

Strategically Greasing the Wheels: the Political Economy of India's Rural Employment Guarantee

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Abstract

This paper utilizes a 2,250 household survey nested within a close elections regression discontinuity design in the Indian state of Rajasthan to study the role of political connections in shaping the performance of the National Rural Employment Guarantee Act (NREGA), the world's largest rural workfare program. Households in constituencies barely won by the ruling party reported a large relative increase in receipt of employment and payments under NREGA, driven mainly by increased project approvals and wage rates. The ruling party effect was concentrated in i) villages with a co-partisan village council leader and ii) villages with higher levels of local democracy as measured on a novel survey-based index. The findings reveal the important role that political networks as well as local democracy play in "greasing the wheels" of large-scale anti-poverty programs.

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1 Introduction

Public programs in developing countries are frequently characterized by substantial sub-national variation in quality of implementation. The existing literature tends to focus on bureaucratic capacity or local community social capital. This paper, by contrast, seeks to unpack the political determinants of variation in the performance of India's National Rural Employment Guarantee Act (NREGA), a rural workfare program. In particular, it investigates the role that local connections to ruling parties play in governing access to NREGA, the administrative channels through which this preferential access operates, as well as the types of communities and households within constituencies that benefit most from ruling-party political connections.

To assess the role of political connections in shaping program performance, this paper conducts a rural household survey nested within a close elections regression discontinuity design in the Indian state of Rajasthan. To my knowledge, this is the first study that combines a micro-level household survey data with a natural experiment based on a close elections regression discontinuity design. The survey takes a stratified random sample of 2,250 households across 90 villages selected from 18 assembly constituencies barely won or lost by the ruling party in the December 2013 state assembly elections in Rajasthan – and compares household access to the program in localities with a ruling-party versus opposition-party legislator.

The data reveal that households in otherwise similar constituencies that elected a ruling-party MLA received greater levels of employment and payments under NREGA than did constituencies which barely elected an opposition party legislator. In ruling-party constituencies, in 2015 on average households received 13.9 days of NREGA employment and 1090 rupees in NREGA wages. In opposition-party constituencies, by contrast, households received 9.2 days of NREGA employment and 497 rupees in NREGA wages. This gap does not appear to have been driven by greater administrative efficiency or by lower levels of corruption. Instead, the ruling party effect was driven primarily by greater numbers of project approvals and higher wage rates

in ruling-party constituencies.

Finally, I investigate heterogeneous treatment effects. Within constituencies, the ruling-party effect was concentrated among village councils with a co-partisan elected village council leader. The ruling-party effect was also concentrated among communities characterized by higher levels of competition, participation, and rule of law in village councils as measured on a novel survey-based index. Together, the findings reveal the important role that political networks (Caeyers and Dercon, 2012; Fisman, 2001; Mian and Khwaja, 2005), as well as local democracy (Bardhan and Mookherjee, 2000; Dreze and Sen, 2002; Putnam, Leonardi and Nanetti, 1994), play in “greasing the wheels” of large-scale anti-poverty programs.

The remainder of the paper is structured as follows. I first provide background on the politics of NREGA in Rajasthan, the setting under study. I then describe the empirical strategy and report the main results. I then report analyses of competing channels and heterogeneous treatment effects before concluding.

2 NREGA in Rajasthan

Enacted in 2005, NREGA guarantees each rural household up to 100 days of employment on local public works projects. With nearly 70 percent of India’s 1.2 billion population living in rural areas, NREGA ranks as the largest anti-poverty program in India and the largest rural workfare program in the world.

NREGA is designed to be “self-targeting” (Besley and Coate, 1992), with the employment requirement for receipt of benefits intended to screen those with better outside employment options. NREGA participants are employed typically on small-scale local public works projects, such as ditch irrigation or unpaved road building. Wages paid under NREGA vary by state and are adjusted over time, but in all states effectively amount to a minimum wage. In 2009, according to official statistics, the national government spent \$8 billion on NREGA, over three times

the amount spent on Progresa, Mexico's flagship anti-poverty program. National sample survey data from 2009-10 show that 24 percent of India's rural population participated in NREGA in that year, with each participating household receiving on average 37 person-days of employment (Dutta et al., 2012).

The daily administration of NREGA is managed in large part at the level of local elected village councils (*panchayats*), which are responsible for gauging the local demand for employment, submitting requests for projects, and helping to distribute job cards and employment under NREGA to local residents. In practice, however, village councils serve as the final tier in a much larger bureaucratic and political network which governs the distribution of projects and jobs under NREGA. Requests for projects are screened and approved by bureaucrats at the block and district level, a process in which elected politicians play an important role via their political influence over the bureaucracy (Iyer and Mani, 2012). In fieldwork conducted over two months across 8 village councils and two blocks in a district in the state of Rajasthan, low-level bureaucrats repeatedly mentioned the important role that political networks play in determining what projects are approved. One village council leader mentioned in a colorful turn of phrase that he "juggles" the local state legislator, development block bureaucrat, and district collector (the apex bureaucrat in the district) in order to bring projects to his village.

The influence of political networks over the allocation of NREGA projects and jobs could plausibly explain well known, but puzzling, variation in the performance of the program across localities. Though in principal NREGA is meant to be a universalistic, demand-driven program, in practice "rationing" or under-provision of employment relative to demand is rampant – with some localities suffering a greater degree of rationing than others. This is very plausibly connected to the impact of elected politicians and political networks. In particular, localities which elect a legislator from the state-level ruling party are likely to gain priority in the allocation of scarce NREGA projects since opposition party politicians do not possess the same degree of political influence over the bureaucracy.

This paper investigates and provides evidence for such political dynamics in the case of Rajasthan, an arid state in Western India. Rajasthan is a plausible setting for political networks to play a role in the performance of NREGA because the program is economically and politically salient. Demand for NREGA employment in Rajasthan is considerable, due to relatively low levels of irrigation in many parts of the state, resulting in fewer alternatives to employment under NREGA in rural areas during the dry season. In a 2009 survey, 61.8% of rural households in Rajasthan reported having worked on NREGA (Dutta et al., 2012), the highest participation rate of all states in India. Below, I describe a research design based on a close election regression discontinuity design to the study the effects of ruling-party political connections on the performance of NREGA in Rajasthan.

3 Empirical Strategy and Main Results

To estimate the effects of electing a ruling-party legislator on the performance of NREGA, I exploit close elections in the December 2013 state assembly elections in Rajasthan as a natural experiment, comparing constituencies barely won or lost by the ruling party (Lee, 2008). This natural experiment provides a set of “treatment” and “control” constituencies that are relatively comparable in the ruling party’s vote share and other correlated traits but which differ in the key explanatory variable: whether or not the elected local MLA belonged to the eventual state-level ruling party, the BJP. I then conduct a rural household survey in constituencies barely won or lost by the ruling party to study the effects of electing a ruling-party legislator on household-level access to the program.

The sampling procedure for the household survey was as follows. First, I restricted the sample to constituencies won or lost by the ruling party by a margin of less than 4% points of the total vote. Second, from this subset of constituencies, I randomly sampled 9 constituencies barely lost by the ruling party. Third, for each randomly selected constituency barely lost by

the ruling party, I randomly selected one matched constituency barely *won* by the ruling party within the same official geographical sub-division. Within each of the sampled treatment and control assembly constituencies, I randomly sampled 5 panchayats (village councils) from the “main” administrative block corresponding to the assembly constituency. Within each panchayat, I sampled the village in which the village council building was located. Within each selected village, surveys were conducted with 25 randomly selected households, sampled from village wards in proportion to population size. At each household we asked to speak to the head of the household, or the next available adult. This yielded a sample of 2,250 households selected from 90 village councils across 18 assembly constituencies in 16 districts across the state of Rajasthan. The survey was conducted by a gender-balanced team of 10 enumerators and two supervisors over a period of 2 months in 2015.

The basic empirical strategy is to estimate an OLS regression with geographical subdivision fixed effects, where the main explanatory variable is an indicator for whether the local MLA belongs to the ruling party:

$$Y_i = \beta Ruling_j + \alpha_k + \mathbf{X}\gamma + \varepsilon_i, \quad (1)$$

where Y_i is a measure of access to NREGA or other outcome for household i , $Ruling_j$ is the treatment indicator for assembly constituency j , α_k is a geographical subdivision fixed effect, and \mathbf{X} is a vector of covariates. The coefficient β represents the local average treatment effect of electing a ruling-party legislator on the outcome of interest. A key identifying assumption in this empirical strategy is that treatment and control constituencies are balanced on covariates which may impact the performance of NREGA. In Table 1, I provide evidence that households and villages in treatment and control constituencies are broadly comparable for a wide range of socioeconomic variables.

The results show that households constituencies barely won or lost by the ruling party are comparable in terms of caste composition as well as wealth, as measured by a 10-point index

Table 1: Balance on Household- and Community-level Characteristics

	<i>Dependent variable:</i>							
	SC/ST	Asset(1-10)	Newspaper	Conflict	Dist. to Block	Dist to Bank	Wage	Co-partisan
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ruling Party	0.044 (0.046)	0.108 (0.291)	-0.017 (0.049)	0.004 (0.016)	-12.489 (11.573)	3.000 (9.368)	-4.444 (15.088)	0.067 (0.093)
Subdivision FE	Y	Y	Y	Y	Y	Y	Y	Y
Mean	0.36	6.12	0.40	0.16	89.5	49.9	260	0.28
N	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250

Notes: Unit of observation is household. SC/ST is indicator for whether household belongs to scheduled castes or tribes. Asset is a 10-point household asset index. Newspaper is an indicator for whether respondent reads newspaper. Conflict is indicator for whether respondent reports conflict between communities in village. Dist. to Block is reported distance to Block headquarters from village in minutes. Dist. to Bank is reported distance to nearest bank in minutes. Wage is the reported typical daily wage for a male laborer in the village in rupees. Co-partisan is an indicator for whether the pre-2015 election local elected village council leader has an identifiable party and shares the same partisan orientation as the local MLA. Standard errors clustered by assembly constituency. Analysis estimated by OLS. * p<0.1; ** p<0.05; *** p<0.01

of household assets (Filmer and Pritchett, 2001). This is important because it suggests that socioeconomic characteristics affecting demand for the program are similar across treatment and control constituencies. Communities in treatment and control constituencies also appear to be characterized by similar levels of newspaper readership and conflict, remoteness as measured by distance to the local development block headquarters and banks, labor demand as measured by labor wages, as well as partisanship of the village council leader.

It is now possible to examine the effects of electing a ruling-party legislator on days of NREGA employment received in 2015 as well as total payment received, added together for all members of the household. These data are based on a NREGA employment and wage receipt accounting exercise that was conducted as part of the household survey, systematically measuring for each member of the household the days of NREGA employment and wages received. The analyses, reported in Table 2, reveal that households in ruling party constituencies received on average an additional 4.6 days of NREGA employment in 2015, resulting on average in an additional 593 rupees in NREGA wages. These results are robust and extremely stable across specifications controlling for a wide range of individual, household, and village-level covariates as well as enumerator fixed effects.

The estimated effects are extremely large in magnitude. In ruling-party constituencies, in 2015 on average households received 13.9 days of NREGA employment and 1090 rupees in NREGA wages. In opposition-party constituencies, by contrast, households received 9.2 days of NREGA employment and 497 rupees in NREGA wages. Given that we are comparing constituencies that were *barely* won or lost by the ruling party, and which are indistinguishable for a wide-range of household and community socioeconomic characteristics, the results suggest that ruling-party political connections play a dramatic role in shaping the performance of NREGA in Rajasthan.

How large a difference to annual household income does electing a ruling-party legislator make as a result of improvements in the performance of NREGA? Average reported household

Table 2: Effects on Household NREGA Employment and Wage Receipt

	<i>Dependent variable:</i>			
	NREGA Days (1)	NREGA Days (2)	NREGA Pay (Rs.) (3)	NREGA Pay (Rs.) (4)
Ruling Party	4.699** (2.039)	4.356*** (1.675)	593.217*** (122.538)	572.339*** (118.352)
Subdivision FE	Y	Y	Y	Y
Covariates	N	Y	N	Y
Mean	11.6	11.6	794	794
N	2,250	2,250	2,250	2,250

Notes: Unit of observation is household. NREGA Days is total days of employment received in 2015 for all household members (defined as members of the household who share together). NREGA Pay is total amount of payment received in rupees for NREGA employment completed in 2015. Covariates include controls for enumerator fixed effects, household asset index, respondent caste, village distance to block office, village distance to bank, village distance to market, village wage for laborers. Standard errors clustered by assembly constituency. Analysis estimated by OLS.
* p<0.1; ** p<0.05; *** p<0.01

income in sample was 70,961 rupees per year. This suggests that for a typical household the election of a ruling-party legislator resulted in a roughly 0.83% increase in household income from improvements in the performance of NREGA, a single program, alone. This is a substantively large effect which highlights the important role that political networks play in shaping the livelihoods of ordinary citizens in rural Rajasthan.

4 Competing Channels

How did electing a ruling-party legislator translate into improvements in the performance of NREGA? To tease out the channel through which political connections operate, I examine the effects of electing a ruling-party legislator on a range of intermediate outcomes. The analyses, reported in Table 3, reveal that households in ruling-party constituencies are 13.4% points more likely to report the presence of ongoing NREGA projects in their villages, suggesting that the ruling-party effect is driven at least in part by greater numbers of project approvals. This is consistent with qualitative evidence about the NREGA project approval process.

Households in ruling-party constituencies also report significantly higher NREGA daily wage rates. This is plausibly due to a greater availability of projects and funds relative to demand for employment. During fieldwork, front-line NREGA bureaucrats frequently reported resorting to various strategies to fairly distribute a finite amount of NREGA employment and resources in the face of excess demand for work. For instance, because wages are often paid at a "piece-rate", or on the basis of the amount of work judged to have been completed, there is scope for discretion in the effective wage rate paid.

By contrast, households in ruling-party constituencies do not report faster receipt of wages. Nor do they report lower levels of bribe payments, though with the caveat that reported bribe payments were extremely low, possibly due to social desirability bias. These results suggest that greater numbers of project approvals, rather than greater administrative efficiency or lower

levels of corruption, drive the ruling-party effect on NREGA performance.

A second way to isolate the importance of project approvals in driving the ruling-party effect is to conduct a prior year placebo test, conducting an analysis of the effect of electing a ruling-party legislator on NREGA employment and wages in 2014. Though a new BJP government came into power in the beginning of 2014, NREGA project requests and approvals had been completed for the most part in the final quarter of the *prior* year, when Rajasthan was still controlled by the previous Congress party-led government. If project approvals are the main channel through which the ruling-party effect operates, we should expect to see null effects of electing a ruling-party legislator on NREGA employment and wages in 2014 – which is precisely what we find in Table 4. Strikingly, though electing a ruling-party legislator resulted in large relative improvements in household access to NREGA in 2015, there were no such impacts in the prior year when ruling-party legislators could not have plausibly influenced the project allocation process.

5 Heterogenous Effects

Thus far, the analyses have revealed that constituencies which barely elected a ruling-party legislator received improved access to NREGA employment and wage payments. This was driven mainly by greater numbers of projects in ruling-party constituencies, resulting in greater employment as well as wage rates. But within ruling-party constituencies, what type of communities benefited to the greatest extent from ruling party political connections? Table 5 investigates the heterogeneous effects of electing a ruling-party legislator.

The first hypothesis I examine is whether ruling-party legislators direct benefits primarily to village councils led by a co-partisan *sarpanch* (village council leader). Panchayat elections were held in 2010 and 2015; since the partisan orientation of the sarpanch elected in 2015 is plausibly a post-treatment outcome, I focus on the partisan orientation of the sarpanch elected

Table 3: Competing Channels for the Ruling-party Effect on NREGA Performance

		<i>Dependent variable:</i>			
		NREGA Projects	NREGA Wage/Day	Days to Payment	Bribe Paid (Rs.)
		(1)	(2)	(3)	(4)
Ruling Party		0.134*** (0.041)	25.234*** (6.764)	-0.24 (3.685)	2.231 (2.144)
Subdivision FE	Y		Y	Y	Y
Mean		0.60	67.8	28.3	2.0
N		2,250	631	766	821

Notes: Unit of observation is household. NREGA projects is an indicator for visible NREGA projects in the village. NREGA Wage/Day is computed as the average daily wage for households reporting NREGA employment in 2015. Days to Payment is the reported days to NREGA wage receipt. Bribe paid is the amount of bribe paid for NREGA employment in rupees Standard errors clustered by assembly constituency. Analysis estimated by OLS.
* p<0.1; ** p<0.05; *** p<0.01

Table 4: Placebo Test: Effects of Ruling-Party Legislator in Prior Year (2014)

	<i>Dependent variable:</i>			
	'14 NREGA Days (1)	'14 NREGA Days (2)	'14 NREGA Pay (Rs.) (3)	'14 NREGA Pay (Rs.) (4)
Ruling Party	0.297 (4.016)	0.206 (3.545)	54.186 (271.657)	85.652 (247.954)
Subdivision FE	Y	Y	Y	Y
Covariates	N	Y	N	Y
Mean	16.5	16.5	1204	1204
N	2,250	2,250	2,250	2,250

Notes: Unit of observation is household. '14 NREGA Days is total days of employment received in 2014 for all household members (defined as members of the household who share together). '14 NREGA Pay is total amount of payment received in rupees for NREGA employment completed in 2014. Covariates include controls for enumerator fixed effects, household asset index, respondent caste, village distance to block office, village distance to bank, village distance to market, village wage for laborers. Standard errors clustered by assembly constituency. Analysis estimated by OLS. * p<0.1; ** p<0.05; *** p<0.01

in the 2010 elections, prior to the election of the local MLA in 2013. Since the 2010-elected sarpanch held power through final quarter of 2014, the key period during which budgeting and project approvals under NREGA for the coming year occurred, this also makes sense theoretically. Though panchayat elections are by law non-partisan, in practice many sarpanches are de facto affiliated with political parties. I identify a village's sarpanch as "co-partisan" if he or she shares the same party as the local MLA. In columns (1) and (2) I examine whether villages with co-partisan sarpanches receive added benefits from electing a ruling party legislator. The large positive coefficient on the interaction term indicates precisely this, suggesting that overwhelmingly the ruling-party effect was concentrated among villages which had a local elected leader connected to the local MLA, consistent with theories highlighting the importance of local partisan brokers in mediating the political distribution of benefits (Stokes et al., 2013).

A second hypothesis I examine is whether the internal democratic organization of local communities shapes the extent to which they benefit from electing a ruling-party legislator. To measure local democracy, for each village I average scores across residents to construct a 10-point survey based index of democracy based upon, where scores were based on reported: 1) voting in panchayat elections; 2) an absence of violence in panchayat elections; 3) perceived non-contingency of access to government programs on the basis of vote choice; 4) perception of secrecy of the ballot; 5) no distribution of gifts before elections; 6) perception that one party does not dominate local elections; 7) perception that one caste group (*jati*) does not dominate local elections; 8) occurrence of village meetings (*gram sabhas*); 9) attendance at village meetings; and 10) perception that one caste group does not dominate village meetings. The median score across villages was 6.98 on this index. To simplify the analysis, I divide villages into above and below median local democracy, and interact this indicator with the ruling-party legislator explanatory variable. The results are reported in columns (3) and (4). The large positive coefficient on the interaction term provides evidence that communities with greater levels of competition, participation, and rule of law in local panchayat institutions benefited to a much

greater extent from political connections to a ruling-party legislator. These results suggest that not only do top-down political networks matter for the performance of public programs, but that also bottom-up democratic mobilization plays an interactive role in holding local ruling-party politicians to account in the delivery of public services.

6 Conclusion

To assess the role of political connections in shaping program performance, this paper conducted a rural household survey nested within a close elections regression discontinuity design in the Indian state of Rajasthan. Households and communities in constituencies which barely elected a ruling-party legislator received significantly improved access to NREGA, India's largest anti-poverty program and the largest rural workfare program in the world. This ruling-party effect appears to have been driven mainly by greater numbers of NREGA project approvals, and consequently higher NREGA wage rates as well. Within ruling party constituencies, the primary beneficiaries were i) villages with a co-partisan village council leader and ii) villages with higher levels of local democracy as measured on a novel survey-based index.

Together, the findings reveal the important role that political networks as well as local democracy play in "greasing the wheels" of large-scale anti-poverty programs. The findings are consistent with a growing literature which highlights the importance of political connections in shaping access to public programs (Caeyers and Dercon, 2012; Fisman, 2001; Mian and Khwaja, 2005). The findings also support, however, the literature on social capital by providing evidence that communities with greater levels of competition, participation, and rule of law in local panchayat institutions benefited to a much greater extent from political connections to the ruling party (Bardhan and Mookherjee, 2000; Dreze and Sen, 2002; Putnam, Leonardi and Nanetti, 1994). The interaction between bottom-up democratic mobilization and top-down political connections is a fruitful avenue for further research.

Table 5: Heterogenous Effects of Ruling Party Legislator on NREGA Performance

	<i>Dependent variable:</i>			
	NREGA Days (1)	NREGA Pay (Rs.) (2)	NREGA Days (3)	NREGA Pay (Rs.) (4)
Ruling Party	2.214 (2.414)	425.157*** (130.407)	0.858 (2.371)	298.136* (166.891)
Ruling Party× Copartisan Sarpanch	9.109** (4.178)	558.188* (291.226)		
Ruling Party× High Democracy			8.516** (4.100)	640.763*** (214.158)
Copartisan Sarpanch	-5.233 (3.420)	-83.986 (209.075)		
High Democracy			-0.498 (2.661)	-92.675 (149.553)
Subdivision FE	Y	Y	Y	Y
Mean	11.6	794	11.6	794
N	2,250	2,250	2,250	2,250

Notes: Unit of observation is household. NREGA Days is total days of employment received in 2015 for all household members (defined as members of the household who share together). NREGA Pay is total amount of payment received in rupees for NREGA employment completed in 2015. Copartisan sarpanch is an indicator for whether the pre-2015 elections village council leader has an identifiable partisan orientation and shares the same party as the local MLA. High democracy is an indicator for an above median score on a 10-point survey based index of local democracy computed for each village. Standard errors clustered by assembly constituency. Analysis estimated by OLS. * p<0.1; ** p<0.05; *** p<0.01

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