

The Added Value of Local Democracy

Evidence from a Natural Experiment in India

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Abstract

Governments across the world have increasingly devolved powers to locally elected leaders. This paper studies the consequences of local democracy, exploiting a natural experiment in Karnataka, India. Local elections were postponed in 2020, resulting in appointed administrators taking over governance in villages whose elected leaders completed their terms that year. This created quasi-random variation in the governance regime across villages. The paper brings together a rich set of administrative datasets—budgetary allocations from the universe of 6,000 villages, more than a million public works projects, local bureaucratic attendance, welfare benefits, and a primary survey of more than 11,810

households—to estimate the impacts of local democracy. The findings show that local democracy aligns spending more closely with citizen preferences, but these gains accrue more to men, upper castes, and other advantaged social groups. Elected leaders are more responsive to citizen needs and cause local bureaucrats to exert more effort. However, appointed administrators perform better on aspects of governance that are aligned with their specialized skills. Local democracy improves governance in some domains, but it has no overall impact on economic outcomes or effectiveness of COVID-19 management.

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The Added Value of Local Democracy: Evidence from a Natural Experiment in India*

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1 Introduction

Since the beginning of the 21st century, there has been a noticeable movement toward local democracy where elected officials worldwide, especially in developing nations, are assuming more significant roles in local administration (Mookherjee et al., 2015). Estimating the effect of local democracy is challenging due to the frequent co-occurrence of democratisation and decentralisation, which makes it difficult to attribute impacts solely to the former. Additionally, the adoption of local democratic institutions typically occurs simultaneously everywhere and is not gradually phased in across jurisdictions. Thus, to find exogenous variation in local democratic rule, measure its impact on outcomes, and identify mechanisms that drive these results is a formidable task.

In theory, the impact of local democracy is not straightforward as both elected leaders and appointed administrators have their advantages and disadvantages. Locally elected leaders may have better information regarding citizen preferences when compared to appointed administrators, who may not always come from the region (Martinez-Bravo et al. (2017); Liaqat (2020)). Moreover, re-election incentives, entirely absent in the case of appointed administrators, serve as a disciplining mechanism for elected leaders (Ferejohn (1986); Myerson (1993); Finan and Mazzocco (2021)). On the other hand, there are at least three reasons the literature advises caution regarding the efficacy of elected leaders: first, they may be more prone to clientelism and elite capture (Anderson et al. (2015); Bardhan and Mookherjee (2000); Besley et al. (2012); León and Wantchekon (2019)). Second, the skills required to win elections may not be the same as those required to govern. Appointed administrators, often career bureaucrats, may come with a skill-set more suited to governing. Finally, elected leaders are only accountable to their own jurisdictions whereas appointed administrators are answerable to their superiors. This incentivises the latter to internalise cross-jurisdictional spillovers, which may be significant where policies have externalities. In this paper, we evaluate the overall impacts of local democracy and test for all the five mechanisms delineated above using a combination of administrative and survey data.

We study the effects of local democracy by exploiting a unique natural experiment in Karnataka, India. Karnataka’s villages, like most of the rest of India, comprise of villages governed by a village council or Gram Panchayat (GP).¹ For historical reasons, some GPs in Karnataka have followed slightly different electoral cycles since the 1990s. These reasons were, as we show, orthogonal to outcomes in GPs today. We call these GPs “off-cycle” GPs.

In 2020, when the pandemic hit, local elections were suspended. The state govern-

¹Karnataka’s GPs have a parliamentary system of government with an elected council led by a President, called the “adhyaksha”.

ment followed Karnataka state law and appointed relatively senior bureaucrats to govern villages where the elected council had completed its term.² Appointed administrators took over in June 2020 and governed till the end of the year, when elections were held. Meanwhile, in the “off-cycle” GPs, whose electoral terms were still in progress (because their regular cycles ended in other years), the democratically-elected leaders continued to govern villages as usual. This gave rise to a situation where some villages were governed by elected officials and others by appointed administrators.

Administrator take-overs occur by state law, across tiers of local government structures, and at regular intervals even in non-COVID times (RDPR (1993)).³ For instance, in 2021 (the following year), administrators took over governance of 101 off-cycle GPs until elections were conducted.

In Karnataka’s rural government system, all villages are assigned a PDO - a Panchayat Development Officer - who is responsible for the day-to-day administration of the GP under authority of local elected officials. So, having appointed bureaucrats “in-charge” shifts who the PDO reports to from an elected to an appointed official. This fact is underscored by survey evidence from 4,355 PDOs: across both types of GPs, over 80 per cent of PDOs report that they were in-charge of day-to-day administration during our study period.

Our natural experiment, therefore, has three salient features: first, it is quasi-random, with variation in presence of local democracy being arbitrary differences in the application of state law when elections were postponed; second, it is hyper-local, with neighboring villages being under different regime types; third, it is temporary, as the new council was eventually elected and took office the following year (in 2021).

We focus on a range of outcomes — budgetary expenditures, delivery of social assistance during the pandemic and implementation of local development projects, proxies for economic activity and COVID-19 well-being — drawing upon multiple administrative datasets and primary surveys, to identify the economic impacts of local democracy.

Before we move to our main results, we begin by noting that elected and appointed villages have similar COVID-related outcomes over the study period. Survey evidence from 11,810 citizens across over 836 GPs shows that having an elected leader has negligible impacts on COVID mortality, health status, economic well-being, and awareness of the village task force responsible for COVID management. Thus, changes in the local government’s level of effort or emphasis because of COVID are

²See here: <https://karsec.gov.in/PressReleasesHandler.ashx?id=78>.

³This owes to the fact that not all off-cycle GPs end their terms at the same time, leading to a lag between terms ending and elections occurring.

unlikely to be influencing our results.

Our first main finding is that elected leaders are more likely to allocate funds in line with citizen preferences. We draw upon two separate data sources to establish this result: an administrative “financial statement” dataset that captures GP-reported funding allocations for 2020-21 and a citizen survey to understand their preferences over expenditure categories. We first note that, across all GPs, spending is strongly correlated with citizen preferences: an additional 10% increase in citizen preference towards a category of expenditure results in 0.7% more budgetary allocations. This effect is even stronger for GPs with elected heads: spending goes up by an additional 0.35%.

Whose preferences are politicians representing the most? We show that funding allocations in GPs with elected heads are most influenced by elites. Men and high-caste individuals see their preferences represented the best and funding is least representative of the needs of women and scheduled castes. We interpret this finding as elite bias in funding allocations in elected GPs. However, even women and scheduled castes in these GPs see their preferences slightly better represented than their counterparts in administrator-led GPs. Thus, elected heads represent citizens’ preferences better on average and do so in a weakly better manner for all groups of individuals, but particularly more for elite groups.

We then test if elected leaders also respond better to citizens’ most urgent needs. The second half of 2020 saw India emerge from a period of crippling lockdowns that caused overwhelming job losses, reverse migration from cities to villages, and a surge in demand for rural social protection. A key policy instrument used by governments was the Mahatma Gandhi National Rural Employment Guarantee Act (NREGA)([Afridi et al., 2022](#)), India’s largest anti-poverty program that promises up to 100 days of work on demand to every rural household on an annual basis.

Consistent with its starring role in providing relief in the months after the lockdowns were lifted, we see that demand for NREGA work surged, with demand levels at least twice as high as in the same months in previous years. We test if GPs with elected leaders saw more person-days using a Difference-in-Difference (DiD) approach. Indeed, consistent with our previous results, we see a 15% increase in person-days generated in the intervention period in GPs with elected heads.

We establish three channels through which this effect occurs: first, elected leaders *know* citizen preferences better because they are always from the GPs they represent. Appointed administrators, on the other hand, are often outsiders.

Second, this “home-bias” can be overcome if administrators, who are reasonably senior officials unlikely to have had much familiarity with village matters, learn about citizen preferences through engaging with citizens and local bureaucrats in partici-

patory forums. We show that the opposite occurs. Elected leaders are much likelier to engage with citizens on a continuous basis: they hold more village meetings during the intervention period. GPs conduct various types of meetings such as, Gram Sabhas, Ward Sabhas, and “special” meetings with varying frequency. We find that elected leaders hold more general body and standing committee meetings which are likely to see greater public participation and delegation of tasks, respectively.

Our final mechanism tests if the results can be explained by the differential effort of local bureaucrats in village governments. Our bar for “effort” is low: we simply measure if local bureaucrats show up in their offices. We collect detailed attendance data of 170,683 local bureaucrats over a 108-week-year period in all GPs. As with the NREGA results, we employ a DiD strategy to test if local bureaucrats attend office more in elected versus appointed-leader-led GPs during the intervention period. Our results indicate that local bureaucrat attendance is higher by 10% in GPs led by elected leaders.

To sum up, our results indicate that local democracy outperforms appointed administrator regimes along key dimensions. Elected leaders allocate funds more in line with citizen preferences and respond faster to citizens’ acute needs, a result driven by the fact that elected leaders reside in the villages they govern, allow greater citizen participation in decision-making and induce more effort by local bureaucrats.

Yet, compelling reasons remain to trust appointed administrators with governance tasks: first, they could internalise cross-jurisdiction spillovers, since they are not only downwardly accountable to local citizens, but also upwardly accountable to higher administrators who govern over wider geographies (Myerson, 2021); second, their selection methods typically allow for more high-skilled persons – with better human capital and specific abilities – to enter administration than electoral politics does (Bertrand et al., 2020). The skills required to win elections are different from those required to govern well.

To understand how appointed administrators’ specific skill sets affect development outcomes, we draw upon two datasets. First, using a database of 2403 appointed administrators, we identify their expertise based on the department they were posted at immediately prior to the intervention period. Administrators come from a variety of backgrounds: Department Of Rural Development And Panchayati Raj, Department of Education, Department Of Public Works etc. We then turn to a large database of the universe of 1.5 million infrastructure projects undertaken since 2003 by local governments across the state. This database has detailed descriptions of the types of works undertaken, the implementing bureaucratic agency, and exact dates when specific milestones — approval, tender, commencement, financial payments, and completion were achieved. We test if administrators are better at implementing projects in their domain of expertise. In particular, we focus on

whether projects progress faster from one stage to the next. Given the panel nature of the dataset, we implement a DiD strategy to measure impacts. We find that projects in administrators’ domains are 13% more likely to show any progress across stages compared to similar projects in GPs run by elected officials.

To test for whether appointed administrators internalise spillovers better, we use the same database of projects, but restrict attention to “Multi-Village” Schemes (MVS). These projects primarily involve the installation, maintenance, and extension of pipelines across many villages and in some cases across districts. In the dataset, they account for a small proportion of 0.34% projects ($N = 1844$). We test if administrators make faster progress on these schemes. We find no evidence of appointed administrators making greater progress on MVS projects. If anything, we find evidence for greater progress on MVS projects under elected leaders.

The evidence suggests that the choice between local democracy or appointed administrators depends on what a social planner prioritises – citizen preferences or specialised implementation skills. However, another way to choose between the two would be to see if elected or appointed leaders are better at bringing about overall economic growth. We are conscious of the fact that our intervention period is perhaps too short to affect macroeconomic outcomes. We proxy for economic growth using night-lights and unsurprisingly, find no differences between the two regimes. Similarly, we proxy for agricultural production using Normalised Difference Vegetation Index (NDVI) - a satellite-based measure. Once more, we find no differential effects.

This paper broadens the literature on the value and role of local democracy in multiple ways. Much of the recent empirical literature along these lines focuses on local democracies in autocratic regimes (e.g.: [Martinez-Bravo et al. \(2011\)](#) in China) or in transition from autocratic regimes (e.g.: [Martinez-Bravo \(2014\)](#); [Martinez-Bravo et al. \(2017\)](#) - in post-Suharto Indonesia; [González et al. \(2021\)](#) - in post-Pinochet Chile). This complements cross-country work by [Acemoglu et al. \(2019\)](#) showing that democracy increases economic growth. Our contribution to the literature is to rigorously test the added value of local democracy in a stable democratic set-up in a developing country. The closest paper to ours is [Hessami \(2018\)](#), which studies transition from appointed to elected mayors in Germany and finds evidence of electoral cycles in spending on infrastructure projects. Our paper maps budgetary spending by officials to citizen preferences, expands the analysis to a wide range of outcomes and tests the role of domain expertise of administrators.

The literature characterises the elected leader/appointed administrator trade-off as a choice between downward (elected leaders) and upward (appointed administrators) accountability ([Myerson \(2021\)](#); also [Dixit \(2010\)](#)). This paper shows empirically that, in line with theoretical expectations, local democracy forces downward

accountability and citizen preferences are better represented under elected leaders.

One strand of the empirical literature studying effects of decentralisation focuses on how the size of the jurisdiction affects outcomes (Lassen and Serritzlew (2011); Blom-Hansen et al. (2014);). Similarly, a larger strand of the decentralisation literature focuses on the role of the identity of local leaders in furthering development (Chattopadhyay and Duflo (2004); Ban and Rao (2008); Beaman et al. (2011); Besley et al. (2004)). By asking what type of decentralisation — political or bureaucratic - is beneficial while holding size and identity fixed, this paper extends both these strands of the literature.

This paper has clear policy implications that extend beyond the state of Karnataka and India. By showing that local governments spend in line with citizen preferences – and even more so, when elected leaders are present – we provide empirical support for the thrust towards democratic decentralisation seen across the developing world in the past few decades. However, we also provide evidence to argue that the benefits are reaped best when elite capture can be curbed and elected leaders work in tandem with bureaucrats with specialized skill-sets.

2 Background

The state of Karnataka is divided into 31 districts. Each of them is sub-divided into talukas (known as blocks in other Indian states) which are further divided into groups of villages called Gram Panchayats (GPs), with each GP typically consisting of 4-5 villages. Each GP is governed by a council consisting of elected representatives who are elected for a term of 5 years. Following a parliamentary system, the council members elect an Adhyaksha (president) and an Up-adyaksha (vice-president) amongst themselves. For most GPs, elections take place at around the same time across the state, but there are some that are “ off-cycle” i.e., on a different electoral cycle than others due to a variety of reasons as outlined in Section 4.2.

The Karnataka Panchayat Raj Act, 1993⁴, empowers the state government to appoint “Administrators” (or an Administrative Committee) to govern the GP in case elections are not held or delayed for any reason. The onset of COVID-19 pandemic led to an indefinite postponement of elections that were due in the months of June and July 2020 for most GPs in the state.⁵

These GPs and others whose term ended before the 31st of December are defined as having an “appointed administrator” in our sample.⁶ Based on this definition, there

⁴Section 8(1)

⁵Terms of 43.88% of GPs ended in June and 51.89% ended in July (Figure A.1)

⁶The list of term end dates for each GP is provided to us by Karnataka state’s Rural Develop-

are 5183 administrator governed GPs in our sample and 162 with an elected council in-charge. Appointed administrators (2145 in our sample) are existing taluka level government bureaucrats. Both, administrators and the elected President they replace are Class B officers, and depending on the number of Class B officers in a taluka, an administrator may be appointed to more than one GP.⁷

3 Data

Our data comes from many sources. Data collection involved a mix of compiling publicly-available data, fielding large-scale surveys, and scraping administrative data from the websites of the Rural Development and Panchayati Raj (RDPR) Department.

3.1 Personnel Data

We collected administrative data related to the appointed administrators - the GP(s) they were in-charge of and their former department and designation. We have this information for ≈ 2400 administrators who were governing ≈ 4211 GPs.

We were also able to obtain other personnel data by scraping staff attendance records of each GP for a sample of working days (one day in a week) spanning two financial years between April 2019 - March 2021. We have the attendance status of 78,227 members of GP staff including bureaucrats, data entry staff, drivers, cleaners, and others from all the 6022 GPs as well as reasons for absence.

3.2 Primary Surveys

We fielded two large-scale surveys of both citizens and local bureaucrats. Like other surveys conducted during the pandemic, we had to limit ourselves to phone and online surveys.

3.2.1 PDO Survey

We partnered with RDPR to field an online survey of Panchayat Development Officers (PDO) between September and November 2021. The PDO is a GP-level bureaucrat who is responsible for the day-to-day functioning of the GP and the

ment and Panchayat Raj Department (RDPR)

⁷We show that our results go through, in Section 8.1, even when we control for the number of GPs an administrator is in charge of.

implementation of the various decisions taken by the GP members. We had a 70.2 percent response rate with 4355 responses out of a total of 6022 PDOs. We asked questions about their focus areas, time-use, feedback about their interaction with the state, COVID-19 management, and their interactions in reporting to elected or appointed leaders.

3.2.2 Citizen Survey

We conducted a survey among citizens from August to September 2021, employing a snowball sampling approach. Initially, we randomly selected 819 GPs. From these GPs, we randomly selected leaders and associated staff, who provided us with phone numbers of other citizens in their respective GPs. Subsequently, we approached these citizens to acquire additional phone numbers. With the compiled phone numbers, we conducted an extensive telephonic survey. The participating GPs represented a broad geographic distribution. In total, we interviewed 11,810 rural Karnataka residents, gathering their perspectives on local democracy, engagement in GP activities and meetings, feedback on general governance, GP's handling of the COVID pandemic, challenges faced by citizens, and their primary concerns regarding public goods.

To assess citizen preferences regarding local government funding, we adopted the following procedure. We requested citizens to identify two areas in which they would prefer the GP to allocate funds if given the opportunity. The available options included Roads, Piped water, Housing, Toilets, Streetlights, Library, Education, Healthcare, Anganwadi (rural child care center), Tube wells, Temples, and Drainage. The proportion of citizens within a GP selecting a particular category determined the measure of citizen preference for that category. Additionally, since the citizen survey included information on gender, caste, and economic status, we were able to analyze variations in citizen priorities across these dimensions.

3.3 GP financial statements

We obtained administrative data on financial statements from each Gram Panchayat (GP), allowing us to track every debit and credit transaction recorded in their account books.

On the credit side, significant line items included various taxes, rental income, fees collected from providing public goods, funds credited from the state or central government, and other miscellaneous items.

On the debit side, major line items encompassed operational expenditures for maintaining public goods such as roads, bridges, streetlights, and water supply, as well as

the creation of public goods (assets), expenses related to epidemic control, and expenditures associated with the implementation of state and central schemes falling under the GP’s jurisdiction.

The total amount of debit-side transactions linked to a specific category (adjusted for depreciation) represents the GP’s expenditure in that particular category. For instance, the sum of all debits related to water supply, pipe maintenance, and the implementation of water-related schemes, minus the debits corresponding to asset depreciation in water supply, yields the GP’s total expenditure on water-related schemes.

To calculate the actual GP expenditure on the same categories used in the citizen survey, we classified the line items in our financial transaction data accordingly. Analyzing the relationship between these two measures allows us to uncover how citizen preferences influence spending decisions in elected or appointed regimes.

3.4 MGNREGA

The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA or NREGA) is a nationwide social security program that ensures the “right to work” by providing 100 days of unskilled wage employment per fiscal year to every eligible household. Beneficiary families of the scheme register for a “job card” containing demographic details such as age, gender, and caste. Through web scraping, we obtained job card information from the portal, including associated employment records such as the number of days of work requested, offered, and eventually undertaken by each beneficiary, as well as specifics regarding the actual tasks performed. Additionally, we were able to access job card creation dates, enabling us to calculate the count of “new” job cards within our specified timeframe. This data scraping was conducted in January 2021 and covers employment information spanning from 2017 to 2020.

3.5 Development Works

We collected detailed information about public infrastructure projects in each village. These projects include, but are not restricted to, the construction of roads, water supply lines, and libraries. There are a total of 1.4 million such projects in our dataset spanning all of our 6022 GPs and 28,000 villages over 7 years (2015-2021).

This extensive dataset provides a comprehensive record of every project throughout its lifecycle. These projects, commonly referred to as “works”, encompass a detailed description, implementing agency, funding source, estimated cost, current status, approving officer, approval dates, contractor names, awarded amounts, pay-

ment information, construction start and end dates, precise coordinates, as well as accompanying photographs and associated documentation at each stage of development.

Each project initiates with a proposal, initially approved by bureaucrats at various hierarchical levels through the ‘Administrative Approval’ process. Subsequently, it progresses to the ‘Technical Sanction’ stage, where a competent authority, such as an engineer within the implementing agency’s engineering division, sanctions the proposal. A ‘Measurement Report’ is then created to finalize the cost estimate. If a private contractor is involved, a ‘Work order’ is issued. The work may entail multiple rounds of fund disbursement, with detailed billing information available for each transaction. Lastly, we document the date of both physical and monetary completion of the project.

These works can be categorized as tendered or non-tendered. Tendered works involve a public announcement inviting private parties to bid for the contract. Works exceeding a specified cost threshold are required to undergo the tendering process. We have access to information pertaining to these tendered works, including the associated tender documents.

3.6 GP meetings

Additionally, we collated data on all the official meetings conducted within the GP during the fiscal year 2020-2021, spanning from April 1, 2020, to March 31, 2021. These meetings encompass various types, including Gram Sabhas (constitutionally required public meetings at the GP level), Ward Sabhas (public meetings at the ward level), General Body Meetings (gatherings involving all elected representatives), Special Meetings (ad-hoc meetings as required), and Standing Committee meetings (formed based on the GP’s needs), among others.

3.7 Satellite Data

We utilized satellite data to examine overall growth outcomes. To perform spatial averaging at the village level, we acquired village-level polygons from the Karnataka Geographic Information System (KGIS) portal, which is the state’s Geographic Information System (GIS) platform.⁸

As a proxy for agricultural productivity, we employed the Normalized Difference Vegetation Index (NDVI), which is a measure sensitive to chlorophyll levels and is derived from the Moderate Resolution Imaging Spectroradiometer (MODIS) aboard

⁸Karnataka Geographic Information System, <https://kgis.ksrsac.in/kgis/downloads.aspx>

NASA’s Earth Observing System-Terra satellite.⁹

In Karnataka, there are three cropping seasons: Kharif (April-September), Rabi (October-December), and Summer (January-March). We utilize the aforementioned measure for each of these seasons to assess the impact of our treatment. Since most GPs complete their electoral terms in June-July 2020, seasons later in the year were more exposed to our treatment by design. We extracted the composites from the period between 2015 and 2021 and calculated the difference measure for each growing season across all available years.

3.8 Night Lights

We incorporated data on nighttime lights (NTL) obtained from the Visible and Infrared Imaging Suite (VIIRS) by the Earth Observation Group. The VIIRS collects low-light imaging data globally, addressing issues such as top-coding, which is often present in data from the Defense Meteorological Satellite Program (DMSP). We use monthly composites that are stray light corrected from the (VIIRS) Day/-Night Band (DNB) and exclude data impacted by cloud cover the advantages of which over other products from the suite are outlined in (Mills et al. (2013); Elvidge et al. (2017)). The composites cover the period between 2019-2020 and we used the area-weighted average of lights as our measure of village-level lights.

3.9 Census

To construct controls and assess balance between GPs with Elected and Appointed in-charges, we utilized data from the last three decennial Census rounds (1991, 2001, and 2011), as well as the Socio-Economic and Caste Census 2011. These data sources serve as references and aid in the comparison between GPs with different governance structures.

⁹Each image from the satellite is a 16-day composite and its pixels are spatially averaged to village polygons to get mean VI at the village-composite level. Several proxies for agricultural production have been suggested to use this measure - Cumulative NDVI (Rojas (2007)), mean VI (Mkhabela et al. (2005)): the difference between early-season VI (the mean of the first three 16-day composites) and the max VI value observed at the village level (Labus et al. (2002); Rasmussen (1997)) and the difference between early-season VI (the mean of the first three 16-day composites). Like Asher and Novosad (2020), we prefer (and use) the differenced measure because it controls for non-crop vegetation (such as forest cover) by measuring the change in vegetation from the planting period (when land is fallow) to the moment of peak vegetation.

4 Empirical Strategy

4.1 The Natural Experiment

For various reasons that we describe below, 162 GPs from across the state were on different electoral cycles prior to the COVID-19 pandemic. When the pandemic hit, GP elections which typically happen in June/July were postponed. As a consequence, in a majority of the GPs the elected councils finished their term leaving the position vacant. As per the Karnataka Gram Swaraj And Panchayat Raj Act of 1993, these 5183 GPs had a state-appointed administrator take over. While the remaining 162 GPs which were on a different election cycle continued to be governed by elected leaders whose terms hadn't come to an end. The reasons these GPs were on a different election cycle are not uniform, as our discussion in the next sections shows. These GPs have, however, been on this alternate cycle for at least twenty years, and we argue that the reasons behind them being "off-cycle" are unrelated to our outcomes of interest. It is this quasi-random variation that we leverage to categorize GPs as with *elected* leaders and *appointed* administrators.

Our identification assumptions are as follows: first, the selection of GPs that continued to have elected leaders through the course of 2020, within a given taluka, must be independent of all relevant taluka-level stock outcomes and second, must have parallel trends pre-COVID for all relevant variables measured over time. We validate these assumptions in two ways. First, we rely on historical evidence to suggest that different GPs were on different electoral cycles for a variety of reasons, plausibly exogenous to underlying contemporaneous GP characteristics. Second, we present empirical evidence of balance on various observables: both reliable demographic and socio-economic stock variables from the past Censuses (economic and population), as well as more recent trend variables such as those related to NREGA spending and night light intensities.

4.2 Historical Reasons for Differences in GP Electoral Cycles

We endeavored to examine the causes of being off-cycle among GPs with elected leaders in our dataset by referring to historical publications that documented election updates and developments in democratic decentralization around the turn of the century. These sources highlight several reasons, varying across GPs and occurring at different times (Mathew (2000); Mohanty et al. (2007)).

In the year 2000, two primary irregularities emerged. Firstly, a few GP elections were postponed due to parliamentary by-elections in the Bellary, Devanagere, and Belgaum districts. In several other constituencies, polling was delayed due to issues

related to ballot paper errors, nomination confusion, and symbol allocation.

Additionally, during the 2005 elections, some GPs had their elections canceled during the initial phase of polling due to ballot paper errors, booth capturing, and group clashes. In other GPs, such as all elected GPs in Gulbarga district (N=14), Vadgera GP, and Kodadur, the tearing of nomination papers led to the cancellation of elections. In GPs like Mustur and Siddapur, polling in 2005 was postponed due to a high court stay order. A smaller number of areas also experienced election boycotts.

We document a range of reasons that may have caused delays in elections for a subset of GPs in Karnataka, thus placing them in a different electoral cycle. It is important to note that not all of these reasons can be definitively attributed to external factors. However, some, such as ballot errors, are likely to be exogenous as they stem from mistakes made by election organizers rather than the GPs themselves. Unlike their national counterpart formed in the 1950s, state-level election commissions were established only in the 1990s, which may have contributed to their relative lack of experience and potential inefficiencies in conducting elections smoothly and simultaneously across all areas.

Overall, many factors likely contributed to these GPs being thrown off-cycle, possibly orthogonal to their characteristics. In the next section, we show empirical evidence backing this claim: off-cycle GPs look like non off-cycle GPs across a host of observables.

4.3 Sample Balance

We begin by showing balance across elected and appointed GPs across a range of characteristics. Table 1 provides summary statistics, showcasing balance across variables we obtained from our surveys, three past censuses (1991-2011), multiple past economic censuses, and online government portals as described previously. Broadly, the stock variables are constituted under four heads: demographic characteristics, socioeconomic characteristics, measurements of quantum and quality of provision of public goods to GPs and other public infrastructural measures from the 2011 census. Figures 1 and 2 display coefficients of multiple regressions of the specification:

$$Y_{ij} = \alpha_j + \beta \cdot Elected_i + \epsilon_{ij}$$

We restrict the sample of GPs in the specification to those in blocks that had at least one elected GP so as to ensure better comparability. Y_{ij} then corresponds to an outcome variable for GP i in Block j and α_j to a set of taluka-level fixed effects.

The standard errors are clustered at the GP level.

We utilize a similar specification with identical strategies in employing fixed effects, estimating standard errors, and sample selection to check for parallel trends:

$$Y_{it} = \alpha_j + \rho_t + \omega_t + \beta \cdot Elected_i + \epsilon_{ijt}$$

where Y_{it} is our outcome of interest for GP i in period t , α_j is a set of block-level fixed effects and ρ_t and ω_t are Month and Year fixed effects respectively. The results from the same are compiled in Table 3.

We find, overall, a satisfactory amount of balance between villages with elected and appointed administrators on almost all cross-sectional and trend variables we measured.

4.4 Estimating Equations

We obtain our causal identification from the quasi-random variation in the governance regimes in a GP of being either headed by an elected leader or an appointed administrator. To estimate the *treatment* of having an elected leader on various outcomes our sample comprises of GPs (and villages) within blocks with at least one elected GP. We use the following specification for our cross-sectional outcomes:

$$Y_{ij} = \alpha_j + \beta \cdot Elected_i + \gamma \mathbf{X}_i + \epsilon_{ij}$$

Here, Y_{ij} is the outcome of interest in GP i in Block j , $Elected_i$ is the ‘treatment’ dummy for whether the village has an elected Panchayat head, \mathbf{X}_i is a series of controls, α_j is a set of block-level fixed effects and ϵ_{ij} refer to standard errors are clustered at the GP-level.

The following equation for panel outcomes, to account for differences between pre and COVID-period in the estimation of outcomes under elected vs administrator-governed GPs:

$$Y_{it} = \alpha_j + \alpha_t + \beta \cdot Elected_i * COVID_t + \gamma \mathbf{X}_{it} + \epsilon_{ijt}$$

Here, Y_{it} is the outcome of interest in GP i in period t , $Elected_i$ is the ‘treatment’ dummy for whether the village has an elected Panchayat head, \mathbf{X}_{it} is a series of controls. α_j and α_t are block-level and period fixed effects respectively.

4.5 De Jure vs De Facto Power

In Table 4.5, we show that administrators held de facto power. In appointed GPs, administrators were stated (by PDOs, the effective COO of each GP) to be the main people in charge of COVID management in 13% of GPs. This is a similar share to the fraction of elected leaders listed as being in charge of COVID management in “elected” GPs. By contrast, the de facto power of elected leaders in managing COVID is substantially less in administrator GPs. This provides some evidence that the appointment of administrators was not merely something that happened on paper but affected the way the GP was governed and who held real power in making decisions.

5 Results

In this section, we present our empirical results.

One of the primary advantages of political decentralisation is that elected representatives at the local level may be better at representing citizen preferences. This may occur for several reasons. First, elected leaders who hail from the village they govern may be better informed about citizen preferences. Second, the democratic process may facilitate deliberation and enable politicians to learn about citizen preferences. Third, elected leaders may have electoral incentives to be responsive and translate citizen preferences into policy outcomes.

Our first key outcome is a measure of how well GP expenditures are aligned with citizen preferences. We begin by testing whether GPs governed by elected leaders spend money in a way that more closely follows citizen preferences. We then investigate mechanisms.

5.1 Citizen Preferences

We test whether GP expenditures reflect citizen preferences over various public goods and test for difference between expenditure allocation by elected leaders and appointed administrators. In Table 5, Column 1 reports the raw correlation between citizen expenditure preferences and GP fund allocations. We find that GP spending is indeed positively correlated with citizen preferences. Specifically, a 10% increase in citizen preferences over a category of expenditure increases the GP allocation for the same category by 0.7%. As reported in Column 2, we continue to observe this positive correlation between citizen preferences and actual expenditure even when we control for total GP expenditure and block fixed effects.

We now compare the performance of elected and appointed leaders. Column 3 of Table 5 shows that GPs governed by elected leaders allocate 0.35% more funds compared to their appointed counterparts when 10% more citizens list that expenditure category as a priority. This is not driven by citizens everywhere desiring spending on a particular category (e.g. roads) and elected leaders being more likely than administrators to spend on that category. Instead, there is considerable heterogeneity in citizen preferences across GPs. Elected leaders are just more likely to spend public money in accordance with those preferences. In terms of magnitude, under elected leaders, the correlation between GP spending and citizen preferences increases by about 30%. This could reflect elected leaders' better information about citizen preferences, greater altruism towards their fellow citizens, or stronger incentives to respond to citizens' desires.

In Table 6, we demonstrate that citizen preferences are not equally represented in GP expenditures. The columns correspond to different sub-samples of citizen preferences by gender (Columns 1 & 2), caste (Columns 3, 4 & 5) and economic-status (Columns 6 & 7). While citizen preferences of all groups are positively correlated with expenditure, the coefficient varies significantly. The preferences of citizens from traditionally powerful groups are more strongly correlated with expenditure. If all men value spending on a particular category, GP spending on that category is 5.4% higher. If all women value spending on a category, GP spending is only 2.1% higher. Similarly, GP spending more closely tracks general caste (3.2%) than OBC (3.1%) or SC/ST (2.4%) preferences, and more closely tracks the preferences of non-BPL (5.7%) than BPL (1.8%) individuals. This illustrates that in administrator-governed GPs, there appears to be some level of elite capture, in which the appointed bureaucrat in charge is more responsive to the preferences of advantaged groups.

However, we also see that elected leaders further align spending with preferences of elite groups. The treatment effect of an elected leader is strong for men (a further 3.5% increase in spending if all men value a category), raising the correlation coefficient by nearly one-third. By contrast, women's preferences are not reflected in GP expenditure any more by elected leaders. This "democracy premium" appears to be systematically larger for advantaged groups – men, general caste and non-BPL. Moreover, the coefficient for women, SC/ST and BPL individuals is close to zero and statistically insignificant.

This suggests that weaker groups benefit less from democracy. While disappointing, that is consistent with anecdotal descriptions of village politics in Karnataka as suffering from capture by landed elites. Nevertheless, the coefficients on *Citizen Pri-*

*ority*Elected* are positive for all groups. This suggests that elected leaders weakly improve the representation of spending preferences for all groups, even though the benefits of democracy are unequally shared.

5.2 GP meetings

GP expenditure may more closely track citizen preferences because elected leaders, who hail from the villages they govern, are better informed about citizens' needs than administrators, who tend to come from other villages in the same district. Another channel is that democracy facilitates deliberation, which enables elected leaders to learn what citizens want.

We provide suggestive evidence in favour of a deliberation channel by showing that elected leaders are more likely to hold village meetings in Table 7. Assemblies in which citizens gather to discuss collective problems have been called “the fulcrum of the Panchayat system” (Aiyar, 2002). Collecting data on the dates of all village meetings over several years, we show that GPs governed by elected leaders have 0.27 sd more meetings than administrator-run GPs.

Our results so far suggest that elected leaders are better informed about citizen preferences, and the democratic process helps them learn what citizens want. We are also able to test whether citizens alter their behavior under different governance regimes using citizen survey responses that capture participation and support for democracy. In Table 26 & 27 we report a null and insignificant effect of elected GPs on a “citizen participation” index and “democracy experience” index, respectively.

Next, we examine whether elected leaders also respond better to citizens' obvious demands.

5.3 National Rural Employment Guarantee Scheme

The beginning of COVID was a period of tremendous economic anxiety in rural India. Millions of migrants had lost their jobs in cities, and were forced to return home by severe lock-downs that began in April 2020 and continued until end May 2020. The National Rural Employment Guarantee Scheme (NREGS) is India's largest and most important workfare program. The pandemic period saw unusually high demand for work under the programme, as both rural residents and recently-returned migrants turned to the scheme for work.¹⁰ The spike in NREGS works is borne out in Figure 3.

¹⁰Some called it the “an all-time high for a financial year since the inception of the scheme in 2006”, Indian Express February 2021. See: <https://indianexpress.com/article/india/six-months-after-lockdown-lifted-no-let-up-in-mnregs-demand-7193163/>

We test whether elected and appointed leaders differed in their responsiveness to the COVID-induced demand for NREGS work. Table 8 reports the effect of elected leaders on two NREGS outcomes: first, total days worked in a village in a given month and second, the number of new job cards registered in the same period. Column 1 (and 4) reports that in the treatment period i.e., from June 2020, 183 more workdays were generated and 2 new job cards registered in a village in a month. This significant increase in days worked and new job cards are important as it captures the increase in demand and subsequent provision of work under NREGS. Although we see no statistically significant difference between elected and appointed leaders there is a positive raw effect (Column 1).

Our preferred specification includes both village and time-fixed effects while controlling for the yearly lag of days worked, given the seasonal nature of NREGS demand. In Column 2, without lagged control, days worked does not statistically differ between elected and appointed GPs (although magnitude increases). Column 3 captures an additional 15.3% increase in days worked in a month if the village was governed by an elected leader heading the GP. Similarly, we find that ~ 1.54 new job cards are created in a month in a village under an elected GP head. This is important, as the migrants returning home due to COVID-induced lockdowns may not have previously registered with NREGS, which is a pre-requisite to obtaining work.

Furthermore, motivated to test whether provision of work increases for all groups of individuals under elected leaders we report heterogeneous effects in Table 9. For BPL, female and male workers we find both an increase in days worked (effect sizes are 23.9%, 15.9% and 17.3% increases, respectively) and the appearance of members on new/existing job cards. However, we don't find this increase in workdays or the creation of new job cards for SC and ST individuals. This finding is similar to our citizen preferences and GP spending results: elected leaders are on average more responsive to citizen demands in delivering NREGS work at a time of great need, but advantaged groups like men and general castes benefit more.

5.4 Attendance

Alongside GP leaders, local bureaucrats are tasked with implementing development programs and schemes. We examine whether local bureaucrats exert more effort under local democracy. This may reflect greater pressure from elected leaders, who reside in these villages. Alternatively, it may capture greater bottom-up pressure from citizens who participate more in local governance under democratic rule. Specifically, we compare the attendance rates of GP bureaucrats and test whether they differ between elected and administrator regimes. Table 10 presents results. We find that bureaucrats are 2.2pp more likely to be at work under elected leaders.

These results are robust to the inclusion of e-attendance registration rate and officer category as controls. This amounts to 10% of the average attendance rate. Table 11 breaks down this result by officer type. We observe that the point estimates are positive for 7 out of 9 officer categories and they are largest for accounts and facilities staff.

5.5 Administrator Human Capital

Our previous results documented that elected leaders outperformed administrators in terms of representing citizen preferences, responding quickly to their acute economic needs, and getting bureaucrats to exert more effort. These are governance tasks that require the leader to be informed about the local population and have incentives to serve them well. They do not require any specialised skills. However, some aspects of governance are complex and would benefit from a leader who has the relevant expertise. Specially-trained administrators are more likely to have the requisite expertise for these governance activities.

We test this hypothesis by investigating whether administrators make greater progress on development projects where they have relevant expertise. This requires a simple way of identifying administrator expertise, mapping this expertise to relevant development projects, and measuring the quality of governance of each project. We use administrators' prior posting (their mother department) as a proxy for their expertise. We then exploit a rich database of local development projects and test whether administrators make faster progress on projects when it is handled by their mother department.

We find that administrators are about 7% more likely to make progress on a development project if they have prior expertise in this domain (Table 12). This demonstrates the value of administrative expertise in our context.

5.6 Cross-Jurisdiction Externalities

Another potential value of administrators relative to elected officials is the stronger incentive to internalise cross-jurisdiction externalities. Elected leaders are expected to be most responsive to the voters of their local constituency, and may have limited incentives to internalize benefits that are received by citizens in other jurisdictions.

Our data allows us to identify development projects that span multiple villages. We test whether administrators make faster progress on these projects than on single-village projects relative to elected leaders. Our findings suggest that, if anything, elected leaders make faster progress on multi-village development projects. Overall, our results do not support the interpretation that administrators are better able to

internalise cross-jurisdiction externalities (Table 13).

5.7 Local Economic Growth

We analyse the overall impact of local democracy on local economic growth. We use two proxies for local economic growth – night-time luminosity and NDVI. Night-time lights are a common measure of local economic activity when economic statistics do not exist at the same level of granularity or frequency. Similarly, NDVI is a commonly-used proxy of agricultural productivity and agriculture is the predominant economic activity in much of our sample. Our results indicate that there is no effect of local democracy on local economic growth (see Table 14). This is not unexpected: economic growth effects are more likely to manifest in the long run. Given the nature of the natural experiment, we are unable to measure effects beyond a six month period.

5.8 COVID management

We develop measures of the quality of COVID management based on our primary survey data, and compare COVID management across elected and administrator-governed GPs. We find that COVID mortality is similar, as reported in Table 15. Our indices that capture measures of health and economic well-being (Columns 2 and 3) also show no difference between elected and administrator GPs.¹¹ Citizens also rate administrator and elected GPs similarly (Column 4) in terms of overall governance during the COVID period.

5.9 Elite Capture

Our results highlight the differential impact elected leaders and appointed administrators have on important local economic outcomes such as budgetary allocations and welfare programmes. However, in line with larger body of empirical work that reports the existence of (elite) capture, we find that preferences of marginalized communities (women and SC/ST groups) are less represented in budgetary allocations.

In this section, we test for mechanisms that could explain the presence of elite

¹¹We create a standardized Index of COVID well-being (z-score of PCA) using citizen responses on number of COVID patients and deaths in their village, the number of deaths in their household, and the overall health of their household (1=very poor, we have many problems to 4=excellent, we have no problems), all during Wave 1. Our standardized index economic well-being (z-score of PCA) uses responses to the economic/employment situation of the household (1=very poor, we have many problems to 4=excellent, we have no problems) and whether the household was food constrained during Wave 1.

capture. We first test for whether elite capture occurs because local politicians are more likely to be drawn from wealthier households. To do so, we locate our council members across both elected and administrator GPs in the property tax data. This allows us to look for suggestive evidence of whether council members are richer than other property owners. In Table 16, we report that council members are likely to own 0.7 more properties. The average council member’s property is 7 percentile higher in worth than the average citizen’s.¹²

Next, we test whether council members re-direct program benefits to themselves i.e., self-dealing. Prior work from India (Besley et al. (2012), Jeong et al. (2023)) finds evidence of higher allocations of welfare benefits to council member and president households. In our case, such abuse of power is likely to be present in elected GPs where council members, including the President, have de-jure power. However, this does not preclude council members in appointed GPs exercising de facto power in beneficiary selection in the absence of an elected body.

By locating our council members in the NREGS beneficiary data we can attribute the total days worked by the council members’ households and the subsequent payment received. We show two results in Table 17. First, we find no evidence of self-dealing across all council-members households. Second, we also see no differential self-dealing between council members in elected GPs and administrator GP.

5.10 Heterogeneity

We move on to test if results vary by GP-level characteristics. Mansuri and Rao (2013) argue that communities “remote from centers of power; have low literacy; are poor; or have significant caste, race or gender disparities” experience higher capture. In line with this, we test for heterogeneity of treatment effects by various GP characteristics in Table 18.

For ease of understanding, Table 18 only reports the interaction term i.e “*Elected x Post x Heterogeneity Dimension*”. The results point to the fact that treatment effects do not significantly differ across GP characteristics: places with above-median share of SC and STs, wealth or land inequality do not show differential treatment effects.

Now, we test if our results vary by the GP President characteristics. Previous

¹²For this exercise, we use the property-tax data which excludes the landless who are likely at the left-tail of the wealth distribution in the village. This underestimates the overall wealth of everyone that owns property including council members. Additionally, here, total properties and demand for an individual is based on an aggregation of all property records within a GP under a name. This may, in some cases over-estimate both the total number of properties and the total tax demanded/levied on them. On the other hand, it could also underestimate the total tax demand if council members’ own property in their spouse/child/parent’s name.

work suggests that female leaders are better at representing women’s preferences (Chattopadhyay and Dufo (2004)). They also matter for other development outcomes like investments in education and health (Clots-Figueras (2012), Bhalotra and Clots-Figueras (2014)). Table 19 presents results assessing if women leaders do differentially better across a range of outcomes in our context. We find no additional effects of the leader’s gender on outcomes.

A vast literature has stressed the importance of re-election incentives on elected leaders’ performance (Ferejohn (1986), Finan and Mazzocco (2021)). For the 162 GPs in our elected GP sample, we can use year of the next election to know whether they are up for re-election in the upcoming year i.e., 2021 or later. We argue that those with elections in the next year face stronger re-election incentives. As the GPs with an upcoming election are also mechanically the longest-serving councils, we control for any prior office-holding experience the President may have.¹³ Table 20 shows that re-election incentives does not differentially impact performance of elected leaders.

Lastly, we test whether historical exposure to high-quality local governance institutions changes treatment effects. Present-day Karnataka was created in 1956 after the re-organisation of Indian districts along linguistic lines. Prior to 1956 independent India was made up of directly controlled British East India Company-“Presidencies” and native “princely states” which were indirectly controlled by the British colonial administration. We test for heterogeneous effects across GPs that were and were not a part of the historical state of Mysore. The Mysore state has a long history of public debate and deliberative democracy which through early institutions or civic capacity may have persistent effects on the way local democracy adds value in the present day (Sanyal and Rao, 2018). Theoretically, the persistence of the Mysore state may or may not differentially affect the performance of elected vs administrative GPs: while it could make leaders in elected GPs more powerful and entrenched, it could also do the same in GPs with an administrative head. In Table 21, we report heterogeneous effects of elected GPs being in the old Mysore state region. We find no significant differences in treatment effects.

To summarise, in this section, we test for heterogeneity of treatment affects across a host of dimensions and find that these do not seem to affect our main results.

6 Conclusion

This paper brings to bear a wealth of empirical evidence on an old debate regarding the value of democracy, especially at the local level. Employing a natural

¹³In our sample, 37.6% of the elected GPs are eligible to stand for re-election in 2021 (61 out of 162) and 14% have an “Experienced President”.

experiment in Karnataka, India that created variation in the governance regimes in villages across the state, we argue that the presence of local democracy improves citizen welfare, for reasons not entirely unanticipated: elected leaders have better information on citizens' needs and elections serve as incentives to work in the interest of citizens. Relative to appointed administrators, elected leaders make local bureaucrats work harder and engage more with citizens in their jurisdictions.

However, there are some caveats (and these, again, have long been anticipated in the literature): elected leaders represent the needs of upper castes and men rather more than lower castes and women. Also, appointed administrators come with a specialised skill-set and experience – often lacking in elected officials – that come in handy when pushing technical projects. This is consistent with a literature on participatory development that shows that citizens perform better than bureaucrats when the planning and management of local projects is in their hands, but technical decisions are better executed by technocrats ([Khwaja \(2009\)](#), [Mansuri and Rao \(2013\)](#)).

Thus, the policy implications of the paper are clear. Our evidence suggests that there is value in both representative democracy *and* empowering local actors. Local decisions are best left to local elected representatives, but our results also suggest that biases against women and underprivileged groups should be guarded against and rectified, and that elected leaders would benefit if they were paired with bureaucrats with technical domain expertise.

India's own experiment with decentralisation via the 73rd and 74th amendments of the constitution stands incomplete: powers are devolved patchily to the local level and the higher state continues often to treat village administrators as implementation outposts as opposed to empowered local policy makers. If, despite these severe constraints, elected representatives add value, the gains from a more systematic thrust towards devolving powers could reap rewards, conditional on designing an architecture that allows elected leaders and higher-level bureaucrats to complement each others' strengths.

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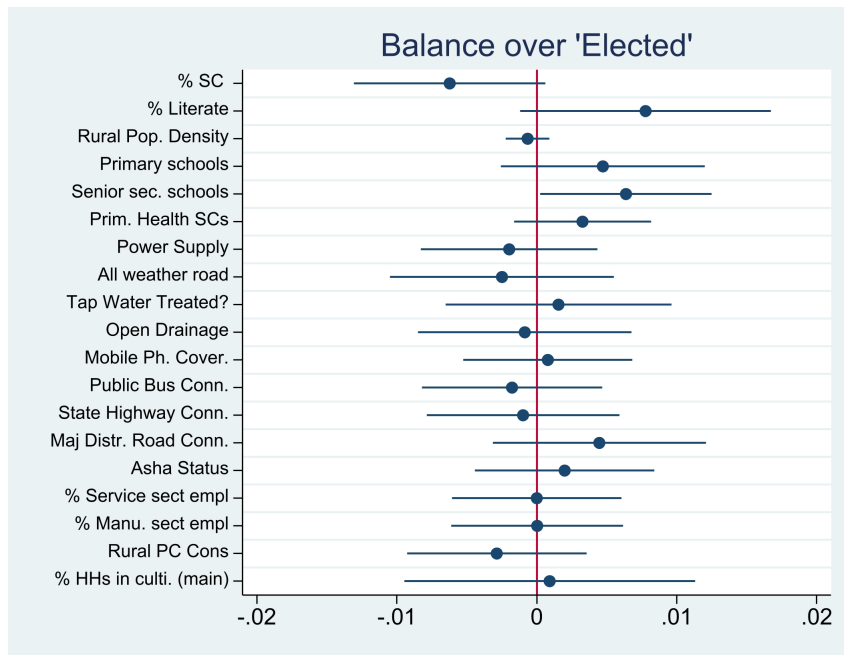
7 Tables & Figures

Table 1: Descriptive statistics: Elected leaders and appointed administrators

	Appointed		Elected	
	Mean	SD	Mean	SD
<i>Demographics</i>				
Rural population	1514.573	1660.041	1628.068	2064.393
Households	316.942	336.487	342.108	430.325
Scheduled caste (share)	0.216	0.205	0.201	0.202
Scheduled tribe (share)	0.082	0.150	0.059	0.120
Literate (share)	0.614	0.107	0.635	0.108
<i>Public Goods</i>				
Primary schools	1.761	1.565	1.794	1.926
Senior secondary schools	0.080	0.342	0.119	0.431
Primary Health Sub-centres	0.306	0.511	0.336	0.548
Power Supply, all users (0/1)	0.998	0.040	0.997	0.998
All weather road (0/1)	0.934	0.248	0.914	0.280
<i>Socio-economic characteristics (2011-12)</i>				
Service sector employees (share)	0.795	0.209	0.803	0.207
Manufacturing sector employees (share)	0.195	0.204	0.187	0.201
Rural per-capita consumption (mean)	1.9e+04	6100.129	1.9e+04	4947.898
HH main income from cultivation (share)	0.545	0.290	0.546	0.293
<i>Night Lights</i>				
Mean Night lights (log)	-0.520	0.802	-0.499	0.930
Cummulative Night lights (log)	2.401	1.110	2.430	1.167
Max Night Lights (log)	2.401	1.110	0.212	0.962
<i>NREGA</i>				
Mandays, all	304.885	691.865	309.998	758.544
Mandays, BPL	102.507	282.910	104.935	267.822
Mandays, Female	137.300	349.752	135.667	364.415
Total new job cards, all	2.198	8.040	2.649	10.539
New BPL Cards (share)	0.060	0.206	0.061	0.202
New Female Cards (share)	0.527	0.262	0.515	0.246
<i>NDVI-based Agricultural output</i>				
<i>Seasonal mean (log)</i>				
Kharif	-0.736	0.246	-0.729	0.223
Rabi	-0.583	0.218	-0.589	0.206
Summer	-0.947	0.279	-0.958	0.263
<i>Seasonal Max - Early (log)</i>				
Kharif	-1.418	0.566	-1.380	0.580
Rabi	-3.551	0.833	-3.560	0.853
Summer	-3.659	0.705	-3.636	0.748

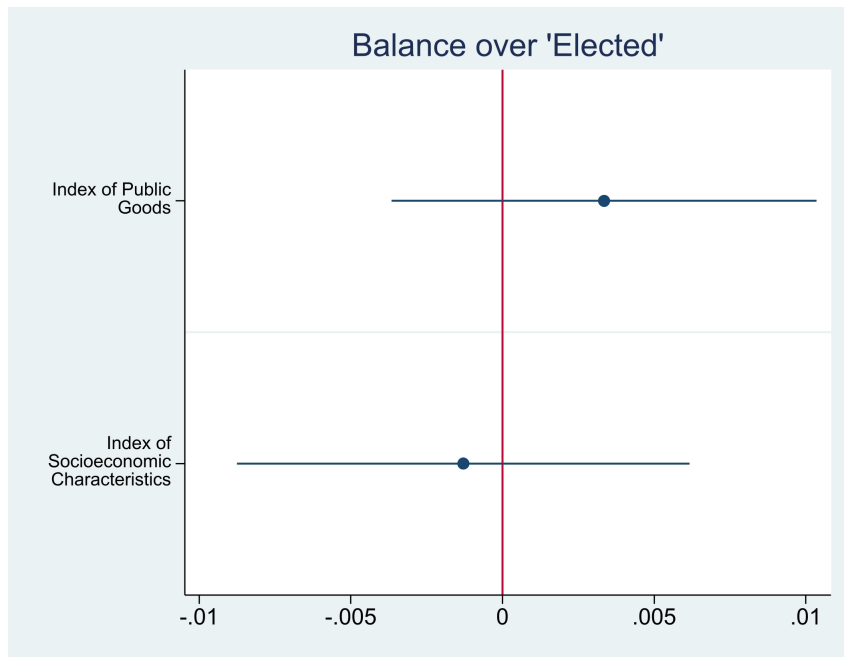
Notes: This table reports the mean values for various village-level characteristics across Admin and Elected villages as a baseline measure. The variables under panels demographics and public goods comes from the 2011 Population Census. The socio-economic characteristics from the 2011-12 Socio-Economic and Caste Census. Monthly composites of nighttime lights are constructed from data obtained from Visible Infrared Imaging Suite. The NREGA variables are our calculations based on the data available from Ministry Of Rural Development, Government Of India. Lastly, we use NDVI-based agricultural output for three cropping seasons. The specific construction of each is explained in greater detail in the data section. Columns 1 and 2 show the means and standard deviation for all villages governed by an administrator. Columns 3 and 4 show the means and standard deviation for all villages governed by an elected leader.

Figure 1: Coefficient Plots for Balance Regressions: All individual variables



Notes: This figure plots the p-value for the difference of means for the various demographic and public-good provision variables obtained from the 2011 Population Census.

Figure 2: Coefficient Plots for Balance Regressions: Z-Scored Indices



Notes: This figure plots the p-value for the difference of means for an index of public-good provision variables and index of socio-economic characteristics obtained from the 2011 Population Census and 2011-12 Socio-Economic Caste Census, respectively. In the construction of the public goods index we include: number of primary and secondary schools, primary health centers, ASHA status, access to power supply, access to treated tap water, open drainage, mobile phone coverage, all weather roads, connections to public bus, state highways and major districts. In the construction of the socio-economics characteristics index we include: share of employment in the manufacturing and services sector, rural per-capita consumption and share of households with cultivation as the main source of income.

Table 2: Karnataka State, special and normal talukas cross-sectional balance

	Full State	Special	Normal	Coefficient
<i>Demographics</i>				
Rural population	1396.395 (92.172)	1521.469 (17.392)	1322.680 (12.447)	92.263 (92.172)
Households	295.595 (19.161)	318.471 (3.535)	282.113 (2.576)	282.113 (19.161)
Scheduled caste (share)	0.206 (0.012)	0.215 (0.002)	0.201 (0.002)	0.021* (0.012)
Scheduled tribe (share)	0.087 (0.008)	0.081 (0.002)	0.091 (0.001)	0.012 (0.008)
Literate (share)	0.615 (0.006)	0.615 (0.001)	0.614 (0.001)	-0.010 (0.006)
<i>Public Goods</i>				
Primary schools	1.677 (0.068)	1.763 (0.016)	1.627 (0.012)	0.139** (0.068)
Senior secondary schools	0.078 (0.007)	0.083 (0.004)	0.076 (0.003)	0.002 (0.007)
Primary Health Sub-centres	0.289 (0.016)	0.308 (0.005)	0.279 (0.004)	-0.008 (0.016)
Power Supply, all users (0/1)	0.997 (0.001)	0.998 (0.000)	0.997 (0.000)	0.001 (0.001)
All weather road (0/1)	0.935 (0.011)	0.933 (0.003)	0.936 (0.002)	-0.009 (0.011)
<i>Socio-economic characteristics</i>				
Service sector employees 2013 (share)	0.807 (0.009)	0.795 (0.002)	0.814 (0.002)	-0.001 (0.009)
Manufacturing sector employees 2013 (share)	0.182 (0.008)	0.194 (0.002)	0.174 (0.002)	0.002 (0.008)
Rural per capita consumption (mean)	1.9e+04 (258.781)	1.9e+04 (64.346)	2.0e+04 (43.994)	-570.496** (258.781)
Households main income from cultivation (share)	0.541 (0.019)	0.545 (0.003)	0.539 (0.002)	-0.033* (0.019)
<i>Night Lights</i>				
Mean Night lights (log)	-0.563 (0.050)	-0.520 (0.003)	-0.586 (0.002)	0.057 (0.050)
Cummulative Night lights (log)	2.363 (0.067)	2.404 (0.003)	2.342 (0.003)	0.125* (0.067)
Max Night Lights (log)	2.363 (0.053)	0.177 (0.003)	0.106 (0.002)	0.093* (0.053)

Notes: This table reports the mean values for various village-level characteristics for various sub-samples used in the study. The variables under panels demographics and public goods come from the 2011 Population Census. The socioeconomic characteristics from the 2013 Socio-Economic and Caste Census. Monthly composites of nighttime lights are constructed from data obtained from Visible Infrared Imaging Suite. The NREGA variables are our calculations based on the data available from Ministry Of Rural Development, Government Of India. The specific construction of each is explained in greater detail in the data section. Column 2 reports the mean for all villages in the state. In Column 3, we report means for a restricted sample of villages in special talukas. This means villages in blocks where at least one GP has an elected leader in charge. Throughout our study, we use villages and GPs in special talukas for our analysis. Column 4 reports the mean for all villages in Non-Special or normal talukas. In Column 4, we report the coefficient on the difference in means on the Special-Taluka dummy. The specification includes district fixed effects. Standard errors are robust and clustered at the taluka level. Significant at *10%, **5%, and ***1%.

Table 3: Parallel Trends -

	NREGA		Agricultural Production			MVS
	(1) Days worked	(2) New Job Cards	(3) Rabi	(4) Kharif	(5) Summer	(6) Progress
Elected x 2017			0.024 (0.027)	0.025 (0.080)	-0.084 (0.063)	0.004 (0.003)
Elected x 2018	-21.651 (16.364)	0.249 (0.466)	0.019 (0.037)	0.035 (0.056)	-0.012 (0.072)	0.006 (0.005)
Elected x 2019	-32.202* (16.541)	0.774 (0.486)	0.010 (0.030)	-0.129* (0.078)	-0.025 (0.053)	0.007 (0.006)
Observations	419399	419399	44735	44735	53682	6808895
Adjusted R^2	0.009	0.009	0.703	0.260	0.410	0.094

Notes: This table reports regression estimates for our main estimating equation for various outcomes in pre-treatment period. The main independent variable, Elected takes 1 if gram panchayat i is headed by an elected leader, else takes 0. Year variables from 2017 to 2019 indicate pre-treatment, as June 2020 onwards indicates our treatment period. The sample is all villages within special blocks. In Column 1 and 2, we use NREGA days worked and new job cards created in a village i in month-year y . The specification includes time (month-year) and village fixed effects. We control for the yearly lag of outcome variable. In Columns 3, 4 & 5 we use NDVI as agricultural productivity proxy in three different cropping seasons: Rabi (October-December), Kharif (April-September) and Summer (January-March). Specification includes year and village fixed effects. Lastly, in Column 6 we use progress on Multi-Village Schemes in our development works project as the outcome. Progress takes 1 if there has been any administrative or technical sanctions made on a project during the treatment period (post June 2020). Specification includes project-id and time fixed effects. All specifications report standard errors in parentheses, robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 4: Assessment of COVID Management in GPs during Wave 1

Variable	(1) Elected	(2) Appointed	(3) Diff
Elected Incharge	0.815 (0.391)	0.142 (0.349)	-0.658*** (0.053)
Incharge important in Covid Management?	0.923 (0.269)	0.972 (0.165)	0.046 (0.032)
<i>Covid Management</i>			
Led by Administrator	0.000 (0.000)	0.125 (0.331)	0.131*** (0.018)
Led by Elected leader	0.138 (0.348)	0.049 (0.217)	-0.097** (0.045)
<i>Most effective in changing behaviour</i>			
Administrator	0.000 (0.000)	0.024 (0.154)	0.022*** (0.007)
Elected leader	0.323 (0.471)	0.293 (0.455)	-0.035 (0.064)
Observations	106	3,961	4,092

Notes: This table reports on responses from the Panchayat Development Officers survey on COVID management across elected and appointed GPs. Leftmost lists the different responses to questions asked in the survey to PDOs. Column (1) and (2) report the mean response by PDOs in Elected GPs and Appointed GPs, respectively. Column (3) reports the difference in means while controlling for taluka fixed effects. Standard errors in parentheses, robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 5: Effect of Citizen preferences on GP expenditure

	(1)	(2)	(3)
Citizen Priority (prop)	0.063*** (0.004)	0.064*** (0.004)	0.059*** (0.004)
Elected			-0.762*** (0.206)
Citizen Priority x Elected			0.035*** (0.011)
Total expenditure (log)		1.533*** (0.146)	1.549*** (0.147)
Constant	6.341*** (0.101)	-19.738*** (2.491)	-19.881*** (2.512)
Observations	7084	7084	7084
Adjusted R^2	0.032	0.085	0.087
Taluka FE	No	Yes	Yes
Controls	No	Yes	Yes
Gram Panchayats	644	644	644

Notes: The dependent variable is the log of expenditure in category c , by panchayat i in block j . The variable citizen priority is the proportion of citizen's in panchayat i , in taluka j that consider public goods category c to be a priority over others. Column 1 reports the raw effect of citizen priority on log of GP expenditure. Columns 2 and 3 include taluka fixed effects and control for log of total GP expenditure in panchayat i , in taluka j . Column 3 reports on the effect of elected leaders citizen priorities. The variable Elected takes 1 if gram panchayat i is headed by an elected leader, else takes 0. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 6: Heterogenous effect of Citizen preferences on GP expenditure

	(1) Male	(2) Female	(3) General	(4) OBC	(5) SC/ST	(6) BPL	(7) Non-BPL
Citizen Priority (prop)	0.054*** (0.004)	0.021*** (0.004)	0.032*** (0.004)	0.031*** (0.004)	0.024*** (0.003)	0.018*** (0.004)	0.057*** (0.004)
Elected	-0.769*** (0.211)	-0.138 (0.192)	-0.720*** (0.206)	-0.507** (0.210)	-0.356* (0.196)	-0.298 (0.195)	-0.593*** (0.207)
Citizen Priority x Elected	0.035*** (0.011)	0.005 (0.009)	0.032*** (0.009)	0.019** (0.009)	0.009 (0.008)	0.001 (0.008)	0.024** (0.011)
Total expenditure (log)	1.537*** (0.146)	1.393*** (0.178)	1.508*** (0.145)	1.545*** (0.149)	1.500*** (0.168)	1.487*** (0.158)	1.559*** (0.151)
Constant	-19.613*** (2.490)	-16.590*** (3.037)	-18.715*** (2.472)	-19.408*** (2.545)	-18.425*** (2.869)	-18.051*** (2.700)	-20.011*** (2.585)
Observations	7051	4851	6699	5544	5467	4598	6688
Adjusted R^2	0.085	0.055	0.071	0.070	0.064	0.063	0.087
Taluka FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Gram Panchayats	644	644	644	644	644	644	644

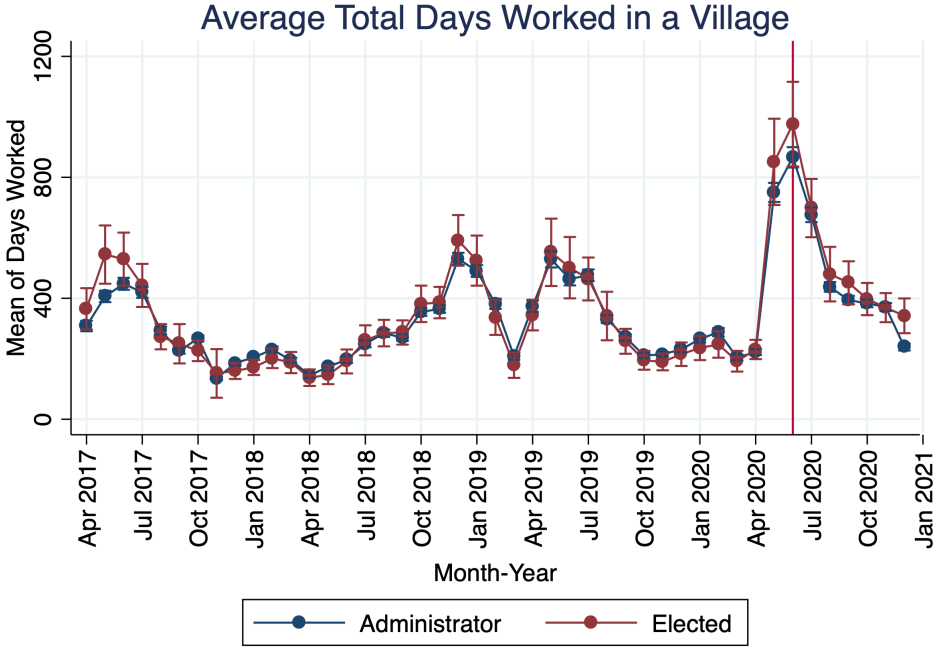
Notes: All columns are a sub-sample of citizen preferences expressed by groups as indicated in the column header. The dependent variable is the log of expenditure in category c , by panchayat i in block j . The variable citizen priority is the proportion of sub-sample citizens, in panchayat i , in block j that consider public goods category c to be a priority over others. The variable Elected takes 1 if gram panchayat i is headed by an elected leader, else takes 0. The main variable of interest is the interaction, Citizen priority x Elected. The specification includes block fixed effect and controls for the total expenditure in a GP (i,j). Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 7: Gram Panchayat meetings under elected/appointed GPs

	(1) Total	(2) Gram Sabha	(3) Ward Sabha	(4) General Body	(5) Special	(6) Standing Comittee	(7) Jamabandi	(8) Other
Elected	0.270** (0.105)	-0.032 (0.098)	0.002 (0.094)	0.373*** (0.120)	0.017 (0.094)	0.251* (0.137)	0.105 (0.096)	0.072 (0.081)
Constant	-0.019 (0.031)	0.005 (0.032)	0.002 (0.034)	-0.028 (0.032)	-0.001 (0.035)	-0.021 (0.032)	-0.009 (0.028)	-0.004 (0.028)
Observations	883	883	883	883	883	883	883	883
Adjusted R^2	0.209	0.187	0.113	0.135	0.061	0.096	0.348	0.382
Mean Y Admin	5.15	1.31	0.24	2.23	0.37	0.09	0.44	0.48
Mean Y Elected	6.13	1.22	0.23	3.13	0.38	0.16	0.47	0.55
SD Y	4.11	1.16	0.65	2.33	0.99	0.41	0.50	1.48

Notes: The unit of analysis is gram panchayat i . The outcome variable of interest is the number of official GP meetings conducted. For the regression, in Column 1 the outcome variable is a standardized (by subtracting the mean and dividing by the standard deviation) total of all types of meetings conducted in a GP. In Columns 2-8, the outcome variable is a standardized number of official GP meetings of each kind, as listed in the column header. The dependent Elected takes 1 if gram panchayat i is headed by an elected leader, else takes 0. All columns include taluka fixed effects. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Figure 3: Average NREGS days worked in elected and appointed villages from April 2017 to Dec 2020



Notes: This figure plots average total days worked by all applicants in a village per month in elected versus administrator GPs.

Table 8: NREGA outcomes for all workers under Elected/Appointed in Village-Month-Year

	Days worked			New Job Cards		
	(1)	(2)	(3)	(4)	(5)	(6)
Elected	5.099 (28.558)			0.629 (0.474)		
Post	183.073*** (6.571)			2.041*** (0.155)		
Elected x Post	41.900 (28.579)	45.729 (28.828)	51.998* (29.165)	1.566* (0.881)	1.521* (0.864)	1.263 (0.797)
Lagged Y			0.172*** (0.019)			-0.000 (0.000)
Constant	310.297*** (6.942)	337.609*** (0.272)	312.950*** (5.754)	2.427*** (0.090)	2.769*** (0.008)	3.019*** (0.021)
Observations	419399	419376	303306	419399	419376	303306
Adjusted R^2	0.007	0.362	0.387	0.006	0.465	0.539
Mean Y Admin	337.30	337.30	337.30	2.73	2.73	2.73
Mean Y Elected	348.66	348.66	348.66	3.59	3.59	3.59

Notes: The unit of the analysis is NREGA outcomes in village i , in month m of year y . The column headers list the outcome variable of regressions including coefficients in the leftmost column. Independent variable Elected takes 1 if village i belongs to a GP headed by an elected leader, else takes 0. Variable Post takes 1 for all observations from June 2020, indicating treatment period. The main variable of interest is Elected x Post. Column 1 (and 4) includes no fixed effects or controls. All other columns include time (month-year) and village fixed effects. Columns 3 and 5 include a control for the yearly lag of the outcome variable. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 9: Heterogenous effects of Elected/Appointed on NREGA outcomes (Village-Month-Year)

	Days Worked					New Job Cards/Members				
	(1) BPL	(2) Female	(3) Male	(4) SC	(5) ST	(6) BPL	(7) Female	(8) Male	(9) SC	(10) ST
Elected x Post	29.566* (16.361)	24.543* (14.235)	29.095** (14.814)	7.267 (5.765)	-2.265 (2.787)	0.118* (0.065)	0.119* (0.069)	0.129* (0.075)	0.040* (0.022)	-0.008* (0.004)
Constant	111.944*** (2.234)	137.600*** (3.415)	150.921*** (2.736)	49.543*** (1.149)	20.023*** (1.335)	0.133*** (0.003)	0.194*** (0.004)	0.177*** (0.004)	0.041*** (0.001)	0.019*** (0.001)
Observations	303306	303306	303306	303306	303306	303306	303306	303306	303306	303306
Adjusted R^2	0.382	0.392	0.394	0.352	0.342	0.063	0.066	0.076	0.044	0.054
Mean Y Admin	116.75	152.70	162.17	55.27	26.55	0.14	0.21	0.19	0.04	0.02
Mean Y Elected	123.24	153.52	167.71	57.84	18.58	0.19	0.28	0.27	0.05	0.01

Notes: The unit of the analysis is NREGA outcomes in village i , in month m of year y . The column headers and sub-headings list the outcome variable for the sub-sample in the regression. Independent variable Elected takes 1 if village i belongs to a GP headed by an elected leader else takes 0. Variable Post takes 1 for all observations from June 2020, indicating the treatment period. The main variable of interest is Elected x Post. All specifications include time (month-year) and village fixed effects whilst controlling for the yearly lag of the outcome variable. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 10: Effect of Elected leader on GP Officer Attendance (GP-Week-Officer Type)

	(1)	(2)	(3)
Elected x Post	2.255* (1.261)	2.251* (1.261)	2.253* (1.261)
Registration % (mean)	0.109*** (0.006)		0.148*** (0.006)
Officer Type (share)		0.095*** (0.006)	0.136*** (0.006)
Constant	9.610*** (0.563)	17.728*** (0.128)	3.123*** (0.647)
Observations	1100069	1100069	1100069
Adjusted R^2	0.242	0.241	0.247
Controls			
Mean Y Admin	19.73	19.73	19.73
Mean Y Elected	20.55	20.55	20.55

Notes: The unit of the analysis is officer type i , working in GP j on week-year y . The dependent variable is the average attendance percentage of all active officers of type i , in GP j during week-year y . Independent variable Elected takes 1 if the GP is headed by an elected leader, else takes 0. Variable Post takes 1 for all observations from June 2020, indicating treatment period. The main independent variable of interest is Elected x Post. All specifications include week, weekday, and GP fixed effects. Column 1 controls for the average registration percentage of all active officers of type i , in GP j during week-year y . Column 2 controls for the share of officer type i in GP j during week-year y . Column 3 includes both previously described controls. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 11: Heterogeneous effects of Elected leader on various GP Officer Attendance (GP-Week-Officer Type)

	PDO	Data Staff	Senior Staff	Secretary	Assistants	Accounts Staff	Project Coord	Technical Staff	Facilities Staff
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Elected x Post	1.484 (1.177)	2.401 (1.987)	-0.013 (0.013)	0.962 (2.203)	-1.141 (3.651)	4.388** (1.820)	-6.299 (4.592)	0.201 (0.366)	3.293** (1.443)
Constant	47.573*** (15.145)	56.750 (43.949)	-0.201 (0.222)	-7.839 (49.885)	15.824 (104.363)	23.701 (44.573)	-7996.710 (11121.285)	-26.868** (12.002)	-18.878 (39.954)
Observations	228928	211007	35465	161302	4758	211238	2739	14842	228598
Adjusted R^2	0.363	0.433	0.007	0.363	0.272	0.426	0.317	0.048	0.487
Controls									
Mean Y Admin	9.18	28.65	0.01	15.18	7.83	27.06	28.13	0.76	23.20
Mean Y Elected	9.56	27.64	0.00	19.90	2.88	27.36	17.04	0.30	21.88

Notes: The unit of the analysis is Officer type i , working in GP j during week-year y . The dependent variable is average attendance percentage of all active officers of type i , in GP j during week-year y . Independent variable Elected takes 1 if village i belongs to a GP headed by an elected leader, else takes 0. Variable Post takes 1 for all observations from June 2020, indicating treatment period. The main variable of interest is Elected x Post. The column header lists the specific sub-sample of officer type. All columns include the same specification i.e., week, weekday and GP fixed effects and controls for average registration percentage & share of officer type i , in GP j during week-year y . Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 12: Effect of administrator human capital on public works progress

	(1) Any Progress	(2) Approval Prog	(3) Workorder Prog	(4) Tender Prog	(5) Monetary Prog	(6) Completion Prog
Same-Dept	-0.002 (0.002)	-0.004 (0.002)	0.002 (0.001)	0.016** (0.007)	-0.020*** (0.002)	0.002 (0.002)
Same-Dept x Post	0.005** (0.002)	0.012*** (0.003)	0.003** (0.001)	-0.036*** (0.013)	0.015*** (0.002)	-0.001 (0.001)
Constant	0.065*** (0.000)	0.063*** (0.001)	0.040*** (0.000)	0.063*** (0.001)	0.024*** (0.000)	0.013*** (0.000)
Observations	4460837	3167739	4186625	174947	1144277	4460837
Adjusted R^2	0.022	0.016	0.018	0.023	0.030	0.009
Mean Y Admin	0.07	0.06	0.04	0.06	0.02	0.01

Notes: We restrict our public works sample to GPs headed by appointed administrators. The unit of the analysis is outcomes corresponding to a public works project i , in GP j during period y . We divide the calendar year into two periods: first from January to May and second from June to December. The main dependent variable, “progress” takes 1 if any task related to the execution of public works project i , in GP j during period y is conducted, else it takes a 0. The main independent variable, “same-department” takes a 1 if the appointed administrator’s mother department is the same as the implementing office of the public work, else takes a 0. The variable Post takes 1 for all observations from June 2020, indicating treatment period. The main variable of interest is Same-Dept x Post. In Column 1, the progress outcome variable takes 1 for any type of movement on the work. In subsequent Columns, 2-6 we report on specific types of progress. Specifically, in Column 2 if there is an administrative or technical approval, the approval progress takes a 1. In Column 3, if a work order is generated, an agreement was signed or the project commenced then the workorder Progress takes a 1. In Column 4, if a tender notification or closing is generated then tender progress takes 1. In Column 5, if any bill, payment or advice was generated then monetary progress takes 1. In Column 6, if there is either physical or financial completion then completion progress takes 1. Specification includes time and project fixed effects. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 13: Progress on Multi Village Scheme works by Elected/Appointed leaders

	(1)	(2)	(3)	(4)	(5)	(6)
	Any Progress	Approval Prog	Workorder Prog	Tender Prog	Monetary Prog	Completion Prog
Elected x Post	0.001 (0.002)	0.001 (0.002)	0.000 (0.002)	-0.017*** (0.006)	0.002 (0.002)	0.001 (0.001)
MVS x Post	0.227*** (0.011)	0.253*** (0.019)	0.060*** (0.004)	0.167*** (0.007)	-0.169*** (0.027)	-0.001 (0.001)
MVS x Elected x Post	0.078** (0.034)	0.081 (0.070)	0.047* (0.025)	0.093*** (0.031)	-0.007 (0.114)	-0.003 (0.002)
Constant	0.063*** (0.000)	0.059*** (0.000)	0.039*** (0.000)	0.060*** (0.000)	0.022*** (0.000)	0.011*** (0.000)
Observations	6808895	4793926	6389575	250741	1750205	6808895
Adjusted R^2	0.094	0.198	0.034	0.053	0.216	0.133
Mean Y Admin	0.06	0.06	0.04	0.06	0.02	0.01
Mean Y Elected	0.07	0.06	0.04	0.07	0.02	0.01

Notes: The unit of the analysis is outcomes corresponding to a public works project i , in GP j during period y . We divide the calendar year into two periods: first from January to May and second from June to December. The main dependent variable, "progress" takes 1 if any task related to the execution of public works project i , in GP j during period y is conducted, else it takes a 0. The main independent variable, "MVS x Elected x Post" takes a 1 if a project belongs to a Multi Village Scheme (MVS), in a GP headed by an elected leader during the treatment period (June 2020 onwards). Column 1 reports on any progress. Columns 2-6 report on specific types of progress - for construction of each variable refer the footnote in the previous table. Specification includes time and project-fixed effects. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 14: Impact of elected/appointed leader on aggregate economic indicators

	Night Lights			Agricultural Production		
	(1) Mean (log)	(2) Total (log)	(3) Max (log)	(4) Kharif	(5) Rabi	(6) Summer
Elected x Post	-0.010 (0.020)	-0.010 (0.020)	-0.011 (0.019)	0.012 (0.033)	0.042 (0.062)	-0.053 (0.038)
Observations	205780	205780	205787	44735	44735	53682
Adjusted R^2	0.779	0.887	0.829	0.703	0.260	0.410

Notes: This table presents regression estimates from the main estimating equation of the effect of having an elected leader on various aggregate measures of economic activity namely, night lights luminosity (Columns 1-3) and agricultural production (Columns 4-6). The dependent variables for Columns 1 to 3 are log of the average, total, and maximum of the total night light luminosity in 2019-2020 in village i , of GP j during a month in year y . The main variable of interest remains Elected x Post, which takes 1 if the GP j is headed by an elected leader during our treatment period (June 2020 onwards). The specification includes village and month-year fixed effects. The dependent variable in Columns 4 to 6 is the difference between early-season and max Vegetation Index, averaged over a village i , in GP i during specific agricultural seasons of year y . The main variable of interest remains Elected x Post. The coefficient on Elected x Post for the seasons Kharif (April-September) and Rabi (October-December) reflect the year 2020. However, for Summer (January-March) we report Elected x Post for 2021 to pick up the effect after units are exposed to treatment. The specification includes village and year-fixed effects. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 15: Impact of Elected/Appointed leaders on Covid management & outcomes

	(1) Task Force Awareness (W1)	(2) Covid Mortality (W1)	(3) Covid Well-Being	(4) Economic Well-Being	(5) GP Covid Rating (W1)
Elected	-0.033 (0.035)	0.013 (0.023)	0.022 (0.026)	0.031 (0.034)	-0.027 (0.031)
Observations	8170	8162	7652	8737	8662
Adjusted R^2	0.056	-0.001	0.017	0.036	0.038
SD Y	0.43	11.62	1.19	1.05	1.00

Notes: This table presents regression estimates from the main estimating equation of the effect of having an elected leader on various Covid management and well-being outcomes as assessed using the citizens survey. The main independent variable is Elected, which takes 1 if the GP is headed by an elected leader, else takes 0. Columns 1 to 4 use responses to various questions about health, death, and management during Covid Wave 1 as the dependent variable. In Column 1, it is the citizen response to whether they were aware of the GP Task Force set up during Wave 1 to manage Covid. The variable takes 1 if the citizen responds positively, else 0. Column 2, is the citizen-reported number of covid deaths in their village in Wave 1. In Column 3, the dependent variable is a standardized index (z-score of PCA) of well-being constructed using citizen responses on number of covid patients and deaths in their village, the number of deaths in their household, and the overall health of their household (1=very poor, we have many problems to 4=excellent, we have no problems), all during Wave 1. Column 4 is a standardized index using the response to the economic/employment situation of the household (1=very poor, we have many problems to 4=excellent, we have no problems) and whether the household was food constrained during Wave 1. Column 5 uses the citizen's GP rating on covid management (from 1=poor to 4=excellent) as the outcome variable. All specifications control for the respondent, village, and surveyor-specific characteristics. The respondent characteristics we observe (and control for) include age, sex, caste category, religion, education, and occupation. The village characteristics we control for include SC, ST status, and literate proportion of the population, manufacturing and service sector share of employment, number of primary, middle, secondary & senior-secondary schools, number of public health centers & medical dispensaries, public distribution shops, Anganwadi centers, and the per-capita rural consumption index. Lastly, include a dummy for each surveyor. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 16: Elite Capture

	(1)	(2)
	Properties Owned	Sum of demand (centile)
Council Member	0.707*** (0.0263)	7.766*** (0.277)
Constant	1.211*** (0.0000751)	47.02*** (0.000789)
Observations	8379945	8379945
Adjusted R^2	0.016	.041
Village F.E	Yes	Yes

Notes: This table presents regression estimating the effect of being a local politician i.e., council members on property wealth related outcomes. The main dependent variable is whether a property taxpayer is a council member, if so the outcomes takes a 1 else 0. In Column 1, the outcome variable is the number of properties owned by individual i , in GP j . In Column 2 we use the sum of the property tax demanded across all the properties owned by individual i , in GP j . The specification includes village fixed effects and standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 17: All NREGA workers under Elected/Appointed - matched to council-members' Council-Member (JC)

	Days worked			Payment Earned		
	(1)	(2)	(3)	(4)	(5)	(6)
Elected	-0.451 (0.456)			-111.928 (114.646)		
Post	-2.519*** (0.185)			-294.371*** (50.090)		
Council-Member (JC)	-0.647*** (0.212)			-180.887*** (53.473)		
Elected x Post	0.923 (0.637)	0.946 (0.635)	1.774** (0.772)	236.108 (173.094)	251.381 (172.861)	484.243** (208.746)
Council-Member (JC) x Post	0.033 (0.376)	0.018 (0.391)	-0.296 (0.570)	22.515 (101.449)	3.744 (104.315)	-83.032 (152.405)
Council-Member (JC) x Elected	-0.237 (0.898)			-53.344 (234.008)		
Council-Member (JC) x Post x Elected	0.478 (1.776)	1.305 (1.895)	3.137 (3.037)	115.415 (489.596)	342.979 (518.907)	710.010 (825.290)
Lagged Y			-0.285*** (0.006)			-0.288*** (0.006)
Constant	15.881*** (0.150)	15.889*** (0.007)	22.685*** (0.114)	3971.492*** (37.949)	4035.832*** (2.006)	5796.721*** (28.775)
Observations	4136448	3703854	1650088	4136448	3703854	1650088
Adjusted R^2	0.005	0.201	0.287	0.001	0.207	0.291
Mean Y Admin	15.391	15.391	15.391	3913.877	3913.877	3913.877
Mean Y Elected	15.104	15.104	15.104	3847.113	3847.113	3847.113

Notes: This table reports the regression estimate on the effect council members in elected leader led GPs have on re-directing NREGA benefits to their household. The unit of the analysis is NREGA outcomes for an applicant i , in GP j during period y . We divide the calendar year into two periods: from January to May and from June to December. The column headers list the outcome variable of regressions including coefficients in the leftmost column. Independent variable Elected takes 1 if applicant i belongs to a GP headed by an elected leader, else takes 0. Variable Post takes 1 for all observations from June 2020, indicating treatment period. Variable Council-Member (JC) takes a 1 for all applicants belonging to the council member's household. The main variable of interest is Council-Member (JC) x Elected x Post. Column 1 (and 4) includes no fixed effects or controls. All other columns include time (period) and village fixed effects. Columns 3 and 5 include a control for the yearly lag of the outcome variable. Standard errors in parentheses are robust and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 18: Heterogeneity: Village level characteristics

Elected x (Post) Heterogeneity Dimension	Covid Management	NREGA		Works	Citizen Preferences
	Covid Mortality (W1)	Days worked	New Job Cards	Any Progress	GP Expenditure
SC&ST prop (>p50)	0.03 (0.058)	-42.482 (50.864)	-0.738 (1.478)	0.006* (0.004)	0.008 (0.021)
Rural Consumption (>p50)	-0.005 (0.058)	-37.081 (52.357)	-1.545 (1.119)	0.001 (0.003)	0 (0.007)
Land Inequality (>p50)	-0.058 (0.05)	43.849 (43.034)	0.131 (0.914)	-0.001 (0.003)	0.002 (0.014)
Main Village	-0.006 (0.043)	99.506 (61.84)	-0.422 (1.062)	-0.001 (0.003)	0.019*** (0.007)

Notes: This table reports the coefficient on Elected x (Post) x Heterogeneity Dimension from heterogenous effects regression previously stated specifications and outcomes. The first column lists the various heterogeneity dimensions which are categorised above or below the block-level medians. The various dimensions are SC & ST proportion in a village, per-capita rural consumption, land inequality GINI calculated using the a large rural property tax dataset and a dummy variable that takes 1 if observations belong to the main village in a GP. For the different outcome variables, we use the main specification stated under each table and only add interaction terms for the heterogenous effect. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 19: Leader-level Heterogeneity

	Covid Management	NREGA		Works	Citizen Preferences
	Covid Mortality (W1)	Days worked	New Job Cards	Any Progress	GP Expenditure
Elected x (Post/Cit-Pref)	0.024 (0.08)	71.690* (40.066)	0.246 (0.927)	-0.016** (0.007)	0.067 (0.058)
Male x (Post/Cit-Pref)	0.089 (0.085)	7.545 (20.898)	-0.18 (0.685)	0.001 (0.002)	0.004 (0.011)
Elected x Male x (Post/Cit-Pref)	-0.134 (0.138)	-59.255 (58.591)	1.133 (1.579)	0.016 (0.01)	-0.037 (0.067)
H0: Mode == Gender					
F-stat	3.039	3.241	0.411	5.091	1.19
p-value	0.082	0.072	0.522	0.024	0.28

Notes: This table reports the leader-gender & elected coefficients from horse-race regressions on main outcomes. In the bottom-panel we report the F-statistic and p-value from the wald test, checking whether the coefficient on the mode of election and gender of the leader are the same. All specifications remain the same as stated in the outcome's respective tables, with the addition of the interaction terms to gauge the effect of leader gender. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 20: Leader Electoral Incentives

Elected x (Post/Cit-Pref) x Dimension	Covid Management	NREGA		Works	Citizen Preferences
	Covid Mortality (W1)	Days worked	New Job Cards	Any Progress	GP Expenditure
Re-election '21	0.023 (0.042)	-28.264 (58.624)	3.523 (2.134)	0 (0.005)	0.003 (0.02)

Notes: This table reports the coefficient on Elected x (Post/Cit-Pref) x Dimension from the regression estimating the differential impact that elected GPs with nearby re-elections may have on our previously stated outcomes. All specifications remain the same as previously explained in the table notes, except for the addition of re-election '21 variable and controlling for the prior Adhyaksha experience. The “re-election '21” variable takes a 1 if an elected GP is up for re-election in 2021 (i.e, next year) else takes a 0. The “experienced adhyaksha” takes a 1 if the elected GP’s President (= Adhyaksha) has prior office-holding experience in any capacity, else takes a 0. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

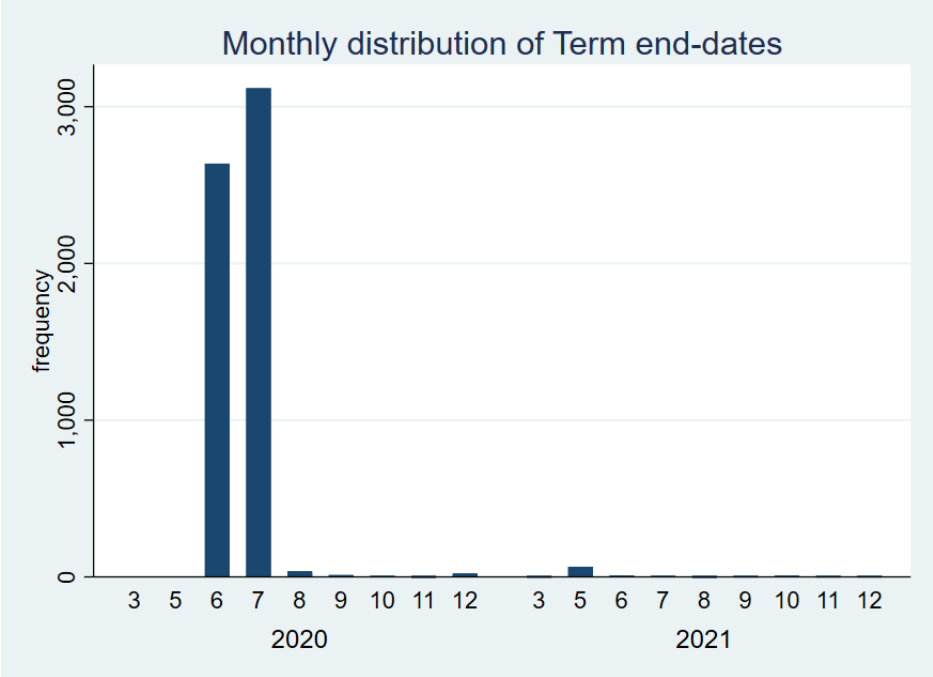
Table 21: Historical Heterogeneity by Old state of Mysore

Elected x (Post) Heterogeneity Dimension	Covid Management	NREGA		Works	Citizen Preferences
	Covid Mortality (W1)	Days worked	New Job Cards	Any Progress	GP Expenditure
Elected x (Post/Cit-Pref)	0.031 (0.034)	81.468* (47.692)	2.084 (1.543)	-0.004* (0.002)	0.032** (0.014)
Old-Mysore x (Post/Cit-Pref)	-0.03 (0.043)	-32.351** (13.669)	-2.522*** (0.316)	-0.007*** (0.003)	-0.012 (0.008)
Old-Mysore x Elected x (Post/Cit-Pref)	-0.031 (0.053)	-55.821 (58.387)	-1.656 (1.658)	0.006 (0.004)	0.006 (0.016)

This table reports the heterogenous effects of previously stated outcomes across the Old Mysore dummy. Foremost, the Old-Mysore dummy for a GP i takes 1 if the present-day GP historically belonged to the historical state of Mysore as defined prior to the 1956 re-organisation of Indian districts. Independent variable Elected takes 1 if village i belongs to a GP headed by an elected leader, else takes 0. Variable Post takes 1 for all observations from June 2020, indicating treatment period. The main variable of interest is Elected x (Post/Cit-Pref) x Old-Mysore. The specifications for all columns remains the exact same as described in their respective baseline table footnotes. In all cases, standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

8 Appendix

Figure A.1: Distribution of election term-end dates of GP representatives aggregated at the monthly level



8.1 Robustness

A feature of our natural experiment is the appointment of administrators to multiple GPs. After elected councils completed their terms, an administrator was appointed. However, the postponement of elections in such a large number of GPs (nearly 5800) exacerbated the problem of already limited number of Class B officers in a Block who could be appointed. This led to multiple-GP appointments for a single administrator. In contrast, Presidents in elected GPs have a single appointment.

Below we test for whether our results are driven by the fact that administrators govern more GPs. Column 1 of Table 8.1 is our baseline specification. In column 2, we control for the number of GPs an administrator/elected official is in charge of (this number is always 1 for elected officials). Our main outcome of interest—citizen preferences interacted with elected GP remains unchanged. In column 3, we interact number of GPs with citizen preferences and elected GPs. We find that this trip-interaction term is small and insignificant.

Overall, the results strongly suggest that our results are not driven by administrator governing multiple GPs.

Table 22: Effect of Citizen preferences on GP expenditure

	(1) Baseline	(2) N-GP Control	(3) Interaction
Admin	0.762*** (0.206)	0.748*** (0.225)	0.719*** (0.233)
Citizen Priority (prop)	0.094*** (0.010)	0.094*** (0.010)	0.094*** (0.010)
Citizen Priority x Admin	-0.035*** (0.011)	-0.035*** (0.011)	-0.033*** (0.012)
N-GPs		0.024 (0.027)	0.036 (0.037)
Cit-Pref x Admin x N-GPs			-0.001 (0.001)
Total expenditure (log)	1.549*** (0.147)	1.614*** (0.175)	1.614*** (0.175)
Constant	-20.642*** (2.524)	-21.740*** (2.994)	-21.758*** (2.997)
Observations	7084	6380	6380
Adjusted R^2	0.087	0.084	0.084
Taluka FE	Yes	Yes	Yes
Controls	Yes	Yes	Yes
Gram Panchayats	644	644	644

Notes: This table reports robustness regression estimates of the main estimating equation estimating the effect of citizen preferences in elected leader-led GPs on expenditure. In all columns, the dependent variable is the log of expenditure in category c , by panchayat i in block j . The variable citizen priority is the proportion of citizen's in panchayat i , in block j that consider public goods category c to be a priority over others. The variable Admin takes 0 if gram panchayat i is headed by an elected leader, else takes 1 - it forms the inverse of our previously defined Elected variable. Column 1 reports the estimates from our baseline specification which includes block fixed effects and control for log of total GP expenditure in panchayat i , in block j . Column 2, the control N-GPs, equals the number of GPs assigned to the administrator. For elected-led GPs, N-GPs always takes 1. Column 3, in addition to N-GPs as control, we include the interaction of Admin x Cit-Pref x N-GPs. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 23: NREGA outcomes for all workers under Elected/Appointed in Village-Month-Year - Multi-GP Robustness

	Days worked			New Job Cards		
	(Baseline)	(N-GP Control)	(Interaction)	(Baseline)	(N-GP Control)	(Interaction)
Admin x Post	-51.998* (29.165)	-61.386** (29.459)	-59.799** (29.802)	-1.263 (0.797)	-1.352* (0.800)	-1.338* (0.804)
N-GPs x Post		-1.587 (1.938)			-0.014 (0.032)	
Admin x N-GPs x Post			-1.587 (1.938)			-0.014 (0.032)
Lagged Y	0.172*** (0.019)	0.158*** (0.020)	0.158*** (0.020)	-0.000 (0.000)	-0.000* (0.000)	-0.000* (0.000)
Constant	323.521*** (8.069)	338.473*** (8.507)	338.150*** (8.500)	3.276*** (0.153)	3.401*** (0.152)	3.398*** (0.152)
Observations	303306	255232	255232	303306	255232	255232
Adjusted R^2	0.387	0.388	0.388	0.539	0.545	0.545
Mean Y Admin	337.30	337.30	337.30	2.73	2.73	2.73
Mean Y Elected	348.66	348.66	348.66	3.59	3.59	3.59

Notes: This table reports robustness regression estimates of the main estimating equation estimating the effect of elected leader-led on NREGA outcomes. The unit of the analysis is NREGA outcomes in village i , in month m of year y . These outcomes are: days worked (Columns 2-4) and new job cards (Columns 5-7). The column sub-header indicates the specification, as listed in the included coefficients in the leftmost column. Independent variable Admin takes 0 if village i belongs to a GP headed by an elected leader, else takes 1. It forms the inverse of our previously defined Elected dummy. Variable Post takes 1 for all observations from June 2020, indicating treatment period. The main variable of interest is Admin x Post. All column specifications include a control for the yearly lag of the outcome variable and time (month-year) & village fixed effects. Additionally, Columns 3 and 6 include a control for the number of GPs assigned to an administrator. For elected GPs, the N-GPs control variable always takes a 1. Column 4 and 7 include N-GPs and an Admin x N-GPs x Post interaction to capture heterogeneous effects. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 24: Gram Panchayat meetings under elected/appointed GPs

	(1) Baseline	(2) N-GP Control
Admin	-0.270** (0.105)	-0.182* (0.109)
N-GPs		-0.018 (0.021)
Constant	0.223** (0.093)	0.222** (0.096)
Observations	883	754
Adjusted R^2	0.216	0.220
Mean Y Admin	-0.02	-0.02
Mean Y Elected	0.23	0.23
SD Y	1.32	1.32

Notes: This table reports robustness regression estimates of the main estimating equation estimating the effect of elected leader-led GP on Gram Sabha meetings. The unit of analysis is gram panchayat i . The outcome variable of interest is the number of official GP meetings conducted. The dependent Admin variable takes 0 if gram panchayat i is headed by an elected leader, else takes 1. It forms the inverse of our previously described Elected dummy. Column 1 reports our baseline specification, wherein the outcome variable is a standardized (by subtracting the mean and dividing by the standard deviation) total of all types of meetings conducted in a GP. It includes block-fixed effects. In Column 2, we include additionally a control, N-GPs that equals the number of GPs assigned to the administrator. For elected leader led GPs N-GPs always takes a 1. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 25: Effect of Elected leader on GP Officer Attendance (GP-Week-Officer Type)

	(Baseline)	(N-GP Control)	(Interaction)
Admin x Post	-2.253* (1.261)	-2.150* (1.300)	-2.446* (1.335)
N-GPs x Post		0.296** (0.130)	
Admin x N-GPs x Post			0.296** (0.130)
Registration % (mean)	0.148*** (0.006)	0.139*** (0.006)	0.139*** (0.006)
Officer Type (share)	0.136*** (0.006)	0.134*** (0.006)	0.134*** (0.006)
Constant	4.066*** (0.796)	4.054*** (0.813)	4.178*** (0.811)
Observations	1100069	954258	954258
Adjusted R^2	0.247	0.249	0.249
Controls			
Mean Y Admin	19.73	19.73	19.73
Mean Y Elected	20.55	20.55	20.55

Notes: This table reports robustness regression estimates of the main estimating equation estimating the effect of elected leader-led GP on GP staff attendance. The unit of the analysis is officer type i , working in GP j on week-year y . The dependent variable is the average attendance percentage of all active officers of type i , in GP j during week-year y . Independent variable Admin takes 0 if the GP is headed by an elected leader, else takes 1. It forms the inverse of our previously described elected dummy. Variable Post takes 1 for all observations from June 2020, indicating treatment period. Column 1 is our baseline specification which includes week, weekday, and GP fixed effects and controls for average registration percentage of all active officers and the share of officer of type i in GP j during week-year y . In Column 2, we add a control N-GP which equals the number of GPs assigned to an administrator. For elected leader-led GPs, N-GPs always takes a 1. In Column 3, we also add an interaction of N-GPs x Admin x Post to capture heterogeneous effects. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

8.2 Participation & support for democracy

Our evidence on elected leaders creating more deliberation channels suggests that leaders respond differently when elected. However, it is equally important to test whether citizens alter their behavior under different governance regimes.

In Table 26 we test citizen behaviour under governance regimes using citizen participation in Gram Sabhas, GP activities & conversations with the in-charge (elected or appointed). Column 1 captures the effect of elected GPs on a citizen participation index to be small and insignificant. Although elected GPs are more likely to organize Gram Sabhas (Table 7) Table 26 shows that citizen attendance to any Gram Sabha (Column 2) and various Gram Sabhas (Column 3) doesn't significantly differ between elected and appointed GPs. Even citizen assessment on whether their concerns are heard & incorporated in village decisions does not seem to differ (Column 4). Additional avenues of participation by the citizens are — GP activities (Columns 5-6) and conversations with the GP council (columns 7-8) — we find no evidence to suggest that citizens in elected GPs utilize them any differently than in appointed GPs.

Next, we test whether unexpected exposure to a government-appointed administrator during the pandemic altered citizen support for democracy from our citizen survey. Overall, our respondents overwhelmingly believe that elections are the best and fair way to choose their panchayat leader ($\approx 82\%$ & 73% , resp.). In Table 27, we find that this support for democracy doesn't change (improve or diminish) in elected GPs in comparison to government-appointed administrators. Column 1 captures a null effect on the standardized “democracy experience” index constructed using citizen assessments on trust, administrator suitability, and governance preference in addition to opinions on elections and their fairness.

Table 26: Impact of Elected/Appointed leaders on Participation outcomes

	Index		Gram Sabha		GP Activities		Conversation	
	(1) Participation	(2) Attended	(3) Types Attended	(4) GP Listened	(5) TF Interaction	(6) COVID	(7) GPHelp	(8) GPconvos
Elected	0.005 (0.037)	0.006 (0.031)	0.026 (0.032)	0.001 (0.037)	0.001 (0.039)	-0.049* (0.025)	0.011 (0.036)	-0.006 (0.028)
Observations	5423	9043	9043	7992	6043	8787	9043	9043
Adjusted R^2	0.070	0.046	0.061	0.037	0.046	0.048	0.036	0.025
SD Y	1.48	0.41	0.53	1.03	0.49	0.38	0.48	0.25

Notes: This table presents regression estimates from the main estimating equation of the effect of having an elected leader on various citizen participation outcomes as assessed using the citizen survey. The main independent variable is Elected, which takes 1 if the GP is headed by an elected leader, else takes 0. In Column 1 the dependent variable is a standardized participation index (z-score of PCA) using all variables in Columns 2-7. Dependent variables in columns 2-4 are regarding Gram Sabha (GS). Column 2 is whether citizens attended any type of GS, and Column 3 is how many types of GSs citizens attended, if any. Column 4 is if the citizen felt their concerns were listened to and incorporated in village decisions (from 1= yes, always to & 4 = yes, rarely). Dependent variables in columns 5 & 6 are GP activity. Column 5 uses the variable on whether the citizen interacts with the GP Task Force (TF), it takes a 1 if they interacted, else a 0. Column 6 captures if the citizen participated in any COVID-related activity. Lastly, Columns 7 & 8 capture if the GP council provided any help and if the citizen discussed any subject with the GP council/administrator. All specifications control for the respondent, village, and surveyor-specific characteristics. The respondent characteristics we observe (and control for) include age, sex, caste category, religion, education, and occupation. The village characteristics we control for include: SC, ST, and literate proportion of population, manufacturing and service sector share of employment, number of primary, middle, secondary & senior-secondary schools, number of public health centers & medical dispensaries, public distribution shops, Anganwadi centers, and the per-capita rural consumption index. Lastly, include a dummy for each surveyor. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.

Table 27: Impact of Elected/Appointed leaders on support for democracy

	Democracy Support (Index) (1)	Election Best (2)	Election Fair (3)	Admin Suitable (4)	Trust Elected (5)	Trust Admin (6)	Governance Preference (7)	Crisis gov Preference (8)
Elected	-0.025 (0.035)	0.004 (0.031)	-0.012 (0.029)	-0.030 (0.033)	0.039 (0.029)	-0.029 (0.030)	-0.019 (0.033)	-0.036 (0.035)
Observations	6855	8626	8519	8174	8819	8632	8675	8628
Adjusted R^2	0.021	0.019	0.017	0.040	0.032	0.024	0.025	0.028
SD Y	1.38	0.34	0.41	0.47	0.73	0.76	1.49	1.61

Notes: This table presents regression estimates from the main estimating equation of the effect of having an elected leader on various citizen beliefs about democratic elections as assessed using the citizen survey. The main independent variable is Elected, which takes 1 if the GP is headed by an elected leader, else takes 0. In Column 1 the dependent variable is a standardized democracy support index (z-score of PCA) using all variables in Columns 2-8. Columns 2 - 4 are responses to whether elections are the best method to elect a GP President; whether such elections are fair; and would a government-appointed administrator be a more suitable leader, respectively. They take the value of 1 if citizens agree, else 0. Columns 5 & 6 use citizen responses on how much they trust their elected leader and appointed leader, respectively as the dependent variables. The responses range from 1 = trust completely to 3 = do no trust. Lastly, dependent variables in Columns 7 & 8 are a citizen's stated preference over governance regimes (elected versus appointed) during normal and crisis times, respectively. These take range from 1= strongly prefer elected to 5 = strongly prefer government-appointed administrator. All specifications control for the respondent, village, and surveyor-specific characteristics. The respondent characteristics we observe (and control for) include age, sex, caste category, religion, education, and occupation. The village characteristics we control for include: SC, ST, and literate proportion of population, manufacturing and service sector share of employment, number of primary, middle, secondary & senior-secondary schools, number of public health centers & medical dispensaries, public distribution shops, Anganwadi centers, and the per-capita rural consumption index. Lastly, we include a dummy for each surveyor. Standard errors in parentheses are robust to heteroskedasticity and clustered at the gram panchayat level. Significant at *10%, **5%, and ***1%.