Who, Not How Many: Local Council Design and Workfare Delivery in Rural India

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Abstract

Local governments worldwide are typically governed by elected councils headed by a president, yet little is known about whether policy delivery depends more on who sits on the council or on how many members it has. We study this question in nearly 7,000 village councils in Bihar, India, using administrative data from the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), the world's largest workfare programme. Our first design is a regression discontinuity (RD) that exploits reservation rules creating discontinuities in the number of Scheduled Caste (SC) councillors while holding council size fixed. Crossing a threshold adds one SC councillor and leads to about 15 percent more MGNREGA workdays. Using over 10 million job cards linked to household asset data, we show that gains are concentrated among poor SC households but also extend to better-off non-SCs, suggesting that minority representatives expand coalitions strategically rather than along class lines. Effects are strongest in councils with an existing quorum of SC councillors, under SC heads, and later in the term. Our second design is an RD based on population thresholds that increase council size without altering composition. This shows no detectable effect on MGNREGA delivery. Taken together, our results show that who occupies local office matters more than how many, highlighting the importance of quota design for both representation and last-mile state capacity.

1 Introduction

Local governments across the world are typically headed by a a chief executive—mayor, chair, or president—yet decision-making power is distributed across the entire council. While a vast

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literature examines how the identity and incentives of the council head shape policy (Chattopadhyay and Duflo, 2004), far less attention has been paid to the causal effects of changing the council itself—its size and its social composition—on service delivery. Even less is known about how increasing minority representation compares with expanding representation per se. This paper studies how the size and composition of the local government council affects outcones.

Improving disadvantaged-minority representation in local government councils could plausibly cut either way. On the one hand, greater descriptive representation might heighten preference heterogeneity, increase veto points, and generate gridlock that depresses spending or slows execution. On the other, minority inclusion can sharpen information flows, reorient priorities toward underserved groups, and strengthen accountability, yielding more welfare-oriented policy and better outcomes for minorities and non-minorities alike. While some evidence of gridlock emerges from developed-country municipal councils (Beach and Jones, 2017), the trade-off may look different in developing contexts where historically excluded groups have had limited access to power, possess high demand for basic public goods, and may be more willing to bargain and compromise to secure delivery.

We study these questions in Bihar, one of India's poorest states, with historical weak state capacity and deep divisions along social – caste and gender – lines across individuals. Bihar's rural local government is administered by units called "Gram Panchayats" (GPs): the word Panchayat historically referred to a group of five (elders) who, as a council, handled village affairs. In its current form in Bihar, a GP has a directly elected head (locally called the "Mukhiya") and directly elected councillors called "Ward Members" (WMs). Typically, each GP has between 13-14 WMs and each GP head represents about 2500 households, where a WM represents about 225.

In this paper, we mainly focus on whether *adding one more minority councillor*—a Scheduled Caste (SC) WM—improves government performance. SCs are a historically disadvantaged group comprising roughly 18% of Bihar's population and comprise of formerly untouchable castes.

To understand the consequences of an additional SC WM, we turn to the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), a flagship, legally guaranteed, pro-poor work programme. MGNREGA is an ideal test case: (i) SC households typically exhibit higher demand for programme work than non-SCs; (ii) the scheme is implemented at GP level; and (iii) administrative data allow us to observe granular outcomes for total work provided across *all* working household, and separately for SCs and non-SCs.

Our empirical strategy exploits a transparent, pre-determined reservation rule that allocates SC-reserved ward seats within a GP council in proportion to the SC population share of the GP and the total number of wards in the GP. Because the number of reserved seats is the product of (total wards $\times$ SC share) rounded to the nearest integer, there are discontinuities at each X.5 threshold of that product. Crossing a threshold adds exactly one SC ward member while holding constant the GP's total council size and population. We implement a pooled regression-discontinuity design

across all thresholds, normalising scores, using optimal bandwidths, and controlling for smooth functions of the running variable and pre-treatment covariates. Balance tests and density checks support the design's identifying assumptions.

We find that adding one SC councillor substantially improves MGNREGA performance. Total person-days of employment rise meaningfully (15%), with benefits accruing to both SC (27% increase) and non-SC households (15% increase). The estimates are robust across bandwidth choices, kernel functions, and covariate sets, and to alternative functional forms and placebo checks. In short, adding an SC representative shifts the delivery frontier outward rather than merely reallocating a fixed pie.

We move on to test mechanisms. First, we rule out selection into office as an explanation for our results. Around the reservation thresholds, the pool of candidates and elected councillors is as-if drawn from the same underlying GP populations. Consistent with this, we find no discontinuities in observable candidate characteristics (age, schooling) or electoral competitiveness (number of candidates, margins). The pool of SC councillors in treated and control GPs look similar.

Next, we show that strength in numbers matters. The additional SC member is effective only when the council already has a minimum quorum of SC representation. Specifically, the treatment effect is negligible when the council has two or fewer SC councillors, but becomes large and precisely estimated once the council has at least three SC councillors (34% increase). This pattern is consistent with theories of critical mass and coalition formation: below a threshold, minority representatives function as tokens; above it, they can coordinate, share information, and bargain credibly within the council.

We then examine how effects vary with leadership. Ex ante, adding an SC councillor might matter more under a non-SC head if the marginal representative increases pressure on the executive, or more under an SC head if co-ethnic alignment reduces frictions and enables coordinated implementation. We find evidence supporting the latter: gains are markedly larger in GPs headed by an SC mukhiya (president) (35% increase). This is consistent with a vertical-coordination channel in which minority leaders leverage aligned councillors to navigate bureaucratic bottlenecks and to prioritise pro-poor worksites.[1]

We also find evidence of learning and electoral incentives. Programme delivery improves over time within a council term, with effects strengthening as elections approach. This dynamic is consistent with councillors learning the administrative routines required to open worksites and process payments, and with heightened effort as re-election incentives intensify. Together, the time pattern suggests that both capability accumulation and political accountability help translate descriptive representation into substantive delivery.

[1] In a sense, this finding mirrors that of (Kumar and Sharan, 2023) who find that SC WMs suffer when governing in a council headed by a non-SC mukhiya.

Why, then, do non-SCs benefit alongside SCs? One explanation could be a pure "class" story. SCs are poor and SC WMs, in solidarity with other poor in the GP, provide MGNREGA access to economically disadvantaged non-SCs. To understand if this is the case, we match a dataset of over 10 million MGNREGA job-cards with data on sub-caste level wealth drawn from the socioeconomic caste census (2011).[2] This allows us to ask the question: who, among the non-SCs, benefits?

We find no evidence of class solidarity driving our results: the largest non-SC gains accrue outside the poorest sub-castes among them. We instead argue for a strategic inclusion mechanism: councillors expand access broadly—including to non-SCs— because inclusive allocation lowers opposition within councils and communities, sustains political support, and, pragmatically, facilitates work allocation to their own constituencies and to themselves. In a context where non-SC actors can otherwise veto or slow projects, broadening the coalition can be instrumentally optimal for minority representatives. Moreover, in this context, it is the non-SC non-poor who is the median NREGA worker even in control GPs: expanding work to that group seems logical and in line with existing trends.

Finally, we benchmark composition against size. Using a second regression-discontinuity design that increases council size—by adding one ward member—without changing caste composition, we find no detectable impact on MGNREGA outcomes. This null contrasts sharply with the sizable gains from adding an SC councillor at fixed size. Taken together, the two designs show that who occupies local office matters more than how many do, at least for the delivery of a major pro-poor programme in this setting.

Overall, the evidence indicates that marginal increases in minority representation can enhance service delivery when they push councils past a quorum threshold and when leadership alignment eases vertical coordination. In the same institutional environment, commensurate increases in council size alone do not move delivery. These findings speak directly to the design of local representative bodies in diverse, low-income democracies, highlighting the centrality of council composition—rather than head identity alone or council size—in shaping state capacity at the last mile.

We add to the political–affirmative action literature that mostly studies quotas changing who occupies the head of government's post. Classic work shows sizable effects of reserving seats or offices for disadvantaged groups and women on policy priorities and distribution (e.g., Scheduled Caste/Tribe representation in legislatures; women leaders in GPs), but findings are mixed across settings and outcomes (poverty, targeting, leakage) (Chattopadhyay and Duflo, 2004; Chin and Prakash, 2011; Bardhan et al., 2010; Gulzar et al., 2020; Das et al., 2023; Afridi et al., 2017). Using data from Bihar, Kumar and Sharan find that an SC council head improves MGNREGS outcomes. We complement these studies by isolating the extensive-margin effects inside councils—how raising

[2]For every job-card, we identify the surname of the head of the household. From the SECC, we identify the asset wealth of every surname mapped to every GP. We match surnames within GP to understand the average asset wealth of any NREGA worker in the dataset.

the quorum of marginalized councillors (not just the head) shifts delivery—and by tracing spillovers to non-targeted groups.

We directly speak to the nascent literature on how the size and composition of local government councils affect outcomes. On composition, Beach and Jones show that ethnic diversity within local U.S. governments can increase gridlock in public-goods provision. On size, influential RD studies using population-linked council-size rules find that larger councils can reduce government size (Pettersson-Lidbom, 2012), while more recent quasi-experimental work in Italy also documents non-trivial fiscal effects around thresholds (De Benedetto, 2018); together these show that "how many" can matter but in ways that vary by context (institutions, rules, veto points). Smith studies composition of local councils in Pakistan and finds that marginally increasing the share of elected representatives worsens revenues and public good outcomes. Our paired designs—one that shifts composition at fixed size and benchmarks it against one that changes size at fixed composition — provide a rare within-setting benchmark of the two margins. We find that, in the same context, having more representation of marginalized members is better than increasing representation for the effectiveness of pro-poor schemes.

A third contribution is to the large body of work on strengthening India's employment guarantee. Prominent interventions emphasize state-capacity tech (biometric smartcards; e-governance and financial-management reforms) and show meaningful gains in payment speed, leakage, and accountability (Banerjee and Pande, 2007; Muralidharan et al., 2016; Jeong et al., 2021). By contrast, information/awareness-only approaches and social audit expansions (Dutta et al., 2014; Afridi and Iversen, 2014) often deliver modest or mixed effects on employment or leakage absent complementary administrative changes. We add a representational lever: boosting the presence of historically marginalized councillors measurably improves program delivery—even for non-targeted groups—inside the same state and administrative regime.

2 Context

2.1 Local Governance in Bihar

I study these questions in the context of village councils in India. The 73rd and 74th Constitutional Amendment Act 1993 provided for a considerable degree of political, administrative, and financial devolution to local governments in India. However, given the federal nature of India's polity, each state passed its own Act to devolve funds, functions and functionaries to local governments, resulting in considerable sub-national variation in the implementation of the constitutional provision (Chaudhary & Iyer). This paper focuses on the Indian state of Bihar. Bihar is India's fifth largest state with a population of 100 million but also the poorest with a per capita income of $730, which

is comparable to countries in Sub-Saharan Africa. [3] 7

The Bihar Panchayati Raj Act was enacted in 1993, but elections were not held until 2001 because of legal battles. Subsequently, with a change of state government in 2005, a new Bihar Panchayati Raj Act was passed in 2006, which remains in force to this day. This Act instituted a three-tier system of local government. At the lowest level, villages are grouped into administrative units called Gram Panchayats (village councils) – or village councils – with an average population of about 7000. Village councils are grouped into administrative blocks (sub-districts) and districts. There are 8,387 village councils, 534 blocks or sub-districts and 38 districts in Bihar. In this paper, we focus on the village council.

Structure and size of village councils (village councils): Village councils are elected bodies consisting of a head councillor and council members. The head councillor is elected directly by voters in the village council, which consist of all persons above the age of eighteen years and residing within the geographical boundaries. The area of the village council is divided into smaller constituencies called wards, each of which elects a council member (known as ward member). Council members usually represent a population of 500. In Bihar, the size of the village council varies from 6 to 23 members depending on the population of the council area, with the average council size of approximately 14.[4].

Elections for council head and members are held simultaneously using the first-past-the-post system. The elections are administered by the State Election Commission, an independent body constituted under the Act. Elections are held in a phased manner over a period of a few months. Every council has a term of five years unless dismissed earlier. Village councils can be dismissed by a no-confidence motion passed by a majority of voters or by the district-level bureaucracy under certain circumstances, like irregularities in financial matters. Under the new Act, elections have been held every five years since 2006.

Composition of village councils: Indian society is divided on the basis of caste, which is assigned at birth and is closely associated with one's socio-economic status. To ensure representativeness, the 2006 Act provides for political quotas in the form of reserved seats for historically marginalized communities – the schedule caste (SC), schedule tribes (ST), backward classes (BC) – in proportion of their population upto a maximum of fifty percent. Moreover, 50% seats are reserved for women across all categories. Reservation exists both for the position of the council head and its members.

The number of seats reserved for the SC and ST categories in each village council is proportional to the population in the council area and the total number of seats in the council. This creates variation in the composition of village councils even with similar populations. Given the close

[3] As per the State budget, per capita income of Bihar estimated to be Rs. 59,637 per annum at current prices in 2022-23. Converted to dollars using exchange rate of Rs. 82/$.

[4] State Election Commission Data

association of caste with occupation and social status, caste composition of the village councils can change preferences towards the provision of local public goods.

Role and financing of village councils: Under the 2006 Act, 79 functions across 20 development sectors have been devolved to village councils. Despite the power to levy taxes, village councils are unable to raise their own resources because the state government hasn't defined the rules for devolution of financial powers (CAG Report 2020). The share of own revenue for village councils in Bihar was less than 3% between 2015 – 2018. [5] Instead, village councils depend on grants from the state and national governments to carry out their functions. There are two types of grants: a.) Funds devolved from national and state government revenue share; b.) Funds allocated for implementation of national and state government programs.

Under the first type of grants, the funding formula is decided by the Central and State Finance Commission for a period of five years based on population size and area of the village councils. These grants are discretionary, and spending decisions are to be taken by the village council based on local needs. Across several states, the largest category of expenditure under these grants are community assets (28%), water and sanitation projects (22.5%) and roads and bridges (20.4%) (Centre for Policy Research 2019). Due to inadequate data on actual spending by village councils in Bihar we are unable to study these grants.

In this paper, we focus on the second category, funds allocated through national and state government programs. Here we focus on individual-level welfare programs implemented through local governments but funded by the state or central government such as the National Rural Employment Guarantee Program (MGNREGA). These programs constitute more than 50% of the funds allocated to village councils. Between 2016-2021, on average, $350,000 per village council was devolved from the national and state revenue share, while the allocation under the Employment Guarantee Program was $295,000 per village council.

The national and state-level programs also offer variation in the extent of funds and functions devolved to village council heads vis-à-vis council members. Given that the council heads represent a much larger population than its members, there exists an asymmetry in decision-making powers between these officers. The council head is responsible for financial and executive administration and funds from the national and state revenue share flow through the village council account operated by him/her. On the other hand, in case of welfare programs such as MGNREGA there are institutional mechanisms for a participatory approach to implementation. Council members have varying degree of discretionary power in the implementation of these welfare programs which they can exercise to affect decision-making of the village council. In the next section, I explain the role of different actors in implementation of welfare programs.

[5] https://www.india-seminar.com/2023/763/763-04%20Avani%20Kapur.htm

2.2 Main Outcome

National Rural Employment Guarantee Act: In 2005-06, the national rural works program - MGNREGA was launched with the aim to provide 100 days of unskilled employment to rural households. MGNREGA is one of India's largest social security programs, with an annual budget of $100 billion. A bottom-up approach to implementation was adopted with village councils required to execute development works decided by the village assembly (comprising all adult voting members). The works include building community assets such as water conservation structures, rural roads, irrigation facilities, work on private agricultural fields, afforestation projects, etc. This has led to a substantial increase in access to funds by village councils. [6]

Council members can influence efficient execution of MGNREGA by mobilizing their constituents to register for work, facilitating demand applications from households, advocating for works to be undertaken in their area, and providing project oversight – as well as conflict resolution over payment delays and work distribution in their ward areas. While this is a demand-driven scheme and payments are made directly to labourers, there is substantial evidence to show that village council heads, exercise influence over the selection and execution of projects.

3 Empirical Strategy & Data

3.1 Methodology

In Bihar there are 8,387 village councils with an average of 14 members per council, each representing 200-300 households. For each village council, the population-based rule for reservation gives rise to an exogenous cut-off which determines the number of seats reserved for council members belonging to SCs.

Our running variable is the product of the total number of members in the council and the proportion of SC population, rounded to the nearest whole number. Thus, for a village council i, the running variable is given by:

$$Running_i = TotalWardsCouncil_i * SCPopulationCouncil_i \tag{1}$$

The number of SC seats in the council is determined by rounding off to the nearest integer. This results in a sharp discontinuity at each X.5. Figure 1 illustrates the discontinuous change in seats reserved for SCs in a village council as a function of the running variable (total members × SC

[6] Average village council received $300,000 under MGNREGA over five years, almost equivalent to resources devolved from the revenue share.

population proportion).

Following Cattaneo et al. (2014), we implement a pooled regression discontinuity (RD) design with covariates. Our main specification estimates a local linear regression around the treatment threshold using a triangular kernel and the mean square error–optimal bandwidth. We control flexibly for the running variable and include pre-treatment covariates — such as the total number of wards and the SC population share — on both sides of the cutoff.

The key identifying assumption is that all other council characteristics evolve smoothly at the threshold. Under this continuity assumption, the RD estimates capture the causal effect of gaining an additional SC council member.

Threats to validity: One threat to validity is if the reservation rule changes anything beyond the identity of representatives around the RD cutoff. Table 1 shows balance for a host of pre-treatment variables, including the population size, total number of wards and SC population at the village council level. All covariates are balanced around the cutoff.

Another threat to validity arises if village councils can strategically sort around the cut-off. The key assumption in RDD is that the units are as-if randomly assigned on either side of the cutoff, meaning there should be no systematic manipulation of the running variable. This is highly unlikely given that the delimitation of wards and the assignment of reserved seats is done by an independent body, the State Election Commission, using the population census data. We test for continuity of density of the running variable using the parameter-free method suggested by Cattaneo, Janson and Ma (2015). These results are presented in the Appendix. In all cases, we fail to reject the null hypothesis that density differs at the cutoff and thus provide no evidence of manipulation.

3.2 Data

We collate data from multiple sources. First, from the state election commission in Bihar we collect data on the number of wards per village council, reserved and unreserved wards and information on the allocation rule. We have data on 6,887 village councils out of 8,387 (82%). We use data on village council and SC population from Census 1991, which was used for delimitation of wards and village councils in Bihar.

For MGNREGA the main outcome variable is the total person days of employment generated per year in a village council. To understand distributional effects, we also use data on person days generated for SC households and non-SC households. The data is collated from village council reports for the state of Bihar downloaded from the official government website [7]. The outcome variables are averaged for the term of the village councils from 2016-2020.

[7] https://nrega.nic.in

To examine heterogeneity by class within the caste sub-groups, we construct a novel dataset of 10 million MGNREGA jobcards from Bihar covering the period 2017–2024. Using the Socio-Economic Caste Census (SECC), we generate a normalized poverty score for each jati (proxied by the householdhead's surname) within a village council, based on six household assets: land ownership, roof type, wall type, number of rooms, phone ownership, and vehicle ownership. This is based on a dataset of nearly 20 million households.

We then match these SECC-based poverty scores to a dataset of over 10 million MGNREGA job cards. For each job-card, we identify the surname and then match to the SECC within each council. Thus, we have, for any surname, the asset wealth of that surname in a given council. This procedure successfully links 67% of all jobcard holders in our data.

The data on covariates are compiled from two official government sources – the Census 2011 and the Socio-economic Caste Census 2011.

Summary statistics are provided in the Appendix.

4 Results: Additional SC Councillor

4.1 MGNREGA workdays

We study the main outcome of interest, workdays generated under MGNREGA, over 2016–2020.

Table 2 reports the causal effect of one additional SC ward member in our preferred pooled RD. In column (1), total MGNREGA workdays increase by about 2,042 person-days, which is roughly 15% relative to a typical GP in our bandwidth (median within-bandwidth baseline = 13,292).

Columns (2)–(3) show gains for both SC and non-SC households. For SC households, workdays rise by about 446, or ∼27% relative to the within-bandwidth median baseline of 1,600. For non-SCs, workdays rise by about 1,647, or ∼15% relative to 11,030. Thus, the absolute increase is larger for non-SCs (given their higher baseline level), while the *proportional* increase is larger for SCs.

The results are robust across kernels, bandwidths, and polynomial orders; Appendix tables show stability to progressively adding covariates and to alternative functional forms. We also verify continuity in pre-treatment GP covariates across thresholds and find no evidence of bunching in the running variable using the Cattaneo–Jansson–Ma density test; estimates remain significant at conventional levels.

4.2 Potential mechanisms

Political selection. We test whether effects reflect changes in the candidate pool. Table A5 shows no discontinuities in observable characteristics of SC councillors (age, schooling) or in electoral competitiveness (number of candidates, margin of victory) around the reservation thresholds. We therefore find no evidence consistent with selection driving the results.

Minimum quorum of SC councillors. We next ask whether effectiveness depends on relative representation within the council. Table A6 indicates clear "strength in numbers": the additional SC councillor has no detectable effect in councils with 0–2 SC councillors, but a large and precisely estimated effect when the council has ≥ 3 SC councillors. This is consistent with critical-mass and coalition-formation mechanisms in which tokens have limited bargaining power below a threshold.

Caste of the council head. We examine heterogeneity by the caste of the *mukhiya* (council head). Table 5 shows markedly larger gains in GPs headed by an SC mukhiya. While SC workdays increase under both SC and non-SC heads, the total effect is substantially larger under SC leadership, consistent with a vertical-coordination channel in which aligned leadership reduces frictions and facilitates execution. We interpret this heterogeneity descriptively (head caste is not directly manipulated in this design).

Evolution over a term. Finally, we study dynamics within the council term. Table 6 shows that effects grow over time, peaking in the penultimate year (2019), consistent with learning-by-doing and rising electoral incentives. The 2020 estimates coincide with the COVID-19 shock; the strengthening in 2019 suggests the pattern is not solely pandemic-driven.

4.3 Who Among the non-SCs benefit?

We find that an additional SC member not only benefits their own type but non-SCs also benefit from increased MGNREGA workdays. This raises the question of why non-SCs benefit?

One hypothesis is that SCs build solidarity with other non-SC poor to open worksites and generate employment under MGNREGA. In order to test for this, we disaggregate the results by caste and class to understand which groups within each caste group.

As explained in the Data Section, we use surnames to construct jati-level poverty scores in each village council using the SECC data. We then turn match over 10 million job-cards to the surname data and disaggregate the workdays under MGNREGA by poverty status for the two caste sub-groups - SC and Non-SC. We find that MGNREGA workdays increases for SC poor and non-SC rich (Table 7). There is no impact on workdays generated for non-SC poor.

One explanation is the need for strategic behaviour on part of SC leaders. Previous studies suggest that MGNREGA is captured by local elite and in order to expand employment, SC leaders may need to work with village elites to ensure scheme implementation.

5 Results: Additional Councillor

We compare these results with another natural experiment which allows us to estimate the impact of an additional council member (irrespective of their identity) on MGNREGA outcomes.

In Bihar, the total number of council members (or wards) is a discontinuous function of the total population of the council area. The number of members per village council is equal to the population of the council divided by 500 and rounded to the nearest integer. Our running variable here is the total population (based on the 1991 census) of the village council area.

$$Running_i = Totalpopulation_i/500 \tag{2}$$

Figure 2 shows the abrupt change in the number of members within a village council for the normalized population score. While the sorting is not perfect, the discontinuous change in number is used to estimate the casual effect of a change in council size resulting from an additional member by comparing outcomes in village councils just below and above the cut-off using an fuzzy RD design controlling for village level covariates.

The balance table is shown in the appendix. All covariates are balanced.

Main result: We find no effect of the additional council member on average person-days generated under MGNREGA between 2016-2020 Table 8.

6 Discussion

Most empirical work on affirmative action at the local level studies whether the leadership post is reserved and its consequences on outcomes. Our study differs in that it moves towards the *extensive margin* of representation—altering the quorum of Scheduled Caste (SC) councillors while holding overall council size and programme rules fixed. This is especially relevant in the Indian context, where village government was always meant to be a government run by consensus and collaboration (the word "Panchayat" refers to a group of five prominent leaders). Even beyond India, local governments are typically led by a council of members - thus the findings of this study are applicable widely.

The results from our study are most naturally read as a form of organisational solidarity rather than a simple distributive realignment. Effectiveness of increased representation of SCs appears to require a *minimum quorum* of co-partisans by social identity, which is consistent with tokenism below a threshold and coordinated action above it. The finding that MGNREGA delivery strengthens over the term also suggests scope for cooperation in learning-by-doing.

In addition, alignment at the top (an SC *mukhiya*) seems to ease vertical coordination with the administration. This piece of evidence is consisten with (Kumar and Sharan, 2023), who find that *mukhiyas* could hold up projects planned by WMs. Moreover, caste-matching between the WMs and the *mukhiya* improves outcomes, especially for SC WMs.

At the same time, this is not straightforwardly a class-solidarity account. Our analaysis of over 10 million job-cards suggests that gains from an additional SC WM do accrue to the SC poor, but not to the poor among non-SCs. This suggests that the expansion of work to the non-poor among non-SCs is, at least in part, strategic: widening access beyond one's own group can lower opposition and stabilise coalitions that are necessary for implementation. The non-SC non-poor form the largest pool of workers under the NREGA in this context[8] and it only makes sense to take them along while expanding workfare to the SC poor.

7 Conclusion

This paper brings the council back to the centre of local governance by contrasting composition with size in a single setting. Using population-rule discontinuities in Bihar, we study an increase in the quorum of marginalised councillors at fixed council size and compare it with an increase in council size at fixed composition. In this context, the former is associated with improved delivery under a large, pro-poor programme, especially where representation passes a minimal threshold,

[8] In comparison to SC poor, SC non-poor and non-SC poor.

leadership is aligned, and time in office allows routines to be learned; the latter yields little evidence of change.

The policy implications of the study are as follows: if the goal is to strengthen last-mile implementation, quotas should be designed to avoid tokenism and to create workable coalitions. In practical terms, this points to (i) calibrating the distribution of reserved ward seats so that typical councils reach a critical mass rather than isolated representation; (ii) sequencing or coordinating leadership reservations with ward reservations over cycles to facilitate vertical alignment; and (iii) supporting on-the-job capability building that allows councillors to learn administrative routines together. By contrast, reforms that adjust council size without altering composition may, in similar environments, have limited purchase on service delivery.

Two caveats are worth underscoring. First, identification is local to councils near reservation thresholds; extrapolation to other states or programmes warrants care. Secondly, heterogeneity by head's caste is descriptive in our setting, and the jati–poverty mapping, while granular, is measured with error. Future work that experimentally varies committee composition or leadership alignment, and that exploits administrative process data on bargaining and oversight, would further clarify mechanisms.

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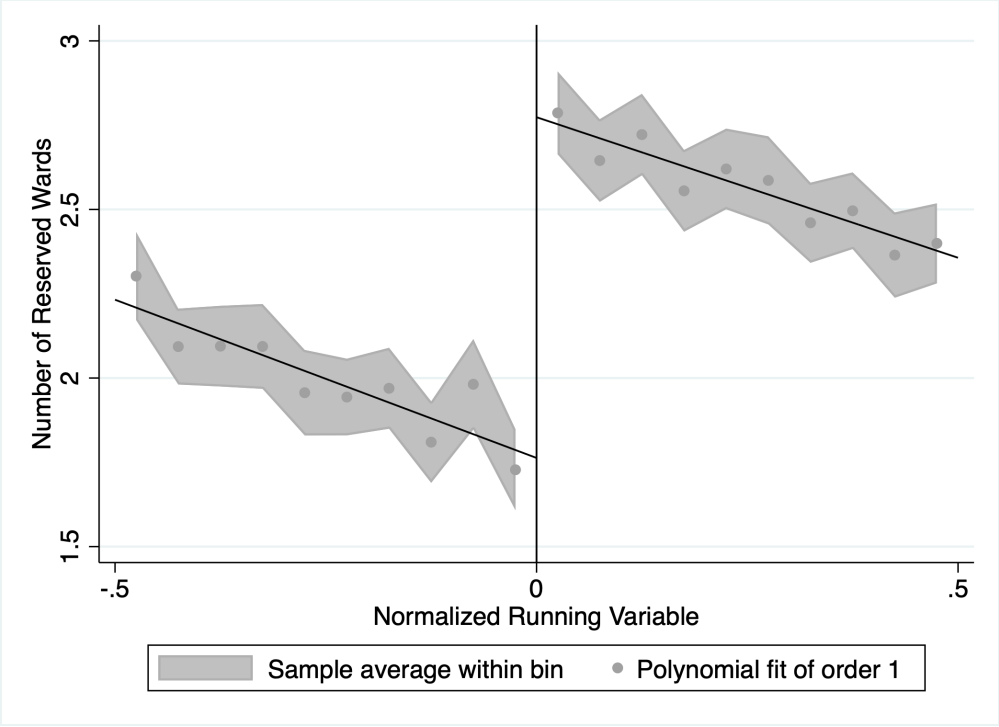

Figure 1: First Stage plot shows the discontinuous change in number of SC ward members in the village council as a function of the normalized running variable.

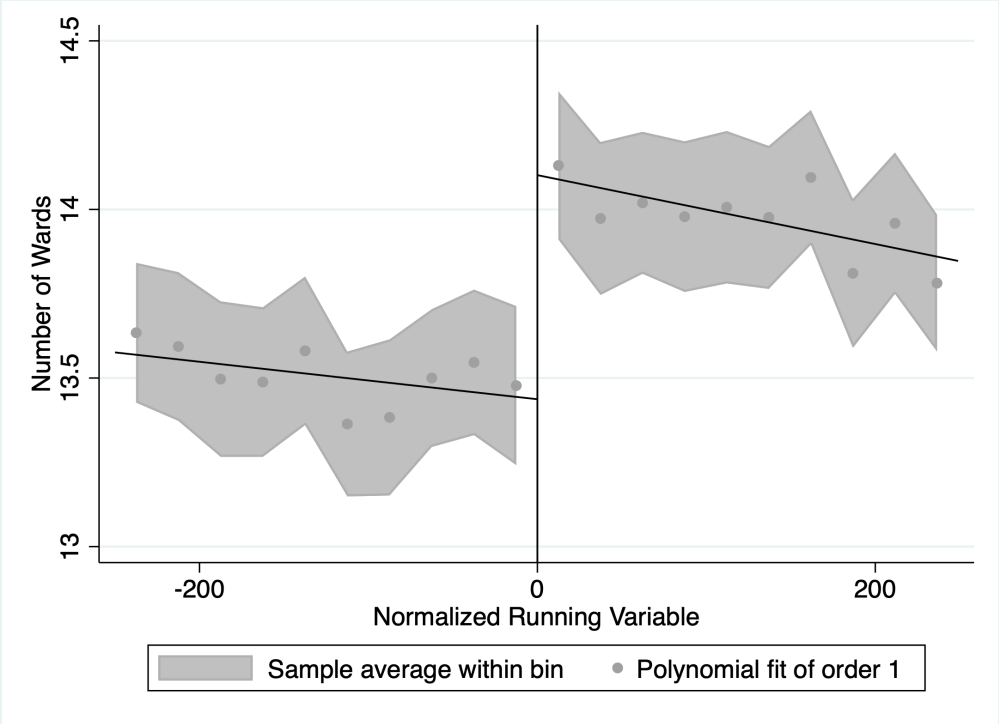

Figure 2: First Stage plot shows the discontinuous change in number of wards in the village council as a function of the normalized running variable.

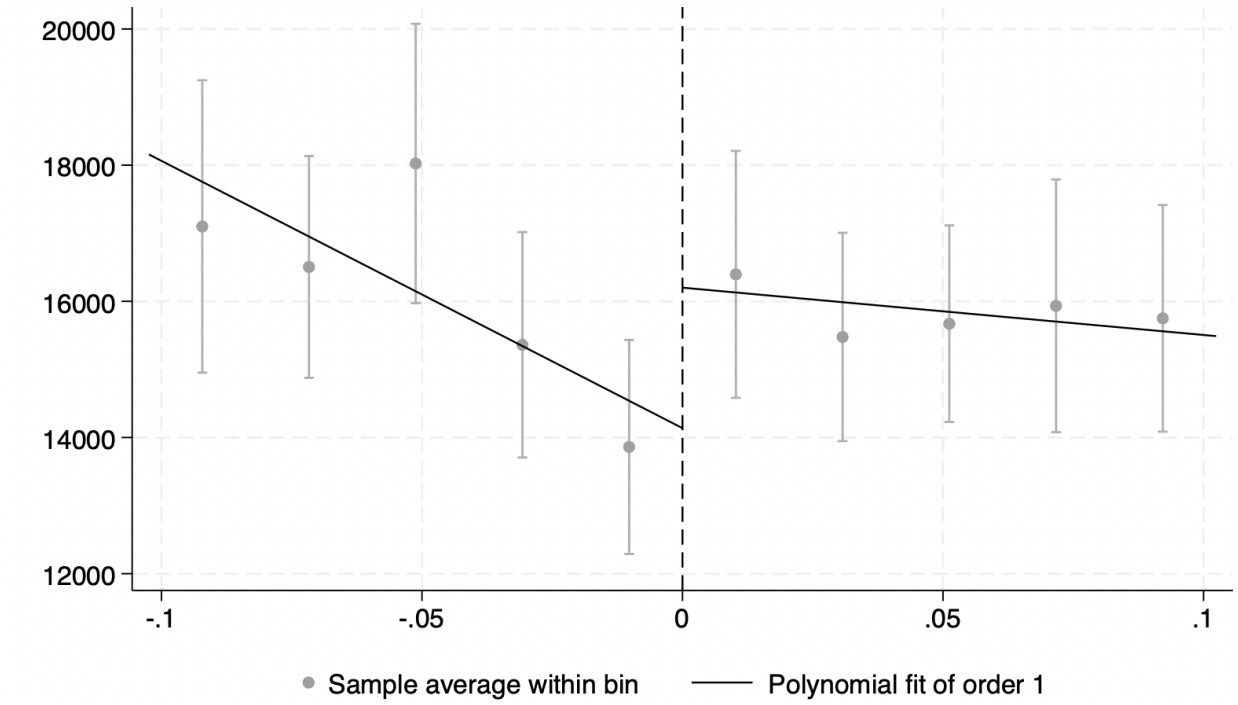

Figure 3: Pooled impact of additional SC member on workdays MGNREGA (Triangular Kernel, Linear)

Table 1: Balance Table for Additional SC WM

	Treatment Mean	Control Mean	Difference	P-value
SC Population Proportion	.17	.16	.01	.574
SC population	1804.01	1732.51	71.49	.529
Total Wards	13.45	13.56	-.11	.677
Total Population	10985.63	10986.95	-1.32	.996
Nearest Town	20.67	21.76	-1.09	.39
Nearest District HQ	31.37	31.83	-.47	.789
Total Area	1269.16	1120.45	148.71	.16
Total Villages	5.37	5.8	-.43	.361

Table presents results from a series of balance tests for village council-level variables across population-based cutoffs. We operationalize the tests by running a pooled RD with each covariate as the outcome on the running variable.

Table 2: Impact of additional SC member on MGNREGA workdays

	(1) **Total**	(2) **SC**	(3) **Non-SC**
Additional SC	2042.059**	446.416**	1646.564*
	(1029.787)	(213.591)	(892.504)
Controls	Yes	Yes	Yes
N (within BW)	1503	1508	1534
BW	0.10	0.10	0.10
Median (BW)	13292	1600	11030

Notes: Standard errors in parenthesis. We use CCT triangular bandwidths and estimate sharp RD specification. Outcome is the mean of workdays from 2016-2020 as per MGNREGA reports. We control for village council-level covariates including total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: Impact of additional SC member on characteristics of SC WMs

	(1) **Age**	(2) **Years of Edu**	(3) **SC candidates**	(4) **Margin of Victory**
Additional SC	-0.266	-0.445	-0.115	3.170
	(0.761)	(0.296)	(0.085)	(1.958)
Controls	Yes	Yes	Yes	Yes
N (within BW)	2020	1581	2491	1684
BW	0.16	0.13	0.20	0.14
Median (BW)	39	4	3	26

Notes: Standard errors in parenthesis. We use CCT Triangular kernel and estimate sharp RD specification. Estimate Other covariates include total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table 4: Impact of additional SC member on MGNREGA workdays by Number of SC Wards

	(1) **Total**	(2) **SC**	(3) **Non-SC**	(4) **Men**	(5) **Women**
2 or Less	707.545	317.280	631.681	763.395	65.014
	(1700.918)	(276.262)	(1498.376)	(825.277)	(908.690)
More than 2	6813.713***	1491.882**	5463.760***	3224.290***	4015.361***
	(2411.721)	(624.676)	(2117.289)	(1199.509)	(1370.236)
Controls	Yes	Yes	Yes	Yes	Yes
N (2 or less)	1130	1268	1157	1193	1118
N (More 2)	526	602	529	451	606
BW (2 or less)	0.12	0.14	0.12	0.13	0.12
BW (More 2)	0.09	0.10	0.09	0.07	0.10
Median (2 or less)	13657	1617	11235	6138	7171
Median (More 2)	13215	1591	10985	6005	7143

Notes: Standard errors in parenthesis. We use CCT Triangular kernel and estimate sharp RD specification. Estimate Other covariates include total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table 5: Impact of additional SC member on MGNREGA workdays by SC Mukhiya

	(1) **Total**	(2) **SC**	(3) **Non-SC**	(4) **Men**	(5) **Women**
Non-SC Mukhiya	1570.075	617.282*	990.275	960.043	850.101
	(1569.071)	(330.375)	(1311.207)	(789.166)	(829.095)
SC Mukhiya	7478.246***	1410.122*	8033.687***	2489.017*	5250.772***
	(2847.216)	(759.659)	(2990.004)	(1354.064)	(1766.399)
Controls	Yes	Yes	Yes	Yes	Yes
N (Non-SC)	1408	1270	1437	1424	1452
N (SC)	383	326	315	459	377
BW (non-SC)	0.11	0.10	0.11	0.11	0.12
BW (SC)	0.15	0.13	0.12	0.18	0.14
Median (non-SC)	13513	1600	11154	6132	7184
Median (SC)	13532	1618	11216	6132	7155

Notes: Standard errors in parenthesis. We use CCT Triangular kernel and estimate sharp RD specification. Estimate Other covariates include total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table 6: Impact of additional SC member on MGNREGA workdays by Year

	(1) **Total (2016)**	(2) **Total (2017)**	(3) **Total (2018)**	(4) **Total (2019)**	(5) **Total (2020)**
Additional SC	253.955	1163.662	1993.684*	1891.779	3839.991**
	(707.378)	(822.957)	(1046.413)	(1194.911)	(1566.230)
Controls	Yes	Yes	Yes	Yes	Yes
N (within BW)	2040	1389	1528	1776	1461
BW	0.13	0.09	0.10	0.12	0.10
Median (BW)	7453	7500	10265	13028	21035

Notes: Standard errors in parenthesis. We use CCT Triangular kernel and estimate sharp RD specification. Estimate Other covariates include total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table 7: Impact of additional SC member on MGNREGA workdays by Caste-Class

	(1) **SC Poor**	(2) **SC Non-Poor**	(3) **Non-SC Poor**	(4) **Non-SC Non-Poor**
Additional SC	1309.554**	-64.550	1059.435	5616.795***
	(665.387)	(241.273)	(1101.208)	(2076.653)
Controls	Yes	Yes	Yes	Yes
N (within BW)	1437	2367	1583	2024
BW	0.11	0.18	0.12	0.16
Median (BW)	1942	149	6703	15126

Notes: Standard errors in parenthesis. SC Poor is SC belonging to Q1 & Q2 poverty quintile; SC Non-poor is SC belonging to Q3-Q5 poverty quintile; Non-SC poor is Non-SC belonging to Q1 & Q2; Non-SC Non-poor is Non-SC belonging Q3-Q5. We use CCT Triangular kernel and estimate sharp RD specification. Estimate Other covariates include total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Impact of Additional Ward Member on workdays under MGNREGA

	(1) **Total**	(2) **SC**	(3) **Non-SC**
Additional Council Member	238	-548	1,643
	(2,773)	(688)	(2,450)
Controls	Yes	Yes	Yes
BW	82.93	77.79	75.48
N (within BW)	2043	1906	1866
Control Median (BW)	13645	1831	11204

Notes: Standard errors in parenthesis. We use CCT triangular bandwidths and estimate fuzzy RD specification. Outcome is the mean of workdays from 2016-2020 as per MGNREGA reports. We control for village council-level covariates including sc population, sc population proportion, distance to headquarters, total area, number of villages. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

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Appendix

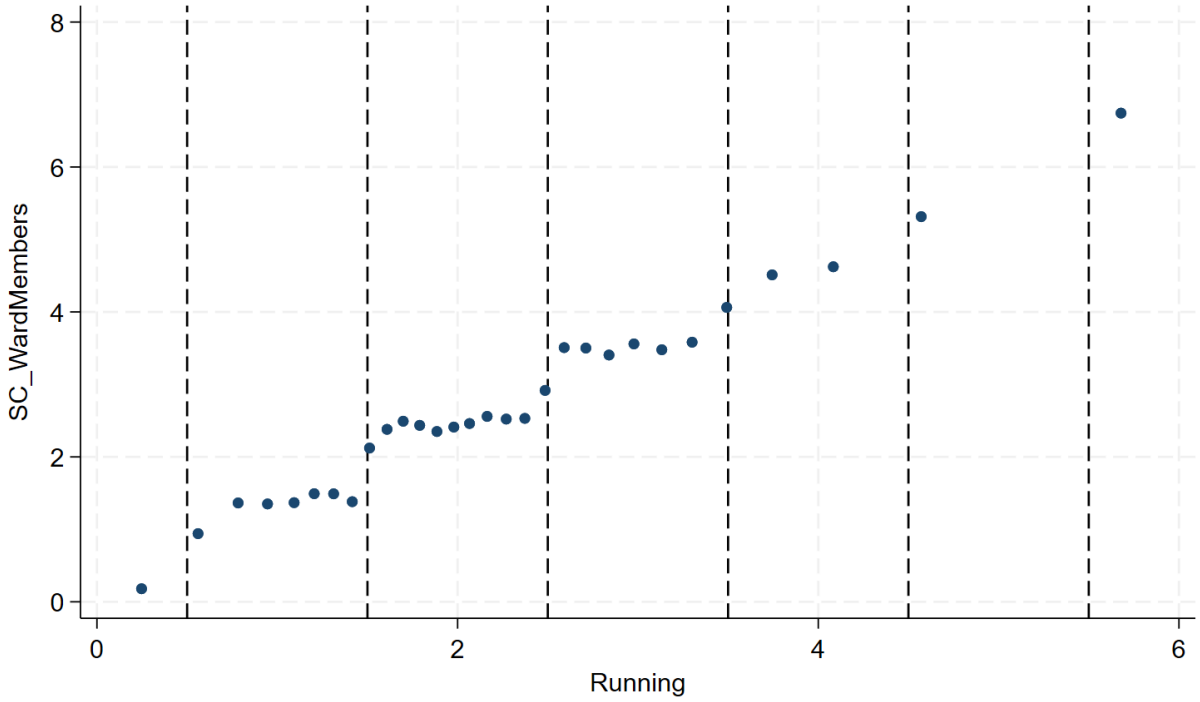


Figure A1: Plots the number of SC ward members in a village council as a function of the running variable, which is the product of total members in the village council and SC population proportion.

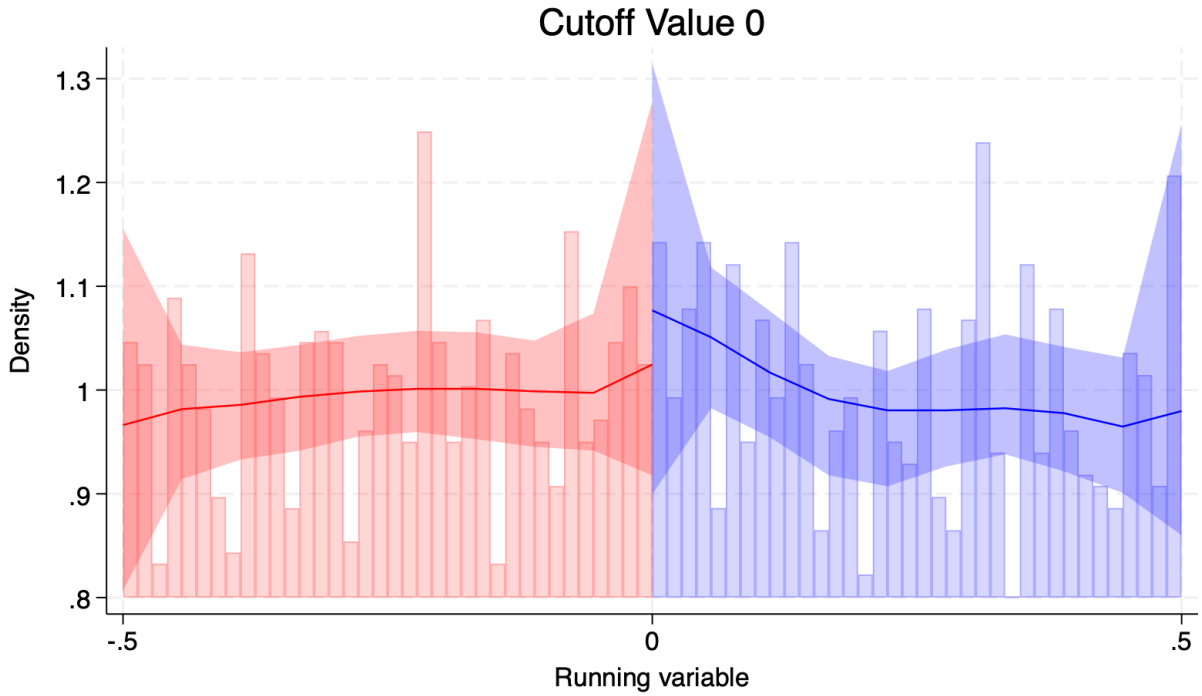
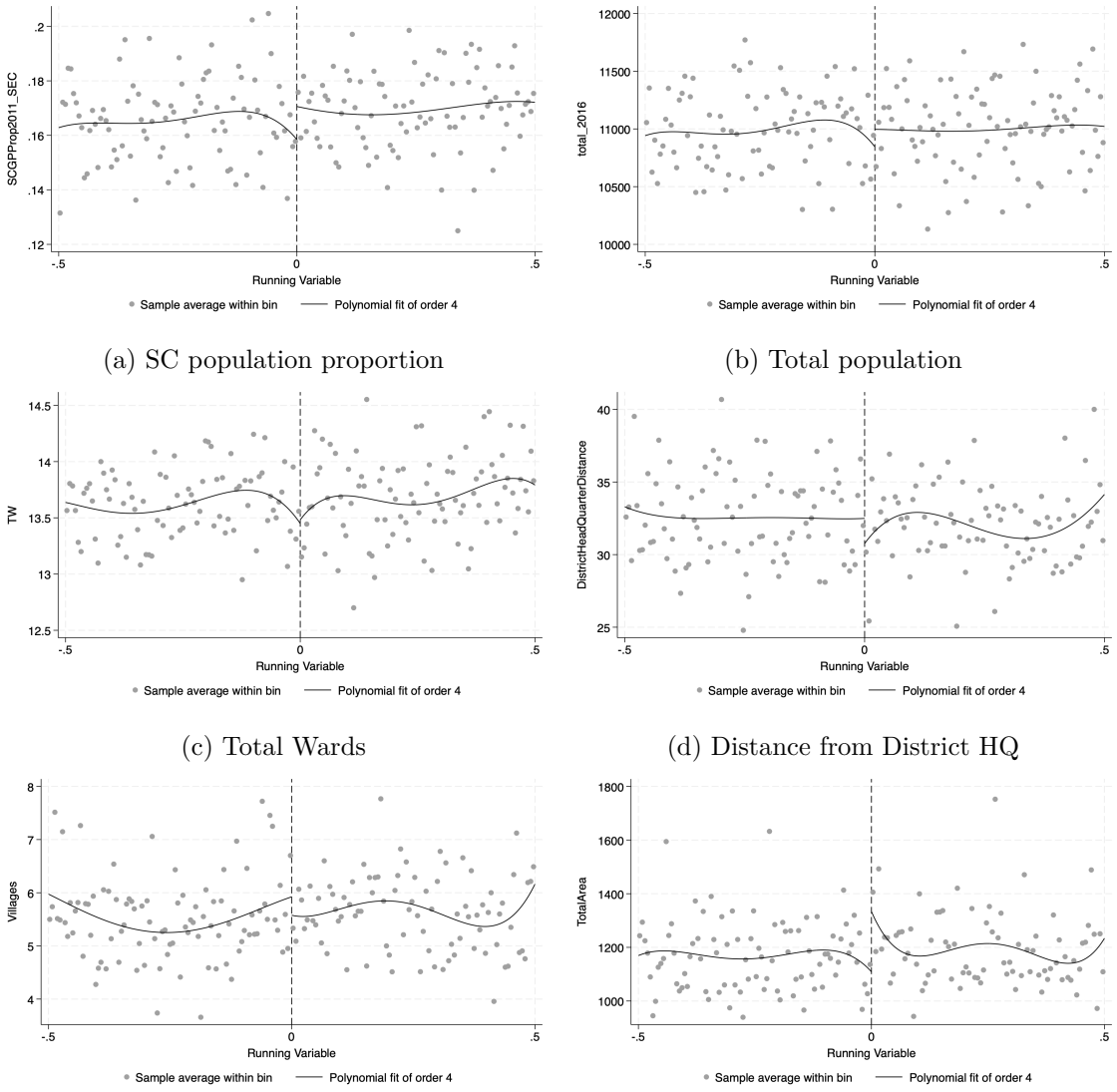


Figure A2: Density plot of the running variable for additional SC member at cutoff value.



(a) SC population proportion

(b) Total population

(c) Total Wards

(d) Distance from District HQ

(e) Total Villages

(f) Total Council Area

Figure A3: Results of RD regression with covariates as outcomes for additional SC council member

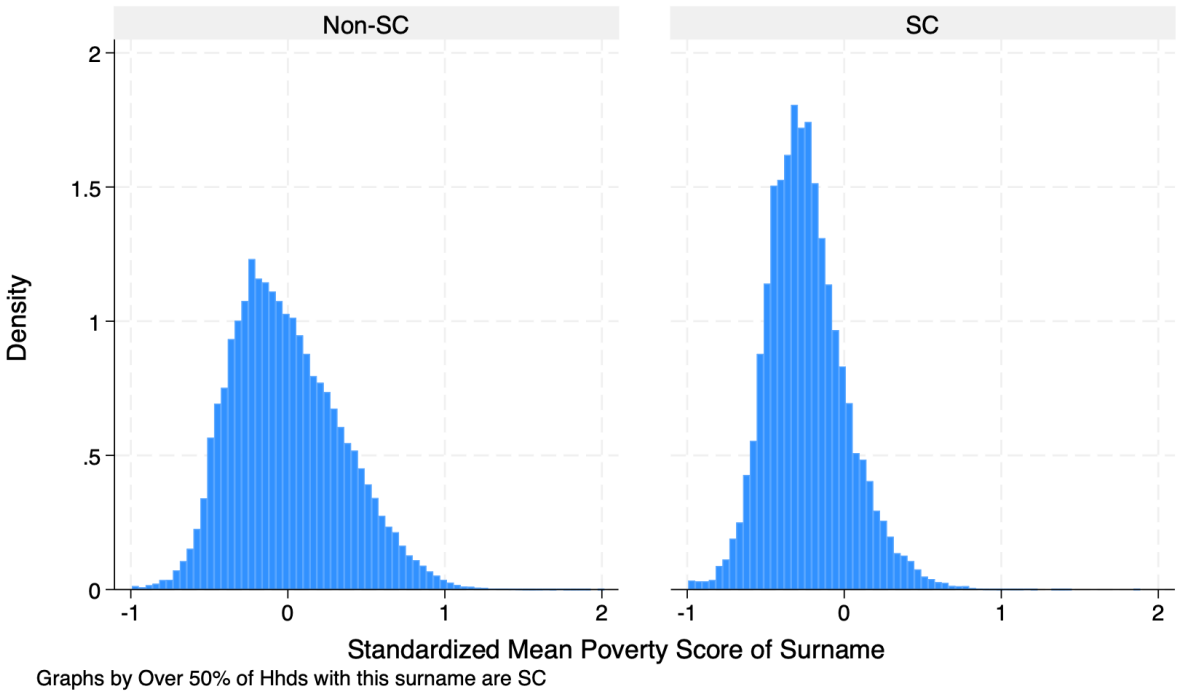


Figure A4: Distribution of the normalised poverty score by caste group

Table A1: Summary Statistics

	Mean	Std.	Min	Max	Count
GP Population	6844	1082	3500	9992	6887
No. of Wards	14	2	5	22	6427
No. of SC Wards	2	1	0	8	7541
Average person-days	16244	10822	110	83128	7535
Average SC person-days	2659	2992	0	54488	7536
Average Non-SC person-days	13607	9414	110	72417	7535
Total person-days (2016)	9685	8515	1	84637	7529
Total person-days (2017)	9951	8755	0	76118	7530
Total person-days (2018)	13617	11340	0	90137	7530
Total person-days (2019)	16772	12934	0	92546	7510
Total person-days (2020)	24340	15419	0	95579	7468

All variables are summarised at the Village Council level.

Table A2: Continuity Test for Pre-treatment covariates

	RD est.	P-value	BW	Effective Obs
SC Population Proportion	.009	.309	.158	2175
SC population	162.102	.183	.132	1843
Total Wards	-.021	.939	.142	1972
Total Population	133.077	.591	.162	2230
Nearest Town	-2.307	.129	.136	1874
Nearest District HQ	-1.35	.528	.158	2167
Total Area	215.973	.072	.146	2017
Total Villages	-.51	.276	.208	2826

Table presents results from single cutoff RD regression with covariates as the outcome. We operationalize the tests in the following manner: we run a pooled RD on each covariate.

Table A3: Pooled impact of additional SC member on workdays under NREGA (No Controls)

	(1) **Total**	(2) **SC**	(3) **Non-SC**
Additional SC	2196.481**	573.778**	1558.816*
	(1076.251)	(260.724)	(920.535)
Controls	No	No	No
N (within BW)	1501	1472	1590
BW	0.10	0.10	0.10
Median (BW)	13310	1587	11023

Notes: Standard errors in parenthesis. We use CCT triangular bandwidths and estimate sharp RD specification. Outcome is the mean of workdays from 2017-2020 as per NREGA reports. No controls added. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table A4: Pooled impact of additional SC member on on workdays under NREGA (With Spline function)

	(1) **Total**	(2) **SC**	(3) **Non-SC**
Additional SC	2140.715**	478.048**	1764.311*
	(1057.347)	(215.788)	(928.991)
Controls	Yes	Yes	Yes
Knots	6	6	6
N (within BW)	1417	1462	1413
BW	0.09	0.10	0.09
Median (BW)	13242	1591	11014

Notes: Standard errors in parenthesis. We use CCT triangular bandwidths and estimate sharp RD specification. We control for spline function with 6 knots for each cutoff. Outcome is the mean of workdays from 2017-2020 as per NREGA reports. Other covariates include total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table A5: Pooled impact of additional SC member on on workdays under NREGA (Uniform Kernel)

	(1) **Total**	(2) **SC**	(3) **Non-SC**
Additional SC	1809.679*	248.861	1427.641*
	(976.998)	(200.126)	(847.617)
Controls	Yes	Yes	Yes
N (within BW)	1429	1524	1437
BW	0.09	0.10	0.09
Median (BW)	13233	1600	10989

Notes: Standard errors in parenthesis. We use uniform kernel function and estimate sharp RD specification. Outcome is the mean of workdays from 2017-2020 as per NREGA reports. Other covariates include total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A6: Pooled impact of additional SC member on on workdays under NREGA (Epan Kernel)

	(1) **Total**	(2) **SC**	(3) **Non-SC**
Additional SC	1980.011*	397.009*	1585.608*
	(1025.955)	(210.440)	(885.175)
Controls	Yes	Yes	Yes
N (within BW)	1431	1488	1463
BW	0.09	0.10	0.10
Median (BW)	13233	1591	11009

Notes: Standard errors in parenthesis. We use epanechnikov kernel function and estimate sharp RD specification. Outcome is the mean of workdays from 2017-2020 as per NREGA reports. Estimate Other covariates include total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A7: Pooled impact of additional SC member on workdays under MGNREGA by Poverty Quintile

	(1) **Poorest**	(2) **Q2**	(3) **Middle**	(4) **Q4**	(5) **Richest**
Additional SC	718.378	1353.252	1878.241**	2100.786**	392.634
	(665.704)	(897.593)	(881.355)	(1058.107)	(626.618)
Controls	Yes	Yes	Yes	Yes	Yes
N (within BW)	1791	1644	2053	1911	1550
BW	0.14	0.13	0.16	0.15	0.12
Median (BW)	4273	4994	4556	4134	2148

Notes: Standard errors in parenthesis. We use CCT Triangular kernel and estimate sharp RD specification. Outcome is mean workdays for 2017-2021 from raw data. Estimate Other covariates include total number of wards, SC population, total population, distance to headquarters, total area, number of villages. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A8: Balance Tables for additional council member RD

	Treatment Mean	Control Mean	Difference	P-value
SC Population Proportion	.18	.18	0	.81
SC population	2053.79	1948.72	160.35	.36
Nearest Town	20.46	21.78	-2.04	.37
Nearest District HQ	32.84	32.97	-.18	.96
Total Area	1150.98	1167.41	-25.24	.84
Total Villages	5.83	5.67	.21	.81

Notes: Table presents results from a series of balance tests for village council-level variables across population-based cutoffs. We operationalize the tests by running a pooled RD with each covariate as the outcome on the running variable.