from INC becomes clearer when we look at *Figure* 4. The funds when INC vote share is 30 percent as compared to when it is 38 percent (the benchmark) is nearly 1.8 times (compared to 1.5 times which was based on the average effect); the funds are more than 4 times than the benchmark funds when INC vote share is 20 percent.

[29] Apriori, one might expect that, given the result for INC, one should observe the significant opposite results for BJP. However, at low vote shares for INC, the correlation between the vote shares of two parties is positive and small in magnitude.

[30] An analogous exercise for $BJP\_voteshare$ and district head belonging to BJP does not yield any robust results. This would indicate that even when it may have the opportunity to affect NREGS funds, BJP does not do so.Our results survive even if we allow for other controls like trends based on panchayat samiti level occupation structure in 2001 (it would be wrong to use 2011 census data as there may be a case for reverse causation in the occupation profile).

# 6 Discussion of Results

In the previous section we show that larger funds are allocated to blocks where $INC\_voteshare$ is low. However, we obtain no such result for the rival BJP party. This suggests that the fund allocations are a result of different strategic choices made by the two parties. While INC targets funds to blocks where it had lower vote share in close elections (involving INC), the BJP follows no such strategy. One way to reconcile the results is if we take into account our underlying assumption that NREGS was identified in rural areas as an INC scheme. In this case, while INC can use funds to affect constituencies where it has lower vote share, BJP can't mimic the same strategy as the benefits from such funds would leak to INC.

To examine this further, we focus on whether the implied strategy by INC is ex-post rational. Hence we investigate whether, in 2009, the fund allocations to blocks where INC had low vote share helped them increase their vote share in 2010 elections. For this, we run a cross sectional regression (with district fixed effects) where the dependent variable is the vote share of INC in 2010 divided by the vote share of INC in 2005 ($prop_{pd}$) . We estimate the following regression:

$$prop_{pd} = \alpha + \rho_{d0} + \beta_1 Funds_{pd2009} + \beta_2 Funds_{pd2009} * INC\_voteshare_{pd2005} + \mu' Z_{pd0} + \varepsilon_{pd0} \tag{3}$$

where 0 refers to the period before the 2010 election. Since regression allows for district fixed effects:$\rho_{d0}$, we investigate if within a district, higher funds to a block leads to higher value of $prop_{pd}$.Moreover, we allow the marginal effect of funds to depend on the initial vote share $INC\_voteshare_{pd0}$. The results (Table 5; column (1)) indicate that higher block funds lead to a larger increase in vote share in 2010 elections relative to the previous election. Moreover the effect of funds is largest when the $INC\_voteshare_{pd0}$ is lower. Figure 5 plots the mar-

ginal effect of 1 standard deviation increase in funds (around 1388 lakhs). One standard deviation higher funds increases *prop* by 0.28 when $INC\_voteshare$ is equal to 20 percent. We do not observe any results when we conduct the same exercise for BJP vote share. Hence, fund allocations by INC seems to be ex-post rational since they have led to an increase in its vote share.

# 7 Conclusion

In this paper, we provide evidence on how political agents affect implementation of policies. Using the particular context of the National Rural Employment Guarantee Scheme (NREGS) in the context of Rajasthan, a state in India, and using panel data techniques, we show that larger funds were available in areas where the ruling party (INC) had a lower vote share in the previous local election. In contrast, funds are invariant to the vote shares of the biggest rival party. This is equally true when we consider close elections, that is, the sample of blocks, where each party won or lost closely. We contend that this can be rationalized if we make the plausible assumption that INC, which first implemented the scheme, gets credit from the benefit of the scheme where as for the opposition party, in the fear that there would be leakage of good will from NREGS funds, do not use these funds in their political game. Further, we provide evidence about a mechanism through which fund allocations could be affected. We show that only in blocks, where the district panchayat head is from INC, the INC is able to follow its strategy of allocating funds to where it has lower vote share. Further, we suggest that in so far as the fund allocation reflects strategic behaviour by INC, this was indeed optimal. Using funds data from 2009, we show that the INC vote share rose where funds allocated were more. The marginal effect of funds on vote share in the 2010 election was larger in areas where initial vote share of INC was lower.

# References


[1] Afridi, F., Iversen, V., and Sharan, M. R. (2013). Women Political Leaders, Corruption and Learning: Evidence from a Large Public Program in India. *IZA Discussion Paper* No. 7212.

[2] Arulampalam, W., Dasgupta, S., Dhillon, A., and Dutta, B. (2009). Electoral goals and center-state transfers: A theoretical model and empirical evidence from India. *Journal of Development Economics*, 88(1), 103-119.

[3] Azam, M. (2012). The Impact of Indian Job Guarantee Scheme on Labor Market Outcomes: Evidence from a Natural Experiment, *IZA Discussion Paper* No. 6548

[4] Bardhan, P., and Mookherjee, D. (2000). Capture and governance at local and national levels. *The American Economic Review*, 90(2), 135-139.

[5] Bardhan, P., and Mookherjee, D. (2010). Determinants of redistributive politics: An empirical analysis of land reforms in West Bengal, India. *The American Economic Review*, 1572-1600.

[6] Besley, T., and Coate, S. (1997). An economic model of representative democracy. *The Quarterly Journal of Economics*, 112(1), 85-114

[7] Besley, T., Pande, R., Rahman, L. and Rao, V. (2004), The politics of public goods provision: Evidence from Indian local governments. *Journal of the European Economic Association,* 2(2-3), 416-426

[8] Cox, Gary W. and Kousser, J. Morgan (1981) Turnout and Rural Corruption: New York as a Test Case. *American Journal of Political Science*, 25 (4), 646-663

[9] Cole, S. (2009). Fixing market failures or fixing elections? Agricultural credit in India. *American Economic Journal: Applied Economics*, 219-250.

[10] Himanshu, Mukhopadhyay, A., and Sharan, M. (2013). The Dynamics of NREGS fund allocations in Multi Village Panchayats: Evidence from Rajasthan, Mimeo.

[11] Imbert, C., and Papp, J. (2012). Equilibrium Distributional Impacts of Government. Employment Programs: Evidence from India's Employment Guarantee, *Paris School of Economics Working Paper* 2012-14.

[12] Klonner, S., and Oldiges, C. (2012). Employment Guarantee and its Welfare Effects in India*, Working Paper, University of Heidelberg.*

[13] Mukhopadhyay, A. (2012). The Political Economy of Implementing the National Rural Employment Guarantee Scheme in India, *ESID Working Paper* No. 15, September 2012

[14] Novosad, P. and Asher, S. (2013). Politics and Local Economic Growth: Evidence from India, Mimeo

[15] Ravi, S., and Engler, M. (2009). Workfare in Low income Countries: An effective Way to Fight Poverty? The Case of NREGS in India*, Indian School of Business Working Paper.*

**TABLE 1**

| Variable | Obs | Mean | Std. Dev. | Mean(2009) | Std. Dev.(2009) | Mean(2012) | Std. Dev.(2012) |
|---|---|---|---|---|---|---|---|
| Funds(In Rs. Lakhs) | 219 | 1408.82 | 1239.06 | 1733.612 | 1396.386 | 1084.036 | 956.932 |
| Ln Funds | 219 | 6.90 | 0.88 | 7.133 | 0.852 | 6.666 | 0.844 |
| INC Vote Share | 219 | 41.72 | 9.27 | 41.149 | 9.444 | 42.291 | 9.080 |
| Square of INC Vote Share | 219 | 1826.32 | 694.79 | 1782.045 | 685.386 | 1870.596 | 702.849 |
| BJP Vote Share | 219 | 38.54 | 10.80 | 40.343 | 9.672 | 36.736 | 11.566 |
| Square of BJP Vote Share | 219 | 1601.69 | 710.24 | 1720.703 | 672.258 | 1482.674 | 728.565 |
| Total No. of Wards | 219 | 21.89 | 5.48 | 22.21 | 6.28 | 21.57 | 4.544 |
| Rain Shock | 219 | -0.06 | 0.44 | -0.351 | 0.252 | 0.225 | 0.396 |
| Avg of prop. of land irrigated in Block | 219 | 151.31 | 120.31 | 0.393 | 0.222 | 0.393 | 0.222 |
| Infrastructure Index of a Block | 219 | 0.20 | 1.36 | 0.202 | 1.365 | 0.202 | 1.365 |
| Total Population | 219 | 213223.30 | 85308.08 | 195207 | 73501.860 | 231239.7 | 92377.710 |
| Proportion of SC | 219 | 0.18 | 0.07 | 0.181 | 0.070 | 0.188 | 0.077 |
| Proportion of ST | 219 | 0.15 | 0.21 | 0.148 | 0.203 | 0.159 | 0.214 |
| Proportion of Females | 219 | 0.48 | 0.01 | 0.483 | 0.015 | 0.484 | 0.012 |
| Proportion of Illiterates | 219 | 0.52 | 0.08 | 0.557 | 0.081 | 0.483 | 0.069 |
| INC District head | 219 | 0.63 | 0.48 | 0.484 | 0.501 | 0.772 | 0.421 |
| BJP District head | 219 | 0.32 | 0.47 | 0.416 | 0.494 | 0.215 | 0.411 |
| Close Seats | 219 | 0.34 | 0.47 | 0.379 | 0.486 | 0.292 | 0.456 |

**Table 2 (A)**

| VARIABLES | (1) WHOLE SAMPLE | (2) WHOLE SAMPLE | (3) WHOLE SAMPLE | (4) NARROW MARGIN(INC)-FIRST TIME PERIOD | (5) NOT NARROW MARGIN(INC)-FIRST TIME PERIOD |
|---|---|---|---|---|---|
| INC Vote Share | 0.0110 | -0.00869 | -0.0263** | -0.161** | -0.0270* |
| | (0.0183) | (0.0140) | (0.0132) | (0.0741) | (0.0150) |
| Square of INC Vote Share | 0.000132 | 0.000110 | 0.000229 | 0.00171** | 0.000353 |
| | (0.000242) | (0.000183) | (0.000192) | (0.000829) | (0.000251) |
| Dummy for Narrow seats (INC) | | | | 0.193 | 0.00177 |
| | | | | (0.158) | (0.115) |
| Rainfall shock | -0.420*** | | | | |
| | (0.104) | | | | |
| Total Number of Wards | 0.0522*** | 0.0453*** | 0.0350*** | 0.0494** | 0.0544*** |
| | (0.00946) | (0.00595) | (0.0111) | (0.0199) | (0.0158) |
| Proportion of land irrigated(2001) | -0.345* | | | | |
| | (0.188) | | | | |
| Proportion of land irrigated(2001) * Trend | -0.206 | 0.187 | 0.310 | 0.236 | 0.106 |
| | (0.198) | (0.234) | (0.251) | (0.456) | (0.347) |
| Infrastructure Index (2001) | -0.0326 | | | | |
| | (0.0409) | | | | |
| Infrastructure Index (2001) *Trend | -0.100** | -0.121*** | -0.103** | -0.127 | -0.0972* |
| | (0.0491) | (0.0342) | (0.0431) | (0.0787) | (0.0578) |
| Total Population | 5.58e-07 | 1.08e-07 | -6.34e-07 | -2.44e-06 | -1.51e-07 |
| | (4.87e-07) | (5.18e-07) | (1.55e-06) | (4.00e-06) | (1.82e-06) |
| Proportion of Scheduled Caste individuals | 2.137*** | 0.809 | -8.758 | -14.04 | -13.13* |
| | (0.727) | (0.753) | (5.447) | (8.718) | (7.550) |
| Proportion of Scheduled Tribe individuals | 0.971*** | 0.320 | 0.384 | 2.939 | -0.494 |
| | (0.259) | (0.327) | (1.321) | (4.734) | (1.376) |
| Proportion of Females | 7.078** | 3.120 | 2.948 | 9.998 | 4.058 |
| | (3.523) | (4.040) | (7.664) | (16.69) | (10.59) |
| Proportion of Illiterates | 1.830*** | 0.900 | 1.058 | 2.469 | 0.947 |
| | (0.601) | (0.682) | (1.599) | (3.054) | (1.887) |
| Constant | 0.190 | 2.746 | 6.666 | 6.318 | 6.231 |
| | (1.712) | (2.087) | (4.155) | (9.056) | (5.408) |
| ***Panchayat Samiti Fixed Effects*** | *NO* | *NO* | *YES* | *YES* | *YES* |
| ***District Fixed Effects*** | *NO* | *YES* | *YES* | *YES* | *YES* |
| ***Trend*** | *NO* | *YES* | *YES* | *YES* | *YES* |
| ***District Trend*** | *NO* | *YES* | *YES* | *YES* | *YES* |
| Observations | 438 | 438 | 438 | 166 | 272 |
| R-squared | 0.428 | 0.812 | 0.753 | 0.865 | 0.753 |
| Number of id | | | 219 | 83 | 136 |

Std.Errors( in parentheses) are clustered at Panchayat Samiti level for Column 2-5
*** p<0.01, ** p<0.05, * p<0.1

**Table 2 (B) Marginal Effects OF Vote Proportion**

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| **INC Vote proportion** | **Coeff.** | **Coeff.** | **Coeff.** | **Coeff.** | **Coeff.** |
| 14 | 0.015 | -0.006 | -0.020 | -0.113 | -0.017 |
| | (0.215) | (0.551) | (0.023) | (0.031) | (0.062) |
| 18 | 0.016 | -0.005 | -0.018 | -0.099 | -0.014 |
| | ( 0.119) | (0.563) | (0.018) | (0.031) | (0.068) |
| 22 | 0.017 | -0.004 | -0.016 | -0.086 | -0.011 |
| | ( 0.046) | (0.585) | (0.015) | (0.031) | (0.093) |
| 26 | 0.018 | -0.003 | -0.014 | -0.072 | -0.009 |
| | (0.009 ) | (0.624) | (0.016) | (0.032) | (0.172) |
| 30 | 0.019 | -0.002 | -0.013 | -0.058 | -0.006 |
| | (0) | (0.694) | (0.027) | (0.035) | (0.367) |
| 34 | 0.020 | -0.001 | -0.011 | -0.044 | -0.003 |
| | (0) | (0.806) | (0.062) | (0.045) | (0.677) |
| 38 | 0.021 | 0.000 | -0.009 | -0.031 | 0.000 |
| | (0) | (0.948) | (0.153) | (0.081) | -0.984 |

***p-value in brackets**

**Table 3 (A)**

| VARIABLES | (1) WHOLE SAMPLE | (2) WHOLE SAMPLE | (3) WHOLE SAMPLE | (4) NARROW MARGIN(BJP)-FIRST TIME PERIOD | (5) NOT NARROW MARGIN(BJP)-FIRST TIME PERIOD |
|---|---|---|---|---|---|
| BJP Vote Share | -0.000436 | 0.0114 | -0.00638 | 0.00679 | 0.00855 |
| | (0.0111) | (0.0130) | (0.0143) | (0.101) | (0.0336) |
| Square of BJP Vote Share | 0.000203 | 4.72e-05 | 0.000177 | -8.91e-05 | -0.000194 |
| | (0.000192) | (0.000209) | (0.000224) | (0.00116) | (0.000423) |
| Dummy for Narrow seats (BJP) | | | | 0.223 | 0.00689 |
| | | | | (0.142) | (0.134) |
| OTHER CONTROLS | *RAIN SHOCK* | | | *YES (AS IN TABLE 2)* | |
| ***Panchayat Samiti Fixed Effects*** | *NO* | *NO* | *YES* | *YES* | *YES* |
| ***District Fixed Effects*** | *NO* | *YES* | *YES* | *YES* | *YES* |
| ***Trend*** | *NO* | *YES* | *YES* | *YES* | *YES* |
| ***District Trend*** | *NO* | *YES* | *YES* | *YES* | *YES* |
| Constant | -2.539* | -2.549 | 5.363 | 8.091 | 0.405 |
| | (1.515) | (1.712) | (4.165) | (14.54) | (5.304) |
| Observations | 438 | 438 | 438 | 154 | 244 |
| R-squared | 0.408 | 0.595 | 0.750 | 0.905 | 0.813 |
| Number of id | | | 219 | 81 | 138 |

Std.Errors( in parentheses) are clustered at Panchayat Samiti level for Column 2-5

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

**Table 3 (B) Marginal Effects OF Vote Proportion**

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| **BJP Vote Proportion** | **Coeff** | **Coeff** | **Coeff** | **Coeff** | **Coeff** |
| 14 | 0.005 | 0.013 | -0.001 | 0.004 | 0.003 |
| | (0.388) | (0.095) | (0.87) | (0.95) | (0.89) |
| 18 | 0.007 | 0.013 | 0.000 | 0.004 | 0.002 |
| | (0.150 ) | (0.035) | (0.999) | (0.952) | (0.936) |
| 22 | 0.008 | 0.013 | 0.001 | 0.003 | 0.000 |
| | (0.020) | (0.007) | (0.809) | (0.955) | (1) |
| 26 | 0.010 | 0.014 | 0.003 | 0.002 | -0.002 |
| | (0) | (0.001) | (0.569) | (0.959) | (0.91) |
| 30 | 0.012 | 0.014 | 0.004 | 0.001 | -0.003 |
| | (0) | (0) | (0.358) | (0.965) | (0.787) |
| 34 | 0.013 | 0.015 | 0.006 | 0.001 | -0.005 |
| | (0) | (0) | (0.251) | (0.976) | (0.635) |
| 38 | 0.015 | 0.015 | 0.007 | 0.000 | -0.006 |
| | (0.002) | (0.003) | (0.223) | (0.999) | (0.498) |

***p value in brackets**

**TABLE 4**

*Marginal Effect of INC Vote Share (With/Without District Head) - With District and Panchayat Samiti Fixed Effects.*

| INC Vote Share | Whole Sample | | Narrow Margin Seats | |
|---|---|---|---|---|
| | *Without INC District Head* | *With INC District Head* | *Without INC District Head* | *With INC District Head* |
| 14 | 0.021 | -0.023 | 0.067 | -0.144 |
| | (0.465) | (0.017) | (0.236) | (0.027) |
| 18 | 0.017 | -0.021 | 0.055 | -0.127 |
| | (0.494) | (0.015) | (0.261) | (0.028) |
| 22 | 0.013 | -0.018 | 0.043 | -0.110 |
| | (0.536) | (0.014) | (0.3) | (0.029) |
| 26 | 0.009 | -0.016 | 0.031 | -0.093 |
| | (0.602) | (0.017) | (0.364) | (0.033) |
| 30 | 0.005 | -0.014 | 0.020 | -0.076 |
| | (0.711) | (0.03) | (0.483) | (0.039) |
| 34 | 0.001 | -0.012 | 0.008 | -0.059 |
| | (0.9) | (0.069) | (0.725) | (0.053) |
| 38 | -0.002 | -0.009 | -0.004 | -0.042 |
| | (0.804) | (0.169) | (0.826) | (0.092) |

**p value in brackets**

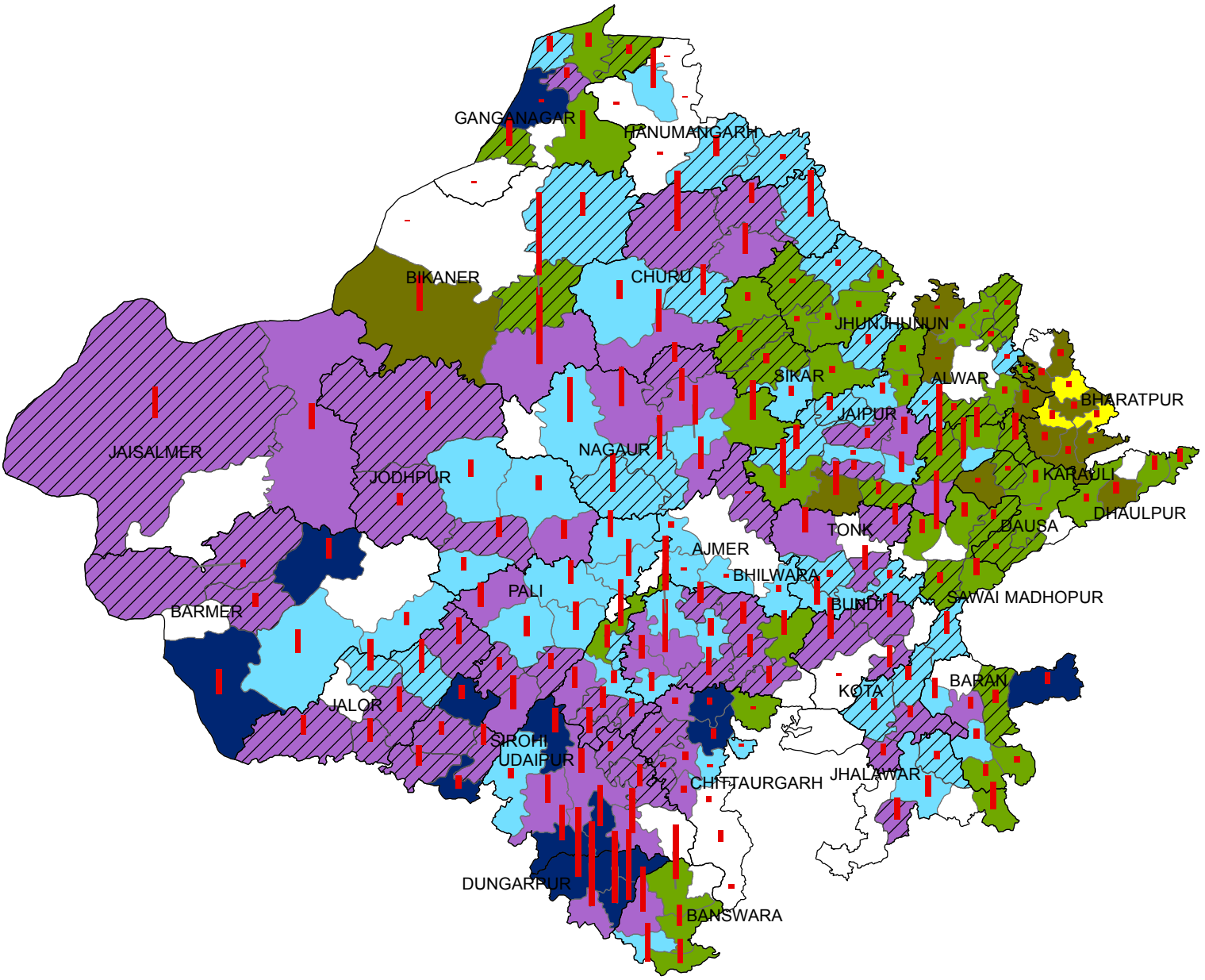
**TABLE 5**

| Dependent Variable: Vote share (2010)/Vote share (2005) | (1) Whole Sample ( Cross-Section) | (2) Whole Sample ( Cross-Section) |
|---|---|---|
| **VALUE OF TIME PERIOD 0** | | |
| FUNDS | 0.000356*** | 8.43e-05 |
| | (8.28e-05) | (7.64e-05) |
| FUNDS*INC VOTE SHARE | -7.71e-06*** | |
| | (1.74e-06) | |
| FUNDS*BJP VOTE SHARE | | -2.23e-06 |
| | | (1.83e-06) |
| Total Number of Wards | -0.00785* | 0.00660* |
| | (0.00431) | (0.00361) |
| Proportion of land irrigated | 0.0586 | 0.298*** |
| | (0.0684) | (0.103) |
| Infrastructure Index | 0.00322 | -0.0163 |
| | (0.0221) | (0.0177) |
| Total Population | 2.76e-07 | 1.76e-08 |
| | (2.66e-07) | (3.29e-07) |
| Proportion of Scheduled caste individuals | -0.152 | -0.239 |
| | (0.213) | (0.209) |
| Proportion of Females | 0.450 | 2.421 |
| | (1.454) | (2.230) |
| Proportion of Scheduled Tribe individuals | -0.214* | -0.0673 |
| | (0.110) | (0.114) |
| Proportion of Illiterates | -0.0449 | -0.381 |
| | (0.340) | (0.419) |
| Constant | 0.999 | -0.130 |
| | (0.740) | (1.243) |
| ***District Fixed Effects*** | *Yes* | *Yes* |
| Observations | 220 | 220 |
| R-squared | 0.456 | 0.419 |

Std.Errors ( in parentheses) are clustered at District level.

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

# FIGURE 1: TIME PERIOD - I (2005)




**INC Vote Proportion**

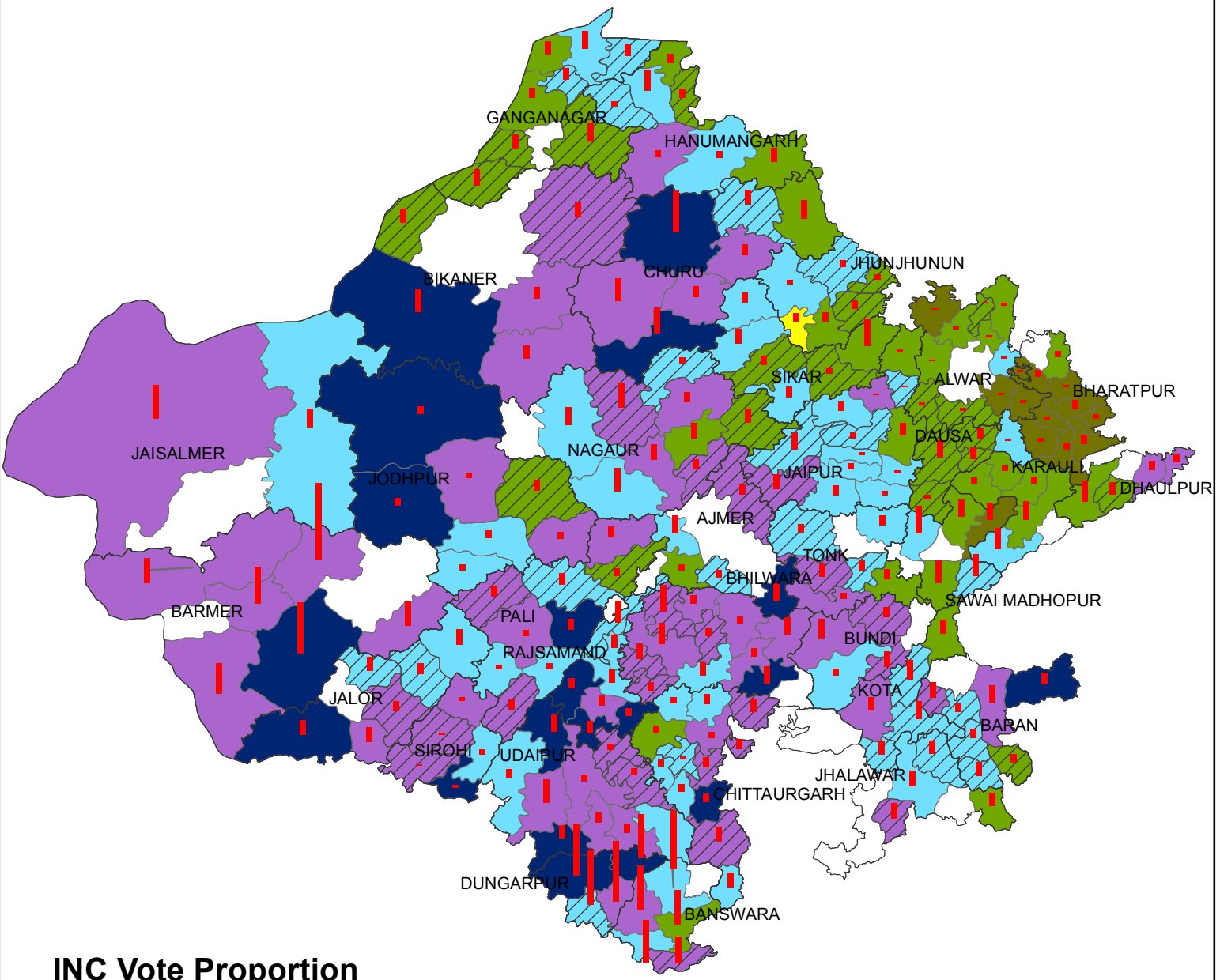
- 6.6 - 13.0
- 13.1 - 26.0
- 26.1 - 39.0
- 39.1 - 45.0
- 45.1 - 52.0
- 52.1 - 63.2

3,600

Funds in Lakhs

Narrow Margin Seats

# FIGURE 2: TIME PERIOD - II (2010)




**INC Vote Proportion**

- 0.0 - 13.0
- 13.1 - 26.0
- 26.1 - 39.0
- 39.1 - 45.0
- 45.1 - 52.0
- 52.1 - 64.0

3,000

Funds in Lakhs

Narrow Margin Seats

**FIGURE 3**

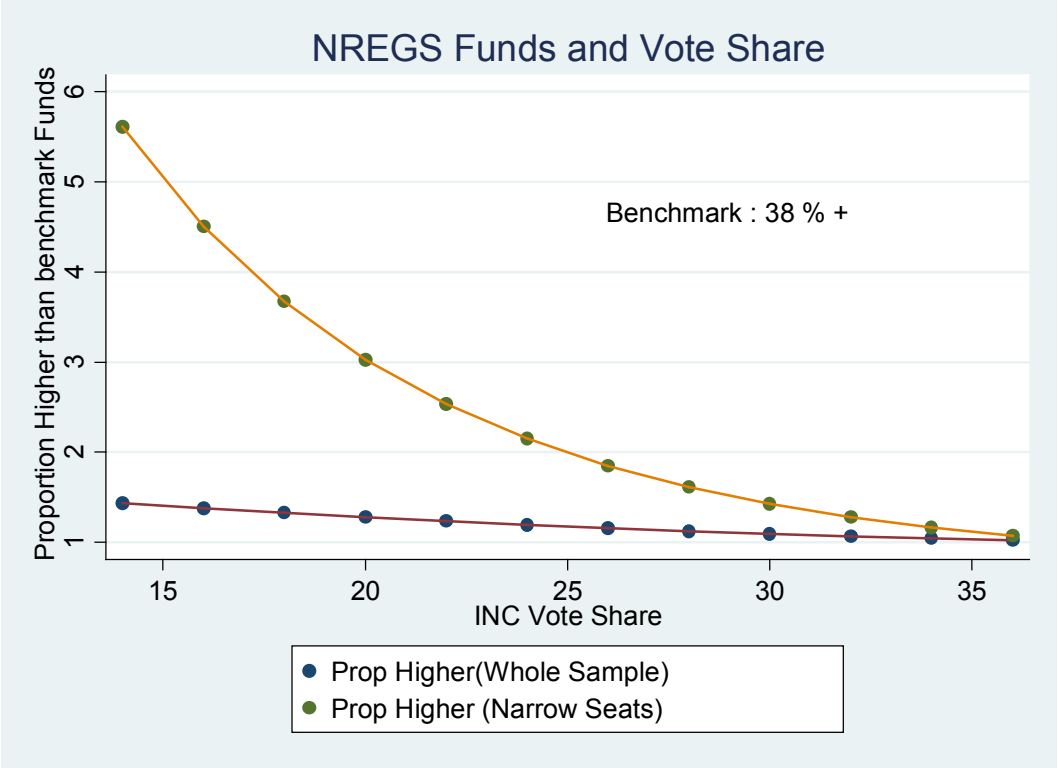

NREGS Funds and Vote Share
Proportion Higher than benchmark Funds
1
2
3
4
5
6
Benchmark : 38 % +
15
20
25
30
35
INC Vote Share
Prop Higher(Whole Sample)
Prop Higher (Narrow Seats)

**FIGURE 4**

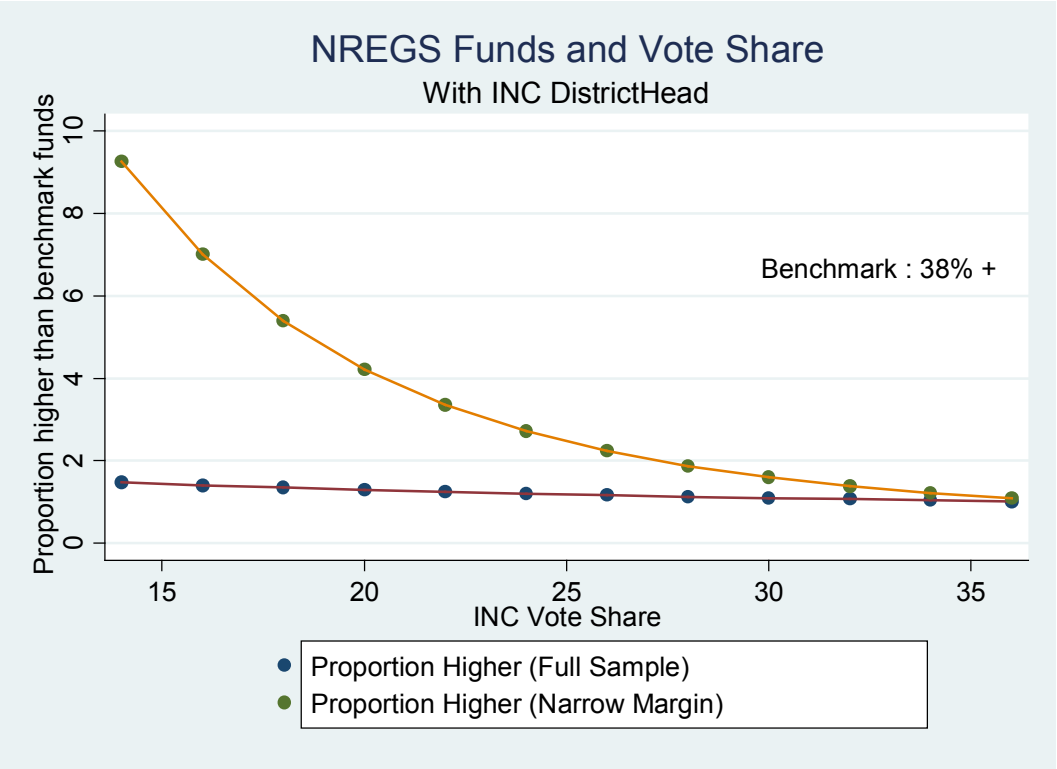
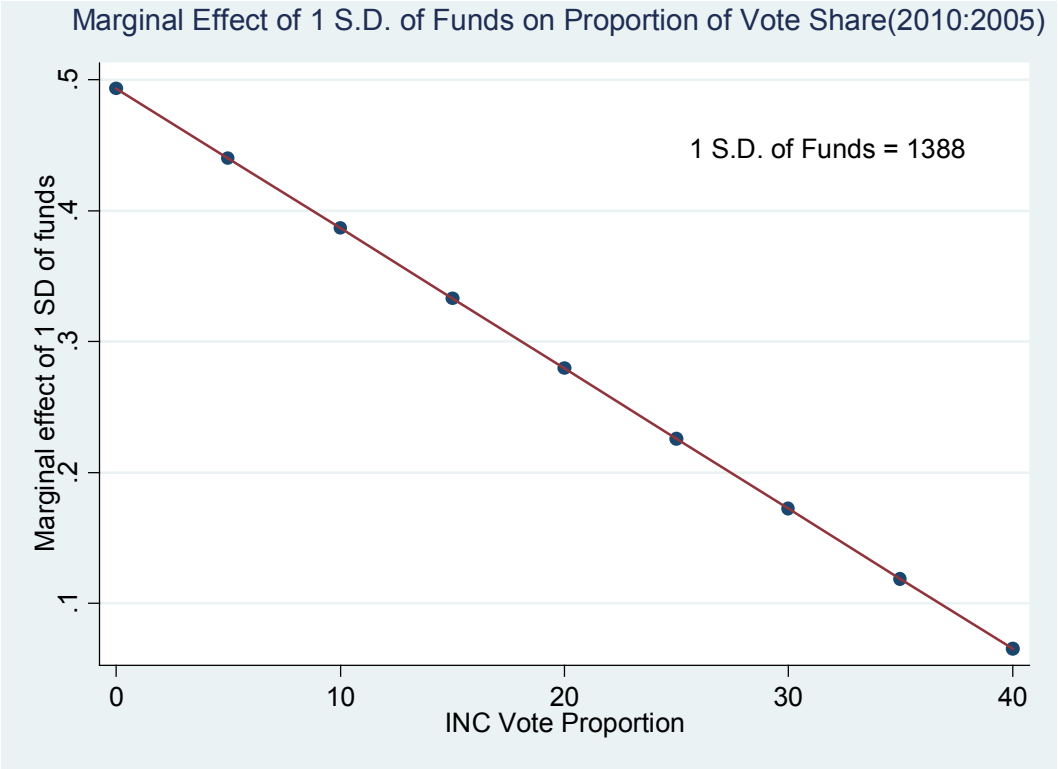

NREGS Funds and Vote Share
With INC DistrictHead
Proportion higher than benchmark funds
0
2
4
6
8
10
Benchmark : 38% +
15
20
25
30
35
INC Vote Share
Proportion Higher (Full Sample)
Proportion Higher (Narrow Margin)

**FIGURE 5**


Marginal Effect of 1 S.D. of Funds on Proportion of Vote Share(2010:2005)
1 S.D. of Funds = 1388
Marginal effect of 1 SD of funds
.1
.2
.3
.4
.5
0
10
20
30
40
INC Vote Proportion