

It Takes a Village Election: Turnover and Performance in Local Bureaucracies*

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Abstract

In many countries, local governments struggle with inefficiency and corruption, often perpetuated by entrenched elites. This paper explores how leadership changes affect local bureaucratic performance. Combining personnel and citizen surveys with a regression discontinuity design in a large sample of Indonesian villages, we show that turnovers in village elections revitalize local bureaucracies, disrupt nepotistic networks, and improve local government performance. Bureaucrats serving new leaders are more engaged and less likely to be tied to past or present village officials, resulting in a more responsive bureaucracy that interacts more with citizens and better understands their needs. This improves public service provision, measured in both administrative data and citizen surveys. Overall, our results show that leadership changes can mitigate elite capture and improve governance at the grassroots level.

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1 Introduction

In decentralized democracies, citizens can periodically replace their local leaders through competitive elections. Officials elected at this level typically manage a small bureaucracy responsible for engaging with citizens and delivering services that reflect community needs. Often, these local leaders and bureaucracies enjoy considerable discretion in carrying out these responsibilities. While effective bureaucracies are key ingredients of state effectiveness (Besley et al., 2022; Finan et al., 2017), there is limited evidence on the consequences of turnover for bureaucratic performance in local public administrations.

Turnover can influence local governance through competing forces. Recent research highlights the disruptions caused by bureaucratic turnover following elections (Akhtari et al., 2022; Toral, 2024). Other studies examine the trade-offs between merit-based and discretionary appointments in bureaucracies (Colonnelli et al., 2020; Moreira and Pérez, 2024; Xu, 2018). This previous work suggests that turnover can lead to instability, distort incentives, and undermine performance. At the same time, excessively rigid bureaucracies risk developing a ‘business as usual’ culture, facing organizational inertia, and struggling to attract new talent. These dynamics may be especially pronounced in local administrations, where the pool of qualified bureaucrats is limited and leaders operate with minimal oversight, making such systems vulnerable to elite capture (Cruz et al., 2017). In this context, turnover induced by elections could disrupt entrenched patronage networks and ultimately enhance governance quality.

In this paper, we study how electoral turnovers impact bureaucratic performance in local administrative units. Our analysis focuses on village governments in Indonesia, where elections take place every six years and village heads wield significant authority in the management of village affairs. Indonesia has more than 75,000 rural villages, where the local administration represents the first, if not the only interface between citizens and the state. At such a local level, little is known about the impacts of leadership changes on bureaucratic performance. Regular elections can facilitate the emergence of new leaders that inject fresh momentum in the village administration, or they may engender frictions that disrupt well-oiled bureaucratic processes and local service delivery. Elected local governments provide an ideal setting to study the determinants of bureaucratic performance, as bureaucrats in these contexts operate under strong top-down and bottom-up accountability pressure: their tenure is highly contingent on local leadership, and, as frontline providers, they are regularly in direct contact with citizens.

Our analysis relies on data from a large survey that we conducted in 2022 with village heads, bureaucrats, and citizens in 852 villages spanning 17 provinces across the country. We designed this survey to collect rich data on bureaucrats’ characteristics and citizens’ attitudes, and to understand how the policy priorities of village officials aligned with the preferences of citizens. We also exploit detailed administrative data on village-level public goods provision. Together, these data sources allow us to study what citizens want, what bureaucrats know about these preferences, how they act upon them, and how citizens perceive the quality of village governance. To our knowledge, this paper is among the first to study bureaucratic performance from the dual perspective of bureaucrats and the citizens they serve.

Using this data, we employ a regression discontinuity design (RDD) leveraging variation from close village elections where the incumbent narrowly won or lost. Since village elections in Indonesia are non-partisan by law, incumbency plays a central role in shaping competition between candidates. Across

the 852 villages we surveyed, 512 conducted an election featuring an incumbent between 2015 and 2022. Incumbents won a slight majority (52%) of these elections, giving us ample scope to identify the effects of turnovers on village- and individual-level outcomes. We also estimate the dynamic effects of turnover using variation from the staggered timing of village elections inherited from Indonesia's democratic transition (Martinez-Bravo et al., 2017). Supporting our identification strategy, we find no systematic evidence of manipulation of election results by incumbents, and show that turnovers are uncorrelated with a wide range of predetermined village characteristics.

We first characterize the extent of bureaucratic reshuffling triggered by electoral turnover. While the overall structure of village governments is set by law, newly elected leaders can reshuffle the administration by reallocating individuals across positions, and they might encourage some officials to step down in order to appoint others in their place. We show that new leaders engage in more appointments, promotions, demotions, and reallocation of existing staff. While selection remains unchanged along several margins (e.g., education), the share of officials embedded in nepotistic networks decreases after a turnover: new leaders are less likely to report having relatives employed by the village, and bureaucrats are less likely to have a parent who served in the village government. Since the presence of nepotistic practices negatively correlates with the quality of public goods provision, this constitutes a significant benefit of electoral transitions in this context.

Beyond changes in bureaucratic composition, new leaders can also reshape the functioning of the bureaucracy by adopting a new leadership or management style and boosting staff morale. We show how election-induced leadership changes impact the morale and effort of village officials and how these changes vary between newly appointed and incumbent bureaucrats. Overall, bureaucrats serving in villages that recently experienced an electoral turnover report substantially greater enthusiasm and motivation about their work. Turnovers additionally increase a key measure of bureaucrat effort and accountability: the frequency of their interactions with citizens. Bureaucrats serving under new leaders are more likely to interact daily with their constituents, and they report a greater frequency of interactions with citizens overall. While new bureaucrats appointed after a turnover exhibit the largest morale improvements, old-standing bureaucrats retained after a turnover are the ones driving the increase in effort levels. This could occur because new leaders are more likely to retain high-performing bureaucrats than reelected incumbents are, and because long-standing bureaucrats appointed under a previous administration face greater pressure to demonstrate their worth to the new leader they now serve.

In turn, increased interactions with citizens allow officials to gain a better understanding of citizens' preferences. After an electoral turnover, bureaucrats are more likely (i) to correctly identify the public services that citizens perceive to be investment priorities, and the services perceived to be of lower quality in their village; (ii) to report receiving complaints about public services that citizens considered investment priorities and of lower quality. Furthermore, village heads report taking action on the same services that citizens deem to be investment priorities, implying that the information gathered from responsive bureaucrats enables village governments to implement policies congruent with citizens' preferences. These effects generally hold when we specifically consider the preferences expressed by citizens who are more socially distant from the village bureaucracy. These socially distant citizens are younger,

more likely to be women, less likely to have a job and a tertiary education, and earn lower incomes on average. Thus, bureaucrats serving under new leadership become more knowledgeable about, and act upon the preferences of the entire community, including its more marginalized members.

Having established these shifts in bureaucratic processes and engagement, we estimate the impacts of turnover on the performance of the village administration in terms of public service provision. Consistent with greater effort exerted in the bureaucracy, as well as improved knowledge about citizens' grievances and priorities, turnovers improve the quality of public goods provision measured in administrative data. Restricting to villages that held their election before 2021 (the most recent year in which administrative data on service provision was collected), we find a large increase of around 0.5 standard deviations in a standardized index of service provision. This effect is driven by locally managed services such as garbage collection and street lighting. Furthermore, this effect is larger among villages that held their last election several years prior (between 2015–2017), relative to villages that held their election more recently (between 2018–2020). Thus, the beneficial effects of leader turnover take some time to materialize, perhaps because these effects must offset some of the short-run disruptions engendered by the bureaucratic turnover that we observe (as in [Akhtari et al., 2022](#)).

Importantly, the citizens we surveyed also report improved perceptions of service access and quality in their village after an electoral turnover. Consistent with village bureaucracies becoming less beholden to local elites, the improved perceptions of service quality are largest among citizens who are more socially distant from members of the bureaucracy. However, despite perceived improvements in service provision, citizens overall do not report higher levels of satisfaction with or trust in their village government. This null effect on trust suggests that improvements in bureaucratic performance caused by turnovers may not be immediately observable by citizens or could be mis-attributed to other forces, as argued in other work ([Cruz and Schneider, 2017](#); [Guiteras and Mobarak, 2015](#); [Khan et al., 2021](#)).

In the final section of the paper, we present suggestive evidence that reduced nepotism contributes to the positive effects of turnover on bureaucratic performance. First, improvements in service provision occur only in villages where the village head has no relatives employed in the village government. Second, comparing villages with and without nepotistic appointees inherited from previous administrations, we find that turnovers have a greater impact on bureaucratic morale and engagement in the latter. One possible explanation is that new village heads who successfully dismantle nepotistic networks by replacing connected appointees achieve greater gains in bureaucratic performance.

While challengers may not be inherently less inclined to appoint friends and relatives, our findings suggest that electoral turnover disrupts the entrenched processes involved in building and maintaining nepotistic networks. These disruptions may, in turn, foster greater meritocracy and improve governance in the short to medium term. We consider several potential explanations for our main findings, and we show that these results also hold in a subsample of elections featuring “unlucky” incumbents who stood for reelection in the aftermath of a local natural disaster, helping us rule out that negative selection of incumbents into the sample of close elections is driving the results ([Marx et al., 2024](#)).

Our paper provides new evidence on how leadership turnover affects bureaucratic performance in public administrations. A landmark study by [Akhtari et al. \(2022\)](#) finds that bureaucratic turnover nega-

tively impacts performance in the education sector in Brazilian municipalities. In contrast, we show, in a setting with more limited state capacity, that turnover can enhance performance by disrupting nepotistic networks controlled by local elites, enabling the emergence of more responsive bureaucracies. Prior research shows that nepotism and family dynasties undermine local governance and public goods provision in various settings (Cruz et al., 2017; George, 2024), with some of this evidence coming from Indonesia (Aspinall and As’ad, 2016; Berenschot et al., 2021; Kenawas, 2023). Related work by Riaño (2023) and Cardoso et al. (2023) highlights the persistence of nepotistic practices in Colombia and Brazil, respectively. Given the pervasive nature of bureaucratic nepotism in many countries, the broad takeaway that electoral turnover can help disrupt these networks may generalize to other settings.

Our study provides new insights on bureaucracies in developing countries by highlighting the essential role local bureaucrats play as intermediaries between frontline service providers and citizens, including citizens who are more socially distant from village elites. Previous work has explored the role of local elites, often in the context of targeting policies (Alatas et al., 2012; Basurto et al., 2020). A broader literature explores avenues to enhance political accountability in comparable settings (see Dunning et al., 2019, for a review). This research highlights the key role played by unelected bureaucrats (Gulzar and Pasquale, 2017), but there is less evidence on the impact of personnel changes at the lowest levels of government. Our results on the importance of bureaucrat-citizen interactions align with Liaqat (2020), who highlights the importance of information about citizens’ preferences as a driver of policy performance, and Bhavnani and Lee (2018), who show that the presence of accountability mechanisms shapes the performance of locally embedded bureaucrats. An additional contribution of our paper is to identify the impacts of turnover on morale in public organizations. Evidence from the private sector suggests that motivation (Oswald et al., 2015; Segal, 2012) and management (Bender et al., 2018; Bloom et al., 2012) are important determinants of productivity, but evidence from bureaucracies is comparatively lacking (Muñoz and Prem, 2024; Rasul and Rogger, 2018).

Finally, our paper builds upon the vast literature on principal-agent problems in bureaucracies led by elected officials. Prior work highlights the benefits of meritocracy relative to patronage appointments, which have been largely phased out of bureaucracies in high-income countries since the 19th century (Aneja and Xu, 2024; Besley et al., 2022; Moreira and Pérez, 2024). However, meritocratic hiring and promotion systems can also constrain newly elected leaders’ ability to reshape bureaucratic performance and set a new direction for their administration (Spenkuch et al., 2023). This trade-off has fueled ongoing debate over how much discretion executive leaders should have in appointing and removing bureaucrats. Our findings show that electoral turnovers can enhance public goods provision by breaking nepotistic networks, increasing bureaucratic effort, and strengthening engagement between officials and the citizens they serve.

The rest of the paper is organized as follows. Section 2 provides relevant institutional details on village governance and elections. Section 3 presents our data, empirical strategy, and identification checks. Section 4 presents our main results, while Section 5 discusses potential mechanisms and alternative interpretations. Section 6 concludes.

2 Background: Village Governance and Elections

Indonesia's system of democratic and decentralized governance provides a uniquely rich context for studying the impacts of turnover in local governments. This section provides background on the key features of this institutional setting.

Local Democracy in Indonesia. Since 1999, village heads are elected through a popular vote every six years. The regulatory framework for village elections is provided by the Village Law of 2014 (UU Desa 6/2014), under which village heads can serve at most three consecutive or non-consecutive terms. Like other local elections in Indonesia, village elections are staggered across districts and held simultaneously within each district. In our data collected in 2022, roughly 40% of elections were held in 2018 or before, 30% in 2019 or early 2020, and the remainder from 2021 onwards, after the Covid-19 pandemic.

Under Indonesia's Village Law, significant resources and responsibilities are devolved to village governments. These small bureaucracies manage relatively large budgets by international standards, amounting to 3% of government spending nationally. Between 2015 and 2018, the government transferred approximately US\$14 billion to more than 75,000 villages across Indonesia, and transfers to villages increased nearly five-fold between 2013 and 2018 ([World Bank, 2020](#)). In our data, village heads report annual village budgets averaging 1.26 billion IDR (approximately USD 83,000). Budgets must be agreed upon by the village head and the village consultative body (*Badan Perwakilan Desa* or BPD), and are subsequently submitted for approval to the district government.

The vast majority of village heads in our data are male (95%). On average, they are 48 years old and have 13.2 years of education. Most (96%) were elected as required by law, while the rest were appointed. The average village head reported having served for 5.2 years.

Composition of Village Governments. Village heads appoint members of the village government (*aparatur desa*), which includes four key positions: a village secretary and three heads of affairs responsible for general matters, finances, and planning (see Appendix Figure B.1 for an illustration). These officials are selected by the village head among village residents after consultation with the subdistrict head. By law, they can only leave their positions under specific circumstances, such as death, resignation, retirement, or criminal conviction. In our sample, village officials are, on average, 38.5 years old, have 13.6 years of education, and have served in the village bureaucracy for 5.4 years. Most (76%) report having permanent tenure. Family ties play a notable role in appointments: 22% have a parent who served in the village government, and 5% have a parent who was a village head.¹

Political Economy of Village Governance. Local democracy is vibrant throughout Indonesia. [Aspinall and Rohman \(2017\)](#) and [Berenschot et al. \(2021\)](#) provide extensive qualitative evidence and case studies illustrating electoral competition in village elections. Their findings consistently show that these elections are highly contested and that incumbents do not enjoy a systematic advantage. Even before

¹Beyond the village secretariat, the village governance structure also includes the chairperson of village representative bodies (BPD) and BPD members, as well as local leaders of hamlets or neighborhoods (*dusun*). Our analysis focuses on the main officials in the village government: village secretaries and heads of affairs for general, financial, and planning matters.

the Village Law era, the country’s democratic transition in 1998 created new pathways for individuals outside traditional elite networks to attain village leadership positions: *“The breakdown of centralised mechanisms of control has opened space for sometimes unruly political contestation in the villages ... established elites have lost their former monopoly on village power”* (Aspinall and Rohman, 2017, p.32). Other recent evidence highlights that *“village politics [are] sometimes marked by intense political competition and close margins of victory in village head elections”* (World Bank, 2023, p.v).

Despite this intense electoral competition at the local level, the country still faces challenges to establishing accountable village governments that function in a fully transparent and democratic manner. Since the democratic transition, a gradual process of elite renewal has taken place, with old aristocratic elites associated with the Suharto regime slowly losing their grip on local power (Berenschot et al., 2021). However, this process remains incomplete due to the resilience of strong patronage networks associated with well-established family dynasties. While there is substantial variation across villages, a key challenge stems from the continued practice of village heads appointing friends and relatives in the village government, reflecting broader patterns of elite capture in formal deliberative institutions. Consistent with the figures discussed above, a recent qualitative study conducted across 18 Indonesian villages found widespread evidence of nepotism in village bureaucracies. These qualitative accounts suggest that nepotism may be central to understanding bureaucratic practice and performance:

“As a result of considerable, albeit narrowing, discretionary powers of the village head, we found that the village bureaucracy is often made up of friends and, particularly, family members of the village head. In 8 of our 18 villages at least some ... village officials were related to the village head. Not surprisingly, the villages where officials were family members of the village head are also the villages with more unresponsive and factionalized village governments” (World Bank, 2023, p.17).

3 Empirical Framework

This section describes the survey and administrative data we use, develops our empirical strategy, and validates the key assumptions underlying the regression discontinuity design.

3.1 Data

We describe here the numerous sources of primary and secondary data on village governance, elections, and bureaucracies that underpin our empirical design.

Survey of Village Officials and Citizens. We conducted a large survey of village officials and citizens in Indonesia between March and August 2022. The survey took place in 852 villages, spread across 23 districts in 17 provinces spanning the archipelago. Our sampling strategy focused on districts with relatively high internet coverage and aimed to achieve broad national representativeness among these districts. The primary targets in this survey were active village officials, including elected village heads, non-elected members of the village government, hamlet heads and BPD chairpersons and representatives. In addition, we simultaneously surveyed 8 to 12 adult citizens residing in each village. The survey

aimed to inform the design of a future bureaucrat training intervention, to gain a better understanding of the village government, and to provide a new window into the perceptions of village governance and development held by officials and citizens.

Due to Covid-19 restrictions, all surveys were conducted by phone. We sampled citizens using a snowball procedure in which initial respondents (typically members of the village government) were asked to provide three contact persons whose name began with a randomly drawn letter of the alphabet (see Appendix Figure B.2). This process continued until the target sample size was reached in each village. As a result, some citizens in our sample may be more connected to the village government than the average citizen. However, the extent of these connections do not vary discontinuously at the RD threshold and therefore do not represent a threat for our empirical strategy (see Appendix Table A.3).

Our sample size reached a total of 744 village heads, 1,793 village bureaucrats, and 14,378 citizens. Restricting these figures to the 512 villages in which an incumbent candidate competed in the last election (see below), our final sample includes 444 village heads, 1,067 village bureaucrats, and 8,880 citizens. Appendix B provides additional details on our survey design.

Electoral Data. As part of our survey, we collected official voting tallies for all candidates running in the last village head election. We obtained complete electoral data for 799 among the 852 villages in our sample (94%). Under the Village Law, village heads are elected every six years via first-past-the-post voting, and local elections are staggered across districts, with all village elections occurring in the same year within a district. Thus, elections were held in different years across villages in our sample: less than 1% were held before 2016, 11% in 2016, 13% in 2017, 16% in 2018, 28% in 2019, 2% in 2020, 27% in 2021, and 1% in 2022. On average, 3.6 candidates competed in these elections with a turnout of 82% (calculated as votes cast divided by the number of registered voters in each village).² We report various checks on the electoral data in Section 3.3 (see also Appendix Table A.1 and Appendix Figures A.1–A.2).

The voting data indicates which candidate was the incumbent at the time of the last election. Overall, 512 village elections featured an incumbent candidate. These villages constitute the main sample for our empirical analysis.³ Women comprised only 5% of incumbent candidates, and 6% of all candidates. Figure 1 (panel a) plots the density of the difference between the vote share received by the highest-ranking challenger candidate and the incumbent’s vote share. We use this difference as the running variable in our regression discontinuity (RD) design, described in Section 3.2.

Administrative Data. To measure bureaucratic performance, in addition to outcomes observed in our survey, we use administrative data from the 2014 and 2021 rounds of *Podes*, a triennial census of villages, which we match to our survey sample. When studying administrative outcomes, we restrict the sample to villages that conducted their last election before 2021, the year of the most recent wave of *Podes*; we use the remaining villages in our sample to conduct placebo checks. We also use predetermined geographic and socioeconomic characteristics of villages observed in *Podes* to run balance and other validity checks.

²A small fraction (4%) of elections in our sample featured turnout greater than 100%. We later use this as a measure of data quality and show that this is uncorrelated with the occurrence of an electoral turnover.

³In Table 1, discussed in Section 3.2, we use the full sample of villages to document how villages where an incumbent competed in the last election differ from other villages. In this table and the RD analysis, we exclude 8 villages where the incumbent and the highest-ranked challenger candidate are tied in the electoral data.

3.2 Regression Discontinuity Design

Our goal is to identify how bureaucratic processes and public goods provision are influenced by turnover in the most recent village election. Before introducing our identification strategy, Table 1 presents correlations between some of these outcomes and the presence, as well as the electoral victory of an incumbent in the last election. We first examine two measures of bureaucratic performance: the quality of public goods in the 2021 *Podes*, and the growth in service quality between the 2014 and 2021 *Podes* waves. While there is no significant correlation between these outcomes and the incumbent’s presence (columns 1 and 3), an incumbent victory is followed by a decline in public goods provision (column 2 and 4). As one might expect, incumbent wins are also associated with lower bureaucratic turnover (column 6). Furthermore, village bureaucracies led by a reelected incumbent have more nepotistic appointees in their ranks: bureaucrats in these villages are more likely to be connected to the village head (column 8).

While this suggests that prolonged leadership tenure may limit bureaucratic turnover, fuel nepotism, and hinder performance, the estimates in Table 1 should not be interpreted as causal. The probability of an incumbent winning the last election likely correlates with various observable and unobservable candidate and village characteristics, and incumbents may be particularly likely to lose elections in villages where bureaucratic performance has been poor. To address these concerns, we turn to a regression discontinuity (RD) comparing villages where the incumbent barely won or lost the most recent election. The main identifying assumption required for this design to be valid is that potential outcomes be smooth across the RD cutoff. In particular, there should be no *ex ante* differences between villages where elections are won by incumbents and villages where elections are won by challengers. We probe the validity of these assumptions in Section 3.3.

We estimate the effects of an electoral defeat of the incumbent with the following RD equation:

$$y_{ijt} = \alpha + \beta_1 \cdot \text{margin}_{jt} + \beta_2 \cdot \text{margin}_{jt} \times \mathbb{1}(\text{margin}_{jt} > 0) + \gamma \cdot \mathbb{1}(\text{margin}_{jt} > 0) + \delta_t + \varepsilon_{ijt}, \quad (1)$$

where y_{ijt} is an outcome for respondent i (village head, bureaucrat, or citizen) residing in village j that held its election in year t . margin_{jt} , the running variable, is the victory margin of the highest-ranked challenger candidate in the election conducted in village j at time t , and $\mathbb{1}(\text{margin}_{jt} > 0)$ equals one when the challenger won more votes. We include election-year fixed effects, δ_t , to account for the fact that villages hold their elections in different years.⁴ When examining administrative outcomes, we estimate equation (1) at the level of village j ; in this case, the regression has exactly $N=512$ observations, the number of villages in which an incumbent competed in the most recent village election.

We estimate equation (1) using the non-parametric method of Calonico et al. (2014), and we cluster standard errors by village. Using this approach, we report the standard RD point estimate γ and the cluster-robust standard error as well as the p-value associated with the robust confidence interval for γ . We also report RD plots separately for our main outcomes of interest.

⁴In all specifications where we look at bureaucrat outcomes, we also control for a treatment dummy indicator associated with a survey experiment embedded in our survey. This experiment provided a messaging intervention designed to estimate the magnitude of social desirability bias. The randomization was conducted at the village level and treatment assignment in this experiment is uncorrelated with the treatment in equation (1): the RD point estimate is $\tau=-0.093$ (robust SE 0.131, $p=0.372$).

3.3 Identification Checks

We describe here key tests that support a causal interpretation of the RD estimate, γ , in equation (1).

Density Test. Incumbent village heads may be able to systematically manipulate local election results, tilting electoral outcomes in their favor on average. If this occurred, we would observe a discontinuous drop in the density of our running variable (the victory margin of the best-ranked challenger) across the threshold (McCrary, 2008). We address this concern in Figure 1 (panel b), which implements the local polynomial density test from Cattaneo et al. (2018). There is no evidence of manipulation or sorting at the threshold: the p-value from this test is 0.856.

Balance Checks. We then report a range of balance tests to bolster confidence in the validity of our RD strategy. First, in Appendix Table A.1, we show balance along various predetermined village characteristics from the survey and electoral data: the number of neighborhoods or hamlets (column 1), log number of households in the village (column 2), separate dummies for the village being located in each of Indonesia’s major islands (columns 3-7), the number of registered voters (column 8), and the number of candidates competing in the most recent election (column 9). Only one of these variables (the likelihood that the village is located in NTB-Bali) is significantly correlated with the treatment, at the 10% level. Second, in Appendix Table A.2, we show balance along ten predetermined village characteristics from the administrative *Podes* data: latitude, longitude, altitude, coastal location, forest location, a dummy indicating that agriculture is the main economic activity in the village, and four separate dummies indicating the dominant agricultural activity (rice, corn, rubber, or palm oil). Only one out of these ten characteristics (corn cultivation) is significantly correlated with the treatment, as one would expect by chance. Appendix Table A.3 shows balance on whether a citizen’s contact information is provided by a village official or BPD member (columns 1–2) and the degree of connection between citizens and these officials (column 3). These balance checks support our analysis of the differential effects of turnovers with respect to social distance, discussed in Section 4.5. Finally, Appendix Table A.4 shows balance on the demographic characteristics of citizens in our sample (gender, age, disability, education, employment status, and monthly income).

Electoral Data Checks. We further report several checks on the validity of the electoral data. Appendix Figure A.1 plots the raw turnout data and turnout winsorized at 100%⁵ against the vote share of the incumbent (panels a and b) and against our running variable, the margin of victory of the highest-ranked challenger (panel c and d). There is no systematic evidence of turnout manipulation in favor of incumbents, as the few instances of excessive turnout are located on both sides of the RD threshold. We confirm this in Appendix Table A.1, where we estimate equation (1), using voter turnout and a dummy for turnout being greater than 100% as dependent variables. There is no evidence that turnovers are associated with differential turnout at the threshold (column 10), nor that they are associated with suspiciously high or low turnout (column 11). Turnovers also have a null effect on an alternative measure of electoral competition, a Herfindahl index of vote shares (column 12).

⁵Recall that 4% of villages in our sample, i.e. 21 out of 512 villages report turnout over 100%.

Finally, we implement a test inspired by Benford’s law to detect electoral manipulation in villages won by the incumbent (see [Mebane, 2006, 2011](#)). In Appendix Figure [A.2](#), we plot the distribution of the first, second, third, and last digits of candidate vote tallies separately for villages won and villages lost by the incumbent. Using a Kolmogorov-Smirnov test, we cannot reject the null of equal distributions across the two types of villages for any of the four digit distributions—the p-values from these tests are reported at the bottom of each panel. Nonetheless, panels (c) and (d) of Appendix Figure [A.2](#) show significant heaping of candidate vote tallies at zero, plausibly as a result of rounding. Thus, in Appendix Table [A.1](#), we also show that the number of candidate vote tallies with a trailing zero is not significantly associated with turnovers (column 13). Overall, we find no evidence of manipulation of election results.

4 Results

We now present our estimates of the effects of turnover in village elections. We first examine how turnover reshapes bureaucracies, including new appointments, promotions and demotions (Section [4.1](#)), and the presence of bureaucrats with nepotistic ties (Section [4.2](#)). Next, we show that turnovers enhance bureaucratic morale and effort, as reflected in more frequent interactions with citizens (Section [4.3](#)). These increased interactions enable a deeper understanding of citizens’ preferences, including the preferences of more socially distant citizens, and a stronger level of bureaucrat–citizen alignment regarding service provision and spending priorities (Section [4.4](#)). Finally, we analyze the impact of electoral turnovers on actual and perceived public service delivery (Section [4.5](#)).

4.1 Organization of the Village Bureaucracy

Leader Turnover. Our main specification examines the impact of an incumbent’s electoral defeat in the most recent village election on both village-level and individual-level outcomes. Using our survey data, we first verify that these electoral results induce a leadership change, as expected. Specifically, we show that an incumbent’s defeat significantly increases the likelihood that the village head in our survey is a new leader—someone different from the incumbent candidate who competed in the most recent election. The RD point estimate is 83.5 p.p., significant at the 1% level (see Table [2](#), column 1, and Figure [2](#), panel a). We also estimate the effect of a turnover on the tenure of the village head. The RD point estimate is roughly (minus) five years, slightly less than the *de jure* term of six years (see Table [2](#), column 2, and Figure [2](#), panel b).

Thus, electoral turnovers translate into leader turnovers at the village level, but there is imperfect compliance. While our baseline specification is a sharp RD estimation of the effect of turnovers (γ in equation [1](#)), in the Appendix we also report fuzzy RD estimates where we use $\mathbb{1}(\text{margin}_{jt} > 0)$ as an instrument for village head turnover to account for this imperfect compliance. In this case, the endogenous regressor is a dummy equal to 1 if the village head in our survey sample is a different individual from the incumbent who competed in the most recent election—the dependent variable in column 1 of Table [2](#). Thus, the sample for this fuzzy RDD estimation is restricted to the $N=443$ villages in which an incumbent competed in the most recent election and we were able to survey the current village head.

Bureaucratic Turnover. Although the majority of village officials theoretically have tenured positions,⁶ newly elected village heads may seek to reorganize the village government by appointing new officials or by reshuffling existing staff across positions. Bureaucrats appointed under previous leadership may also be more likely to step down or retire following a leadership change. In column 3 of Table 2, we estimate the effects of turnover on the share of non-elected village bureaucrats appointed to their current position since the last election. This share is 33% in the control group (i.e., villages within the RD bandwidth on the left-hand side of the cutoff, in which the incumbent narrowly won). At the RD cutoff, it increases by 18 p.p., significant at the 5% level (Table 2, column 3). Panel (c) of Figure 2 provides corresponding visual evidence. Note that this effect captures higher replacement rates holding size constant, since the composition of village governments is constant and set by law, as described in Appendix Figure B.1.

Village heads can also reshuffle the village government by promoting and demoting existing staff, or by laterally moving bureaucrats from one secretariat position to another. Column 4 of Table 2 shows that leader turnovers increase the fraction of village bureaucrats who experienced a promotion, demotion, or lateral move since the last election. The mean of this variable is 3.6% in the control group, and this increases by 8.9 p.p. (significant at the 10% level) in villages that experienced an electoral turnover.⁷ Thus, electoral turnovers induce more bureaucratic turnover: relative to reelected incumbents, newly elected leaders are more likely to make new appointments in the village administration, and to reshuffle the existing staff across positions.

These effects may impact bureaucratic selection along observable demographic characteristics. Appendix Table A.6 examines the effect of turnovers on bureaucrats' age, education, and gender. While the officials serving in turnover villages are slightly older (by 1.1 years, column 1) and less likely to be women (by 15.2 p.p., column 3), these estimates are noisy, and there is little evidence that these newly appointed bureaucrats differ in terms of such characteristics. Thus, any changes in bureaucratic performance are unlikely to come from changes in bureaucratic selection along these dimensions.

Robustness Checks. Appendix Tables A.12–A.18 consider alternative specifications for the estimates in Table 2. Appendix Table A.12 removes from our baseline equation (1) the controls for election-year dummies. Appendix Table A.13 includes region fixed effects in addition to dummies for pairs of election years (2015-2016, 2017-2018, etc.). Appendix Table A.14 uses a third degree polynomial in the running variable to construct the RD point estimate, instead of the local linear regression in our baseline. Appendix Tables A.15, A.16, A.17 vary the RD bandwidth to half, three-fourths, and two times the MSE-optimal bandwidth from Calonico et al. (2014), respectively. Appendix Table A.18 reports the fuzzy RD specification described above, instrumenting for leadership changes in our survey data with the victory dummy from equation (1). Overall, these specification changes leave unchanged the main takeaways from Table 2.

⁶76% of bureaucrats report having permanent tenure, or report a planned retirement date as the scheduled end of their tenure.

⁷Promotions are transitions from head of affairs to village secretary, while demotions are the converse (from village secretary to head of affairs). Lateral moves refer to transitions between different head of affairs positions.

4.2 Nepotism

In many villages, entrenched nepotistic practices sustain the dominance of old village elites, undermining good governance and hindering the consolidation of local democracy (Simanihuruk and Sihombing, 2019; World Bank, 2023).⁸ In Table 3, we examine the likelihood that relatives of the village head are employed in the village government, as reported by the village heads themselves. At the RD cutoff, we find a substantial, statistically significant decline in this measure of nepotism (column 1). This effect may partly reflect the continued presence of bureaucrats who were relatives of the previous village head (the defeated incumbent) but are unrelated to the new leader, and retained their positions after a turnover. As a result, the presence of bureaucrats related to the village head would be lower in turnover villages than in villages where the incumbent won. The estimate in column 1 of Table 3 suggests that, at a minimum, new leaders do not systematically replace these prior nepotistic appointees with their own relatives.

In columns 2 and 3 of Table 3, we consider two additional measures of nepotism using data collected from the bureaucrats, addressing the concern above. We look at the probability that bureaucrats had a parent who ever served as village head (column 2) or a parent who ever served in the village government (column 3). Overall, a large fraction of bureaucrats (27%) had a parent who served in the village government. We find that fewer individuals with such family connections serve under newly elected leaders: the point estimate in column 3 is -16.8 p.p., significant at the 5% level (see Figure 2, panel d, for visual evidence). This could be driven by both a lower probability of making nepotistic appointments and a higher probability of a staff shakeup, i.e., removing incumbent bureaucrats with family connections. We explicitly consider this possibility as part of our exploration of mechanisms in Section 5.

Appendix Tables A.19–A.25 report robustness checks on Table 3. In addition to the alternative specifications considered earlier (removing controls, varying the polynomial in the running variable and the size of the RD bandwidth, fuzzy RD specification), we also report RD estimates when excluding villages with at least one bureaucrat appointed under a Suharto-appointed district mayor (Martinez-Bravo et al., 2017). This check suggests that the decline in nepotism in turnover villages is not primarily driven by the removal of long-standing elites entrenched since the Suharto era (Appendix Table A.26).

Crucially, our findings on nepotism do not necessarily suggest that challengers are inherently less inclined to appoint friends and relatives to bureaucratic positions. Instead, establishing and maintaining nepotistic networks is a gradual process, requiring time in office to systematically place favored individuals in key roles. As shown in Table 3, electoral turnovers disrupt these entrenched networks, occasionally dismantling patronage systems that took years to build. In turn, these disruptions may foster greater meritocracy and improve governance in the short to medium term, as we discuss below.

4.3 Morale and Effort

The inauguration of a new leader and the staff changes they implement may invigorate non-elected village officials, boosting morale and injecting fresh momentum into the village bureaucracy. Table 4

⁸Appendix Table A.7 shows that nepotistic hiring practices in the village bureaucracy correlate negatively with the quality of public service provision measured in administrative *Podes* data (column 1) as well as perceptions of service access and quality in citizen surveys (columns 2–3).

examines the impact of turnovers on bureaucratic morale and effort.

We first explore self-reported measures of enthusiasm and motivation. Column 1 of Table 4 shows that turnovers improve bureaucrats' job enthusiasm, with an effect size of 0.49 standard deviations on a 5-point Likert scale (see Figure 3, panel a, for graphical evidence). Next, in column 2, we analyze a continuous measure of motivation, benchmarked against bureaucrats' initial motivation when they first joined the village government. Our survey asked: "*Imagine that your motivation was 100 when you started. What number would you say your motivation is now relative to that?*" Respondents could report values above 100, and the average response was 105.6 (100.6 in the control group) with a standard deviation of 62.6. While we estimate a sizable positive effect of turnovers on motivation, the RD estimate falls short of conventional significance levels (see Figure 3, panel b, for graphical evidence).

This enhanced staff morale is accompanied by more frequent interactions between village officials and citizens (Table 4, columns 3–4). We interpret these interactions as a measure of bureaucratic effort and an indicator of bottom-up accountability. Bureaucrats in villages that experienced a turnover are significantly more likely to interact with citizens on a daily basis (column 3). This finding holds when using a standardized measure of interaction frequency (column 4), as illustrated in Figure 3, panels (c) and (d). These results suggest that bureaucrats under newly elected leaders are more proactive in engaging with constituents.⁹ Notably, however, these interactions appear to occur outside formal settings, as we find no evidence that turnover increases attendance at village assemblies (*Badan Permusyawaratan Desa* or BPD) after a turnover (RD estimate = 0.0003, p-value = 0.941).

Appendix Tables A.27–A.34 report robustness checks on morale and effort outcomes: removing controls for election year dummies and the survey experiment treatment indicator described in footnote 4 (Table A.27), adding region fixed effects (Table A.28), including a third-degree polynomial in the running variable (Table A.29), varying the RD bandwidth (Tables A.30, A.31, and A.32), estimating the fuzzy RD specification (Table A.33), and removing villages with Suharto-era elites (Table A.34).

Heterogeneity by Time of Appointment. The results thus far suggest that turnovers breathe new life into the village bureaucracy, reducing nepotism and increasing morale and effort. Table 5 shows that this reinvigoration stems from continuing bureaucrats (those appointed before the last election and retained by the victorious challenger) as well as new bureaucrats appointed after the election.

Comparing estimates across both panels, we find that bureaucrats appointed since the last election are substantially less likely to have nepotistic ties in turnover villages (panel B, columns 1–2). While new appointees exhibit the largest gains in enthusiasm and motivation, long-serving bureaucrats retained after a turnover also exhibit higher—though not statistically significant—enthusiasm and motivation levels (columns 3–4). For the latter, turnovers significantly increase the frequency of interactions with citizens, while newly appointed bureaucrats exhibit no such differences (columns 5–6). Thus, the improvements in morale and effort are not driven solely by new hires, but also involve enhanced performance among long-standing bureaucrats.

⁹One concern could be that the sample of citizens, drawn from a snowball process with village officials, may be more favorably inclined towards the government. However, this bias would naturally arise on both sides of the RD cutoff. In Appendix Table A.3, we report balance checks on whether a citizen's contact information is provided by a village official or BPD member. Neither of these variables is statistically significant.

There are two potential, complementary sets of explanations for the findings in Table 5. One involves improved bureaucratic selection among old-serving and new employees alike. New village heads may be more likely to retain high-performing bureaucrats, and to hire more competent and motivated new bureaucrats, relative to reelected incumbents. The other potential explanation involves enhanced incentives and performance among both old and new bureaucrats. For example, bureaucrats appointed before the election and eager to retain their position may face greater pressure to demonstrate their worth to the new leader they now serve. The large and significant coefficients in panel A, column 5–6 of Table 5 are consistent with both enhanced selection and incentives among long-serving bureaucrats.

4.4 Bureaucratic Understanding of Citizens' Preferences

Bureaucrat–Citizen Alignment. More frequent interactions between citizens and bureaucrats may improve government understanding of citizens' policy preferences. Figure 4 and Table 6 show that turnovers lead to improved alignment between bureaucrats and citizens regarding local priorities. Our survey separately asked bureaucrats and citizens which services they considered top priorities for future development spending in the village,¹⁰ as well as their perceptions of the quality of ten key local services: garbage collection, water access, electricity provision, roads, cell phone coverage, healthcare, kindergartens, primary schools, disability services, and local safety.

We first examine whether bureaucrats and citizens agree on investment priorities—specifically, whether a bureaucrat names at least one public service as a priority that village citizens also identify as a top-three priority (column 1). The control group mean for this measure is high (0.75), increasing by 10.5 percentage points at the RD cutoff, though this effect is not statistically significant. Next, we consider whether bureaucrats correctly identify as a priority one of the top-three services that citizens perceive to be of the lowest quality (column 2). Here, we find robust evidence of increased alignment, suggesting that bureaucrats in turnover villages do a better job recognizing citizens' most pressing needs in terms of service provision (see also Figure 4, panels a and b).

Moreover, bureaucrats in turnover villages are better at identifying services that are priorities for citizens, as evidenced by their increased awareness of constituent complaints. In columns 3 and 4 of Table 6 and panels (c) and (d) of Figure 4, we examine whether bureaucrats report receiving complaints about services that citizens rank as top-three priorities or bottom-three quality services. These measures reflect bureaucrats' ability to accurately recognize future spending priorities, based on citizens' grievances. We find strong evidence that bureaucrats in turnover villages were more likely to receive complaints about services identified as priorities by citizens, with RD estimates of 16.2 percentage points and 17.4 percentage points (significant at the 1% and 5% levels, respectively).

Bureaucrats Acting Upon Citizens' Preferences. In the final two columns of Table 6, we examine whether village governments act on the information gathered from citizens. The dependent variable indicates whether the public services that village heads report taking action on correspond to either a

¹⁰Village officials were asked: "For the village funds that are not earmarked for direct cash assistance, in your opinion, what should be the top three services prioritized for improvement?"

top-three priority identified by citizens (column 5) or a bottom-three quality service according to most citizens (column 6). Electoral turnovers increase both measures by 13 p.p. (significant at the 1%) and 21 p.p. (significant at the 5% level), respectively. Together with previous findings, these estimates suggest that increased interactions with citizens after turnovers allow village bureaucracies to better understand what citizens want, and this information is conveyed to village heads, allowing them to take policy actions congruent with citizens' preferences (see also Figure 4, panels e and f).

Appendix Tables A.35–A.42 report robustness checks on bureaucrat–citizen alignment outcomes: removing controls (Table A.35), adding region fixed effects (Table A.36), including a third-degree polynomial in the running variable (Table A.37), varying the RD bandwidth (Tables A.38, A.39, and A.40), estimating the fuzzy RD (Table A.41), and removing villages with Suharto-era elites (Table A.42).

Bureaucratic Knowledge and Transfers. Improved morale and effort may influence knowledge acquisition, broadly defined, within the bureaucracy. Appendix Table A.8 examines this possibility by assessing three measures: whether bureaucrats received training in the past 12 months (column 1), their ability to correctly answer a policy-relevant question about a recent regulation (an 'objective' knowledge measure, column 2), and a standardized index of self-reported knowledge across five domains: development management and accountability, financial management, village regulations, drafting development plans, and the Village Law (column 3). We find no significant effects of electoral turnovers on these outcomes.

Bureaucrats serving new leaders may also be more skilled at securing larger transfers from upper echelons of government. In Appendix Table A.9, we explore how turnovers impact transfers received by a subset of villages (423 out of 512) for which we could obtain administrative data on Village Funds Allocations (ADD), a type of transfer allocated by district governments to fund staff salaries, benefits, and village operations. We find no evidence that turnovers affect the amount of ADD funds allocated or utilized (columns 1–2) or the share of funds spent (columns 3–4). These null effects mirror those we find on the budget amounts reported by village heads in our own survey data (column 5).

4.5 Bureaucratic Performance: Local Service Provision

Our findings so far indicate that bureaucrats serving under newly elected village heads report higher enthusiasm levels, exert greater effort, and engage more frequently with citizens. This increased engagement helps them better understand citizens' policy priorities, allowing village governments to respond more effectively to citizens' demands. We now explore whether these turnovers lead to measurable improvements in local public service quality, as recorded in administrative data, and whether citizens perceive these improvements positively.

Service Provision in Administrative Data. Consistent with our findings on bureaucrat-level outcomes, turnover in village elections improves public service provision, as reflected in administrative *Podes* data. For this analysis, we restrict the sample to villages that held their last election before 2021 (378 out of 512 villages), the year of the most recent *Podes* survey. We construct a standardized index of service quality, encompassing all public goods managed by village governments: drinking water, sewage, garbage collection, street lighting, kindergartens, primary schools, village maternity clinics (*polindes*), community

health centers (*puskesmas*), paved roads, and public transit. We find a substantial (0.50 standard deviations, s.d.) increase in this index of service provision at the RD cutoff (Table 7, column 1, and Figure 5, panel a). This effect is primarily driven by garbage collection, street lighting, and to a lesser extent, drinking water and public transit (Appendix Table A.43 reports RD estimates for each component).

As a balance check, the last column of Table 7 and panel (b) of Figure 5 present the same service provision measures from the 2014 *Podes* wave, excluding garbage collection and village maternity clinics, which were not recorded that year. Prior to the most recent village head turnover, service provision in treatment villages was 0.06 s.d. lower (non-significant) in treatment villages.

Perceived Access and Quality. The citizens we surveyed also reported improved perceptions of service access and quality in their village. We examine citizens' views about the public goods that most closely correspond to those enumerated in *Podes*, namely garbage collection, electricity (for street lighting), kindergartens, primary schools, local healthcare delivery, water access, and roads. In this data, we look at service provision along both the extensive margin (is the service accessible in the village?) and the intensive margin (reported service quality). Columns 2 and 3 of Table 7 report this set of results and Figure 6 the corresponding RD plots. We find an increase in terms of both reported access (column 2) and perceived quality (column 3). Appendix Table A.44 reports effects on the individual components of the two indices of service access and service quality; the positive effect of turnovers appear to be mainly driven by garbage collection (columns 1–2) and roads (columns 13–14).

Heterogeneity by Social Proximity to the Bureaucracy. Our sampling strategy allows us to explore the effects of turnovers on perceptions of service provision separately for citizens with varying degrees of social proximity to the village government. To construct our sample of citizens, we employed a snowball procedure in which respondents were asked to provide three contact persons whose name began with a randomly drawn letter of the alphabet. This procedure started with the village heads and BPD chairpersons and continued with citizen respondents until we reached the target sample size (8 to 12 citizens) in each village. As a result, our sample captures a spectrum of social distances from the village government: 30% of respondents are directly connected to a member of the administration, 25% have a second-degree connection (referred by a directly connected individual), and 45% have a third- or higher-degree connection. Importantly, social proximity to the village government does not change discontinuously at the RD cutoff (Appendix Table A.3), and the demographic characteristics of citizens are also balanced at the threshold (Appendix Table A.4).

In Appendix Table A.5, we show that individuals more socially distant from the government are relatively younger and more likely to be women, less likely to be working and to have a tertiary education, and earn lower incomes on average. As expected, these individuals also interact less frequently with its bureaucrats: in the control group, the standardized index of interaction frequency is 0.21 s.d. for citizens directly connected to the government, compared to -0.24 s.d. for those with three or more degrees of separation (Appendix Table A.11).

Electoral turnovers lead to greater alignment between bureaucrats and citizens, including those with less social connection to village officials. In Section 4.4, we showed that turnovers improve bureaucrats'

understanding of citizens' service priorities. When we disaggregate these effects by social distance, we find that the gains in alignment are even more pronounced for citizens with weaker ties to village officials. Table 8 shows that in turnover villages, bureaucrats are more likely to identify investment priorities that align with socially distant citizens (columns 1–2) and to receive complaints about services prioritized by these citizens (columns 3–4). Additionally, village governments are more likely to act on the priorities of these most socially distant and marginalized constituents (columns 5–6).

Finally, we find that socially distant citizens are the primary drivers of improved perceptions of service access and quality following a turnover (columns 7–8). While turnovers lead to improvements in perceived service provision across all subsamples, the largest and most significant gains (at the 1% level) occur among citizens who are least connected to the administration. Consistent with village bureaucracies becoming less beholden to local elites, these village governments not only become more knowledgeable about the policy priorities of their more marginalized members but also deliver improvements in service provision aligned with the preferences of these socially distant constituents.

Dynamic Effects. In Appendix Table A.10, we show that these improvements in local service provision may take time to materialize after electoral turnovers. We divide villages into three groups: those that held elections between 2015-17 (122 villages), between 2018-20 (256 villages), and between 2021-22 (134 villages). The staggered timing of village elections stems from Indonesia's democratic transition, as district mayors appointed in the final years of the Suharto era were allowed to complete their terms (Martinez-Bravo et al., 2017). The 2021-22 group serves as a placebo check, since elections held after the 2021 *Podes* survey should not have influenced service provision at the time of data collection. The results confirm that turnovers improve service provision but suggest that these improvements take time to arise, likely due to short-term disruptions caused by turnover (as in Akhtari et al., 2022). The effects are nearly twice as large in villages that held elections in 2015-17 (column 2) compared to those with more recent elections (column 3). As expected, there is no evidence of service improvements in villages where elections occurred after the *Podes* wave (column 4).

Downstream Effects on Attitudes. Despite the improvements in service provision observed in both administrative data and survey responses, village head turnovers do not improve citizen satisfaction or trust in the village government. Appendix Table A.11 shows that this finding holds in the full sample (panel A) and across subsamples of citizens who are more or less socially distant from the village government (panels B through D). Consistent with bureaucrats' reports (see Table 4), citizens overall indicate more frequent interactions with bureaucrats after a turnover (column 1, though not statistically significant). However, they do not express greater satisfaction with the village government (column 2) or higher trust in it (column 3). Panels B through D show that less socially distant individuals are driving the increase in bureaucrat–citizen interactions after a turnover, while changes in trust towards the village government do not vary substantially between citizens at varying degrees of social distance.

Overall, these null effects on attitudes—despite significant gains in service provision—suggest that citizens may not immediately recognize bureaucratic improvements, preventing short-run gains in trust or satisfaction. This could be the case if improvements in service provision are mis-attributed to other

forces, e.g., upper-levels of government or foreign donors (Cruz and Schneider, 2017; Guiteras and Morarak, 2015). Alternatively, citizens' trust levels could be sticky and may not respond rapidly to new signals about government performance (Khan et al., 2021).

Robustness Checks. Appendix Tables A.45–A.50 report robustness checks on the key result in Table 7, column 1: removing election-year dummies (Table A.45), adding region fixed effects (Table A.46), using a third-degree polynomial in the running variable (Table A.47), and varying the size of the RD bandwidth (Tables A.48, A.49, A.50). The smaller sample size in the administrative data ($N=378$ villages that held their last election before 2021) means we have less power to obtain precise estimates across all specifications, but the effect of turnovers remains consistently positive and large in magnitude. In column 1 of these tables, this effect ranges from 0.28 s.d. (Table A.47) to 0.68 s.d. (Table A.45). Appendix Table A.51 reports fuzzy RD estimates, yielding similar insights with slightly larger magnitudes.

Appendix Tables A.52–A.57 report the same robustness checks for citizens' perceptions of service access and quality examined in columns 2–3 of Table 7, while Appendix Table A.58 reports estimates from the fuzzy RD specification. Across the board, we find consistent evidence that turnovers enhance access to public services as well as service quality, as perceived by the village citizens.

5 Mechanisms and Interpretation

Our results show that turnover in village elections shakes up village bureaucracies, fosters increased engagement between bureaucrats and citizens and alignment in terms of policy priorities, and improves service provision. In this section, we present evidence on the potential mechanisms driving these results, as well as possible alternative interpretations.

5.1 Reduced Nepotism under New Village Heads

Our findings align with qualitative evidence emphasizing the crucial role village heads play in shaping local development outcomes. A recent qualitative study of Indonesian villages (see Section 2) highlights that *“a responsive and reform-oriented village head can exercise considerable agency in ensuring a well-run village even without high levels of citizen demand”* (World Bank, 2023, p.11). The staff replacements and reduction in nepotism we observe may contribute to the emergence of more responsive local bureaucracies. Officials under new leadership exert greater effort to engage with citizens and understand their priorities, fostering investments aligned with citizen preferences and ultimately improving service provision—an effect we observe in both administrative data and citizen surveys.

We now provide evidence that the positive effects of turnover on performance are driven by villages where the electoral outcome caused a disruption in entrenched nepotistic networks. An important caveat to this analysis is that the reduction of nepotistic ties is itself endogenous to the occurrence of an electoral turnover (Table 3). Bearing this concern in mind, Table 9, columns 1 and 2 provide suggestive evidence that improvements in service provision occur only in villages where the village head does not currently employ a relative in the village government. In these villages, turnovers lead to a 0.77 s.d. increase in

service provision (significant at the 5% level), whereas no improvement is observed in villages where at least one bureaucrat is related to the village head. Newly elected village heads who perpetuate nepotistic hiring practices struggle to improve service provision (-0.069 s.d., not significant).

We then consider an alternative measure of nepotistic networks, which is less affected by the occurrence of a turnover: the continued presence of bureaucrats who were appointed before the last election and report having a parent who previously served as village official. This captures the persistence of bureaucrats with a longstanding family history in village governance. We divide villages into two groups: those where no bureaucrats appointed before the election have a parent who served in the village government (Table 9, column 3) and those where at least one such bureaucrat remains (column 4). As shown in columns 1 and 2 of Appendix Table A.60, this variable is not directly affected by electoral turnovers. The effect of turnovers on service provision is stronger in villages without these long-serving nepotistic appointees (0.60 s.d., significant at the 5% level), though the difference between the two estimates is not statistically significant. A plausible interpretation is that village heads who successfully dismantle nepotistic networks achieve the most substantial improvements in service provision.

Table 10 provides further supporting evidence. Panel A presents estimates for villages where no bureaucrats from the previous administration have family ties to past village officials, while panel B reports estimates for villages where such bureaucrats remain. First, we confirm that bureaucratic turnover was higher in villages without nepotistic appointees from the previous administration (column 1). To assess how the removal of connected bureaucrats shapes the effects of turnover, we compare bureaucratic morale and engagement across these villages, examining enthusiasm (column 2), motivation (column 3), interactions with citizens (column 4), and bureaucrat–citizen alignment (columns 5–8).

Overall, turnover has a stronger impact on bureaucratic enthusiasm and motivation in villages where no nepotistic appointees remain. This morale boost likely stems from both newly appointed officials and continuing officials who feel reinvigorated by the departure of colleagues appointed through nepotism. While effort levels show no significant difference between the two types of villages, bureaucrats in villages without lingering nepotistic appointees exhibit a much better understanding of citizens' priorities. For instance, they are significantly more likely to correctly identify the services citizens perceive as low quality, with an effect size of 0.29 s.d. (significant at the 1% level) in panel A, compared to -0.02 s.d. in panel B. Together, these findings suggest that removing nepotistic practices enables newly elected village heads to foster a more responsive and effective bureaucracy.

5.2 Alternative Explanations

In the remainder of this section, we discuss potential alternative interpretations of our results. We focus on four possible explanations: positive selection of new leaders, lame-duck village heads driving down bureaucratic morale and effort, patronage appointments by newly elected leaders, and social desirability bias in survey data collected from bureaucrats.

Leader Selection. Village governance may improve due to a selection channel: the challengers winning village elections might be more able leaders than reelected incumbents, on average.

In Appendix Table A.59, we examine how village head characteristics vary at the RD threshold. We show that new leaders are not less likely to be connected to a previous village head, relative to reelected incumbents. In particular, they are no less likely to have a parent who previously served as village head (column 1) or as a member of the village government (column 2). Thus, it does not seem to be the case that electoral turnovers improve village governance by selecting less connected leaders. These findings align with qualitative accounts of village elections often fought between members of rival families or clans, so that challengers may not be necessarily less likely to belong to local elites families (Aspinall and Rohman, 2017). In fact, newly elected challengers may still perform better than reelected incumbents while also belonging to elite families, as a result of the “founder effect” described in George (2024).

We also find little evidence that elected challengers differ from reelected incumbents along observable characteristics: their age (column 3), gender (column 4), level of education (column 5), or language ability (column 7). The point estimate for religion (column 6) is negative and significant at the 10% level, which we interpret as a chance finding. Overall, the average leader in the control group is 49.9 years old, overwhelmingly likely to be male, and has completed 13 years of schooling, and none of these characteristics differs for elected challengers at the threshold.

While our data shows no measurable differences between elected challengers and reelected incumbents at the RD threshold, it remains possible that challengers who won the most recent election are, on average, unobservably more competent than incumbents who secured reelection. Furthermore, if the gap in unobservable quality between elected challengers and elected incumbents is larger in close village elections than in typical elections outside our sample, then the findings we obtain in our sample of close elections may not generalize to other, less competitive elections.

To probe these concerns, we implement an empirical exercise designed to distinguish elections featuring less competent incumbents from those involving “unlucky incumbents” who faced adverse external circumstances as they competed for another term. Building on Marx et al. (2024), this approach identifies incumbents who faced a close reelection battle not mainly as a result of their poor past performance, but because of unfavorable external factors that created an electoral playing field hostile to incumbents, such as a natural disaster affecting the local community. Intuitively, natural disasters provide local exogenous variation that reduces an incumbent’s reelection chances for reasons beyond their control. Using the administrative *Podes* data, we identify a subsample of 242 villages that experienced a natural disaster—a major landslide, flood event, ocean tide, hurricane, or drought—during an incumbent’s term prior to the election observed in our data. In these elections, incumbents earned a vote share 6.5 p.p. lower on average, and they were 14 p.p. less likely to be reelected overall (Appendix Table A.66).¹¹

In Appendix Table A.67, we show that turnovers in elections held after a local natural disaster lead to similar effects as those observed in the full sample. While we lack statistical power in some of these regressions due to the smaller sample size, turnovers in those elections reduce nepotism (columns 1–2) and improve bureaucrats’ morale and effort (columns 3–4) as well as bureaucrat-citizen alignment

¹¹A stricter test would involve only considering natural disasters occurring the year of, or the year prior to an election. This would entirely rule out that an incumbents’ disaster response may also shift reelection probabilities. Unfortunately, sample size concerns prevent us from implementing this more stringent restriction, and we instead consider all disasters occurring in the five years prior to the election.

(columns 5–6). They also significantly increase actual and perceived service provision in the village (columns 7–9). Thus, the positive effects of turnovers do not mainly stem from negative selection of incumbents into the sample of close elections used in the RD estimation, but instead hold when we only consider elections that were closely contested due to exogenous shocks.

Lame-duck Village Heads. Under Indonesia’s Village Law, village heads are allowed to serve a maximum of three consecutive or non-consecutive terms. Our empirical strategy, which consists of comparing outcomes in villages where the incumbent barely won or lost the most recent election, naturally raises questions pertaining to the role of these *de jure* term limits: lame-duck village heads serving their third and final term might face poorer incentives to perform, and this could, in turn, undermine bureaucratic effort and performance. A large literature has documented the negative effects of term limits on policy performance (e.g., Ferraz and Finan, 2011; Fourniaies and Hall, 2021).

However, across the 512 villages in our sample, only 31 village heads (6%) are serving their third term. This small number is consistent with the low rate at which incumbents seek and obtain reelection: out of a total of 852 villages in our survey sample (which also include villages in which an incumbent did not compete), only 265 villages (31%) experienced an incumbent victory in the most recent election. Thus, these term-limited incumbents only account for a small fraction of villages. In Appendix Tables A.61–A.65, we exclude from the analysis the villages where the current village head is serving in their third term. Importantly, this sample restriction is endogenous to the treatment, since we exclude third-term incumbents but due to data limitations we cannot symmetrically exclude elections featuring a defeated incumbent who would have served their third term, had they won. However, if term-limited incumbents were driving the effects of turnovers on bureaucratic performance and service provision, the resulting bias would lead us to find smaller effects with this sample restriction. We do not find evidence to that effect: our results are unchanged when we exclude villages with term-limited village heads.

Patronage Appointments. The increase in bureaucrat morale and interactions with citizens could come from appointments of individuals who served as campaign activists in the most recent village election. Individuals who campaigned on behalf of the new village head may be more likely to be given a job in the village government after the election, and these individuals might be more enthusiastic about their job and better informed about citizens’ preferences. However, the friends and relatives of candidates are often involved in the latter’s electoral campaigns, and we find evidence that nepotistic hires of such individuals become less prevalent after an electoral turnover (Table 3). In addition, and more importantly, the positive effects of turnover on public service provision measured in administrative data and citizens’ perceptions (Table 7) are unlikely to be driven by appointments of campaign activists.

Social Desirability. Several of the outcomes we examine are reported by the bureaucrats themselves. This is, to some extent, a strength of our empirical setting: we collected measures of morale and policy preferences directly from the bureaucrats themselves, measures which are typically unavailable in administrative data. However, this also raises concerns about social desirability bias in the bureaucrat-level outcomes, if such bias is correlated with electoral turnovers.

To address this, we also included in our instrument a survey experiment designed to quantify experimenter demand effects in the responses of village officials. This experiment provided a randomized priming treatment that made more salient the ongoing data collection effort; the message emphasized either (i) that data collection was part of a research collaboration with the Indonesian Ministry of Home Affairs or (ii) that data collection was simultaneously ongoing with citizens residing in the same village. The randomization was conducted at the village level. Treatment assignment in this survey experiment is uncorrelated with turnover in equation (1): the RD point estimate is $\tau = -0.093$ (robust SE: 0.131, $p = 0.372$). Nonetheless, we control for this treatment assignment in all our specifications. We report the takeaways from this survey experiment in a companion paper; in general, we find limited effects of our priming intervention on a wide range of bureaucrat-level outcomes and attitudes.

6 Conclusion

This paper studies villages across Indonesia as laboratories of local democracy. We use electoral turnovers, namely instances in which an incumbent leader failed to secure reelection in the most recent village election, as natural experiments that disrupt the status quo in these village governments. Turnovers typically bring to power new local leaders with a mandate to improve village governance and development outcomes. Village bureaucracies are a key instrument at the disposal of these local leaders, as they provide the crucial link between citizens and frontline service delivery.

Turnover in local elections reshapes the bureaucracy, most notably by inducing some staff reshuffling and by reducing the presence of bureaucrats with nepotistic ties to current or past village officials. In turn, village bureaucrats who serve under new leaders report greater enthusiasm levels. This enhanced morale leads to an uptick in effort, as village officials interact more often with citizens and gain a better understanding of their priorities in terms of public goods provision in the local community. We show that these positive effects on morale and effort lead village governments to take policy actions aligned with citizens' priorities, and have positive downstream impacts on local service provision measured in both administrative and survey data. Citizens with varying levels of social proximity to members of the village government perceive large improvements in public service access and quality. The positive effects of turnovers on bureaucratic performance and local service provision are primarily driven by villages where newly elected village heads succeed in reducing the prevalence of nepotistic hiring practices.

Our findings highlight the importance of local mechanisms of accountability in making democracy work. Democracy is under threat across a variety of settings, partly as a result of widespread popular discontent with what democratic systems have delivered. Our paper shows that even at the lowest level of government, elections that allow for regular power transitions induce improvements in bureaucratic performance and public goods provision. In light of our findings, ensuring that regular, free and fair elections fulfill one of their key functions—allowing decision-making power to regularly change hands, even at highly localized levels—appears crucial for democracy to work as a whole.

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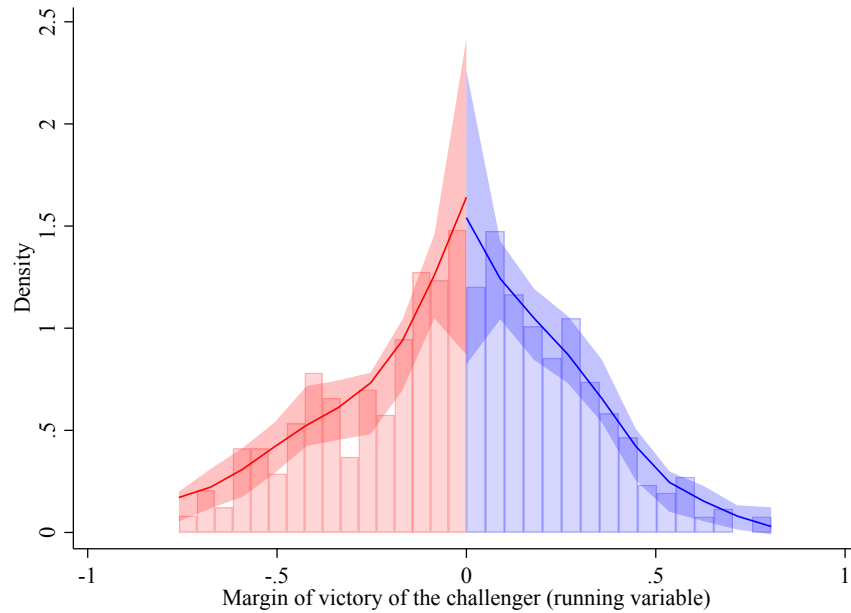
Figures

Figure 1: Density Test

(a) Distribution of the Victory Margin

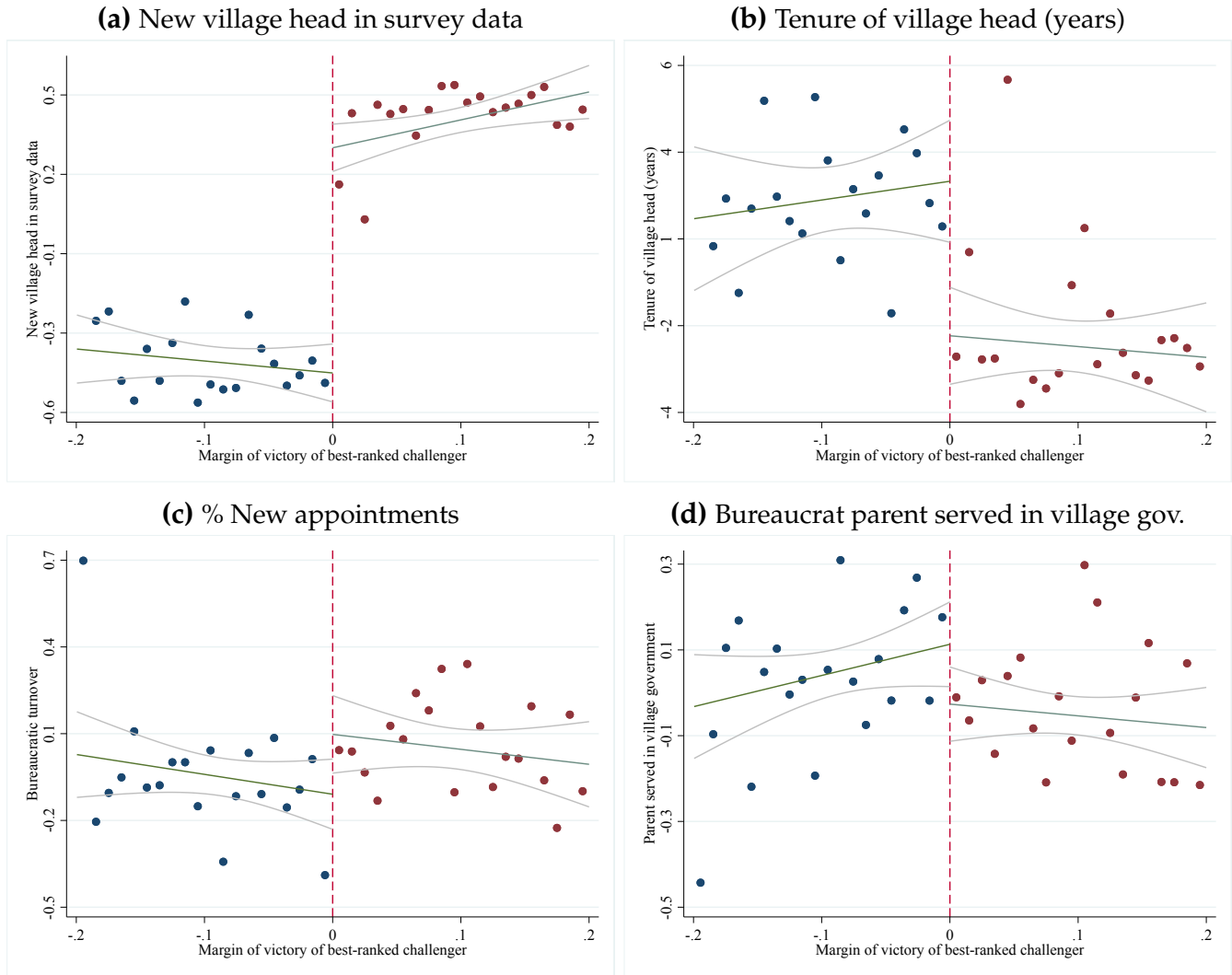


(b) Testing the Continuity of the Victory Margin



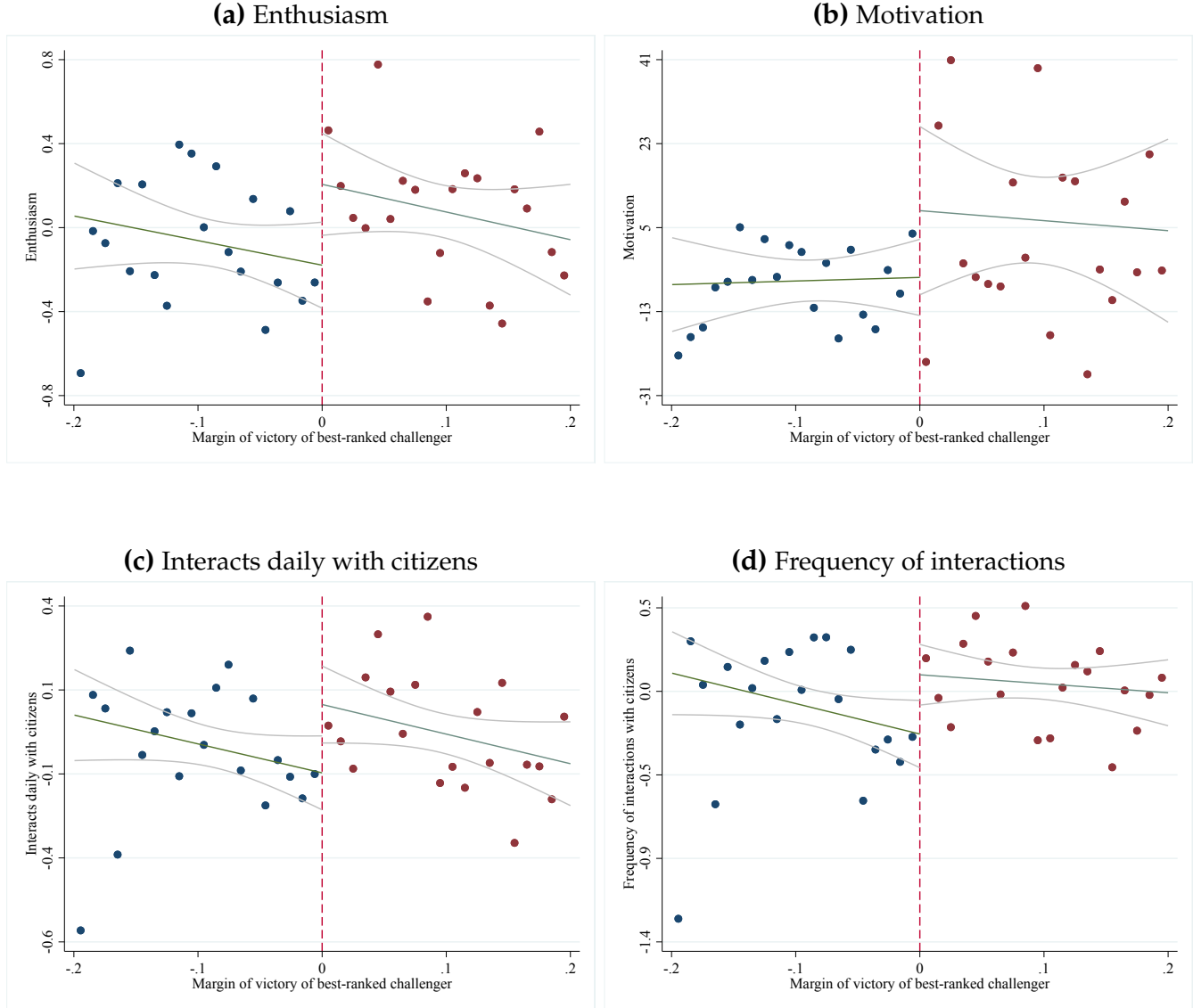
Notes: Panel (a) plots the density of the running variable in our RD estimation, defined as the difference between the vote share received by highest-ranked challenger and the incumbent's vote share in the most recent village election. Panel (b) implements the density test from [Cattaneo et al. \(2018\)](#) using the margin of victory of the challenger as the running variable. The p-value from this test is $p=0.856$.

Figure 2: Electoral and Bureaucratic Turnover



Notes: Panel (a) looks at the probability that the village head in our survey sample is a different individual from the incumbent candidate competing in the most recent village election. Panel (b) looks at the number of years in office of the village head in our sample. Panel (c) looks at the village-level fraction of bureaucrats (excluding the village head) who began in their current position since the last election. Panel (d) looks at the probability that bureaucrats have a parent who served in the village government. The dots are conditional means of each outcome across binned intervals of the margin of victory of the best-ranked challenger on each side of the RD threshold, with 95% confidence intervals in solid gray lines.

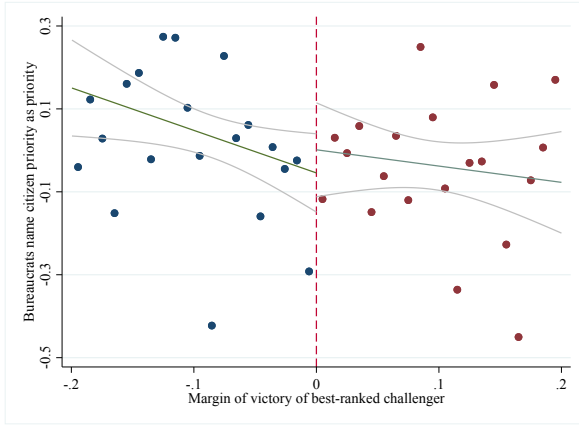
Figure 3: Bureaucratic Morale and Effort



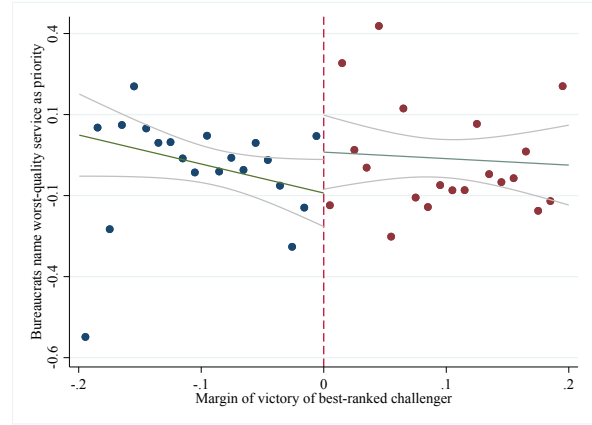
Notes: The top two figures look at morale outcomes. Panel (a) looks at a standardized z-score of self-reported enthusiasm. Panel (b) looks at a continuous measure of motivation anchored at a baseline of 100 and winsorized at the top percentile. The bottom two figures look at measures of the frequency of interactions between bureaucrats and citizens. Panel (c) looks at a dummy equal to 1 if the bureaucrat reports interacting with village citizens on a daily basis. Panel (d) looks at a standardized measure of the frequency of citizen interactions, computed from a categorical variable measured on a 1-5 scale. The dots are conditional means of each outcome across binned intervals of the margin of victory of the best-ranked challenger on each side of the RD threshold, with 95% confidence intervals in solid gray lines.

Figure 4: Understanding of Citizen Preferences

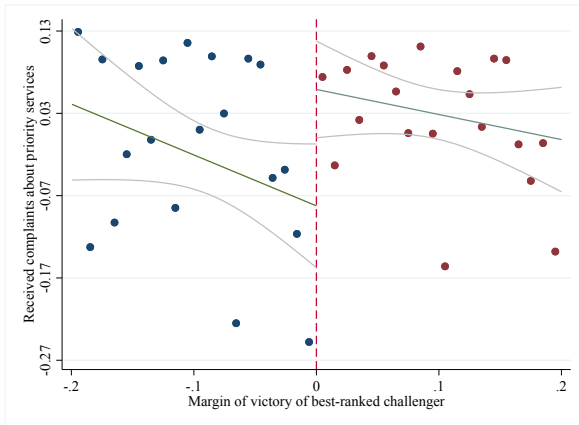
(a) Officials/citizens agree: Priority services



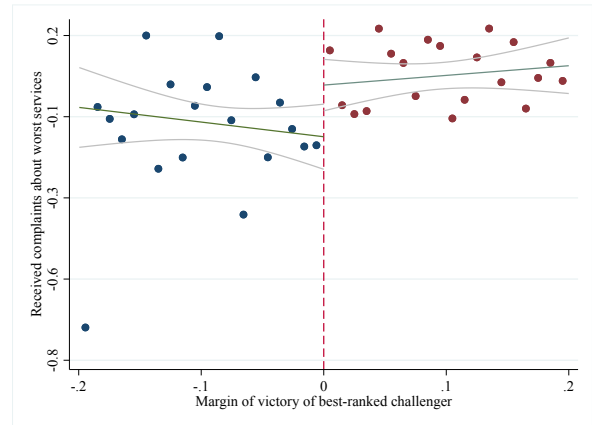
(b) Officials/citizens agree: Worst-quality services



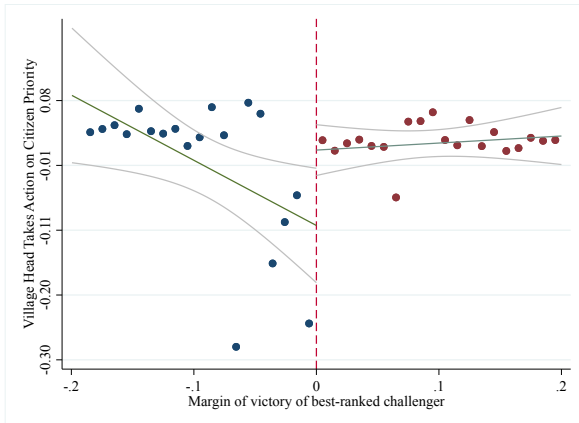
(c) Complaints received: Priority services



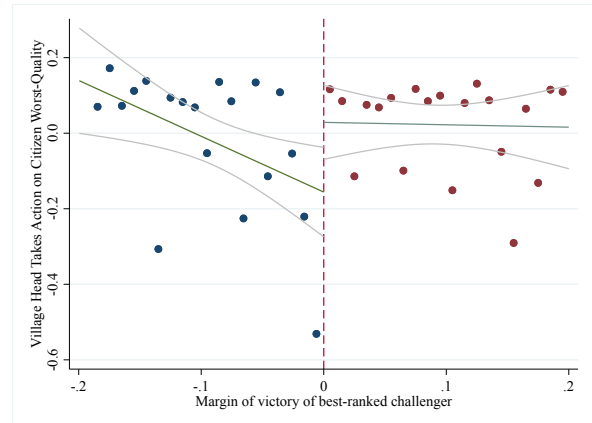
(d) Complaints received: Worst-quality services



(e) Village head takes action: Priority services

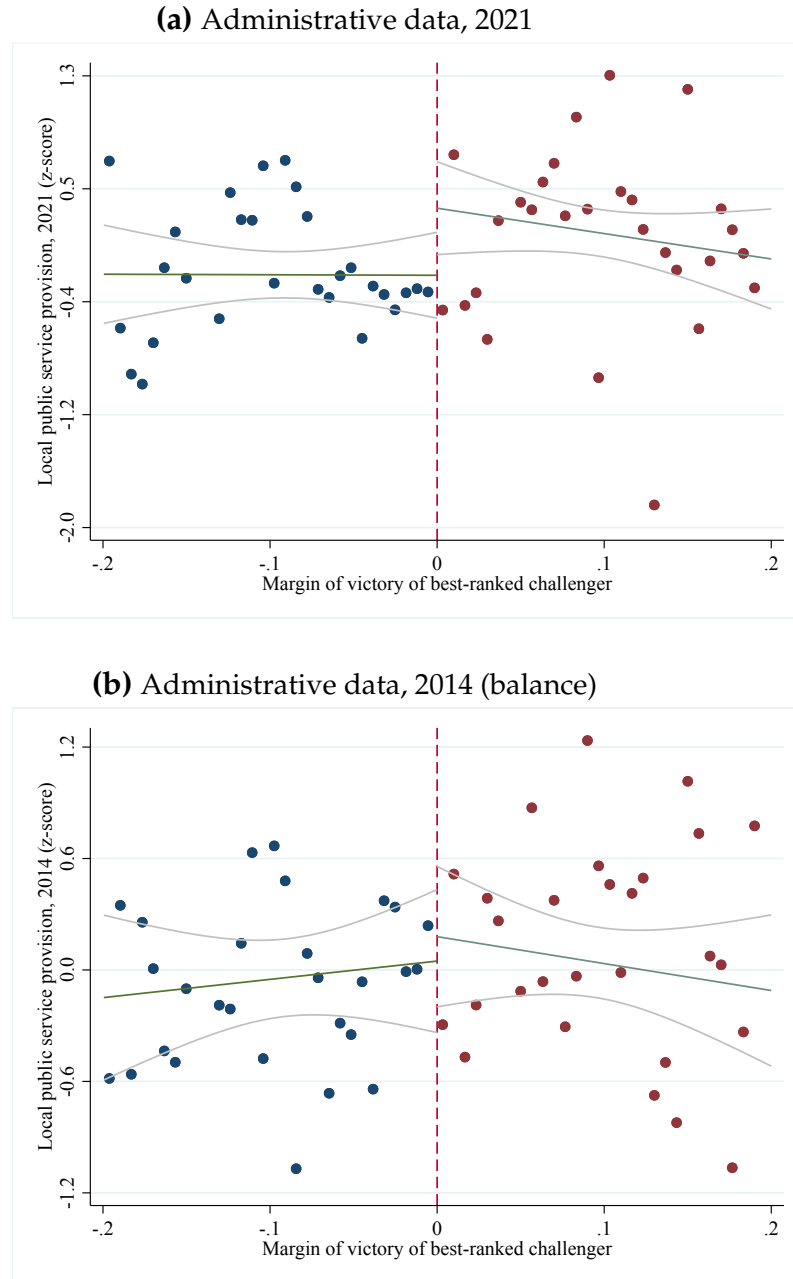


(f) Village head takes action: Worst-quality services



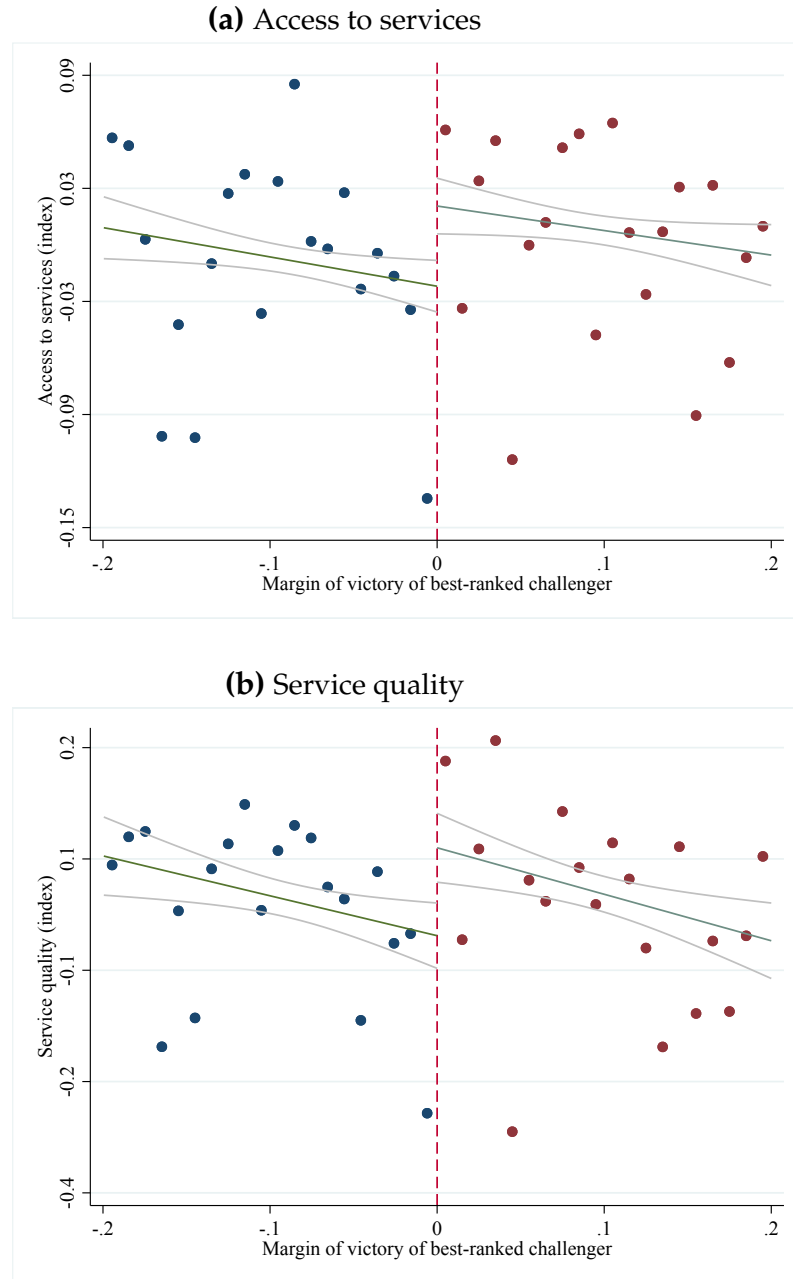
Notes: Panel (a) looks at an indicator equal to 1 if the bureaucrat names as priority for future spending a public service which village citizens identify as a top-3 priority. Panel (b) looks at an indicator equal to 1 if the bureaucrat names as priority for future spending a service which citizens rank as a bottom-3 quality public service. Panel (c) looks at an indicator equal to 1 if the bureaucrat reports receiving complaints about at least one public service that most citizens identify as a top-3 priority. Panel (d) looks at an indicator equal to 1 if the bureaucrat reports receiving complaints about at least one public service that most citizens believe is a bottom-3 quality service. Panel (e) looks at an indicator equal to 1 if the village head took action on a public service which citizens identify as a top-3 priority. Panel (f) looks at an indicator equal to 1 if the village head took action on a public service that most citizens believe is a bottom-3 quality service. See Section 4 for details. The dots are conditional means of each outcome across binned intervals of the margin of victory of the best-ranked challenger on each side of the RD threshold, with 95% confidence intervals in solid gray lines.

Figure 5: Effects on Public Goods Provision (Administrative Data)



Notes: In panel (a), the dependent variable is a standardized index of local service provision constructed using the 2021 *Podes* survey. The index has the following 10 components: drinking water, sewage, garbage collection, street lighting, kindergartens, primary schools, village maternities (*polindes*), community health centers (*puskemas*), paved roads, and public transit. We first standardize each individual component before taking the village-level average of all components. The sample includes all villages in our sample that conducted their last election before 2021. In panel (b), the dependent variable is a standardized index of local service provision constructed using the 2014 *Podes* survey. The 2014 index has the same components except garbage collection, which was not collected in 2014, and a different coding for street lighting, which was categorized into two groups in 2014 (*no lights*, *any lights*), compared to three groups in 2021 (*no lights*, *some lights*, and *many lights*). The dots are conditional means of each outcome across binned intervals of the margin of victory of the best-ranked challenger on each side of the RD threshold, with 95% confidence intervals in solid gray lines.

Figure 6: Effects on Public Goods Provision (Citizens' Perceptions)



Notes: In panel (a), the dependent variable is a standardized index of access to local services constructed using our survey data. In panel (b), the dependent variable is a standardized index of service quality. The index has the following components: garbage collection, electricity, kindergartens, primary schools, community healthcare, water access, and paved roads. We first standardize each individual component before taking the village-level average of all components. The dots are conditional means of each outcome across binned intervals of the margin of victory of the best-ranked challenger on each side of the RD threshold, with 95% confidence intervals in solid gray lines.

Tables

Table 1: Turnover, Public Goods, and Nepotism: Correlations (OLS)

	Public Goods Index				Village government		Village head survey	
	Podes 2021		Podes 2021-2014 growth		% New appts		Village head relative	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Incumbent runs	0.006 (0.064)	0.102 (0.077)	0.046 (0.377)	0.643 (0.511)	-0.035 (0.029)	0.031 (0.034)	0.031 (0.040)	-0.024 (0.047)
Incumbent wins		-0.181** (0.080)		-1.121** (0.492)		-0.123*** (0.033)		0.102** (0.046)
<i>P-value</i> , total effect		0.29		0.22		0.0055		0.091
Region FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample mean	0.31	0.31	1.33	1.33	0.39	0.39	0.37	0.37
Observations	565	565	562	562	784	784	679	679

Notes: This table reports OLS estimates of each outcome on two binary variables: *incumbent runs*, indicating whether the incumbent village head competed in the most recent election and *incumbent wins*, indicating whether the incumbent won that election, respectively. Units of observations are villages in columns 1-6 and village heads in columns 7-8. The dependent variable is: in columns 1 and 2, a standardized index of local public service provision constructed using the 2021 Podes data. The index has the following 10 components: drinking water, sewage, garbage collection, street lighting, kindergartens, primary schools, village maternities (polindes), community health centers (puskesmas), paved roads, and public transit. In columns 3 and 4, the growth in service quality between the 2014 and 2021 Podes waves. In columns 5 and 6, the rate of bureaucratic turnover at the village level since the last election, defined as the fraction of new bureaucrats appointed to their current position since the last election. In columns 7 and 8, a dummy equal to 1 if relatives of the village head are employed in the village government. Regressions include region fixed effects. The main regions in our sample are Java, Sulawesi, Sumatra, Kalimantan, and NTB-Bali.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table 2: Effects of Turnovers on Bureaucratic Organization

	Village heads		Village government	
	New leader	Tenure (yrs)	% New appts	% Reshuffling
	(1)	(2)	(3)	(4)
New village head	0.835*** (0.101)	-4.908*** (1.527)	0.182** (0.100)	0.089* (0.052)
Observations	442	443	510	510
Control mean	0.035	7.96	0.33	0.036
Robust p-value	0.000	0.001	0.042	0.073
MSE-opt. bandwidth	15.8	31.2	22.0	18.9
Effective obs.	172	285	256	235

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from Calonico et al. (2014). Units of observations are village heads in columns 1-2 and villages in column 3-4. The dependent variable is: in column 1, a dummy equal to 1 if the village head in our survey data is a different individual from the incumbent competing in the most recent village election; in column 2, the number of years spent in office by the current village head; in column 3, the rate of bureaucratic turnover at the village level since the last election, defined as the fraction of new bureaucrats appointed to their current position since the last election; in column 4, the share of bureaucrats “reshuffled” within the village secretariat, defined as the fraction of bureaucrats who experienced a promotion, demotion, or lateral move since the last election. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table 3: Effects of Turnovers on Nepotism

	Village head survey	Bureaucrat survey	
	<u>Employs relative</u>	<u>Parent was leader</u>	<u>Parent served in govt</u>
	(1)	(2)	(3)
New village head	-0.385*** (0.178)	-0.066 (0.051)	-0.168** (0.082)
Observations	442	1067	1067
Control mean	0.36	0.054	0.27
Robust p-value	0.008	0.109	0.034
MSE-opt. bandwidth	12.7	17.5	22.5
Effective obs.	149	466	550

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). Units of observations are village heads in column 1 and bureaucrats in columns 2-3. The dependent variable is: in column 1, a dummy equal to 1 if relatives of the village head are employed in the village government; in column 2, a dummy equal to 1 if the bureaucrat reports having a parent who served as village head; in column 3, a dummy equal to 1 if the bureaucrat reports having a parent who served in the village government. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses for column 1. Robust standard errors clustered by village in parentheses for columns 2-3.

Table 4: Effects of Turnovers on Morale and Effort

	Bureaucrat survey			
	Enthusiasm	Motivation	Interacts daily w/ citizens	Frequency index
	(1)	(2)	(3)	(4)
New village head	0.487*** (0.165)	22.868 (18.495)	0.197** (0.102)	0.405** (0.183)
Observations	1064	1062	1064	1064
Control mean	-0.057	100.6	0.57	0.32
Robust p-value	0.001	0.153	0.029	0.012
MSE-opt. bandwidth	20.8	21.5	18.5	16.3
Effective obs.	522	533	487	441

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). Units of observation are bureaucrats in all columns. The dependent variable is: in column 1, a standardized z-score of self-reported enthusiasm; in column 2, a continuous measure of motivation anchored at 100 at baseline and winsorized at the top 1%; in column 3, a dummy variable equal to 1 if the bureaucrat reports interacting with citizens on a daily basis; in column 4, a standardized z-score of the frequency of bureaucrat-citizen interactions measured on a 1-5 scale. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table 5: Nepotism, Morale and Effort: Heterogeneity by Time of Appointment

	Bureaucrat survey					
	Parent Head	Parent Served	Enthusiasm	Motivation	Interacts daily w/ citizens	Freq. index
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Bureaucrats appointed before last election						
New village head	-0.051 (0.060)	-0.104 (0.122)	0.252 (0.223)	21.931 (19.398)	0.347*** (0.132)	0.544*** (0.180)
Observations	531	531	529	527	529	529
Control mean	0.055	0.28	0.10	101.3	0.58	0.37
Robust p-value	0.237	0.427	0.175	0.218	0.004	0.001
MSE-opt. bandwidth	14.9	21.8	21.0	22.5	20.9	19.3
Effective obs.	214	279	269	287	269	256
Panel B: Bureaucrats appointed after last election						
New village head	-0.103 (0.090)	-0.389*** (0.162)	0.926*** (0.291)	37.045 (26.698)	-0.051 (0.200)	0.139 (0.425)
Observations	396	396	395	395	396	396
Control mean	0.045	0.25	-0.24	95.4	0.61	0.34
Robust p-value	0.177	0.008	0.001	0.115	0.860	0.599
MSE-opt. bandwidth	21.4	18.3	17.1	19.6	17.2	17.2
Effective obs.	186	172	164	179	165	165

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from Calonico et al. (2014). Units of observation are bureaucrats in all columns. The dependent variables in columns 1–2 are identical to those in columns 2–3 of Table 3. The dependent variables in columns 3–6 are identical to those in columns 1–4 of Table 4. Panel A looks at bureaucrats appointed to their current position before the last village election while panel B looks at bureaucrats appointed since the last election. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table 6: Effects of Turnovers on Alignment with Citizens' Preferences

Village Services:	Bureaucrat survey				Village head survey	
	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	0.105 (0.116)	0.236** (0.117)	0.162*** (0.068)	0.174** (0.079)	0.127* (0.079)	0.213** (0.103)
Observations	1067	1067	1067	1067	443	443
Control mean	0.75	0.32	0.87	0.71	0.94	0.88
Robust p-value	0.204	0.015	0.006	0.028	0.073	0.019
MSE-opt. bandwidth	17.5	17.0	18.4	25.7	22.7	26.4
Effective obs.	467	457	484	606	223	253

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). Units of observation are bureaucrats in all columns. In column 1, the dependent variable is an indicator equal to 1 if the bureaucrat names as priority for future development spending a public service which village citizens identify as a top-3 priority. In column 2, the dependent variable is an indicator equal to 1 if the bureaucrat names as priority for future development spending a service which citizens rank as a bottom-3 quality public service. In column 3, the dependent variable is an indicator equal to 1 if the bureaucrat reports receiving complaints about at least one public service the majority of village citizens identify as a top-3 priority. In column 4, the dependent variable is an indicator equal to 1 if the bureaucrat reports receiving complaints about at least one public service the majority of village citizens believe is a bottom-3 quality public service. In column 5, the dependent variable is an indicator equal to 1 if the village head took action on a public service which village citizens identify as a top-3 priority. In column 6, the dependent variable is an indicator equal to 1 if the village heads took action on at least one public service the majority of village citizens believe is a bottom-3 quality public service. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses in columns 1–4. Robust standard errors in parentheses in columns 5–6.

Table 7: Effects of Turnovers on Public Goods Provision

	Public Goods Index	Citizen Perceptions		Balance
	<i>Podes</i> 2021	Access	Quality	<i>Podes</i> 2014
	(1)	(2)	(3)	(4)
New village head	0.503* (0.263)	0.073** (0.043)	0.208** (0.102)	-0.058 (0.419)
Observations	378	8848	8846	375
Control mean	0.23	0.78	-0.028	0.018
Robust p-value	0.053	0.039	0.014	0.823
MSE-opt. bandwidth	18.7	15.2	14.9	19.0
Effective obs.	161	3479	3427	161

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). Units of observation are villages in columns 1 and 4, and citizens in columns 2 and 3. In column 1, the dependent variable is a standardized index of local public service provision constructed using the 2021 Podes data. The index has the following 10 components: drinking water, sewage, garbage collection, street lighting, kindergartens, primary schools, village maternities (polindes), community health centers (puskesmas), paved roads, and public transit. In column 2, the dependent variable is a standardized index of access to local services constructed using our citizens survey data. In column 3, the dependent variable is a standardized index of service quality. The index has the following components: garbage collection, electricity, kindergartens, primary schools, community healthcare, water access, and paved roads. In column 4, the dependent variable is a standardized index of local public service provision constructed using the 2014 Podes data, and serves as a balance check. The 2014 index has the same components as in column 1, with the exception of garbage collection, which was not collected in 2014, and a different coding for street lighting, which was categorized into two groups in 2014 (*no lights*, *any lights*), compared to three groups in 2021 (*no lights*, *some lights*, and *many lights*). See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses for columns 1 and 4. Robust standard errors clustered by village in parentheses for columns 2 and 3.

Table 8: Alignment with Citizens' Preferences, by Social Distance to Village Government

Village Services:	Bureaucrat survey				Village head survey		Citizen survey	
	Officials/citizens agree on:		Complaints received about:		Village head takes action on:		Citizen Perceptions	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality	Access	Quality
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: First-Degree Connection								
New village head	0.113 (0.110)	0.288*** (0.114)	0.192*** (0.063)	0.074 (0.084)	0.098 (0.071)	0.212** (0.112)	0.046 (0.040)	0.130 (0.109)
Observations	1067	1067	1067	1067	443	443	2647	2646
Control mean	0.72	0.40	0.86	0.77	0.96	0.86	0.76	-0.071
Panel B: Second-Degree Connection								
New village head	0.167* (0.109)	0.242** (0.138)	0.117** (0.067)	0.147** (0.076)	0.098 (0.071)	0.111 (0.086)	0.055 (0.048)	0.143 (0.117)
Observations	1067	1067	1067	1067	443	443	2207	2207
Control mean	0.70	0.42	0.86	0.75	0.96	0.89	0.79	-0.018
Panel C: Third-Degree or More Connection								
New village head	0.173* (0.119)	0.244** (0.139)	0.069 (0.060)	0.139* (0.072)	0.121** (0.067)	0.194** (0.107)	0.100** (0.053)	0.276*** (0.122)
Observations	1046	1046	1046	1046	436	436	3994	3993
Control mean	0.69	0.37	0.87	0.75	0.96	0.90	0.80	-0.022

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from Calónico et al. (2014). Units of observation are bureaucrats in columns 1–6 and citizens in columns 7–8. In columns 1 through 6, the outcomes are identical to those in columns 1–6 of Table 6. In columns 7–8, the outcomes are identical to those in columns 2–3 of Table 7. Each panel looks at a different subsample of citizens with varying degrees of social proximity to the village government, namely: citizens with first-degree (direct) connections in Panel A, second-degree connections in Panel B, and third- (or higher) degree connections in Panel C. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table 9: Public Goods Provision, Heterogeneity by Nepotistic Networks

	Public Goods Index			
	No relatives in govt	At least 1 relative in govt	No bureaucrat	At least 1 bureaucrat
	(1)	(2)	(3)	(4)
New village head	0.773** (0.359)	-0.069 (0.388)	0.603** (0.282)	0.484 (0.526)
Observations	191	133	295	81
Control mean	0.17	0.36	0.17	0.40
Robust p-value	0.020	0.683	0.022	0.309
MSE-opt. bandwidth	20.6	16.1	19.2	23.8
Effective obs.	86	47	129	38

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). The dependent variable is a standardized index of local public service provision constructed using the 2021 Podes data, as in column 1 of Table 7. The sample includes: in column 1, all villages in which the village head reports having no relative in the village government; in column 2, all villages in which the village head reports having at least one relative in the village government; in column 3, all villages in which no bureaucrat who was appointed before the most recent election reports a family member previously served as a village official; and in column 4, all village in which at least one bureaucrat who was appointed before the most recent election reports a family member previously served as a village official. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table 10: Bureaucrat Outcomes, Heterogeneity by Nepotistic Networks

	Village govt	Bureaucrat survey						
	% New appts	Enthusiasm	Motivation	Interactions	Alignment		Complaints received	
					Priorities	Worst services	Priorities	Worst services
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Villages without old-serving nepotistic appointees								
New village head	0.199** (0.107)	0.643*** (0.184)	36.819* (24.737)	0.378** (0.216)	0.117 (0.113)	0.285*** (0.127)	0.196*** (0.079)	0.196** (0.092)
Observations	401	833	833	833	835	835	835	835
Control mean	0.41	-0.093	97.6	0.32	0.77	0.32	0.84	0.69
Robust p-value	0.033	0.000	0.088	0.044	0.148	0.008	0.004	0.038
MSE-opt. bandwidth	25.0	16.7	19.5	16.6	19.6	17.9	17.7	22.1
Effective obs.	224	360	402	352	403	377	375	426
Panel B: Villages with old-serving nepotistic appointees								
New village head	0.127 (0.117)	0.166 (0.411)	-15.848 (16.289)	0.468* (0.257)	-0.005 (0.278)	-0.019 (0.187)	0.088 (0.086)	0.221** (0.157)
Observations	109	231	229	231	232	232	232	232
Control mean	0.11	0.13	110.9	0.38	0.69	0.32	0.92	0.82
Robust p-value	0.283	0.559	0.324	0.050	0.827	0.934	0.350	0.049
MSE-opt. bandwidth	29.4	22.5	16.1	21.9	16.8	20.4	23.4	15.5
Effective obs.	67	116	91	114	93	106	125	89

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from Calonico et al. (2014). The dependent variables are: in column 1, the rate of bureaucratic turnover at the village level since the last election, defined as the fraction of new bureaucrats appointed to their current position since the last election; in column 3, a standardized z-score of self-reported enthusiasm; in column 4, a continuous measure of motivation anchored at 100 at baseline and winsorized at the top 1%; in column 5, an indicator equal to 1 if the bureaucrat names as priority for future development spending a public service which village citizens identify as a top-3 priority; in column 6, an indicator equal to 1 if the bureaucrat names as priority for future development spending a service which citizens rank as a bottom-3 quality public service; in column 7, an indicator equal to 1 if the bureaucrat reports receiving complaints about at least one public service the majority of village citizens identify as a top 3 priority; and in column 8, an indicator equal to 1 if the bureaucrat reports receiving complaints about at least one public service the majority of village citizens believe is a bottom-3 quality public service. The sample includes: in Panel A, all villages in which no bureaucrat who was appointed before the most recent election reports a family member previously served as a village official; in Panel B, all village in which at least one bureaucrat who was appointed before the most recent election reports a family member previously served as a village official. See Section 4 for details.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors in parentheses in column 1. Robust standard errors clustered by village in parentheses in columns 2 to 8.

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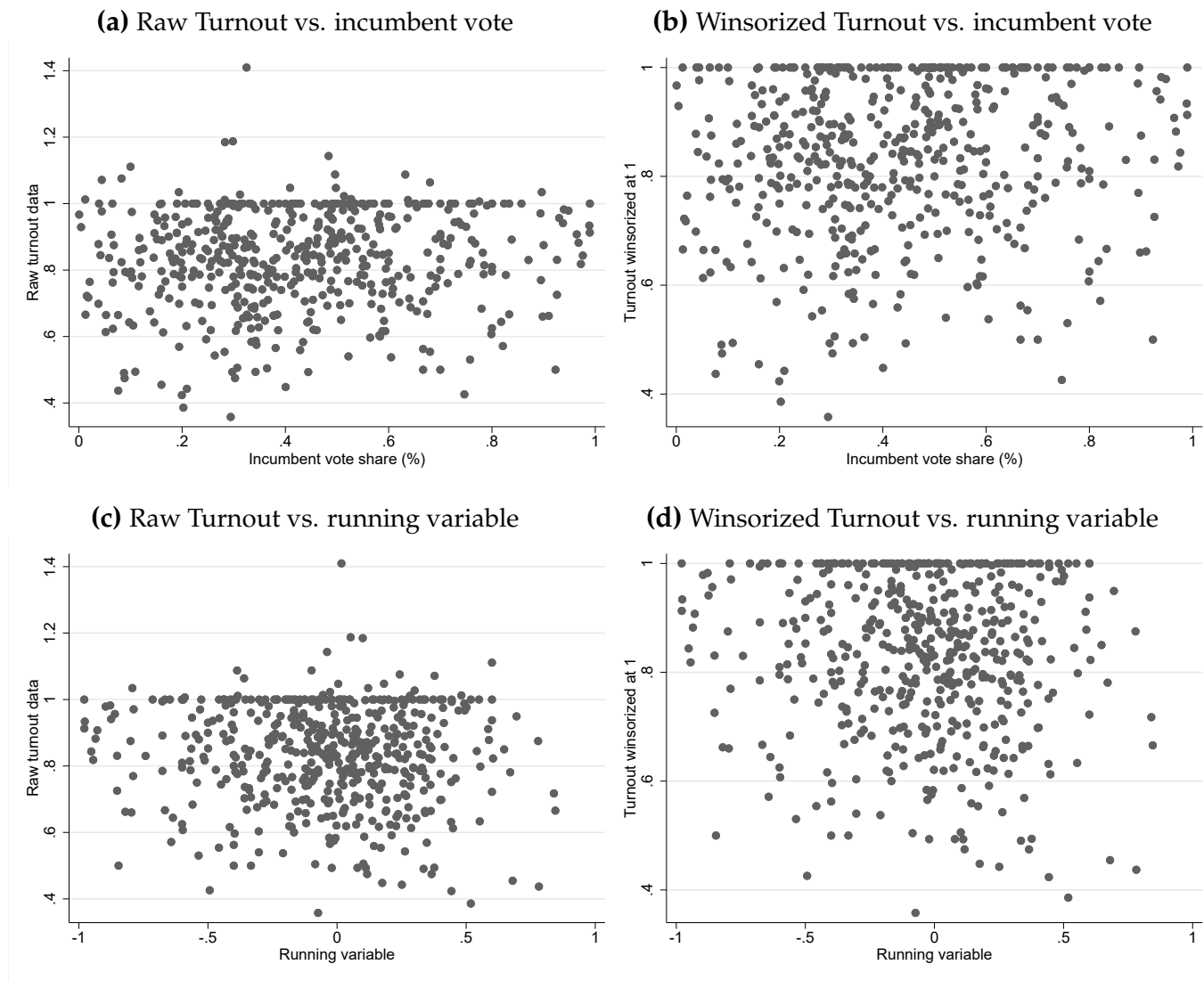
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A Additional Results

Figures

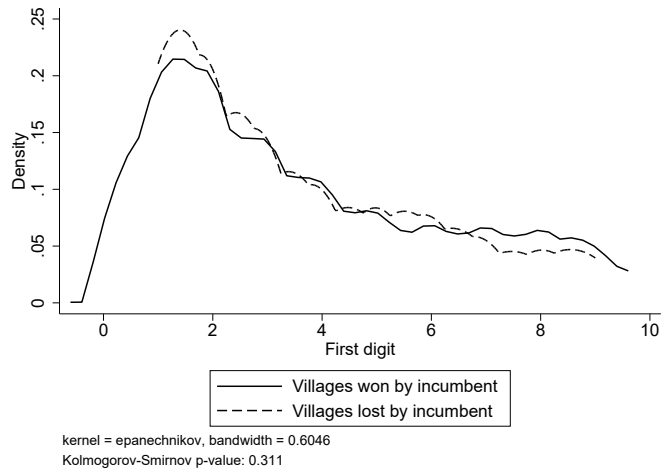
Figure A.1: Electoral Data Checks: Turnout



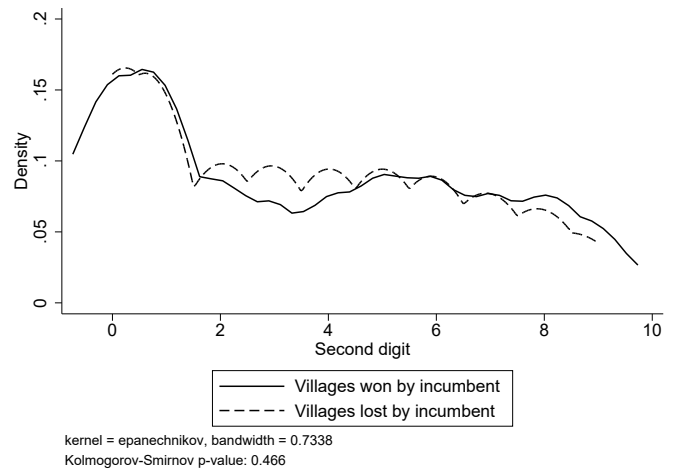
Notes: Panels (a) and (b) plot raw turnout and turnout winsorized at 100% against the vote share of the incumbent candidate. Panels (c) and (d) plot raw turnout and turnout winsorized at 100% against our running variable in the RD analysis, namely the difference between the vote share of the highest-ranked challenger and the incumbent's vote share.

Figure A.2: Electoral Data Checks: Digit Distribution in Vote Tallies

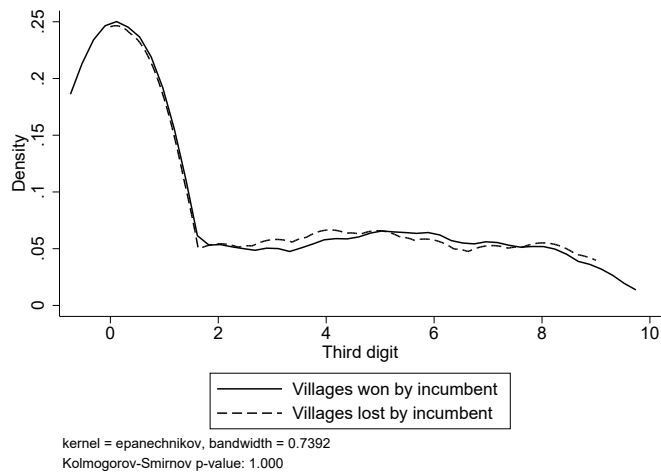
(a) Vote tallies: first digit



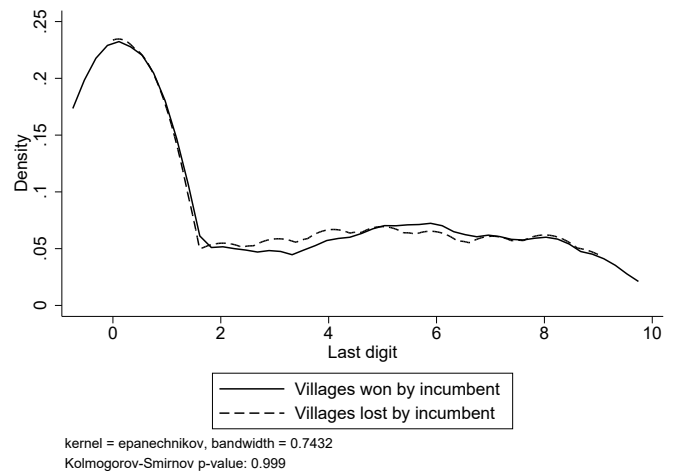
(b) Vote tallies: second digit



(c) Vote tallies: third digit



(d) Vote tallies: last digit



Notes: This figure plots the distribution of the first, second, third, and last digits of candidate vote tallies, separately for villages won and villages lost by the incumbent. At the bottom of each panel, we report the p-value from a Kolmogorov-Smirnov test of equality of distributions across the two types of villages.

Tables

Table A.1: Balance Checks on Village Characteristics and Electoral Data

	Hamlets	HHs	Sumatra	Java	NTB-Bali	Kalimantan	Sulawesi	Reg. voters	Candidates	Turnout	Turnout ≥ 1	Herfind.	Rounding
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
New village head	-0.599 (0.665)	-0.154 (0.278)	-0.057 (0.143)	-0.008 (0.102)	0.198* (0.112)	0.058 (0.077)	-0.015 (0.100)	-512.870 (554.393)	-0.195 (0.355)	0.043 (0.046)	-0.002 (0.061)	0.001 (0.026)	-0.238 (0.422)
Observations	512	509	512	512	512	512	512	512	512	512	512	512	512
Control mean	4.65	6.47	0.31	0.15	0.16	0.075	0.17	2229.8	3.43	0.84	0.025	0.39	1.62
Robust p-value	0.313	0.543	0.676	0.782	0.058	0.418	0.926	0.367	0.533	0.215	0.930	0.980	0.471
MSE-opt. bandwidth	19.6	20.5	21.0	27.2	19.8	19.1	22.2	20.4	22.0	21.6	31.5	31.3	18.4
Effective obs.	241	246	251	305	242	238	258	249	258	255	336	336	230

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from Calonico et al. (2014). The dependent variable is: in column 1, the number of neighborhoods/hamlets in the village; in column 2, the log number of households residing in the village; in columns 3-7, a dummy equal to 1 if the village is located on the island of Sumatra, Java, Nusa Tenggara Barat/Bali, Kalimantan, and Sulawesi, respectively; in column 8, the number of registered voters in the most recent village election; in column 9, the number of candidates; in column 10, voter turnout (votes cast divided by the number of registered voters); in column 11, a dummy equal to 1 if reported turnout was greater than 100% in the most recent election; in column 12, a Herfindahl index of candidate vote shares; in column 13, the number of candidates with a trailing zero in their vote tally.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table A.2: Balance Checks on Village Characteristics: Administrative Data

	Latitude	Longitude	Altitude	Coastal	Forest	Agric.	Rice	Corn	Rubber	Palm oil
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
New village head	0.659 (0.725)	0.146 (3.019)	106.152 (161.475)	-0.009 (0.073)	0.013 (0.089)	-0.049 (0.085)	0.144 (0.127)	-0.190** (0.083)	-0.026 (0.060)	-0.003 (0.008)
Observations	512	512	512	512	512	512	512	512	512	512
Control mean	4.76	110.6	179.6	0.093	0.14	0.92	0.56	0.17	0.034	0.012
Robust p-value	0.327	0.994	0.377	0.991	0.930	0.453	0.228	0.015	0.733	0.540
MSE-opt. bandwidth	23.1	19.4	17.0	22.6	20.5	23.9	28.5	19.4	18.7	11.5
Effective obs.	266	239	216	262	249	276	316	240	234	158

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). The dependent variable is: in columns 1 through 3, the latitude, longitude, and altitude of the village, respectively; in columns 4 and 5, a dummy variable equal to 1 if the village is located in a coastal area or a forest area, respectively; in column 6, a dummy equal 1 if agriculture is the main economic activity in the village; and in columns 7 though 10, a dummy equal to 1 if rice, corn, rubber, or palm oil, respectively. All dependent variables are measured in the 2021 wave of the Podes survey.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table A.3: Balance Checks on Sampling of Citizens

	Listed by village official	Listed by BPD member	Degree of Connection
	(1)	(2)	(3)
New village head	-0.006 (0.022)	-0.025 (0.020)	-0.213 (0.251)
Observations	14484	14484	14484
Control mean	0.16	0.12	1.98
Robust p-value	0.869	0.118	0.354
MSE-opt. bandwidth	18.7	19.2	19.1
Effective obs.	6680	6842	6768

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). The dependent variable is: in column 1, a dummy equal to 1 if a village official directly provided a citizen's phone number; in column 2, a dummy equal to 1 if a BPD member directly provided a citizen's phone number; in column 3, a variable measuring the degree of connections from citizen to village or BPD official.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.4: Balance Checks on Citizen Demographics

	Female	Age	Disability	Tertiary Educ.	Not Working	Monthly Income
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	-0.051 (0.080)	-0.330 (1.646)	0.001 (0.011)	0.025 (0.049)	-0.016 (0.057)	-85.046 (341.049)
Observations	8880	8816	8873	8850	8856	6536
Control mean	0.47	34.9	0.025	0.20	0.26	2198
Robust p-value	0.451	0.860	0.988	0.609	0.749	0.892
MSE-opt. bandwidth	19.4	17.2	26.5	20.3	17.6	18.3
Effective obs.	4196	3767	5195	4318	3879	2961

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). The dependent variable is: in column 1, a dummy equal to 1 for female citizens; in column 2, the age of citizens in years; in column 3, a dummy for whether the citizen reports having a disability; in column 4, a dummy for whether the citizen has a tertiary level education; in column 5, a dummy for whether the citizen reports not working; in column 6, the citizen's average monthly income in the last 6 months (conditional on working) and winsorized at the top 1% and reported in thousands of Indonesian rupiah.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.5: Citizen Demographics, by Social Distance to Village Government

	Female	Age	Disability	Tertiary Educ.	Not Working	Monthly Income
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: First-Degree Connection						
Sample Mean	0.388	38.9	0.022	0.241	0.184	2572
Std. dev.	[0.487]	[11.4]	[0.146]	[0.428]	[0.388]	[3504]
Observations	2656	2637	2655	2647	2651	2146
Panel B: Second-Degree Connection						
Sample Mean	0.466	35.7	0.022	0.191	0.257	2405
Std. dev.	[0.499]	[10.9]	[0.147]	[0.393]	[0.437]	[3293]
Observations	2216	2198	2213	2207	2208	1629
Panel C: Third-Degree or More Connection						
Sample Mean	0.532	32.3	0.028	0.158	0.304	2220
Std. dev.	[0.499]	[10.5]	[0.165]	[0.365]	[0.460]	[3096]
Observations	4008	3981	4005	3996	3997	2761

Notes: This table reports summary statistics of citizen demographics by degree of connection to the village government. The variable is: in column 1, a dummy equal to 1 for female citizens; in column 2, the age of citizens in years; in column 3, a dummy for whether the citizen reports having a disability; in column 4, a dummy for whether the citizen has a tertiary level education; in column 5, a dummy for whether the citizen reports not working; in column 6, the citizen's average monthly income in the last 6 months (conditional on working) winsorized at the top 1% and reported in thousands of Indonesian rupiah.

Table A.6: Effects on Bureaucrats' Demographic Characteristics

	Age	Years of education	Gender (female)
	(1)	(2)	(3)
New village head	1.055 (1.797)	-0.521 (0.439)	-0.152* (0.090)
Observations	1061	1066	1067
Control mean	38.6	13.6	0.28
Robust p-value	0.338	0.191	0.055
MSE-opt. bandwidth	17.8	20.5	16.1
Effective obs.	474	523	437

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). Units of observation are bureaucrats in all columns. The dependent variable is: in column 1, the age of bureaucrats in years; in column 2, years of education; in column 3, a dummy equal to one for female bureaucrats. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.7: Public Goods, and Nepotism: Correlations (OLS)

	Public Goods Index	Citizen Perceptions	
	<i>Podes</i> 2021	Access	Quality
	(1)	(2)	(3)
Any nepotistic appointee	-0.226*** (0.086)	-0.051* (0.029)	-0.017 (0.011)
Sample mean	0.36	0.010	0.80
Observations	376	8819	8821

Notes: This table reports OLS estimates of each outcome on a dummy variable for whether a village has at least one bureaucrat who reports having a parent who served in the village government. The dependent variable is: in column 1, a standardized index of local public service provision constructed using the 2021 Podes data; in column 2, a standardized index of access to local services constructed using our citizens survey data; and in column 3, a standardized index of service quality constructed using our citizens survey data. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses for column 1 and robust standard errors clustered by village in parentheses for columns 2-3.

Table A.8: Effects on Self-Reported Bureaucratic Knowledge

	Training	Village Law	Knowledge index
	(1)	(2)	(3)
New village head	-0.089 (0.117)	0.019 (0.107)	0.088 (0.119)
Observations	1067	1065	1065
Control mean	0.61	0.76	0.12
Robust p-value	0.313	0.886	0.391
MSE-opt. bandwidth	19.1	17.8	28.4
Effective obs.	500	476	662

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). Units of observation are bureaucrats in all columns. The dependent variable is: in columns 1-2, a dummy equal to 1 if the bureaucrat received any training in the past 12 months; in columns 3-4, a dummy equal to 1 if the bureaucrat reports being informed about Village Law regulations; in columns 5-6, a standardized index of self-reported knowledge across 5 topics: development management & accountability, financial management, village regulations, drafting development plans, and the Village Law. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.9: Effects on Village Transfers and Budgets

Village Funds:	Administrative data				Village head survey
	Allocated	Utilized	% Spent	Fully Spent	Budget
	(1)	(2)	(3)	(4)	(5)
New village head	-0.367 (0.625)	-0.320 (0.704)	0.025 (0.062)	0.038 (0.140)	-0.347 (1.205)
Observations	423	422	422	422	418
Control mean	2.04	1.91	0.87	0.58	2.47
Robust p-value	0.517	0.635	0.699	0.854	0.732
MSE-opt. bandwidth	28.0	23.7	31.6	28.6	24.7
Effective obs.	259	226	275	262	224

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). The sample includes all villages with available data. In column 1, the dependent variable is the 2022 Village Funds Allocation (ADD) in millions of Indonesian Rupiah per capita. The Village Funds Allocation are funds allocated by district governments to fund village government salaries, benefits, and operations. In column 2, the dependent variable is the 2022 ADD amount utilized by the village for programs and activities in millions of Indonesian Rupiah per capita. In column 3, the dependent variable is the share of ADD utilized. In column 4, the dependent variable is a dummy equal to 1 if the amount allocated is fully utilized. Finally, in column 5, the dependent variable is the 2021 village budget reported by the village head in Indonesian Rupiah per capita. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table A.10: Dynamic Effects on Public Goods Provision

	2015-2020	2015-2017	2018-2020	2021-22 (placebo)
	(1)	(2)	(3)	(4)
New village head	0.503* (0.263)	0.902* (0.529)	0.440 (0.340)	-0.364 (0.549)
Observations	378	122	256	134
Control mean	0.23	0.33	0.15	0.45
Robust p-value	0.053	0.063	0.165	0.615
MSE-opt. bandwidth	18.7	18.4	19.0	22.2
Effective obs.	161	52	109	80

Notes: This table reports RD estimates of γ in equation (1). The dependent variable is the index of local public service provision constructed using the 2021 Podes data. We restrict the sample to villages that conducted their most recent election between 2015-2020 (column 1); between 2015 and 2017 (column 2) or between 2018 and 2020 (column 3). In column 4, we restrict the sample to villages that conducted their most recent election in 2021 or 2022, namely after data collection for the 2021 Podes survey. Thus, these regressions can be interpreted as placebo checks.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.11: Citizen Attitudes and Trust Towards the Village Government

	Citizens survey		
	Interactions with govt	Perceived govt quality	Trust in govt
	(1)	(2)	(3)
Panel A: Full Sample			
New village head	0.177 (0.159)	-0.018 (0.142)	0.027 (0.126)
Observations	8815	8790	8789
Control mean	-0.12	-0.034	-0.029
Robust p-value	0.223	0.949	0.724
MSE-opt. bandwidth	17.1	17.7	17.5
Effective obs.	3752	3892	3812
Panel B: First-Degree Connection			
New village head	0.294* (0.179)	-0.034 (0.161)	0.169 (0.160)
Observations	2638	2631	2630
Control mean	0.21	0.23	0.23
Panel C: Second-Degree Connection			
New village head	0.398* (0.218)	-0.105 (0.179)	-0.128 (0.169)
Observations	2201	2196	2196
Control mean	-0.098	-0.012	-0.035
Panel D: Third-Degree or More Connection			
New village head	-0.016 (0.179)	0.033 (0.171)	-0.000 (0.151)
Observations	3976	3963	3963
Control mean	-0.24	-0.14	-0.11

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). The dependent variable is: in column 1, a z-score of the frequency of interactions with village officials, as reported by citizens; in column 2, a z-score of self-reported satisfaction with the village government; in column 3, a z-score of self-reported trust in the village government. Panel A reports results for the full sample of citizens. Panels B through D report estimates from subsamples of citizens at varying levels of social distance from the village government, analogous to Table 8. See Section 4 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.12: Robustness on Bureaucratic Organization: No Controls

	<u>New village head</u>	<u>Tenure (yrs)</u>	<u>% New appts</u>	<u>% Reshuffling</u>
	(1)	(2)	(3)	(4)
New village head	0.831*** (0.098)	-4.006** (1.930)	0.139 (0.102)	0.068 (0.053)
Observations	442	443	510	510
Control mean	0.035	7.96	0.33	0.036
Robust p-value	0.000	0.044	0.126	0.219
MSE-opt. bandwidth	16.9	23.7	28.1	19.0
Effective obs.	184	235	311	235

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we remove election year dummies and our control for the survey experiment treatment, which are included in our baseline estimation. The dependent variables are identical to those in Table 2.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.13: Robustness on Bureaucratic Organization: Region Fixed Effects

	<u>New village head</u>	<u>Tenure (yrs)</u>	<u>% New appts</u>	<u>% Reshuffling</u>
	(1)	(2)	(3)	(4)
New village head	0.805*** (0.090)	-4.268*** (1.500)	0.160 (0.100)	0.087* (0.051)
Observations	442	443	510	510
Control mean	0.035	7.96	0.33	0.036
Robust p-value	0.000	0.005	0.128	0.089
MSE-opt. bandwidth	16.5	32.2	19.8	17.5
Effective obs.	180	288	240	220

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we include region fixed effects and dummies for pairs of election years (2015-2016, 2017-2018, etc.). The main regions in our sample are Java, Sulawesi, Sumatra, Kalimantan, and NTB-Bali. The dependent variables are identical to those in Table 2.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.14: Robustness on Bureaucratic Organization: 3rd-Degree Polynomial

	<u>New village head</u>	<u>Tenure (yrs)</u>	<u>% New appts</u>	<u>% Reshuffling</u>
	(1)	(2)	(3)	(4)
New village head	0.809*** (0.126)	-4.698* (2.452)	0.127 (0.152)	0.106 (0.065)
Observations	442	443	510	510
Control mean	0.035	7.96	0.33	0.036
Robust p-value	0.000	0.058	0.397	0.103
MSE-opt. bandwidth	34.7	45.8	26.2	27.9
Effective obs.	305	367	291	310

Notes: This table reports RD estimates of γ in equation (1) using a 3rd-degree polynomial to construct the point estimator. The dependent variables are identical to those in Table 2.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.15: Robustness on Bureaucratic Organization: 1/2 the MSE-Optimal Bandwidth

	<u>New village head</u>	<u>Tenure (yrs)</u>	<u>% New appts</u>	<u>% Reshuffling</u>
	(1)	(2)	(3)	(4)
New village head	0.825*** (0.228)	-5.502* (2.776)	0.094* (0.150)	0.053 (0.042)
Observations	442	443	510	510
Control mean	0.035	7.96	0.33	0.036
Robust p-value	0.000	0.064	0.069	0.880
MSE-opt. bandwidth	7.88	15.6	11.0	9.47
Effective obs.	99	172	150	133

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth half the MSE-optimal bandwidth from Calonico et al. (2014). The dependent variables are identical to those in Table 2.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.16: Robustness on Bureaucratic Organization: 3/4 the MSE-Optimal Bandwidth

	<u>New village head</u>	<u>Tenure (yrs)</u>	<u>% New appts</u>	<u>% Reshuffling</u>
	(1)	(2)	(3)	(4)
New village head	0.813*** (0.153)	-5.145** (2.317)	0.141 (0.131)	0.082 (0.055)
Observations	442	443	510	510
Control mean	0.035	7.96	0.33	0.036
Robust p-value	0.000	0.027	0.314	0.319
MSE-opt. bandwidth	11.8	23.4	16.5	14.2
Effective obs.	137	232	209	188

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth three-fourths smaller than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). The dependent variables are identical to those in Table 2.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.17: Robustness on Bureaucratic Organization: Twice the MSE-Optimal Bandwidth

	<u>New village head</u>	<u>Tenure (yrs)</u>	<u>% New appts</u>	<u>% Reshuffling</u>
	(1)	(2)	(3)	(4)
New village head	0.888*** (0.087)	-4.369*** (1.347)	0.141** (0.092)	0.092* (0.048)
Observations	442	443	510	510
Control mean	0.035	7.96	0.33	0.036
Robust p-value	0.000	0.001	0.024	0.056
MSE-opt. bandwidth	31.5	62.4	44.0	37.9
Effective obs.	284	410	411	378

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth twice larger than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). The dependent variables are identical to those in Table 2.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.18: Robustness on Bureaucratic Organization: Fuzzy RD

	<u>Tenure (yrs)</u>	<u>% New appts</u>	<u>% Reshuffling</u>
	(1)	(2)	(3)
New village head	-6.507*** (2.513)	0.115 (0.139)	0.120* (0.073)
Observations	442	441	441
Control mean	7.96	0.33	0.036
Robust p-value	0.008	0.374	0.079
MSE-opt. bandwidth	16.2	17.6	17.7
Effective obs.	179	189	193

Notes: This table reports fuzzy RD estimates of γ in equation (1) obtained via the non-parametric method from Calonico et al. (2014). We use $\mathbb{1}(\text{margin}_{jt} > 0)$ from equation (1) to instrument for a dummy equal to 1 if the current village head in our survey sample is a different individual from the incumbent who competed in the last election. The dependent variables are identical to those in Table 2.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.19: Robustness on Nepotism: No Controls

	Village head employs relative	Parent was leader	Parent served in govt
	(1)	(2)	(3)
New village head	-0.191 (0.179)	-0.040 (0.046)	-0.165** (0.084)
Observations	442	1067	1067
Control mean	0.36	0.053	0.27
Robust p-value	0.138	0.261	0.041
MSE-opt. bandwidth	14.6	22.3	21.9
Effective obs.	166	546	537

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we remove election year dummies and our control for the survey experiment treatment, which are included in our baseline estimation. The dependent variables are identical to those in Table 3 .

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.20: Robustness on Nepotism: Region Fixed Effects

	Village head employs relative	Parent was leader	Parent served in govt
	(1)	(2)	(3)
New village head	-0.208* (0.161)	-0.051 (0.046)	-0.164** (0.084)
Observations	442	1067	1067
Control mean	0.36	0.053	0.27
Robust p-value	0.085	0.171	0.042
MSE-opt. bandwidth	15.1	19.1	21.5
Effective obs.	169	500	535

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we include region fixed effects and dummies for pairs of election years (2015-2016, 2017-2018, etc.). The main regions in our sample are Java, Sulawesi, Sumatra, Kalimantan, and NTB-Bali. The dependent variables are identical to those in Table 3 .

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.21: Robustness on Nepotism: 3rd-Degree Polynomial

	Village head employs relative	Parent was leader	Parent served in govt
	(1)	(2)	(3)
New village head	-0.516** (0.237)	-0.096 (0.065)	-0.209* (0.120)
Observations	442	1067	1067
Control mean	0.36	0.053	0.27
Robust p-value	0.016	0.125	0.061
MSE-opt. bandwidth	29.3	32.8	30.2
Effective obs.	274	715	695

Notes: This table reports RD estimates of γ in equation (1) using a 3rd-degree polynomial to construct the point estimator. The dependent variables are identical to those in Table 3.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.22: Robustness on Nepotism: Half the MSE-Optimal Bandwidth

	Village head employs relative	Parent was leader	Parent served in govt
	(1)	(2)	(3)
New village head	-0.456 (0.401)	-0.080 (0.073)	-0.188 (0.131)
Observations	442	1067	1067
Control mean	0.36	0.053	0.27
Robust p-value	0.317	0.460	0.193
MSE-opt. bandwidth	6.34	8.74	11.3
Effective obs.	79	261	327

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth half the MSE-optimal bandwidth from Calonico et al. (2014). The dependent variables are identical to those in Table 3.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.23: Robustness on Nepotism: Three-Fourths the MSE-Optimal Bandwidth

	Village head employs relative	Parent was leader	Parent served in govt
	(1)	(2)	(3)
New village head	-0.442 (0.326)	-0.076 (0.064)	-0.200* (0.109)
Observations	442	1067	1067
Control mean	0.36	0.053	0.27
Robust p-value	0.105	0.300	0.080
MSE-opt. bandwidth	9.51	13.1	16.9
Effective obs.	115	380	455

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth three-fourths smaller than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). The dependent variables are identical to those in Table 3.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.24: Robustness on Nepotism: Twice the MSE-Optimal Bandwidth

	Village head employs relative	Parent was leader	Parent served in govt
	(1)	(2)	(3)
New village head	-0.067** (0.165)	-0.027 (0.046)	-0.134** (0.073)
Observations	442	1067	1067
Control mean	0.36	0.053	0.27
Robust p-value	0.039	0.169	0.022
MSE-opt. bandwidth	25.4	35.0	45.1
Effective obs.	245	757	884

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth twice larger than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). The dependent variables are identical to those in Table 3.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.25: Robustness on Nepotism: Fuzzy RD

	Village head employs relative	Parent was leader	Parent served in govt
	(1)	(2)	(3)
New village head	-0.237** (0.178)	-0.086* (0.062)	-0.396*** (0.129)
Observations	441	880	880
Control mean	0.36	0.053	0.27
Robust p-value	0.043	0.087	0.001
MSE-opt. bandwidth	18.7	22.7	17.1
Effective obs.	201	444	371

Notes: This table reports fuzzy RD estimates of γ in equation (1) obtained via the non-parametric method from Calonico et al. (2014). We use $\mathbb{1}(\text{margin}_{jt} > 0)$ from equation (1) to instrument for a dummy equal to 1 if the current village head in our survey sample is a different individual from the incumbent who competed in the last election. The dependent variables are identical to those in Table 3.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.26: Robustness on Nepotism: Exclude villages with Suharto bureaucrats

	Village head employs relative	Parent was leader	Parent served in gov
	(1)	(2)	(3)
New village head	-0.379** (0.182)	-0.078* (0.049)	-0.172** (0.085)
Observations	417	1011	1011
Control mean	0.36	0.053	0.27
Robust p-value	0.011	0.057	0.030
MSE-opt. bandwidth	12.6	16.5	21.2
Effective obs.	142	426	512

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we remove villages with at least 1 bureaucrat appointed while Suharto-appointed district mayors were in office (Martinez-Bravo et al., 2017). The dependent variables are identical to those in Table 3.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.27: Robustness on Bureaucrat Outcomes: No Controls

	Enthusiasm	Motivation	Interacts daily w/ citizens	Frequency index
	(1)	(2)	(3)	(4)
New village head	0.343** (0.155)	30.825* (20.756)	0.198* (0.111)	0.402** (0.195)
Observations	1064	1062	1064	1064
Control mean	-0.058	100.6	0.57	0.32
Robust p-value	0.020	0.090	0.051	0.022
MSE-opt. bandwidth	27.4	18.1	19.7	18.0
Effective obs.	647	476	506	476

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we remove election year dummies and our control for the survey experiment treatment, which are included in our baseline estimation. The dependent variables are identical to those in Table 4.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.28: Robustness on Bureaucrat Outcomes: Region Fixed Effects

	Enthusiasm	Motivation	Interacts daily w/ citizens	Frequency index
	(1)	(2)	(3)	(4)
New village head	0.322** (0.152)	25.430 (18.557)	0.148* (0.096)	0.337** (0.174)
Observations	1064	1062	1064	1064
Control mean	-0.058	100.6	0.57	0.32
Robust p-value	0.027	0.109	0.081	0.026
MSE-opt. bandwidth	27.5	20.9	20.0	18.4
Effective obs.	647	523	508	483

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we include region fixed effects and dummies for pairs of election years (2015-2016, 2017-2018, etc.). The main regions in our sample are Java, Sulawesi, Sumatra, Kalimantan, and NTB-Bali. The dependent variables are identical to those in Table 4.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.29: Robustness on Bureaucrat Outcomes: 3rd-Degree Polynomial

	Enthusiasm	Motivation	Interacts daily w/ citizens	Frequency index
	(1)	(2)	(3)	(4)
New village head	0.705*** (0.236)	34.742 (26.132)	0.229 (0.136)	0.570** (0.246)
Observations	1064	1062	1064	1064
Control mean	-0.058	100.6	0.57	0.32
Robust p-value	0.002	0.146	0.106	0.017
MSE-opt. bandwidth	34.2	38.5	31.3	31.2
Effective obs.	744	792	705	703

Notes: This table reports RD estimates of γ in equation (1) using a 3rd-degree polynomial to construct the point estimator. The dependent variables are identical to those in Table 4.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.30: Robustness on Bureaucrat Outcomes: 1/2 the MSE-Optimal Bandwidth

	Enthusiasm	Motivation	Interacts daily w/ citizens	Frequency index
	(1)	(2)	(3)	(4)
New village head	0.539** (0.287)	30.067 (28.168)	0.205 (0.165)	0.452 (0.281)
Observations	1064	1062	1064	1064
Control mean	-0.058	100.6	0.57	0.32
Robust p-value	0.016	0.334	0.391	0.241
MSE-opt. bandwidth	10.4	10.7	9.23	8.17
Effective obs.	302	311	273	254

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth half the MSE-optimal bandwidth from Calonico et al. (2014). The dependent variables are identical to those in Table 4.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.31: Robustness on Bureaucrat Outcomes: 3/4 the MSE-Optimal Bandwidth

	Enthusiasm	Motivation	Interacts daily w/ citizens	Frequency index
	(1)	(2)	(3)	(4)
New village head	0.528** (0.233)	27.447 (26.313)	0.194 (0.134)	0.455 (0.254)
Observations	1064	1062	1064	1064
Control mean	-0.058	100.6	0.57	0.32
Robust p-value	0.014	0.284	0.164	0.110
MSE-opt. bandwidth	15.6	16.1	13.9	12.3
Effective obs.	423	437	397	351

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth three-fourths smaller than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). The dependent variables are identical to those in Table 4.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.32: Robustness on Bureaucrat Outcomes: Twice the MSE-Optimal Bandwidth

	Enthusiasm	Motivation	Interacts daily w/ citizens	Frequency index
	(1)	(2)	(3)	(4)
New village head	0.318*** (0.156)	20.093 (15.826)	0.161** (0.094)	0.329*** (0.169)
Observations	1064	1062	1064	1064
Control mean	-0.058	100.6	0.57	0.32
Robust p-value	0.007	0.157	0.021	0.008
MSE-opt. bandwidth	41.6	43.0	36.9	32.7
Effective obs.	847	855	787	713

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth twice larger than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). The dependent variables are identical to those in Table 4.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.33: Robustness on Bureaucrat Outcomes: Fuzzy RD

	Enthusiasm	Motivation	Interacts daily w/ citizens	Frequency index
	(1)	(2)	(3)	(4)
New village head	0.710*** (0.235)	37.908 (25.172)	0.229* (0.140)	0.582*** (0.249)
Observations	877	875	877	877
Control mean	-0.058	100.6	0.57	0.32
Robust p-value	0.001	0.110	0.0703	0.010
MSE-opt. bandwidth	17.0	17.7	17.1	17.0
Effective obs.	369	385	370	370

Notes: This table reports fuzzy RD estimates of γ in equation (1) obtained via the non-parametric method from Calonico et al. (2014). We use $\mathbb{1}(\text{margin}_{jt} > 0)$ from equation (1) to instrument for a dummy equal to 1 if the current village head in our survey sample is a different individual from the incumbent who competed in the last election. The dependent variables are identical to those in Table 4.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.34: Robustness on Bureaucrat Outcomes: Exclude villages with Suharto bureaucrats

	Enthusiasm	Motivation	Interacts daily w/ citizens	Frequency index
	(1)	(2)	(3)	(4)
New village head	0.384** (0.157)	24.870 (20.579)	0.199** (0.104)	0.403** (0.181)
Observations	1008	1006	1008	1008
Control mean	-0.058	100.6	0.57	0.32
Robust p-value	0.011	0.150	0.028	0.011
MSE-opt. bandwidth	27.4	19.8	18.0	16.9
Effective obs.	624	488	458	436

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we remove villages with at least 1 bureaucrat appointed while Suharto-appointed district mayors were in office (Martinez-Bravo et al., 2017). The dependent variables are identical to those in Tables 4.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.35: Robustness on Bureaucrat Alignment: No Controls

Village Services:	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	0.046 (0.132)	0.224** (0.120)	0.192*** (0.070)	0.167** (0.083)	0.139** (0.076)	0.202* (0.122)
Observations	1067	1067	1067	1067	443	443
Control mean	0.75	0.33	0.87	0.71	0.94	0.88
Robust p-value	0.563	0.024	0.002	0.049	0.034	0.056
MSE-opt. bandwidth	16.9	16.8	18.0	26.3	21.9	19.7
Effective obs.	455	455	477	618	254	240

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we remove election year dummies and our control for the survey experiment treatment, which are included in our baseline estimation. The dependent variables are identical to those in Table 6.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.36: Robustness on Bureaucrat Alignment: Region Fixed Effects

Village Services:	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	0.074 (0.117)	0.250** (0.119)	0.159*** (0.063)	0.135* (0.079)	0.138** (0.071)	0.197** (0.110)
Observations	1067	1067	1067	1067	443	443
Control mean	0.75	0.33	0.87	0.71	0.94	0.88
Robust p-value	0.336	0.011	0.003	0.093	0.022	0.048
MSE-opt. bandwidth	17.4	16.5	20.8	24.4	26.9	23.3
Effective obs.	466	444	525	591	255	229

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we include region fixed effects and dummies for pairs of election years (2015-2016, 2017-2018, etc.). The main regions in our sample are Java, Sulawesi, Sumatra, Kalimantan, and NTB-Bali. The dependent variables are identical to those in Table 6.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.37: Robustness on Bureaucrat Alignment: 3rd-Degree Polynomial

Village Services:	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	0.129 (0.178)	0.337** (0.165)	0.242** (0.102)	0.202* (0.115)	0.168 (0.125)	0.396** (0.180)
Observations	1067	1067	1067	1067	443	443
Control mean	0.75	0.33	0.87	0.71	0.94	0.88
Robust p-value	0.525	0.039	0.013	0.069	0.165	0.018
MSE-opt. bandwidth	28.7	34.5	33.9	28.3	44.4	31.9
Effective obs.	672	749	736	660	359	284

Notes: This table reports RD estimates of γ in equation (1) using a 3rd-degree polynomial to construct the point estimator. The dependent variables are identical to those in Table 6.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.38: Robustness on Bureaucrat Alignment: 1/2 the MSE-Optimal Bandwidth

Village Services:	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	0.122 (0.248)	0.289 (0.248)	0.198* (0.167)	0.163* (0.106)	0.122 (0.144)	0.317*** (0.183)
Observations	1067	1067	1067	1067	443	443
Control mean	0.75	0.33	0.87	0.71	0.94	0.88
Robust p-value	0.801	0.588	0.062	0.051	0.374	0.008
MSE-opt. bandwidth	8.77	8.49	9.19	12.8	15.9	11.2
Effective obs.	261	260	273	376	176	132

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth half the MSE-optimal bandwidth from Calonico et al. (2014). The dependent variables are identical to those in Table 6.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.39: Robustness on Bureaucrat Alignment: 3/4 the MSE-Optimal Bandwidth

Village Services:	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	0.104 (0.178)	0.268 (0.186)	0.175** (0.114)	0.163* (0.097)	0.129 (0.112)	0.254** (0.149)
Observations	1067	1067	1067	1067	443	443
Control mean	0.75	0.33	0.87	0.71	0.94	0.88
Robust p-value	0.535	0.122	0.039	0.073	0.199	0.022
MSE-opt. bandwidth	13.2	12.7	13.8	19.2	23.8	16.8
Effective obs.	382	374	397	502	234	184

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth three-fourths smaller than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). The dependent variables are identical to those in Table 6.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.40: Robustness on Bureaucrat Alignment: Twice the MSE-Optimal Bandwidth

Village Services:	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	-0.005 (0.108)	0.099** (0.111)	0.118*** (0.063)	0.182** (0.073)	0.092** (0.068)	0.140** (0.093)
Observations	1067	1067	1067	1067	443	443
Control mean	0.75	0.33	0.87	0.71	0.94	0.88
Robust p-value	0.200	0.023	0.003	0.010	0.035	0.017
MSE-opt. bandwidth	35.1	34.0	36.7	51.3	63.5	44.9
Effective obs.	759	736	787	918	409	362

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth twice larger than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). The dependent variables are identical to those in Table 6.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.41: Robustness on Bureaucrat Alignment: Fuzzy RD

Village Services:	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	-0.001 (0.147)	0.301*** (0.144)	0.190** (0.094)	0.148 (0.119)	0.155* (0.096)	0.321** (0.148)
Observations	880	880	880	880	442	442
Control mean	0.75	0.33	0.87	0.71	0.94	0.88
Robust p-value	0.787	0.008	0.020	0.206	0.080	0.016
MSE-opt. bandwidth	17.3	19.6	18.1	18.0	21.0	17.9
Effective obs.	375	409	388	388	214	194

Notes: This table reports fuzzy RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). We use $\mathbb{1}(\text{margin}_{jt} > 0)$ from equation (1) to instrument for a dummy equal to 1 if the current village head in our survey sample is a different individual from the incumbent who competed in the last election. The dependent variables are identical to those in Table 6.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.42: Robustness on Alignment: Exclude villages with Suharto bureaucrats

Village Services:	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	0.097 (0.116)	0.247** (0.122)	0.147*** (0.059)	0.176** (0.081)	0.124* (0.074)	0.260*** (0.111)
Observations	1011	1011	1011	1011	418	418
Control mean	0.75	0.33	0.87	0.71	0.94	0.88
Robust p-value	0.239	0.015	0.005	0.026	0.059	0.008
MSE-opt. bandwidth	18.1	16.0	26.4	25.7	32.5	23.4
Effective obs.	459	417	601	587	275	224

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we remove villages with at least 1 bureaucrat appointed while Suharto-appointed district mayors were in office ([Martinez-Bravo et al., 2017](#)). The dependent variables are identical to those in Table 6.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.43: Effects on Public Goods Provision Index Components (2021 Administrative Data)

	Index	Water	Sewage	Garbage	Lighting	Kindergarten	Prim. Sch.	Polindes	Puskesmas	Asphalt road	Public transit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
New village head	0.503* (0.263)	0.212 (0.357)	0.064 (0.392)	0.825* (0.404)	0.472** (0.256)	0.194 (0.332)	-0.159 (0.304)	-0.025 (0.354)	0.044 (0.289)	0.059 (0.127)	0.328 (0.331)
Observations	378	378	378	378	378	378	378	378	378	375	378
Control mean	0.23	0.15	0.14	-0.083	0.17	0.062	0.11	-0.099	-0.17	0.42	0.26
Robust p-value	0.053	0.453	0.997	0.079	0.046	0.407	0.534	0.696	0.957	0.587	0.235
MSE-opt. bandwidth	18.7	22.5	21.9	16.6	20.8	20.2	18.5	15.3	25.0	23.1	18.6
Effective obs.	161	181	177	141	173	172	160	133	196	182	160

Notes: This table reports RD estimates of γ in equation (1) obtained via the non-parametric method from [Calonico et al. \(2014\)](#). In column 1, the dependent variable is a standardized index of local service provision constructed using the 2021 *Podes* survey. Remaining columns report RD estimates on the individual index components. The index has the following 10 components: drinking water, sewage, garbage collection, street lighting, kindergartens, primary schools, village maternities (*polindes*), community health centers (*puskesmas*), paved roads, and public transit. We first standardize each individual component before taking the village-level average of all components. The sample includes all villages in our sample that conducted their last election before 2021.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.44: Effects on Citizens' Perceptions of Service Provision: Index Components

	Garbage		Electricity		Kindergarten		Schools		Health		Water		Roads	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
New village head	0.208** (0.097)	0.364** (0.170)	0.025 (0.023)	0.164 (0.136)	0.003 (0.078)	0.047 (0.145)	0.009 (0.080)	0.037 (0.182)	0.030 (0.047)	0.157 (0.150)	0.035 (0.102)	0.057 (0.211)	0.149** (0.077)	0.351** (0.186)
Observations	8783	8817	8839	8837	8828	8741	8834	8794	8833	8798	8797	8771	8842	8836
Control mean	0.37	-0.16	0.99	-0.058	0.79	-0.016	0.76	-0.043	0.93	-0.023	0.72	0.027	0.91	0.073
Robust p-value	0.017	0.022	0.231	0.117	0.917	0.630	0.863	0.730	0.347	0.163	0.624	0.630	0.017	0.021
MSE-opt. bandwidth	23.0	26.5	28.8	23.9	21.2	29.0	22.9	20.7	21.0	18.7	17.7	16.0	12.4	13.3
Effective obs.	4575	5140	5536	4801	4403	5465	4579	4309	4349	4057	3897	3533	2898	3165

Notes: This table reports RD estimates on the individual components of the indices of service access and quality used in Table A.10, columns 2 and 3. Odd-numbered columns report effects on perceived access and even-numbered columns report effects on perceived quality. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.45: Robustness on Public Goods Provision: No Controls

	Index	Water	Sewage	Garbage	Lighting	Kindergarten	Prim. Sch.	Polindes	Puskesmas	Asphalt road	Public transit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
New village head	0.682*** (0.276)	0.423 (0.380)	0.047 (0.404)	0.827** (0.385)	0.506** (0.266)	0.268 (0.285)	0.189 (0.324)	-0.008 (0.346)	0.133 (0.278)	0.034 (0.132)	0.233 (0.334)
Observations	378	378	378	378	378	378	378	378	378	375	378
Control mean	0.23	0.15	0.14	-0.11	0.14	0.058	0.12	-0.11	-0.20	0.40	0.25
Robust p-value	0.008	0.175	0.945	0.046	0.031	0.221	0.476	0.738	0.774	0.692	0.393
MSE-opt. bandwidth	19.9	21.9	21.8	17.8	22.7	26.2	19.6	18.3	27.5	26.2	18.4
Effective obs.	165	177	177	154	182	204	165	156	216	201	157

Notes: This table reports RD estimates of γ in equation (1) obtained after removing election year dummies. All dependent variables are identical to those examined in Table A.43. * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

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Table A.46: Robustness on Public Goods Provision: Region Fixed Effects

	Index	Water	Sewage	Garbage	Lighting	Kindergarten	Prim. Sch.	Polindes	Puskesmas	Asphalt road	Public transit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
New village head	0.452** (0.238)	0.303 (0.369)	-0.179 (0.382)	0.735** (0.342)	0.406* (0.238)	0.586* (0.352)	-0.156 (0.224)	-0.011 (0.334)	-0.025 (0.288)	-0.029 (0.122)	0.139 (0.309)
Observations	378	378	378	378	378	378	378	378	378	375	378
Control mean	0.23	0.15	0.14	-0.11	0.14	0.058	0.12	-0.11	-0.20	0.40	0.25
Robust p-value	0.037	0.309	0.451	0.026	0.054	0.053	0.718	0.678	0.816	0.756	0.607
MSE-opt. bandwidth	18.7	21.6	22.1	19.3	23.3	17.6	18.7	15.7	22.9	23.4	20.5
Effective obs.	161	177	178	164	186	150	161	134	182	185	172

Notes: This table reports RD estimates of γ in equation (1) obtained after including region fixed effects and dummies for pairs of election years (2015-2016, 2017-2018, etc.). The main regions in our sample are Java, Sulawesi, Sumatra, Kalimantan, and NTB-Bali. All dependent variables are identical to those examined in Table A.43. * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.47: Robustness on Public Goods Provision: 3rd Degree Polynomial

	Index	Water	Sewage	Garbage	Lighting	Kindergarten	Prim. Sch.	Polindes	Puskesmas	Asphalt road	Public transit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
New village head	0.282 (0.407)	0.719 (0.572)	-0.405 (0.652)	0.061 (0.587)	0.589* (0.343)	0.720 (0.599)	-0.254 (0.472)	-0.382 (0.418)	-0.285 (0.505)	0.065 (0.116)	0.211 (0.487)
Observations	378	378	378	378	378	378	378	378	378	375	378
Control mean	0.29	0.10	0.22	-0.091	0.21	0.093	0.16	0.051	-0.13	0.42	0.25
Robust p-value	0.567	0.152	0.433	0.946	0.064	0.179	0.515	0.296	0.524	0.536	0.799
MSE-opt. bandwidth	27.8	30.9	30.7	25.3	39.1	34.7	28.5	35.4	31.8	30.9	31.0
Effective obs.	218	236	236	197	279	259	221	260	238	233	237

Notes: This table reports RD estimates of γ in equation (1) using a 3rd-degree polynomial to construct the point estimator. All dependent variables are identical to those examined in Table A.43. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.48: Robustness on Public Goods Provision: 1/2 the MSE-Optimal Bandwidth

	Index	Water	Sewage	Garbage	Lighting	Kindergarten	Prim. Sch.	Polindes	Puskesmas	Asphalt road	Public transit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
New village head	0.293 (0.477)	0.335 (0.642)	-0.226 (0.820)	0.359 (0.717)	0.610* (0.423)	0.811 (0.879)	-0.379 (0.560)	-0.272 (0.663)	-0.177 (0.561)	0.038 (0.175)	0.211 (0.487)
Observations	378	378	378	378	378	378	378	378	378	375	378
Control mean	0.23	0.15	0.14	-0.083	0.17	0.062	0.11	-0.099	-0.17	0.42	0.25
Robust p-value	0.578	0.660	0.735	0.493	0.060	0.252	0.525	0.153	0.583	0.868	0.799
MSE-opt. bandwidth	9.37	11.2	11.0	8.30	10.4	10.1	9.26	7.65	12.5	11.6	31.0
Effective obs.	90	104	103	84	99	96	90	78	116	103	237

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth half the MSE-optimal bandwidth from Calonico et al. (2014). All dependent variables are identical to those examined in Table A.43. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.49: Robustness on Public Goods Provision: 3/4 the MSE-Optimal Bandwidth

	<u>Index</u>	<u>Water</u>	<u>Sewage</u>	<u>Garbage</u>	<u>Lighting</u>	<u>Kindergarten</u>	<u>Prim. Sch.</u>	<u>Polindes</u>	<u>Puskesmas</u>	<u>Asphalt road</u>	<u>Public transit</u>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
New village head	0.442 (0.364)	0.345 (0.498)	-0.023 (0.605)	0.400 (0.557)	0.605 (0.356)	0.573 (0.604)	-0.318 (0.427)	0.059 (0.519)	-0.138 (0.438)	0.054 (0.092)	0.211 (0.487)
Observations	378	378	378	378	378	378	378	378	378	375	378
Control mean	0.23	0.15	0.14	-0.083	0.17	0.062	0.11	-0.099	-0.17	0.42	0.25
Robust p-value	0.742	0.541	0.531	0.719	0.110	0.224	0.484	0.126	0.689	0.830	0.799
MSE-opt. bandwidth	14.0	16.9	16.5	12.5	15.6	15.2	13.9	11.5	18.8	17.4	31.0
Effective obs.	126	145	140	112	134	133	126	105	161	146	237

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth three-fourths smaller than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). All dependent variables are identical to those examined in Table A.43. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.50: Robustness on Public Goods Provision: Twice the MSE-Optimal Bandwidth

	<u>Index</u>	<u>Water</u>	<u>Sewage</u>	<u>Garbage</u>	<u>Lighting</u>	<u>Kindergarten</u>	<u>Prim. Sch.</u>	<u>Polindes</u>	<u>Puskesmas</u>	<u>Asphalt road</u>	<u>Public transit</u>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
New village head	0.458** (0.235)	0.100 (0.320)	0.137 (0.352)	0.943** (0.367)	0.334** (0.232)	0.009 (0.297)	-0.040 (0.276)	0.171 (0.332)	0.191 (0.264)	-0.018 (0.132)	0.211 (0.487)
Observations	378	378	378	378	378	378	378	378	378	375	378
Control mean	0.23	0.15	0.14	-0.083	0.17	0.062	0.11	-0.099	-0.17	0.42	0.25
Robust p-value	0.021	0.359	0.793	0.015	0.046	0.387	0.995	0.778	0.727	0.849	0.799
MSE-opt. bandwidth	37.5	45.0	43.9	33.2	41.6	40.4	37.0	30.6	50.1	46.3	31.0
Effective obs.	273	307	298	244	293	288	273	235	316	308	237

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth twice larger than the MSE-optimal bandwidth from [Calonico et al. \(2014\)](#). All dependent variables are identical to those examined in Table A.43. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.51: Robustness on Public Goods Provision: Fuzzy RD

	Index	Water	Sewage	Garbage	Lighting	Kindergarten	Prim. Sch.	Polindes	Puskesmas	Asphalt road	Public transit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
New village head	0.688** (0.320)	0.211 (0.428)	-0.100 (0.516)	0.703 (0.514)	0.590** (0.324)	0.306 (0.415)	-0.025 (0.372)	-0.082 (0.418)	0.270 (0.347)	0.187 (0.174)	0.200 (0.468)
Observations	325	325	325	325	325	325	325	325	325	322	325
Control mean	0.23	0.15	0.14	-0.083	0.17	0.062	0.11	-0.099	-0.17	0.42	0.26
Robust p-value	0.027	0.470	0.666	0.208	0.046	0.314	0.967	0.698	0.464	0.223	0.678
MSE-opt. bandwidth	17.5	23.3	19.5	15.7	21.4	20.9	19.3	22.7	22.5	22.1	15.9
Effective obs.	128	158	141	115	152	149	141	155	154	149	118

Notes: This table reports fuzzy RD estimates of γ in equation (1) obtained via the non-parametric method from Calonico et al. (2014). We use $\mathbb{1}(\text{margin}_{jt} > 0)$ from equation (1) to instrument for a dummy equal to 1 if the current village head in our survey sample is a different individual from the incumbent who competed in the last election. All dependent variables are identical to those examined in Table A.43. * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.52: Robustness on Citizen Perceptions: No Controls

	Access	Quality
	(1)	(2)
New village head	0.061* (0.039)	0.202** (0.098)
Observations	8848	8846
Control mean	0.78	-0.028
Robust p-value	0.057	0.012
MSE-opt. bandwidth	18.5	16.1
Effective obs.	4066	3592

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we remove election year dummies, which are included in our baseline estimation. The dependent variables are identical to those in Table 7, columns 2 and 3.
 * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.53: Robustness on Citizen Perceptions: Region Fixed Effects

	Access	Quality
	(1)	(2)
New village head	0.054* (0.040)	0.172** (0.098)
Observations	8848	8846
Control mean	0.78	-0.028
Robust p-value	0.079	0.030
MSE-opt. bandwidth	14.6	14.3
Effective obs.	3385	3301

Notes: This table reports RD estimates of γ in equation (1). In these specifications, we include region fixed effects and dummies for pairs of election years (2015-2016, 2017-2018, etc.). The main regions in our sample are Java, Sulawesi, Sumatra, Kalimantan, and NTB-Bali. The dependent variables are identical to those in Table 7, columns 2 and 3.
 * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.54: Robustness on Citizen Perceptions: 3rd-Degree Polynomial

	Access	Quality
	(1)	(2)
New village head	0.111* (0.064)	0.271** (0.125)
Observations	8848	8846
Control mean	0.78	-0.028
Robust p-value	0.078	0.031
MSE-opt. bandwidth	23.5	30.3
Effective obs.	4755	5753

Notes: This table reports RD estimates of γ in equation (1) using a 3rd-degree polynomial to construct the point estimator. The dependent variables are identical to those in Table 7, columns 2 and 3.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.55: Robustness on Citizen Perceptions: 1/2 the MSE-Optimal Bandwidth

	Access	Quality
	(1)	(2)
New village head	0.082 (0.085)	0.202 (0.189)
Observations	8848	8846
Control mean	0.78	-0.028
Robust p-value	0.422	0.310
MSE-opt. bandwidth	7.60	7.45
Effective obs.	1953	1914

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth half the MSE-optimal bandwidth from Calonico et al. (2014). The dependent variables are identical to those in Table 7, columns 2 and 3.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.56: Robustness on Citizen Perceptions: 3/4 the MSE-Optimal Bandwidth

	Access	Quality
	(1)	(2)
New village head	0.077* (0.063)	0.212** (0.143)
Observations	8848	8846
Control mean	0.78	-0.028
Robust p-value	0.086	0.044
MSE-opt. bandwidth	11.4	11.2
Effective obs.	2733	2672

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth three-fourths smaller than the MSE-optimal bandwidth from Calonico et al. (2014). The dependent variables are identical to those in Table 7, columns 2 and 3. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.57: Robustness on Citizen Perceptions: Twice the MSE-Optimal Bandwidth

	Access	Quality
	(1)	(2)
New village head	0.036* (0.039)	0.097** (0.095)
Observations	8848	8846
Control mean	0.78	-0.028
Robust p-value	0.051	0.017
MSE-opt. bandwidth	30.4	29.8
Effective obs.	5755	5648

Notes: This table reports RD estimates of γ in equation (1) using a RD bandwidth twice larger than the MSE-optimal bandwidth from Calonico et al. (2014). The dependent variables are identical to those in Table 7, columns 2 and 3. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.58: Robustness on Citizen Perceptions: Fuzzy RD

	Access	Quality
	(1)	(2)
New village head	0.110** (0.050)	0.308*** (0.124)
Observations	7695	7693
Control mean	0.78	-0.028
Robust p-value	0.011	0.004
MSE-opt. bandwidth	14.8	15.2
Effective obs.	2925	2999

Notes: This table reports fuzzy RD estimates of γ in equation (1) obtained via the non-parametric method from Calonico et al. (2014). We use $\mathbb{1}(\text{margin}_{jt} > 0)$ from equation (1) to instrument for a dummy equal to 1 if the current village head in our survey sample is a different individual from the incumbent who competed in the last election. The dependent variables are identical to those in Table 7, columns 2 and 3.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses.

Table A.59: Effects on Village Head Characteristics

	Parent head	Parent served	Age	Male	Educ	Islam	Bahasa
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
New village head	0.071 (0.096)	0.005 (0.113)	-2.124 (2.969)	-0.028 (0.059)	-0.182 (0.582)	-0.188* (0.135)	0.100 (0.117)
Observations	443	443	443	443	443	443	443
Control mean	0.10	0.24	49.9	0.95	13.1	0.86	0.17
Robust p-value	0.371	0.909	0.641	0.526	0.700	0.082	0.308
MSE-opt. bandwidth	24.5	28.3	16.0	22.0	28.2	15.9	20.8
Effective obs.	241	267	176	220	266	176	214

Notes: This table reports RD estimates of γ in equation (1). The sample includes all village heads. The dependent variable is: in column 1, a dummy equal to one if the village head's parent was also village head; in column 2, a dummy equal to one if the village head's parent served in the village government; in column 3, the age of village heads in years; in column 4, a dummy equal to one if the village head is male; in column 5, years of education; in column 6, a dummy equal to one if the village head's religion is Islam; in column 7, a dummy equal to one if the village head speaks Bahasa as the primary language.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table A.60: Effects on Old-Serving Nepotistic Appointees

	Proportion (1)	Binary (=1 if any) (2)
New village head	-0.036 (0.068)	-0.017 (0.130)
Observations	510	510
Control mean	0.15	0.25
Robust p-value	0.825	0.933
MSE-opt. bandwidth	22.9	21.3
Effective obs.	263	252

Notes: This table reports RD estimates of γ in equation (1). In column 1, the dependent variable is the share of bureaucrats who were appointed before the most recent election and report that a family member previously served as a village official. In column 2, the dependent variable is a dummy equal to one if at least one such bureaucrat is present in a village. See Section 5 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table A.61: Bureaucratic Organization, Excluding Lame-duck Village Heads

	<u>New village head</u>	<u>Tenure (yrs)</u>	<u>% New appts</u>	<u>% Reshuffling</u>
	(1)	(2)	(3)	(4)
New village head	0.839*** (0.104)	-4.701*** (1.127)	0.179** (0.102)	0.092* (0.054)
Observations	411	412	479	479
Control mean	0.037	6.97	0.33	0.048
Robust p-value	0.000	0.000	0.044	0.064
MSE-opt. bandwidth	16.5	31.0	22.9	19.9
Effective obs.	171	269	251	229

Notes: This table reports RD estimates of γ in equation (1). The sample excludes villages where the current village head is serving in their third term. The dependent variables are identical to those in Table 2.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors in parentheses for columns 1-6. Robust standard errors clustered by village in parentheses for column 7.

Table A.62: Turnover and Nepotism, Excluding Lame-duck Village Heads

	<u>Village head employs relative</u>	<u>Parent was leader</u>	<u>Parent served in govt</u>
	(1)	(2)	(3)
New village head	-0.419*** (0.179)	-0.079* (0.050)	-0.150** (0.077)
Observations	411	1006	1006
Control mean	0.37	0.051	0.27
Robust p-value	0.004	0.055	0.038
MSE-opt. bandwidth	12.7	16.3	28.8
Effective obs.	141	424	646

Notes: This table reports RD estimates of γ in equation (1). The sample excludes villages where the current village head is serving in their third term. The dependent variables are identical to those in Table 3.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors in parentheses for column 1. Robust standard errors clustered by village in parentheses for columns 2-3.

Table A.63: Bureaucrats' Morale and Effort, Excluding Lame-duck Village Heads

	Enthusiasm	Motivation	Interacts daily with citizens	Frequency of interactions (z-score)
	(1)	(2)	(3)	(4)
New village head	0.527*** (0.179)	22.989 (17.014)	0.188** (0.103)	0.363** (0.181)
Observations	1003	1001	1003	1003
Control mean	-0.051	101.1	0.57	0.29
Robust p-value	0.001	0.135	0.041	0.023
MSE-opt. bandwidth	18.4	25.7	20.5	17.2
Effective obs.	462	578	499	441

Notes: This table reports RD estimates of γ in equation (1). The sample excludes villages where the current village head is serving in their third term. The dependent variables are identical to those in Table 4.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.64: Alignment with Citizens' Preferences, Excluding Lame-duck Village Heads

Village Services:	Officials/citizens agree on:		Complaints received about:		Village head takes action on:	
	Priority	Worst-quality	Priority	Worst-quality	Priority	Worst-quality
	(1)	(2)	(3)	(4)	(5)	(6)
New village head	0.125 (0.118)	0.277*** (0.111)	0.127** (0.060)	0.189** (0.079)	0.142** (0.079)	0.153* (0.102)
Observations	1006	1006	1006	1006	412	412
Control mean	0.75	0.31	0.87	0.71	0.94	0.88
Robust p-value	0.146	0.003	0.013	0.014	0.036	0.092
MSE-opt. bandwidth	17.9	16.4	18.4	29.1	27.0	27.6
Effective obs.	457	424	464	646	245	248

Notes: This table reports RD estimates of γ in equation (1). The sample excludes villages where the current village head is serving in their third term. The dependent variables are identical to those in Table 6.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by village in parentheses.

Table A.65: Effects on Public Goods Provision, Excluding Lame-duck Village Heads

	Public Goods Index	Citizen Perceptions		Balance
	<i>Podes</i> 2021	Access	Quality	<i>Podes</i> 2014
	(1)	(2)	(3)	(4)
New village head	0.498* (0.272)	0.055 (0.044)	0.175* (0.107)	-0.058 (0.429)
Observations	356	8304	8302	353
Control mean	0.26	0.78	-0.043	-0.0024
Robust p-value	0.057	0.124	0.050	0.788
MSE-opt. bandwidth	19	15.7	15.5	19.5
Effective obs.	153	3317	3317	155

Notes: This table reports RD estimates of γ in equation (1). The dependent variables are identical to those in Table 7.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses for columns 1 and 4. Robust standard errors clustered by village in parentheses for columns 2 and 3.

Table A.66: Turnover and Natural Disasters: Correlations (OLS)

	New Leader	Diff. Vote Share
	(1)	(2)
Any disaster	0.141*** (0.044)	0.065** (0.031)
Sample mean	0.47	0.47
Observations	512	512

Notes: This table reports OLS estimates of each outcome on an indicator variable for whether a village experienced a natural disaster (a major landslide, flood event, ocean tide, hurricane, or drought) during an incumbent's term prior to the election. The dependent variable is: in column 1, an indicator for whether a new leader was elected in the most recent election; and in column 2, the difference between the vote share received by the highest-ranking challenger candidate and the incumbent's vote share, which is the running variable in equation (1). See Section 5.2 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table A.67: Effect of Turnovers in Villages Impacted by Natural Disasters

	Bureaucrats				Alignment		Public Goods		
	Parent Head	Parent Served	Enthusiasm	Freq Interact	Agree	Receive Complaint	<i>Podes</i> 2021	Access	Quality
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
New village head	-0.092* (0.069)	-0.163 (0.111)	0.357* (0.244)	0.393 (0.279)	0.105 (0.194)	0.201** (0.094)	0.704** (0.392)	0.116* (0.079)	0.266** (0.160)
Observations	510	510	508	507	510	510	167	4336	4334
Control mean	0.052	0.28	0.079	0.37	0.72	0.90	0.36	0.81	0.019
Robust p-value	0.096	0.109	0.078	0.112	0.588	0.011	0.047	0.061	0.037
MSE-opt. bandwidth	14.4	17.9	21.8	21.1	17.0	15.8	17.3	12.3	13.7
Effective obs.	210	243	274	269	238	218	67	1489	1726

Notes: This table reports RD estimates of γ in equation (1). The sample is restricted to villages that experienced a natural disaster (a major landslide, flood event, ocean tide, hurricane, or drought) during an incumbent's term prior to the election. The dependent variables: in columns 1 and 2, correspond to those in Table 3; in columns 3 and 4, correspond to those in Table 4; in columns 5 and 6, correspond to those in Table 6; in columns 7-8, correspond to those in Table 7. See Section 5.2 for details.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors clustered by village in parentheses in columns 1-6 and 8-9. Robust standard errors in parentheses in column 7.

B Data Appendix: Details on Survey Design

We conducted a survey of village officials and citizens in Indonesia between March and August 2022, in partnership with the Indonesian Ministry of Home Affairs (MoHA) and the World Bank. The survey took place in 852 villages spread across 23 districts in 17 provinces. The primary targets were active village officials as well as 8 to 12 adult citizens residing in the same villages. The survey aimed to gain a better understanding of village governance and to provide a new window into the level of village development as perceived by both officials and citizens. As a result of the restrictions associated with the Covid-19 pandemic, we conducted all surveys over the phone. Below, we describe the sampling procedures we used to select villages, village officials, and citizens.

B.1 Sampling of villages

We constructed a large representative sample of villages spanning each of Indonesia's major islands. Since the survey was designed as the baseline of a future digital training intervention, this sample was restricted to districts with relatively high internet coverage. We first randomly selected districts after stratifying by region, and then randomly selected a fixed proportion of villages within each district.

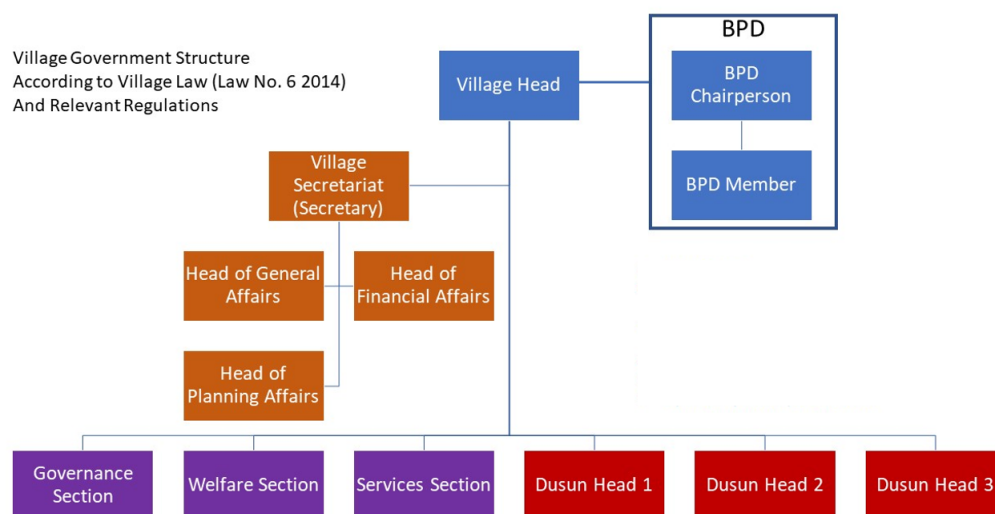
Our initial goal was to recruit a sample of 1,000 villages from a set of eligible villages in 20 districts. Given surveys were conducted over the phone, we expected a low consent rate. We thus sampled from a pool of around 1,700 villages across 20 districts and later added another 3 districts in order to reach a final target sample of 1,000 villages. Among these, we were able to administer the survey in 852 villages spread across the islands of Sumatra, Java, Bali and Nusa Tenggara (NT), Kalimantan, and Sulawesi.

Contact details for village heads and BPD chairpersons were obtained directly from MoHA. We started data collection by conducting a listing process to verify these phone numbers, obtaining village heads' consent. If a village was successfully listed, the survey team would proceed to interviews of village officials. We then marked the village as a "completed listing" once it had been confirmed that the village head phone number could be called and had consented to be interviewed. This listing process resulted in a total of 865 villages the final sample, consisting of 856 completed listing villages, 8 partially completed listing villages, and 1 incomplete listing villages. Of these 865 villages, 852 villages were marked as "completed interviews", meaning we successfully completed the target number of interviews with village officials and citizens.

B.2 Sampling of village officials

In each village, we aimed to conduct interviews with the village head (*kepala desa*), the village secretary (*sekretaris desa*), the BPD chairperson (*ketua BPD*), one randomly selected member of the village bureaucracy, one randomly selected neighborhood/hamlet head (*kepala dusun*), and one randomly selected BPD member (*anggota BPD*). Phone numbers of village officials were obtained from the village heads themselves, or alternatively from the BPD chairperson if the village head could not be reached. Our sample size reached a total of 744 village heads, 864 BPD chairpersons, and 3,606 other village officials, including 1,793 village bureaucrats (members of the village secretariat).

Figure B.1: Composition of Village Governments



B.3 Sampling of citizens

We sampled citizens using a snowball procedure in which respondents were asked to provide three contact persons whose name began with a randomly drawn letter of the alphabet. This procedure started with the village heads and BPD chairpersons and continued with citizen respondents until we reached the target sample size (8 to 12 citizens) in each village. The random selection of a letter of the alphabet was designed to impose some constraints on the selection of potential respondents by the village officials. The figure below provides the corresponding section of our questionnaire. This processed allowed us to interview 14,378 citizens across the 852 villages in our sample.

Figure B.2: Sampling of Citizens

H. PHONE NUMBER COLLECTION

ENUMERATOR: PLEASE REPEAT THE FOLLOWING PROCESS **TWO TIMES**. ONLY ASK FOR THE PHONE NUMBER OF PEOPLE AGED 18 YEARS OR OLDER.

1. I am going to tell you a letter: [XXX randomized according to census prevalence XXX].
Now, please look into the contact list on your phone.

D1a.	Is there anyone living in your village whose name starts with [XXX]?	1. Yes, name: _____ 3. No → PROCEED TO NEXT RANDOMIZED LETTER 7. REFUSE TO ANSWER → PROCEED TO NEXT RANDOMIZED LETTER
D1b.	Are you willing to share the contact number of this person?	1. Yes 3. No → D2a
D1c.	What is the phone number of this person?	_____ . _____