Working paper

The manager, the bureaucrat, and the autocrat: Personnel appointments in authoritarian bureaucracies

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29 May 2025

Abstract Are bureaucratic managers strategic when hiring? Do appointment practices affect service delivery and shape managers' career progression? A growing literature considers the behavior of bureaucratic managers, predominantly drawing on evidence from electoral democracies. It is not yet clear whether these findings extend to authoritarian settings, where the threat of political punishment is greater and managers' incentives differ. I present new theory on the behavior of bureaucratic managers in authoritarian settings and use novel data from Kazakhstan to test whether their behavior influences economic outcomes and career progression. I construct time-series data on over 15,000 appointments by district managers and use new measures of bureaucratic effectiveness based on public procurement. My findings suggest that managers use appointment powers to strategically build 'teams' of personally loyal subordinates who—based on interpersonal ties—they trust to follow orders. I show that appointments shape service delivery, with appointees signing more contracts of higher value. Finally, the evidence suggests that managers engaging in excessive appointments are more likely to be dismissed and that service delivery moderates the relationship between appointments and dismissals. The paper provides new evidence on bureaucracies outside of democracies, on subnational officials' behaviour, and state solutions to bureaucratic control.

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1 Introduction

Bureaucratic managers—those who supervise junior and street-level civil servants—are key for service delivery in developing states. Recent work highlights the importance of their appointment and management decisions. Studies agree that the teams bureaucratic managers appoint and the way they manage their subordinates shapes service delivery outcomes in a range of electoral democracies (Brierley 2021; Riaño 2021; Cardoso et al. 2024). We know less about how bureaucratic managers behave in authoritarian settings. In some autocracies, bureaucratic managers are as or more important than their counterparts in democracies, because of their ability to directly appoint their teams with little oversight from elected politicians (Hassan, Larreguy, and Russell 2024). Also different under authoritarianism are bureaucratic managers' incentives, especially those deriving from threats of punishment and central demands for loyalty. Similarly, we know little about how biased hiring affects service delivery and managers' career progression in authoritarian settings. I therefore ask: In autocracies, are bureaucratic managers strategic in selecting how to staff their teams? Do appointment practices and biased hiring affect service delivery? And, how do they shape managers' career progression?

I argue that bureaucratic managers can benefit from biased—rather than meritocratic—use of appointment powers to build and cultivate a group of loyal subordinates. Managers know and trust those that they appoint to effectively follow their orders. Loyalty can help bureaucratic managers deliver what is required by the central government and to meet career progression criteria (Toral 2024; Hassan, Larreguy, and Russell 2024). Loading junior positions with clients can also facilitate corruption that benefits managers. Where there is preference divergence between the bureaucratic manager and the autocrat, managers' ability to rely on a loyal team of appointees can allow them to shirk, or to refrain from meeting government demands. To build loyalty, managers strategically make appointments on personalistic criteria, relying on loyalty from subordinates who owe their job to them (Cardoso et al. 2024). Managers might identify reliable subordinates and use their appointment powers to build enduring patronage networks—or 'teams'—taking especially-trusted subordinates with them as they move between departments and regions (Grindle 1977). I expect that newly arrived managers should quickly appoint new subordinates as they look to install loyal former colleagues and remove remnants of the former incumbent's team.

I also argue that, under certain conditions, biased hiring may sometimes *improve* effectiveness and lead to a more productive bureaucracy. This is because personal connections may allow for better screening of potential bureaucrats for ability (Voth and Xu 2022; Bramoullé and Huremović 2024). Moreover, the trust between manager and bureaucrat that biased hiring engenders should reduce transaction and communication costs (Jiang and Zhang 2020; Toral 2024; Bozcaga 2020). Knowledge that a bureaucrat is loyal allows a manager to distribute major projects to them.[1] Nevertheless, I also expect that managers' actions should not go

[1]Yet, see research which finds that biased hiring in bureaucracies has negative implication for outcomes because

unnoticed by the autocrat. The use of appointment powers for managers' own benefit is inherently threatening in non-democratic regimes since it creates independent patronage networks outside central control (Hassan 2020; Tolstrup and Souleimanov 2022). If biased hiring indeed increases corruption and nepotism, then regimes have another reason to keep tabs on managers' appointment behaviour. These considerations suggest that managers who over-use their appointment powers risk being penalised by the central government. Yet the potential for biased hiring to be associated with improved outcomes means that regimes who are focused on outcomes might prefer to give managers some freedom to build their own teams. Autocrats therefore must balance their response to strategic appointments. They should generally punish bureaucrats who make excess appointments. However, they may choose to allow biased hiring where it results in increased effectiveness.

I test this argument by collecting new data on appointments by district government managers in Kazakhstan. In the country, which is lead by a hegemonic regime, bureaucrats are part of a large state and local elected politicians are weak, giving managers scope to engage in biased hiring. To study appointment behaviour, I collect biographies of hundreds of district managers since 2016. I link each manager to an original dataset of over 15,000 appointments of their most senior subordinates, who lead district government departments and town and village subdistricts. I also collect administrative payroll data on hiring to junior and street-level positions, which my theory suggests managers should be less interested in. To study how appointments influence outcomes and government reactions, I build new measures of district government effectiveness by collecting information from over 1,200,000 public procurement contracts.

With this array of data, I employ a set of time-series analyses that exploit within-district variation and movement of bureaucrats across districts. In line with my theory, I show that bureaucrat appointments spike at the beginning of managers' tenures before declining over time. The same is not true for whole-payroll hires and dismissals. These findings suggest that managers' appointment practises have a political logic, focusing on filling key district posts as soon as possible. I then use within-district, within-department, and correlational approaches to study the link between appointments and outcomes. First, I show in a panel set-up that more appointments are associated with higher average contract value and, less robustly, a somewhat higher number of contracts. Second, I show that appointees sign, on average, higher value contracts and that, over time, departments lead by the current manager's appointees sign more and higher value contracts. Finally, I return to a two-way fixed effects design to show that increased procurement weakens the link between higher appointments and manager turnover.

The paper, first, speaks to a growing body of research that studies mid-ranking bureaucratic managers' behaviour (Brierley 2020; Brierley et al. 2023; Hassan, Larreguy, and Russell 2024). This work is important in that it examines the role of under-examined actors who have a key influence on development and outcomes. I advance this agenda by examining managers'

it leads to less competent staff (Akhtari, Moreira, and Trucco 2022; Colonnelli, Prem, and Teso 2020) or allows managers to engage in corruption (Ha and Kang 2011; Hassan, Larreguy, and Russell 2024).

behaviour in a non-democratic case where they have greater formal powers to appoint and face less competition over appointments from elected politicians. Second, going beyond some of this recent work, I provide direct evidence on how managers' actions actually shape these outcomes through new, fine-grained measures of local governments' public procurement behaviour. I also provide novel theory and evidence on how performance outcomes moderate the government's response. Third, I study the case of Kazakhstan, a country often overlooked by comparativists (Markowitz and Radnitz 2021). Kazakhstan, a resource-rich hegemonic autocracy, has a political system arguably more representative than more frequently studied cases, such as Russia and China. By drawing on empirical evidence from it, scholars can expand the scope of the growing literature on comparative authoritarianism.

In the rest of the paper, I first set out my theory of bureaucratic managers' appointment practices, their implications for policy outcomes, and central governments' responses to appointments. Second, I provide details of the institutional set-up of district government in Kazakhstan, introduce the different datasets, and outline the data collection process. Third, I present tests of my theory of managers' appointment practises, demonstrating that they appoint most just after taking over a new office. Fourth, I show that appointments are linked to higher levels of public procurement and test the links between appointment. The final section concludes.

2 Theory

2.1 Bureaucratic Managers

My theory focuses on a particular subset of state employees—bureaucratic managers—and their behaviour when appointing and managing junior bureaucrats—their 'subordinates'. My argument highlights the importance of bureaucratic managers' highest-ranking appointed subordinates, rather than junior or street-level staff (cf. Pepinsky, Pierskalla, and Sacks 2017; Brierley 2021). For example, the subordinates I focus on include deputy managers, subdepartmental heads, or the directors of schools, hospitals, or enterprises under the bureaucrat's authority. First, managers have a formal say in who is appointed to these positions, even if they do not have unrestricted hire-and-fire powers.[2] Second, following appointment, managers are responsible for supervising their subordinates during policy implementation tasks. Bureaucratic managers select which tasks to delegate to whom and have powers to caution, discipline, or fire under-performers.

I propose that a key driver shaping the practice of politically biased appointments is managers' search for *loyalty* among their subordinates. A bureaucrat is 'loyal' when they are under

[2]Unlike in Hassan, Larreguy, and Russell (2024), for instance, managers in my context are not reliant on informal influence or forced to compete with elected politicians during the appointment process.

their manager's control(Abbott et al. 2020). Loyal subordinates may be trusted to carry out tasks in line with their manager's orders and without misappropriating resources through shirking, the incorrect implementation of policy, or unauthorised corruption. Loyal appointees do not obstruct the manager's actions in aid of other interests or their own benefit. Loyalty is important for managers because it best enables them to order their subordinates to act in the manager's own interests. A first reason for managers to, therefore, value loyalty is that it enables them to fulfil their own orders from central government. In particular, managers typically want to meet these demands in responses to explicit or implicit career progression incentives. Tying continued employment, wage growth, and progression through the ranks to compliance with the governments' orders pressures managers to toe the government line rather than diverting resources away from policy implementation through corruption, laziness, or incompetence. Empirical work on Russia, China, and Nazi Germany, for example, has found that autocratic regimes sometimes use performance as a promotion criterion for subnational officials (e.g., Rochlitz et al. 2015; Buckley and Reuter 2019; Reuter and Szakonyi 2019; Reuter and Turovsky 2022; Landry, Lü, and Duan 2018; Bulman and Jaros 2020; Sheng 2022; Wiebe 2024; Aaskoven and Nyrup 2021). Disloyal subordinates refusing to follow the managers' instructions, shirk, or incorrectly carry out orders, may lead managers to fail to meet government demands and so suffer career consequences (Grindle 1977).

Subordinate loyalty also enables managers to *defy* demands by the autocrat as a result of policy divergence or through corruption. Managers may have their own policy preferences, perhaps extending from social group concerns (Bhavnani and Lee 2018). For example, bureaucrats may be asked to control protests (Tertytchnaya 2023; Qian and Bai 2024) or carry out vote-rigging (Rundlett and Svolik 2016; Gehlbach and Simpser 2015). Policy divergence may then be reflected in a desire to protect local groups from repression or promote non-regime candidates' electoral success. Alternatively, bureaucrats may take advantage of their position for corruption by misappropriating state funds, requiring kickbacks for awarding contracts, requesting bribes from citizens for service delivery, selling subordinate positions, or engaging in nepotism (Brugués, Brugués, and Giambra 2024; Weaver 2021; Brassiolo et al. 2021; Riaño 2021). Loyal subordinates follow their boss's instructions even if they are different to central government rules or outright illegal. The importance of loyalty here is enhanced by subordinates taking the same career path as bureaucrats. Some might see themselves as a candidate for their manager's job, should their actions—such as implicating their manager in illegal activities—lead the government to remove the manager.

2.1.1 Teams and team-building in the bureaucracy

I argue that managers can ensure loyalty from their subordinates through the strategic use of appointment powers. I draw on the concept of bureaucratic 'teams', small groups of subordinates who the manager believes are loyal because of trust-enhancing interpersonal ties. For example, Grindle (1977, 40) described the role of such teams (*equipo*) in fostering bureaucratic loyalty in PRI-era Mexico. These connections involve a patronage-like quid-pro-quo supply

of loyalty by the subordinate in return for continued employment and preferential treatment (Jiang 2018; Brierley et al. 2023, 275–279). A mid-ranking bureaucratic manager might maintain a set of two or three of trusted deputies, who accompany their supervisor on moves around the bureaucratic system and reward this continued employment with loyalty.

Managers actively cultivate these connections by conditioning hiring and continued employment on loyalty. They can strategically fill important subordinate posts to ensure that key positions are held by aligned appointees. In a system where quid pro quo hiring dominates, the manager-subordinate relationships developed through this strategic hiring generate loyalty by aligning incentives between the bureaucrat and subordinate. If the manager is fired for ineffectiveness, their clients might lose their positions too (Jiang 2018; Toral 2024). Subordinates owing their position to their boss therefore have incentives to work to reward their trust and secure continued employment. Career concerns, here, motivate subordinates, too (Rivera 2020; Jia, Kudamatsu, and Seim 2015; Oliveros 2016). They key mechanism in this part of the theory is appointments generating loyalty, regardless of who the appointed bureaucrats are. Managers may further attempt to build loyalty by appointing candidates who they already know or with desired characteristics (Hassan, Larreguy, and Russell 2024; Voth and Xu 2022; Melnikov 2023). After appointment, managers can further incentivise loyalty by limiting access to informal benefits of office, such as bribes, to favoured subordinates. They can punish disloyalty through disciplinary procedures (Iyer and Mani 2010; Brierley 2020). Finally, repeated interactions within a team foster trust and sense of collegiality, enhancing the managers' belief in subordinates' promises of loyalty (Grindle 1977; Cardoso et al. 2024). Especially in the lower ranks of the bureaucracy, managers will not have the resources—in terms of control over appointments or access to graft–to build ties with *every* subordinate. Still, over time, these strategies allow them to cultivate a small but trusted team of subordinates.

The formation of team relationships may be eased by existing social ties. For instance, existing research highlights the role of shared social group characteristics—such as ethnicity—in appointment practices (Hassan 2020; Brierley 2021; Carter and Hassan 2021; Hassan, Larreguy, and Russell 2024). In this work, ethnicity acts as an indicator of subordinate loyalty or suggests preexisting connection (Brierley 2021). In Kenya, for example, 'clerks prefer to work with co-ethnic bureaucrats with whom they are more likely to have a rapport' (Hassan, Larreguy, and Russell 2024, 9). Other work highlights family relations as a motivating factor (Brassiolo et al. 2021; Riaño 2021). In my argument, these relationships are not more important than the actual give-and-take of patronage relations in terms of generating trust between the bureaucrat and their subordinates. Rather, they may act to ease the creation of those relations by providing existing connections and social links. The most important existing relationships will then be those based on actual inter-personal connections from previous direct work together, in the same unit, or shared education (Grindle 1977; Melnikov 2023; Cardoso et al. 2024).

I test this argument by observing how bureaucrats maintain control over subordinates when moving between roles following promotion or as part of reassignment. Managers will try to

secure trusted subordinates in each position they hold. An implication of this strategy is that—on taking up a new office—managers should move to replace some existing subordinates with new cadre. This introduces subordinates whose positions are explicitly due to the manager. Especially where the new manager has a factional rivalry or divergent policy opinions with their predecessor, it also serves to remove remaining loyalists to that predecessor. Once a number of the most strategic subordinate positions are filled by the manager's appointees, their incentives to make new appointments are reduced. Empirically, managers' strategic behaviour then suggests that appointments should spike following a new appointment before returning to a baseline level.

Three related hypotheses are drawn from this notion.

> Hypothesis 1a. Recently appointed managers appoint more relative to those managers who have been in post longer.

> Hypothesis 1b (within-department). Appointments rise within a department when a new manager is appointed to lead it.

> Hypothesis 1c (within-manager). Managers appoint more when they are reshuffled to a new department.

At the core of my argument is the use of appointment powers to build networks in the bureaucracy. In this respect, bureaucrats may be similar to elected local politicians who reward party supporters with government employment. Yet electoral incentives lead to key differences in the problems faced by local elected politicians and bureaucrats. Patronage networks in work on elected local politicians typically involve low-skilled or inexperienced party brokers (e.g., Oliveros 2016; Akhtari, Moreira, and Trucco 2022; Brierley 2021; Toral 2024). These party brokers may be appointed to lower skilled positions where a lack of competence is not critical. Yet bureaucrats do not need party brokers, because they do not need to win votes. They can select clients who are already in state service. In contrast with Brierley (2021), for instance, I claim that managers will be especially interested in appoint clients to more difficult, *senior* roles rather than filling junior or street-level positions. The holders of senior positions are best placed to influence outcomes or obstruct the manager, so managers' trust in their will and ability to deliver is especially important

> Hypothesis 2. Hiring to junior and frontline positions does not rise when a new manager takes office.

Most managers in a bureaucracy are not directly appointed by the autocrat, but instead are appointed by another, senior-ranking manager. The managers I study, then, are the subordinates of a superior bureaucrat and may have themselves benefitted from biased hiring. These managers of managers have their own incentives, including ensuring that the bureaucratic managers they appoint progress—including through team building—and are protect from dismissal. Superiors may use their senior position to act as a 'roof' for their appointees' appointment

practises. For instance, they may attempt to dissuade the autocrat from disciplining managers for corruption or will avoid dismissing their own clients.

Yet superiors are only able to shelter their appointees as long as they remain in office. Once they move on to other roles, their ability and incentive to protect their subordinates weakens. Conversely, their replacements may be looking for excuses—such as excessive appointments—to dismiss their predecessors' appointees. Managers, therefore, may be emboldened by their superiors if they offer support and protection. Once their superior has left office, however, they will feel less secure engaging in network-building strategies.

> Hypothesis 3. Managers appoint less once their own appointing superior leaves office.

2.2 Bureaucratic Outcomes

Bureaucrats themselves have incentives to join a team, especially in systems where biased hiring is widespread. For one, team membership boosts bureaucrats' prospects of continued employment, future promotion, and access to graft. The longer-term ties generated by team membership gives them a good chance of following their boss to a higher position, should the boss be promoted (Cardoso et al. 2024). For two, the trust created by interpersonal ties means the boss will be more willing to distribute graft to them or allow them to engage in their own corruption (Hassan, Larreguy, and Russell 2024, 9). Some subordinates will not be in their manager's team. They may have ties to another manager—for example, their new supervisor's predecessor—or simply not be in a team at all. Managers only have limited resources with which to try to build teams and cannot recruit every subordinate. Nor would they want to: managers should be selective about who they allow to join their team and may be reluctant to accept unknown staffers. If they cannot join a team, though, subordinates have fewer incentives to work hard. They perceive their current boss as less likely to offer them a promotion or give them a cut of graft, no matter how well they do. Biased hiring and team building should therefore have implications for bureaucratic effectiveness.

Work on bureaucratic performance focuses on factors including individual abilities (Best, Hjort, and Szakonyi 2023; Barteska and Lee 2024), the number of principals a bureaucrat deals with (Gulzar and Pasquale 2017; Williams 2017), whether they are posted to locales with which they have strong social ties (Bhavnani and Lee 2018; Xu, Bertrand, and Burgess 2023), career incentives and monitoring (Khan, Khwaja, and Olken 2016; Rivera 2020; Rasul and Rogger 2018), and ideological alignment with the central authorities (Rivera 2020; Spenkuch, Teso, and Xu 2023). Yet bureaucratic effectiveness will also depend on how they are appointed and managed, and their relationship to their managers. In particular, I argue that strategic biased hiring shapes service delivery by increasing subordinates' incentives to follower orders.

At the appointment stage, biased hiring may improve selection on merit. First, connections may convey information and allow better screening of potential employees (Voth and Xu 2022;

Bramoullé and Huremović 2024). Knowledge that a manger has of a bureaucrat's performance in a previous role, for example, may indicate that they are capable of fulfilling a similar role in another agency. Evidence from China suggests bureaucratic managers balance information about competence with their trust in a client when deciding on who to promote (Jiang 2018; Jia, Kudamatsu, and Seim 2015; Bramoullé and Huremović 2024).

After appointment, biased hiring can improve effectiveness by reducing the transaction costs of bureaucracy and enabling managers to confidently assign tasks to loyal bureaucrats. Stronger ties improve monitoring of subordinate behaviour (Toral 2024). They improve subordinates' ability to request the resources necessary for policy implementation (Jiang and Zhang 2020; Toral 2024). Networks allow easier sharing of information between the manager and subordinates as well as *between* bureaucrats (Bozcaga 2020). Finally, biased hiring enables managers to cut through bureaucratic inertia and overcome blockages, especially when taking over a new institution. Managers can assign their team members to the most urgent tasks knowing that they will not drag their feet and they will work in their boss's interest. For instance, a manager stuck with subordinates who do not follow orders may struggle to implement new ideas and practises. In these situations, 'the promise of personal loyalty is the most impressive qualification an individual can present' (Grindle 1977, 41). These mechanisms should lead to greater effectiveness and a more active, efficient department. Such departments should—in general terms—do more, such as by beginning more projects, signing more contracts, or handling more citizen requests.

On the other hand, still, biased hiring may hinder overall outcomes by enabling corruption or incentivising managers to select incompetent subordinates. Work on politicians' appointment of patronage clients to bureaucratic roles suggests those clients may be less experienced or less competent than merit based hires (Akhtari, Moreira, and Trucco 2022; Colonnelli, Prem, and Teso 2020). Bureaucratic staff appointed through nepotism and patronage-appointed governors in the British empire have similarly been found to be worse performers (Brassiolo et al. 2021; Xu 2018). Managers may collaborate with their subordinates to secure kickbacks in ways they would not do if biased hiring did not allow them to trust that subordinates will not report them to help their own career (Hassan, Larreguy, and Russell 2024, 9). Social networks in the bureaucracy may improve connections with businesses or local actors in ways that facilitate corruption (Ha and Kang 2011).

These considerations, altogether, lead to two claims about the impact of biased hiring on service delivery. First, departments with more biased hires—that is, more bureaucrats appointed by their manager—are more effective.

> Hypothesis 4a. The more bureaucrats appointed by the current manager, the more projects and services delivered by the institution.

Second, managers focus on assigning important activities to trusted subordinates. They may appoint loyalists to key subdepartments, such as those responsible for infrastructure projects or large-scale service delivery. Later, where they have discretion to do so, they can further channel large projects to those loyalist-run subdepartments.

Hypothesis 4b. Bureaucrats appointed by the current manager are responsible for more and larger projects.

2.3 The autocrat's response to personnel appointments

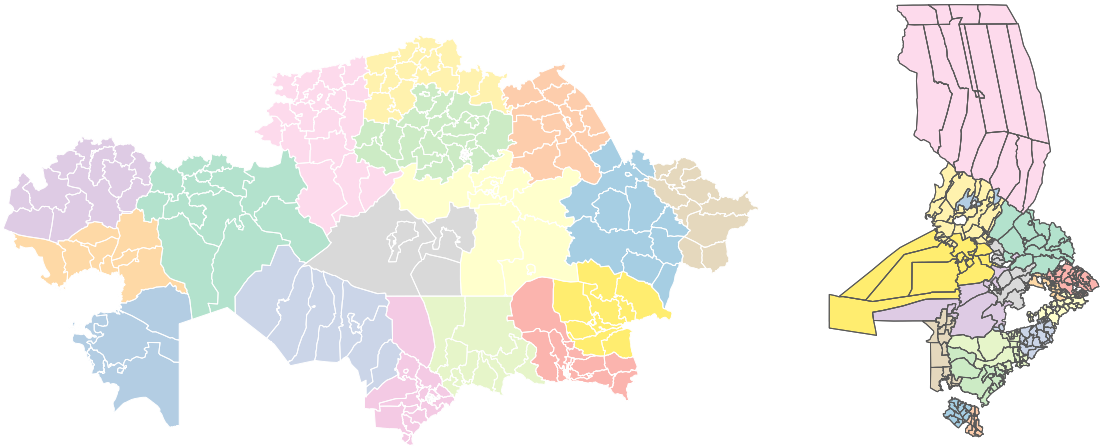
Autocrats and central governments delegate power to managers who may have different preferences and may use their powers in undesirable ways (Huber and Shipan 2011; Finan, Olken, and Pande 2017; Besley et al. 2022). Autocrats can minimise this agency loss by reducing managers' ability to defect and increasing their motivation to follow orders. In many respects, particularistic appointments by bureaucratic managers should have the opposite effect by increasing wayward managers' capacity to disobey orders or engage in corruption (Oliveros 2016; Huber and Ting 2021; Grossman and Slough 2022, 139–140).

Autocrats may be wary of managers who appoint a high number of subordinates for a number of reasons. They may therefore focus on dissuading managers from overusing their appointment powers by making an example of those who appoint more than the usual amount. One option is to remove, reshuffle, or demote such bureaucrats. That said, governments might also recognise the potential performance benefits of biased hiring discussed in Section 2.2. If mangers simply use personal ties to build a competent staff able to break through bureaucratic inertia, then the government is best off leaving them in place. In systems where informal practices are widespread anyway, governments should not punish bureaucrats for engaging in strategies such as biased hiring in ways that align with the government's own preferences. Yet observing whether bureaucrats are acting on preference divergence is no easy task. Acts like corruption or biased policy implementation may be deliberately concealed or look more like incompetence than non-compliance. One strategy is to focus dismissals for over-appointment only on managers who also perform poorly. A high level of appointments may only be acceptable in departments where it is associated with improved service delivery.

Following from this discussion, my final set of hypotheses is as follows:

Hypothesis 5a. The likelihood of manager turnover rises with the number of appointments.

Hypothesis 5b. The relationship between appointments and turnover is conditional on performance.



(a) The districts of Kazakhstan, coloured by region

(b) The subdistricts of Turkestan region, coloured by district

Figure 1: Administrative-territorial divisions in Kazakhstan

3 Research design

3.1 District government heads in Kazakhstan

I test this theory with data from district government in Kazakhstan. I study 209 district-level divisions (Figure 1a). 170 of these are *rayon*s of the country's 17 regions (*oblast*s). These are large territorial units, incorporating smaller minor cities, towns, and rural areas. The other 39 divisions are cities of regional significance, including regional capitals. Both types of district have similar governance structures and powers.[3] The head of district-level executive bodies are senior bureaucrats called *akim*s.[4] They are appointed by the head of the region in which their district is situated, who is also called an akim.[5] District heads are responsible

[3] Another 18 divisions of the capital, Astana, and of the two cities of republican significance, Almaty and Shymkent have equal administrative-territorial status to the districts I study. I exclude these divisions, because their governments have more limited powers and smaller staffs.

[4] See 'O mestnom gosudarstvennom upravlenii i samoupravlenii v Respublike Kazakhstan [*On local government and self-government in the Republic of Kazakhstan*],' Zakon Respubliki Kazakhstan № 148 (23 January 2001), https://adilet.zan.kz/rus/docs/Z010000148_.

[5] In November 2023, elections for *akim*s were trialled in 42 rayons and 3 regional cities (see Urpekova 2023). Full elections are due to be introduced in 2025.

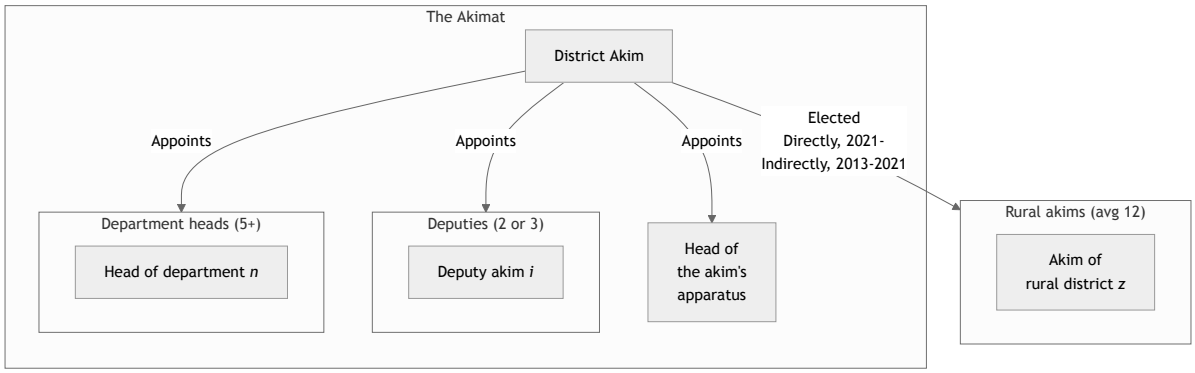


Figure 2: The structure of the akimat

for making local policy and for implementing national policy within their territorial division. Since 2019, they have been defined as 'political' civil servants, the group of appointed and elected policy-making officials with the least career protection.[6]

District heads are supported by a senior group of administrative bureaucrats called the *akimat* (Figure 2). The most senior members of the akimat are two or three deputy akims (*zamectitel' akima* or *zamakima*), each of whom generally leads on a particular area (e.g., healthcare, economy, or education).[7] These are the akim's most important subordinates when it comes to managing policy implementation. Second, the akimat includes the head of the akim's apparatus (*rukovoditel' apparata akima*). The apparatus is a small body of staff providing logistical, legal, and information support for the akim. This role is important for the akimat's day-to-day functioning. Third, the akimat includes numerous heads of the executive bodies financed from the local budget (*rukovoditel' ispolnitel'nogo organa, finansiruyemyy iz mestnogo byudzheta*). These are local government departments involved in policy implementation. The number and type of these bodies varies across districts, but they may include departments for economy and finance, architecture and construction, transport, social programmes, agriculture, and so on. The heads of these bodies are therefore responsible for actual policy implementation. Finally, I consider the role of bureaucrats who are appointed by the district head and run subdistricts, like those shown in Figure 1b. As I discuss below, until recently, district heads had relative control over the appointments of these subdistrict heads (who are also called akims). The average district has about 12 such subdivisions. These bureaucrats have local implementation powers and a small staff. They work as the representative of the state at the lowest level and deal directly with citizens' concerns.

[6]Before 2019, only the heads of regional capitals were political civil servants. Other district heads were members of *Korpus "A"*, the category of bureaucrats made up of the most senior administrative civil servants. Until reforms in 2020, appointments to Korpus "A" roles were made from a special reserve that civil servants had to apply to join. The rayon akimat civil servants I discuss are all members of *Korpus "B"*, which includes all other non-contract administrative civil servants.

[7]Seniority can be proxied by the rank and experience requirements in the Korpus "B" cadre reserve structure. Deputy akims are the most senior at rank E-1. Heads of the apparatus (E-2), heads of executive bodies (E-R-1), and rural-level heads (E-R-1) are equal in rank, with roughly the same experience requirements.

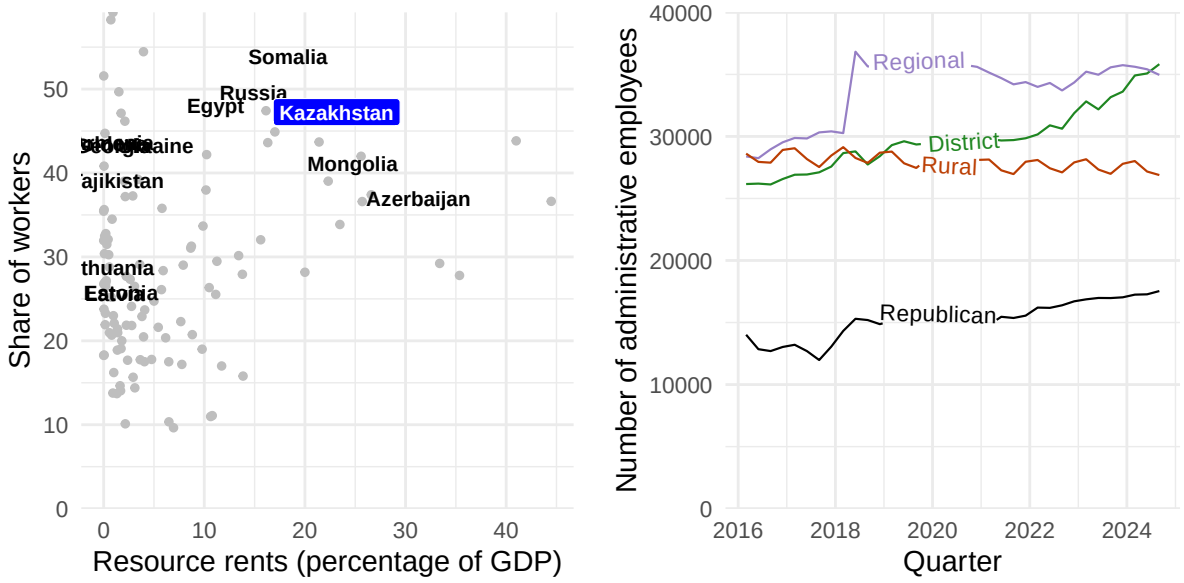
The district head has some powers to appoint akimat members. Kazakhstan's local government laws give akims the explicit power to appoint deputies and the heads of local executive bodies, and the right to appoint the head of the apparatus is in practice used by the head. Still, district akims must abide by Kazakhstan's competitive appointment rules and cannot discretionarily fire existing akimat members.[8] First, akimat staff are administrative civil servants in the higher ranks of Korpus "B" and so appointments to their positions should involve an internal competition only open to existing civil servants within the region and with experience in similar roles. Nonetheless, this competition is run by a commission under the authority of the akim, which also has the power to appoint without a competition in a number of cases (such as if a candidate was recently a subdistrict head). Second, existing akimat staff should only be dismissed for disciplinary reasons. The law makes explicit that a change in district akim is not cause for their removal. Nevertheless, akims sometimes pressure staff to 'voluntarily' resign or force their demotion or dismissal through negative performance reviews.

So-called 'team movement' (*komandnoye peremeshcheniye*), where bureaucrats moving agency take groups of proven subordinates with them, illustrates how bureaucrats in Kazakhstan can go beyond formal rules to hire loyalists.[9] Commentators, and sometimes bureaucrats themselves, justify team movement as necessary to maintain a competent and loyal team that will fully implement the bureaucrats' decisions. Yet central government figures, including the president, have regularly criticised team movements as risking corruption, undermining civil service professionalisation, and hurting institutional knowledge. Numerous reforms to civil service rules have been introduced in the last decade with the stated aim of reducing team movements. Even if these have reduced the practice, though, informal tactics have allowed team movement to continue. For example, bureaucrats circumvent rules meant to dissuade movements by pressuring incumbent staff to resign, gradually moving staff to avoid detection, or placing loyalists in positions which allow them to later be appointed without competition.

District heads' ability to appoint subdistrict heads was more restricted during the period I study. Before 2013, they were directly appointed by district heads. From 2013-2021, they were indirectly elected for four-year terms by elected district councils (*maslikhat*s). Only district heads could nominate candidates for this election, and they only nominated a minimum of two candidates, so they retained significant control over who was chosen. Districts heads, further, directly influenced the maslikhat's choice between these candidates (Onalbaiuly 2019, 140). From 2021 onwards, direct elections have gradually been introduced for these positions as incumbents' four-year terms expire (Melnikov, Mineava, and Hazell 2025). I remove directly elected subdistrict heads from my sample.

[8] See 'O gosudarstvennoy sluzhbe Respubliki Kazakhstan [*On the civil service of the Republic of Kazakhstan*],' Zakon Respubliki Kazakhstan № 416-V ZRK (23 November 2015), https://adilet.zan.kz/rus/docs/Z1500000416.

[9] For example, see https://rus.azattyq.org/a/kazakhstan-team-cant-live-without/30090807.html.



(a) Share of workers in government employment compared to other states (World Bank data)

(b) Administrative bureaucrats by level of government (Qazstat data)

Figure 3: Government employment in Kazakhstan

3.2 National context

Kazakhstan has a firmly autocratic regime. The national regime—led between 1991 and 2019 by President Nursultan Nazarbayev, and now by President Kassym-Zhomart Tokayev—has consistently used state resources to control elections. The electoral incentives faced by politicians and bureaucrats are much reduced in this context.[10] The regime maintains power through a balance of economic legitimation—making use of the country's natural resource endowment—and repression. Opposition and protest movements are generally cut off at the head; the few cases where they have managed to grow to national significance have ended with state violence, as in 2011 in Zhanaozen and 2022's 'Bloody January' (Isaacs 2022; Kudaibergenova and Laruelle 2022; Abishev, Kurmanov, and Sabitov 2024). Many of the most disruptive protest movements of the past two decades started in the oil-producing western regions of Kazakhstan, far from the capital, Astana, and largest city, Almaty. Local government institutions therefore has an important role in managing public discontent. For example, district heads are consulted on local policing policies and issue mandatory protest permits.

[10] The country does have a dominant party, Amanat (formerly Nur Otan), along with a small 'systemic opposition' of regime-aligned parties. However, the locus of power remains in non-party state institutions, such as the Presidential Administration. District heads and their deputies can be members of political parties, but not hold leadership roles in them. Deputies in local maslikhats, elected subdistrict heads, and the new group of elected district heads may be elected on party lines. Amanat and independent candidates have by far the most success in local elections. Altogether, however, local government is not structured along party lines.

Altogether, district government in Kazakhstan is a plausible case for observing bureaucrats using biased hiring to build loyalty. For one, the only elected local politicians—Maslikhat deputies and subdistrict heads—are in practise subordinate to district heads and have relatively few formal powers. For two, in line with other autocracies in the region, patronage and informal institutions are key in structuring national politics (Hale 2015). For three, funded by the country's oil wealth, the state has a large number of positions to fill (Rosenfeld 2021, chapter 7). Just under half of the employed population work for the state and state-owned enterprises (SOEs). As Figure 3a demonstrates, this high share of state employment is similar to other resource-rich cases. Focusing on administrative employees—excluding those working for SOEs or in healthcare and education—Figure 3b shows the number of active employees in the civil service by the level of government which employees them. This number has grown over time and is split between the country's four levels of government. A large proportion of these employees work in district and subdistrict government.

3.3 Data

3.3.1 Appointments

My analysis largely relies on a set of original panel data capturing appointment behaviour in Kazakhstan's district bureaucracies since 2016.

District heads, 2016-present First, I create a dataset of all district heads since 2016. Using a mixture of sources, including biography websites,[11] news reports on appointment and dismissals, and archived government websites, I collect the name of each head, their appointment date (at the monthly resolution), and, in almost every case, a full biography. These biographies contain information including birth date, education history, and a full career history. I also identify the name and tenure of the regional head who appointed each district.

Akimat officials, 2016-present The second set of original data allows me to identify turnover of a set of senior akimat officials from mid-2016 onwards. Data on the turnover of senior bureaucrats is hard to come by. For instance, there are no published lists of former district heads or bureaucrats. I therefore make use of procurement transparency rules by which state institutions publish contracts for agreements they make above a certain value. Contracts include the name and position of a signatory from the state institution. Contracts are signed by different people depending on whether the contracting party is the akimat as a whole, one of the executive bodies financed from the local budget, or the office of a subdistrict head. Contracts with the akimat are signed by the head of the apparatus, those with executive bodies are signed by the head of the executive body, and those with rural-level akims are signed by the akim themselves. Since the value at which a contract must be made public is relatively low, I can link most institutions with at least one contract a month (usually more).

[11] Such as Zakon's 'Paragraf' system (https://online.zakon.kz/) and Daniel Ashimbayev's *Kto est' kto* (https://centrasia.org/person.php).

By identifying where names change between contracts, I create a panel of more than 18,000 akimat office holders at the monthly resolution.

I link these data with the panel of district heads to create an unbalanced district-month panel of the number of appointments each head makes as well as the number of institutions available to make appointments to. Figure 4 shows the current extent of this data. Each district is shown by an individual line, which is coloured by the incumbent district head (so a change in colour means a new head). A dot shows that there was at least 1 appointment in a month; the larger the dot, the more appointments.

First, I exclude the initially observed bureaucrat from each institution (subdepartment or subdistrict), since the first time an institution was observed relates to the introduction of the procurement transparency rules in mid-2016 rather than when the bureaucrat was appointed. Second, I use the date of each subdistrict's first election to remove elected subdistrict heads, including only those that were appointed by the district akim via Maslikhat nomination.[12] Third, for the main analysis, I filter these data to exclude about 3,000 short-term appointees—those in office for 30 days or less—on the assumption that these are 'acting' bureaucrats. In robustness checks, including these appointees does not affect the results.

This dataset provides detailed information on changes in top-level local bureaucrats over time. On the other hand, it does not include deputy akims. Due to their core role in guiding policy implementation, these are perhaps the officials akims are most likely to want to change. As a result, the analysis I carry out with this data relies on what might be a lower bound of akims' efforts to change staff.

I accompany these original data with administrative payroll and socio-economic data provided by Kazakhstan's national statistic agency *Qazstat*.

Civil service payroll From 2016, Qazstat provides quarterly data with an aggregated figure for employment in district government activities in each district.[13] I use data for the total number employed as well as of new hires and dismissed employees. These data cannot be disaggregated further and do not provide information on the seniority of new hires or which part of local government that they work in. However, they do allow me to analyse turnover among the broader set of non-senior district government staff.

Qazstat also supplies annual population measures at the district level, which I use to control for population.

[12] These data are from Minaeva, Melnikov, and Hazell, 'Local Elections and Elite Management in Authoritarian Regimes: Evidence from Kazakhstan', working paper.

[13] These data are separate from employment figures for republican, regional, and rural-level government bodies, each of which are also provided at the district level. That is, in each district, this data only covers employees of the district-level institutions I study, not of other government bodies which happen to have offices in the district.

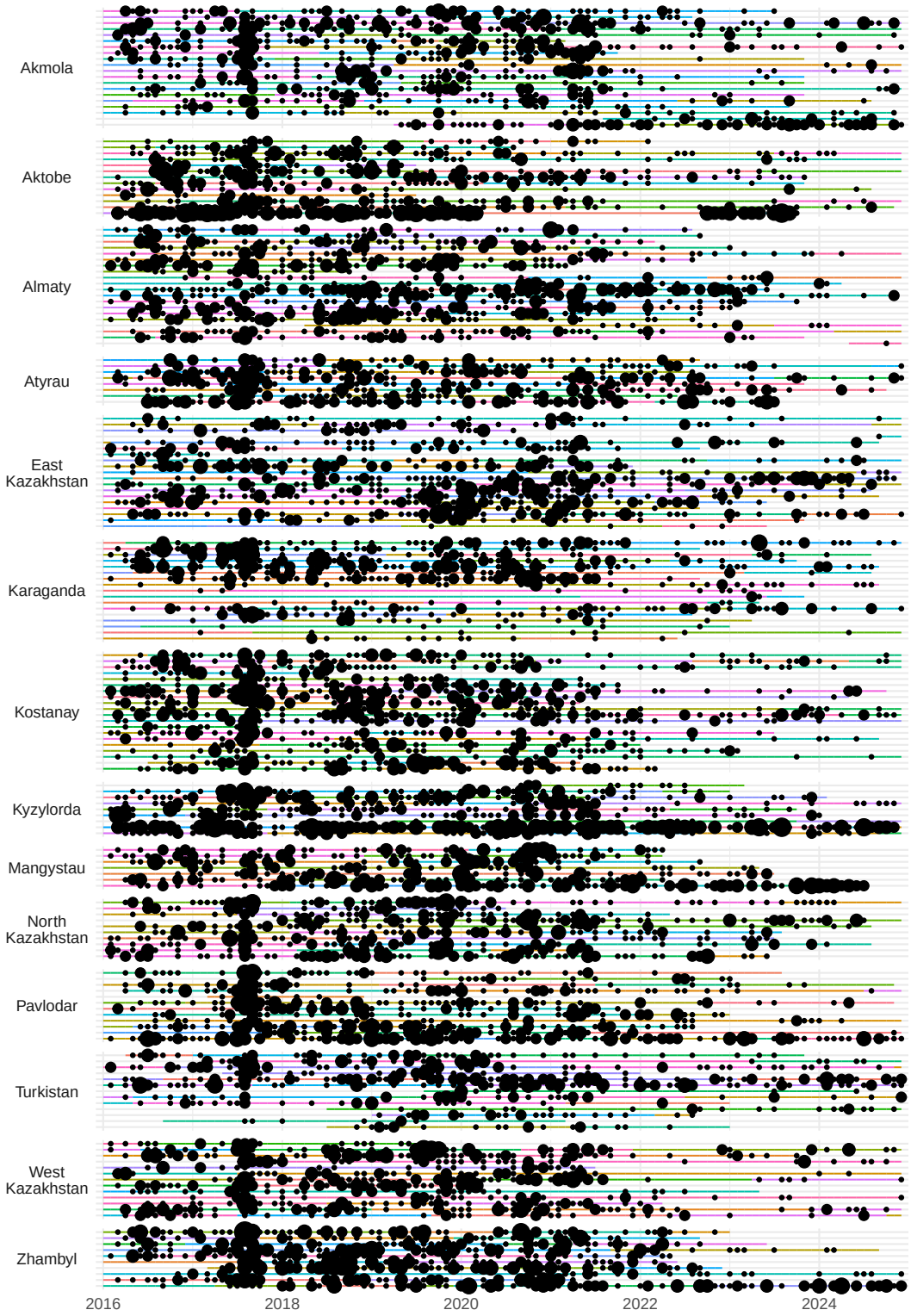


Figure 4: District-month akim and appointment data

3.3.2 Outcomes

Procurement contracts I use public procurement data to measure district government activity in a way that taps the concept of service delivery in Section 2.2. As mentioned in the description of the senior bureaucrat appointment data, public procurement transparency rules in Kazakhstan mean most district government purchase agreements are published online.[14] I scrape the full set of agreements by district and subdistrict government institutions to collect information on over 1,200,000 contracts. The resulting dataset includes the number of contracts each district and subdepartment agrees, the value of contracts, and the form of purchase (for example, whether the procurement was competitive or non-competitive).

4 Manager appointments

4.1 Managers appoint most at the start of their terms

4.1.1 Recently appointed managers appoint more relative to those who have been in post longer

My theory suggests that bureaucratic managers should move to install trusted subordinates on entering office, but make fewer appointments later on in the term once the need to assert control over their department reduces. The first test of my argument, then, is to show that appointments indeed reduce over time. Here, I use a two-way fixed effects approach to estimate the number of bureaucrat appointments in district i in each month t,

$$\text{appointments}_{i,t} = \alpha + \beta_1 \text{tenure}_{i,t} + \beta_2 \text{appointments}_{t-1} + \beta_{\mathbf{X}} \mathbf{X}_{i,t} + \gamma_t + \lambda_i + \epsilon_{i,t}. \quad (1)$$

β_1 is the coefficient of interest and estimates the effect of each additional month-in-office, with the $\text{tenure}_{i,t}$ term a moving count of the number of months the incumbent district head has held their position. My theory is compatible with negative sign on this coefficient—that is, the estimated number of appointments made by a district head declines with each month they are in office.

To account for temporal autocorrelation in appointments, I include the month-lagged appointment count $\text{appointments}_{t-1}$. This accounts for the risk that appointments in one month will influence appointments in the next, either by reflecting restructuring in a district or by reducing the short-term availability of offices. I include a matrix of time-variant district-level controls $\mathbf{X}_{i,t}$, including logged population, the total size of the district's payroll, and the number of senior bureaucrat positions available each month. I include month fixed effects γ_t and district fixed effects λ_t to isolate changes within a particular district conditional on national

[14] See the procurement website at https://goszakup.gov.kz/ru/.

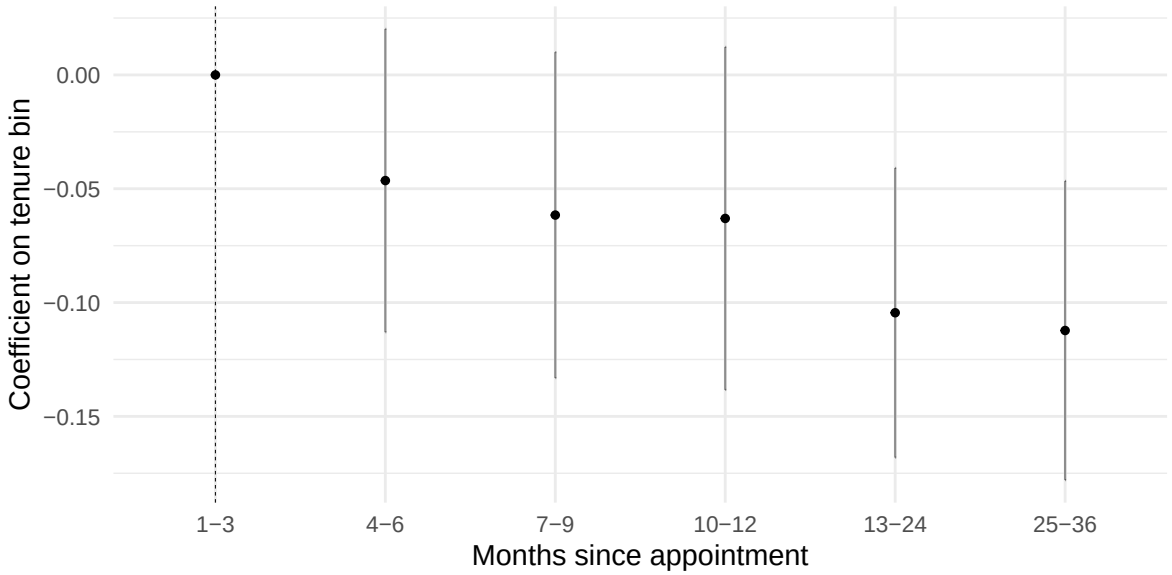


Figure 5: Coefficient by tenure bin

conditions in that month. I estimate this model with OLS with standard errors clustered at the district level. The data I use in these models is, as discussed above, filtered to include only bureaucrat terms longer than a month. In this section, I also include only the first 36 months of each district head's term, so that the majority of heads have their whole term included in the data. Descriptive statistics are in Table A1.

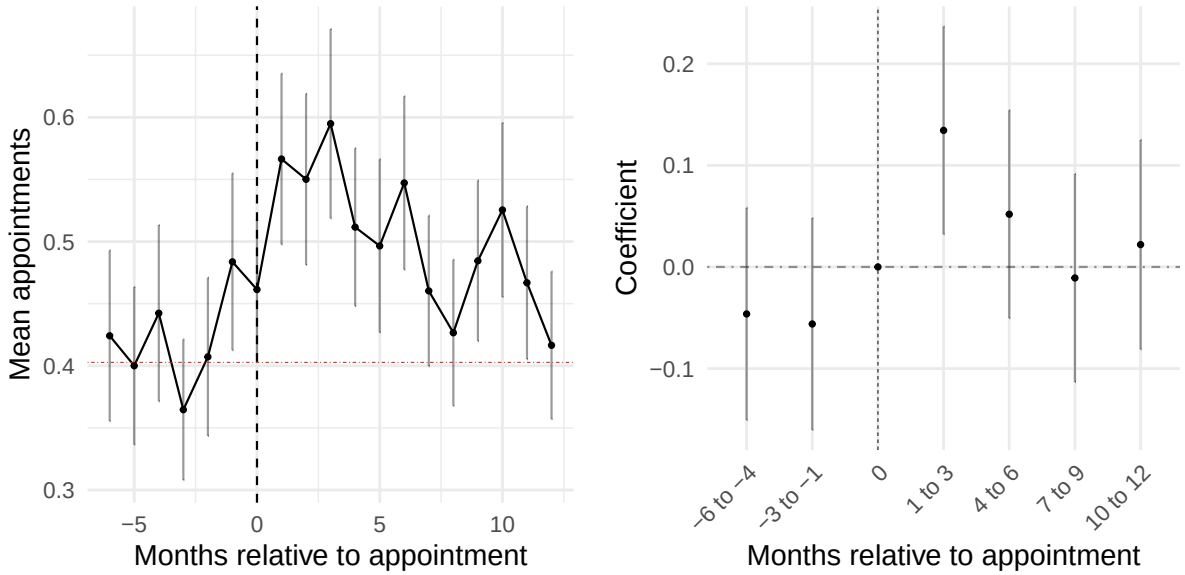
The results from the initial analysis are shown in Figure 5 and Table 1. In the table, coefficients on time in office are significant and in the predicted direction, albeit relatively small.[15] The number of monthly appointments each district head makes declines over time. The second part of the analysis estimates how appointments changes in each period relative to the number of appointments made in a head's first quarter in office. Figure 5 presents estimates for appointments across bins of months relative to the first quarter of appointment in the fully specified model (the full results for the binned analysis are in models 3 and 4 in Table 1). Again, the results are in line with the theory, with propensity to appoint falling over time. These results are substantively largest and statistically robust after the district head's first year in office.

[15] One reason, first, that the coefficients are small is that the average of appointments each month within the 0 to 36 months sample—0.45—is itself quite small. Second, while the sample is restricted to 36 months of each term, this analysis still includes a long period of 'baseline' appointment where subordinates are likely to need replacing because of natural staff turnover (there are the same number of appointments as positions in the average district every 30 months). These replacement appointments are spread through the sample and bias the coefficient downwards.

Table 1: Baseline estimate of the effect of months in office and binned quarters on bureaucratic appointments

	Appointment count (1)	Appointment count (2)	Appointment count (3)	Appointment count (4)
Months since akim took office	-0.004 ***	-0.003 ***		
	(0.001)	(0.001)		
Binned tenure (4-6 months)			-0.027	-0.046
			(0.030)	(0.034)
Binned tenure (7-9 months)			-0.045	-0.062 +
			(0.033)	(0.036)
Binned tenure (10-12 months)			-0.052	-0.063
			(0.033)	(0.038)
Binned tenure (13-24 months)			-0.095 ***	-0.104 **
			(0.028)	(0.032)
Binned tenure (25-36 months)			-0.110 ***	-0.112 ***
			(0.029)	(0.033)
Senior bureaucrat appointments$_{t-1}$	0.007	0.001	0.007	0.000
	(0.015)	(0.016)	(0.015)	(0.016)
Logged population		0.081		0.085
		(0.151)		(0.150)
Number of senior bureaucrat positions		0.041 ***		0.041 ***
		(0.006)		(0.006)
Local government payroll		0.000		0.000
		(0.000)		(0.000)
District FE	Y	Y	Y	Y
Month FE	Y	Y	Y	Y
N	11680	9891	11680	9891
Adjusted R^2	0.173	0.185	0.173	0.185
Within R^2	0.002	0.010	0.003	0.010
AIC	25501.863	22024.276	25506.048	22027.638
BIC	27674.725	23975.308	27708.372	24007.468

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.



(a) Mean appointment counts before and after new head appointments

(b) Regression coefficients for the fully specified within-district model

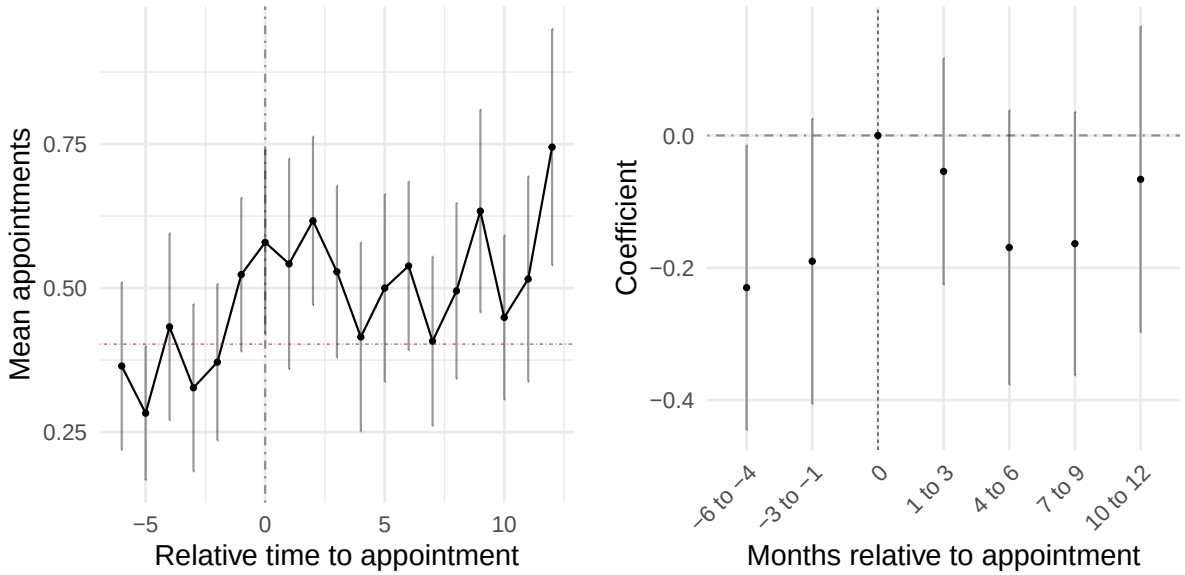
Figure 6: Within-district design (*Note*: 95% confidence intervals)

4.1.2 Appointments are higher within districts when new managers arrive

To provide further evidence that new managers engage in elevated hiring, I now present two additional designs on shorter subsets of the data. The first is a within-district design that tests whether a district sees elevated hiring when a manager arrives compared to the pre-new manager period. Here, I subset the data from each district six months before and twelve months after every appointment. To motivate this analysis, Figure 6a shows mean appointment counts before and after a new head is appointed in a district (The red dashed line shows the mean appointment count for the whole appointments dataset.) In line with the theory, appointments rise after a new manager arrives in $t = 0$, before tailing off after about six months. There is an apparent pre-trend, perhaps reflecting managers who know they are moving on and act to distribute patronage jobs before it is too late.

I next use the within-district subset in a more formal two-way fixed effects design. I test for the determinants of appointment counts using a range of independent variables. First, I use a simple before/after appointment indicator. Second, I include the appointment indicator interacted with months in office. The effect of months in office should differ before and after the appointment, because of the pre-trend in Figure 6a in appointments and the initial bump in appointments.[16] Third, I bin time in office by quarter and present results relative

[16]Given that the data I use here only covers 6 months before and 12 months after each appointment—so excluding much of the drop off in appointments I propose—the time in office term is itself not particularly meaningful in



(a) Mean appointment counts before and after reappointed managers take over a new district

(b) Regression coefficients for the fully specified within-manager model

Figure 7: Within-manager design (*Note*: 95% confidence intervals)

to appointments in month 0. Each regression includes district and year fixed effects. In Figure 6b, I present results from the fully specified quarter bin model (model 6 in the full results, Table A4). The figure, and models 5 and 6, show that the largest increase in appointments relative to those in month 0 are in the following one to three months. More generally, these results support the argument that appointments rise when a manager takes over a district, as can be most clearly seen from the significant coefficient on the appointment indicator.

4.1.3 Re-appointed managers appoint more in their new roles

The second additional design exploits manager reappointment to examine whether managers appoint more on taking a new role. In my data, 125 managers manage at least two districts. I filter this to 107 terms where a re-appointee begins to manage their new district within 3 months of leaving their previous role. For each, I include 6 months of appointment data from the previous term and 12 for the current one. I then repeat the analysis in the last section, except that I now include *individual* and year fixed effects and cluster standard errors at the individual level. These results may not be representative across the whole sample, just because they only include the subset of managers who are reappointed to lead a second district.

itself in this analysis.

The basic means in Figure 7a again show an increase of appointments around the time of appointment, although the differences are less clear than in the within-district design. The red dashed line, again, shows the mean appointment count for the whole appointments dataset. In the full model, shown in Figure 7b, pre-appointment coefficients are significantly negative but there is no clear increase after month 0. Reviewing the full results in Table A5, in this subset there is a significant increase in appointments following a change in district (albeit only at 10% in the models with the months-in-office and interaction terms). However, this increase is temporally concentrated in the first months in office, and shows shows up in Figure 7b with the negative coefficients in the pre-appointment months. It may be that the more experienced district heads in this sample are able to more quickly move to appoint trusted subordinates.

4.2 Bureaucratic managers focus on appointments to *senior* subordinate roles

In Hypothesis 2, I suggest that managers focused on taking control of a new department and, potentially, delivering results should focus on appointments to the most important subordinate positions. On the other hand, recent work on patronage by elected politicians suggests that this group focuses on appointing to low-skilled positions that are unimportant for outcomes (e.g., Brierley 2021). In Kazakhstan, do district heads fill low-skilled roles as well as their direct subordinates?

Here, I use Qazstat's data on total district government payroll, which covers hiring and dismissals of all district government employees. The majority of these employees are junior bureaucrats or frontline workers, so this data allows me to test whether or not district heads are most interested in filling senior bureaucrat positions. Unfortunately, these data are only available at the quarterly resolution. I therefore aggregate my data on district head incumbency and their appointments of senior bureaucrats to a district-quarter panel. In district quarters where there is turnover in the district head, I record the *old* head as the incumbent. Since the Qazstat payroll data is provided as rates of hiring and firing per position, I create an analogous senior bureaucrat appointment rate by dividing the number of appointments each quarter by the average number of senior positions. Descriptive statistics are in Table A2. I run separate regressions of the same form as Equation 1 for each of the bureaucrat hiring, payroll hiring, and payroll dismissal rates, with district and quarter-year fixed effects.

The coefficients from these analyses are shown in Figure 8, with full results in Table A6. The coefficient on time in office remains significant and negative for senior bureaucratic appointments. The coefficient on the payroll dismissal rate is not significant, while the coefficient on the payroll hire is in the predicted direction and significant at the 5% level. As with subordinate appointment practises, the hiring of more junior staff is relatively more frequent at the start of an akims term. However, the coefficient is about a quarter of the size as the senior bureaucratic appointment rate. This association, then, is substantively much smaller than the

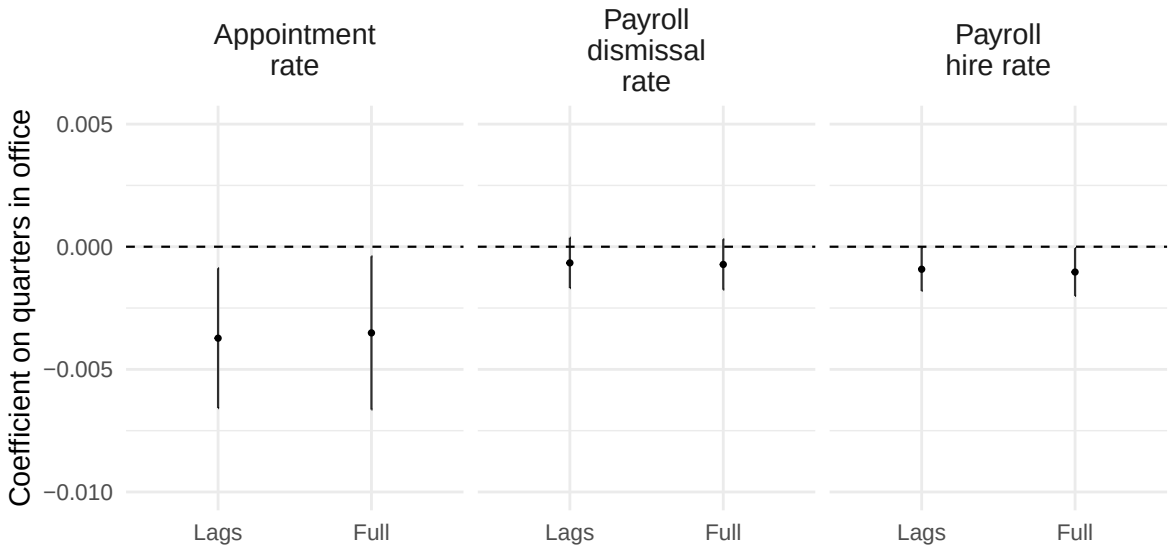


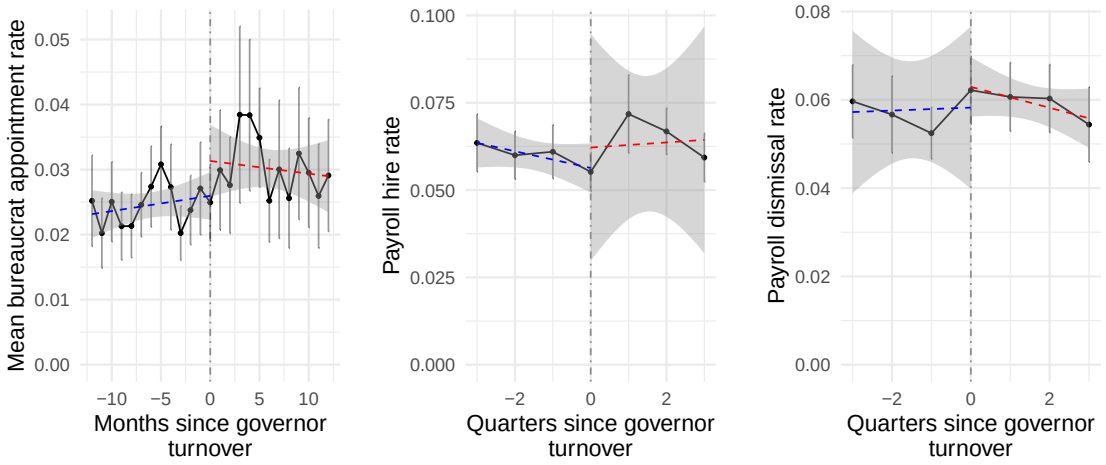
Figure 8: Estimates of the effect of quarters in office on bureaucratic and payroll appointment rates

subordinate appointment rate, suggesting that new district heads do not prioritise using their position for general patronage in the same way that Brierley (2021) found in Ghana.

4.3 Governor incumbency does not robustly shape appointments

Hypothesis 3 suggests that managers' own managers moderate their appointing behaviour. In particular, I argued that managers will feel more confident making patronage appointments when the supervisor who appointed them—and with whom they are ostensibly more aligned—is still in office. By contrast, when a replacement takes over, they may be keen to stop their predecessor's appointees from continuing to build their own networks of trusted subordinates.

I test this hypothesis in the case of Kazakhstan by collecting data on the tenures of all region (*oblast'*) governors. These governors—also called *akim*s—are responsible for selecting and managing district heads. I link each district head to the governor who appointed them and add an indicator for when the governor who appointed them remains in office. I then filter the whole dataset (with no restriction on months in office) to include only district heads who at some point served under a governor different from the one who appointed them. A first cut at the data is shown in Figure 9, which also shows OLS estimates of the local pre- and post-turnover effect of time until governor turnover. With these descriptive data, there is



(a) Senior bureaucrat appointment rate

(b) Payroll hire rate

(c) Payroll dismissal rate

Figure 9: Mean appointment rates before and after a change from managers' initial governor (*Note*: 95% confidence intervals)

little indication that the departure of a manager's appointing governor changes that manager's appointment behaviour either over immediate subordinates or more broadly.

I test the hypothesis more rigorously with two sets of analysis. The first uses the full data to test for an effect of the appointing governor being in office and of the interaction between that indicator and the number of months a district head has been in post. The second runs the same analyses but with the data filtered to include 12 months either side of each governors' departure (as in Figure 9). For both, I present OLS estimates of the effect of a manager's appointing governor no longer being in office on new appointments. Here, I use *manager-term* fixed effects, so the results tap the aggregate influence of governor departures within the 313 individual spells as district head in my data. (Standard errors are clustered at the term level.)

Table 2 shows some effects of governor departure, but they are not robust. Only in the first whole-sample model with lags and fixed effects is governor departure associated with significantly reduced appointments. In both samples, the governor departure × months in office interaction effect is significant and positive. Somewhat contrary to the theory, this suggests that appointments decrease with time in office less when a manager's appointing governor leaves office. Overall, a manager's appointing governor remaining in office does not appear to be an important determinant of the manager's appointment behaviour.

Table 2: Estimates of the effect of a manager's appointing governor leaving office on change on appointments.

	Full sample	Full sample	Full sample	12 months before/after	12 months before/after	12 months before/after
	(1)	(2)	(3)	(1)	(2)	(3)
Non-aligned governor	-0.052 **	0.026	0.001	-0.012	0.024	-0.005
	(0.019)	(0.020)	(0.031)	(0.021)	(0.022)	(0.034)
Months in office			-0.004 ***			-0.003 +
			(0.001)			(0.001)
Non-aligned governor ×Months			0.003 **			0.002 **
			(0.001)			(0.001)
Controls	Lags	Full	Full	Lag	Full	Full
Term FE	Y	Y	Y	Y	Y	Y
N	10768	9796	9796	6518	5924	5924
Adjusted R^2	0.127	0.140	0.142	0.156	0.157	0.157
Within R^2	0.003	0.021	0.024	0.000	0.006	0.007
AIC	22951.420	21075.575	21053.957	13458.291	12449.880	12447.902
BIC	25245.985	23160.597	23153.358	15594.723	14389.042	14400.438

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.

5 Bureaucratic effectiveness and government responses

My argument predicts that managerial nepotism can sometimes *improve* outcomes, as work in democracies has found (e.g., Toral 2024). I further argue that the government should generally prefer to avoid managerial nepotism, since it disrupts national civil service structures and risks managers' building uncontrollable networks. Nevertheless, responses to over-appointment may be moderated by positive effects on outcomes.

5.1 Biased hiring shapes effectiveness

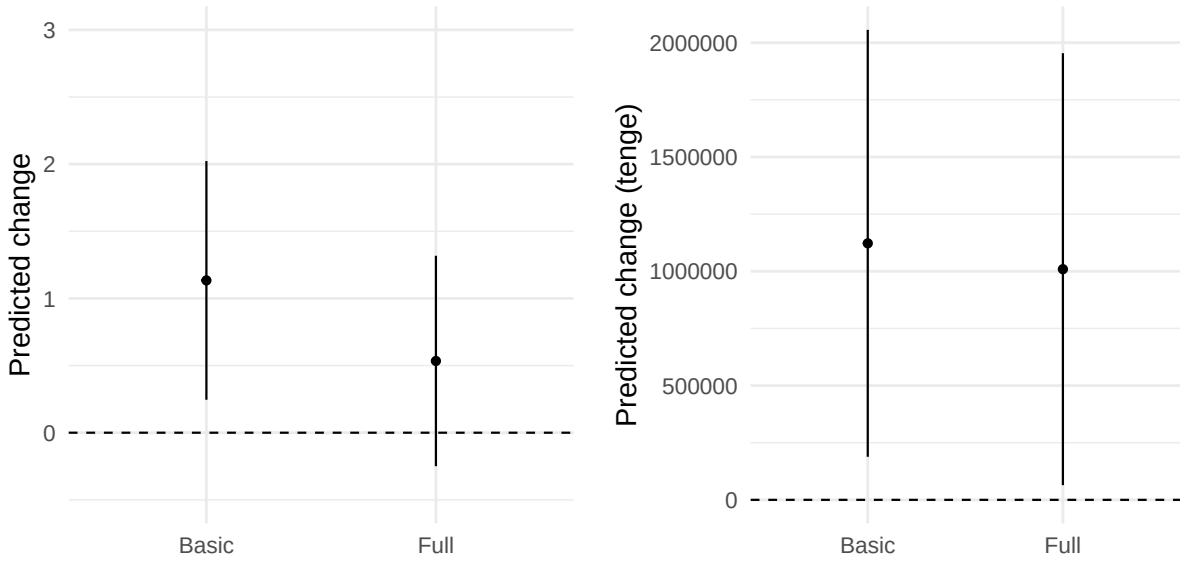
First, I use public procurement data with three designs to show that appointments are associated with number of plausible measures of bureaucratic effectiveness. The main two measures I use are the number of contracts signed by a unit and the average value of those contracts. My operationalisation of effectiveness, then, is that better operating units sign more contracts with a higher average value. Under certain conditions, this suggests that those units are delivering more services or beginning a greater number of projects. On the other hand, of course, these units may be better following their managers' instructions to corrupt ends. In that case, more appointments may lead to more contracts, but not the better outcomes that the government cares about.

5.1.1 Appointments are associated with increased procurement

First, I use the main district-level data to study the association between appointments and procurement. In Hypothesis 4a, I proposed that more appointments should be associated with higher effectiveness. For each district, I calculate the monthly number of agreed contracts and the average value of those contracts. To account for inflation and nation-wide changes in procurement over time, contract value is demeaned by subtracting the monthly national average contract value. I also calculate a moving average of the rate of bureaucrat appointments per post within the current bureaucrat's term—here, I present 12 monthly moving averages. Finally, to capture the period in which these effects should be visible, I subset the data to include the period from the 12th to the 36th month of each district head's term. I then present results from autoregressive moving average models with two-way fixed effects,

$$\text{contracts}_{i,t} = \alpha + \beta_1 \mathsf{MA}_{12}(\text{rate})_{i,t} + \beta_2 \text{contracts}_{i,t-1} + \beta_{\mathbf{X}} \mathbf{X}_{i,t} + \gamma_t + \lambda_i + \epsilon_{i,t}. \quad (2)$$

In the full models, I use a matrix of controls $\mathbf{X}_{i,t}$ including district payroll, logged population, and whether the governor who appointed the district's current head is in office (since that may affect resource allocation as well as appointments). Full results are in Table A7; here, I present predicted effects of a move from the mean to the third-quartile of the regression sample of the 12 month appointment moving average.



(a) Predicted change in the number of monthly contracts in a district

(b) Predicted change in monthly average demeaned contract value

Figure 10: Predicted effects of a move from the mean to the third-quartile of the sample 12 month appointment rate moving average (*Note*: 95% confidence intervals)

Figure 10 shows that there are substantive and statistically significant effects of appointments on the number of appointments, except for the full contract models where the results are slightly below statistical significance.[17] Higher appointments over the preceding twelve months are associated with an increase in contracts and in the average value of contracts. The move from the mean to third quartile of appointments, for instance, is associated with about an extra contract a month with a roughly 1,000,000 tenge ($\sim$ US$2,000) greater average value in the basic models. Still, the confidence intervals here are wide and the effects are not robust. To provide more precise results, I then move to study these mechanisms at the bureaucrat and contract level.

5.1.2 Non-aligned bureaucrats handle fewer and smaller contracts

Next, I test the correlates of contract value. Hypothesis 4b claims that bureaucrats appointed by the current manager should take on more and larger contracts. I predict contract completion and value based on the characteristics of the bureaucrats who sign them. These tests evaluate whether the proposed mechanism—greater connections with and trust in direct appointees—

[17] The effect is significant and positive in the full model when bureaucrats appointed for 30 days or less are not excluded.

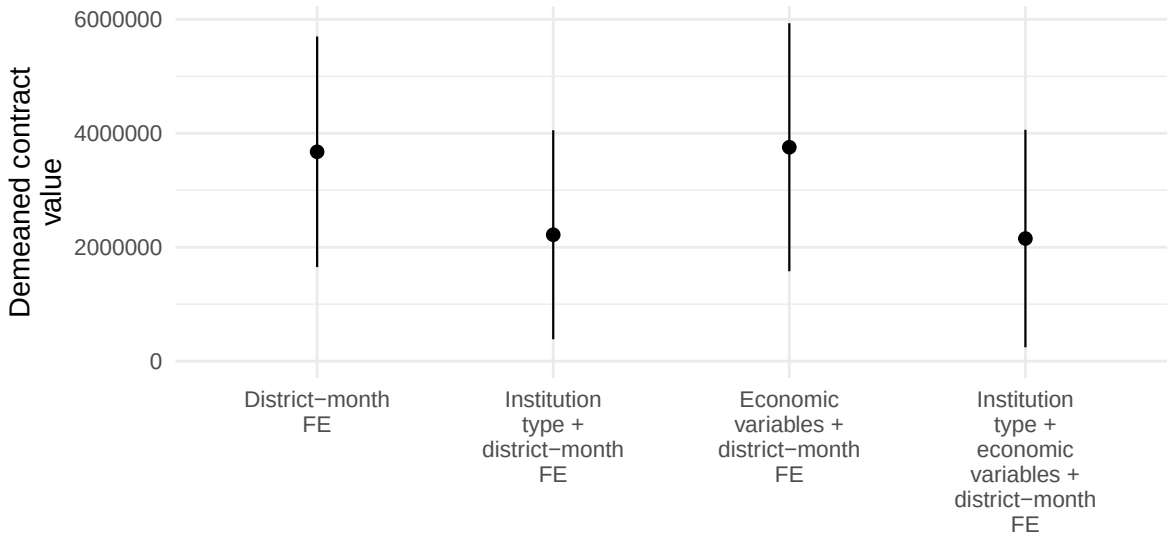


Figure 11: Predicted effect of appointing manager incumbency on demeaned contract spending (*Note*: 95% confidence intervals)

leads to better effectiveness by bureaucrats when the person who appointed them remains their manager.

The first test uses the contract as the unit of analysis.[18] Are contracts signed by a bureaucrat who was appointed by the current district head likely to be larger than those signed by other bureaucrats? I estimate the association of demeaned contract value with an indicator of whether the signing bureaucrat was appointed by the current district head using a model incorporating fixed effects for the district and month in which the contract was signed. In different models, these estimates are conditional on the standard economic controls and indicators for the type of institution the bureaucrat runs. The latter account for the fact that bureaucrats appointed to run a construction department will be signing more contracts than one running a rural district, for instance. Descriptive statistics are in Table A3.

The predicted contract values are shown in Figure 11, this time reflecting a move from the appointing manager not being in office to the appointing manager being in office. (Full results are in Table A8.) In all these models, bureaucrats who were appointed by the incumbent manager sign larger contracts. The coefficient on manager incumbency is positive and significant across all four models. This further suggests that managers prioritise having trusted subordinates in the most important positions.

Next, I present a second panel analysis at the district subdepartment level. This test studies

[18] Of note, the full analyses in this section do not remove bureaucrats with a term of less than 30 days to ensure all contracts are associated with a bureaucrat.

Table 3: Estimates of the effect of an aligned appointing manager on contract number and average value

	Number of contracts (1)	Number of contracts (2)	Number of contracts (3)	Number of contracts (4)	Demeaned average contract value (1)	Demeaned average contract value (2)	Demeaned average contract value (3)	Demeaned average contract value (4)
Appointer in office	0.530 ***	0.256 **	0.552 ***	0.222 *	2379060.9 ***	1336990.4 *	2542439.7 **	1369274.1
	(0.084)	(0.079)	(0.117)	(0.111)	(671274.7)	(602270.9)	(964354.5)	(971260.4)
Lagged DV	0.437 ***	0.335 ***	0.440 ***	0.342 ***	0.2 +	0.1 +	0.1 +	0.1 +
	(0.015)	(0.024)	(0.018)	(0.028)	(0.1)	(0.1)	(0.1)	(0.1)
Rural subdistrict		-0.227		-0.188		-3302850.6 +		-4585228.0 *
		(0.357)		(0.397)		(1785710.2)		(2099862.2)
Finance department		-1.215 ***		-1.150 ***		-7784476.5 *		-9060206.9 **
		(0.305)		(0.326)		(3119077.8)		(3455162.1)
Construction/transport department		2.700 **		2.616 **		61211581.0 ***		64685778.1 ***
		(0.893)		(0.907)		(16315193.4)		(18123692.3)
Akim's apparatus		5.229 ***		5.012 ***		-4553170.4 *		-6292703.2 *
		(0.527)		(0.598)		(2212310.5)		(2600930.8)
Current head tenure			-0.008 **	-0.004			-17493.8	-4340.0
			(0.003)	(0.003)			(21168.4)	(19884.5)
Log population			0.099	0.427			28858230.4	26794221.7
			(0.900)	(0.982)			(18499214.1)	(17914673.8)
District payroll			0.001 ***	0.002 ***			1598.0	2669.4
			(0.000)	(0.001)			(6774.4)	(6365.4)
Manager's appointing governor in office			-0.025	-0.036			1852384.8	1688880.7
			(0.085)	(0.084)			(1396502.0)	(1439153.7)
District FE	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y
N	102245	102245	75221	75221	102245	102245	75221	75221
Adjusted R^2	0.271	0.323	0.279	0.327	0.087	0.101	0.080	0.093
Within R^2	0.193	0.250	0.194	0.248	0.021	0.036	0.017	0.031
AIC	671182.6	663656.0	487229.5	482015.8	4002056.4	4000477.9	2952198.5	2951138.7
BIC	674071.7	666583.3	489758.0	484581.2	4004945.6	4003405.1	2954727.0	2953704.1

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.

whether a subdepartments sign more and more valuable contracts if they are run by a bureaucrat appointed by the manager. Similar to the test in the previous section, I use a two-way fixed effects model to predict the effect of having an aligned manager on the number and value of contracts agreed by each subdepartment,

$$\text{contracts}_{i,t} = \alpha + \beta_1 \text{aligned manager}_{i,t} + \beta_2 \text{contracts}_{i,t-1} + \beta_{\mathbf{X}} \mathbf{X}_{i,t} + \gamma_t + \lambda_i + \epsilon_{i,t}. \quad (3)$$

I present full results with economic controls and subdepartment-type indicators for both number of contracts and their demeaned average value by institution in Table 3. Again, across models, bureaucrats who were appointed by their current manager sign more and larger contracts. All the coefficients on whether the appointing manager is in office are significant at the 5% level, except in the average contract value model with both economic and subdepartment-type controls. Altogether, the evidence in these last two sections suggests that biased hiring is associated with a department signing more and higher value procurement contracts. I next turn to test whether this potential effectiveness bonus plays a role in protecting managers from turnover, conditional on their appointment practises.

5.2 Effectiveness is associated with a weaker link between appointments and manager turnover

Finally, I build from Hypothesis 5 to examine how the government reacts to appointments. In the theory section, I proposed that the government should dismiss managers who appoint more people, all else equal. On the other hand, I argued that this effect should be conditional on performance. Either because they are happy to give well-performing managers scope to behave independently or since managers who appoint more perform better, dismissal due to over-appointment should be less likely in districts with good results.

I test this theory with the district data, subset to exclude the first 12 months of each term, using a cubic polynomial approximation to the non-proportional hazards survival model (Carter and Signorino 2010). In particular, I use 12-month moving averages of the appointment rate and the contract-based effectiveness data to estimate district head turnover

$$\begin{aligned} \text{turnover}_{i,t} =& \alpha + \beta_1 \mathsf{MA}_{12}(\text{rate})_{i,t} \times \mathsf{MA}_{12}(\text{contracts})_{i,t} + \\ & \beta_2 \mathsf{MA}_{12}(\text{rate})_{i,t} + \beta_3 \mathsf{MA}_{12}(\text{contracts})_{i,t} + \\ & \text{tenure}_{i,t} + \text{tenure}_{i,t}^2 + \text{tenure}_{i,t}^3 + \beta_{\mathbf{X}} \mathbf{X}_{i,t} + \gamma_t + \lambda_i + \epsilon_{i,t}, \end{aligned} \quad (4)$$

where the exponential tenure terms are the moving time-in-office terms described by Carter and Signorino (2010) and used, for example, in a similar exercise by Reuter and Turovsky (2022). Note here that the outcome is monthly turnover for *any* reason. These departures may be a punishment for poor performance or over-appointing, or they may reflect a promotion for effectiveness. These results are likely then a hard test of the theory, since the promotions

Table 4: Appointments, performance, and district head turnover

	Turnover (1)	Turnover (2)	Turnover (3)	Turnover (4)	Turnover (5)	Turnover (6)
Appointment rate	-0.105	-0.070	0.549 *	0.522 +	-0.091	-0.046
	(0.134)	(0.140)	(0.271)	(0.297)	(0.141)	(0.148)
Contract count			0.000 *	0.000		
			(0.000)	(0.000)		
Contract average value					0.000	0.000 +
					(0.000)	(0.000)
Contracts ×Appointment rate			-0.011 **	-0.009 *	-0.000	-0.000
			(0.004)	(0.004)	(0.000)	(0.000)
District payroll		-0.000		0.000		-0.000
		(0.000)		(0.000)		(0.000)
District population		0.009		0.007		0.005
		(0.031)		(0.031)		(0.032)
Appointing governor in office		-0.032 ***		-0.031 ***		-0.032 ***
		(0.006)		(0.006)		(0.006)
District FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y
N	11224	9668	11224	9668	11224	9668
Adj R^2	0.091	0.099	0.092	0.100	0.091	0.100
Within R^2	0.000	0.003	0.001	0.004	0.000	0.004
AIC	-3984.067	3712.249	-3993.317	3717.242	-3981.604	3711.896
BIC	-1808.302	1745.867	-1802.900	1736.507	-1791.187	1731.161

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.

in the data are unlikely to be related to appointments in the way I have proposed. (In future analyses, I will code departures for promotion and demotion to correct for this.)

Table 4 shows the results from this initial exercise. Across the models, most variables do not reach statistical significance. The exceptions are the two models which interact that number of contracts issued in each district with appointment rate. In that model, the moving average of appointment rate has a positive association with manager turnover at the 10% level. Against predictions, the basic coefficient on contract count is positive and significant, albeit very small. More interestingly, the interaction term has a negative coefficient that is just about significant at the 5% level, suggesting that the more contracts an institution issues, the weaker the association of appointment rate with turnover, in line with the theory. This association does not hold when considering contract value rather than number. Finally, whether the governor who appointed the district head is still in office is significant and positive in all three full models.[19] This provides initial evidence that district heads in Kazakhstan serve under the 'roof' of the regional head who appointed them.

This section, then, presents initial evidence that effectiveness shapes how appointment rate matters for turnover. These results justify further analysis with the outcome coded for the *type* of manager departure, and potentially using more direct measures of outcomes than the contract count and value measures.

6 Conclusion

In this paper, I present a theory of managers' appointment behaviour in non-democratic bureaucracies. With an eye on meeting performance targets or obtaining personal gain, bureaucratic managers contend with pressures from the central government while seeking to ensure loyalty within their own department. I argue that team building—focused appointment to important subordinate positions—is a strategy mid-level bureaucratic managers in these systems can use to maximise loyalty. I use new and detailed data on the appointment of over 15,000 bureaucrats in Kazakhstan's district governments to demonstrate this behaviour. In particular, I use a two-way fixed effects design to show that managers appoint an especially large number of subordinates just after taking office. The plausibility of these results is increased by my similar findings in within-bureaucrat and within-district designs. On the other hand, contrary to the theory, I do not find that district managers appoint more when they are themselves serving under the regional governor who appointed them.

The second part of my theory focuses on how strategic team-building affects performance outcomes, on the one hand, and central government reactions, on the other. In line with recent work from democracies, I argue that improved connections between appointers and their loyal

[19] When then governor alignment variable is not included in the full contract count model, the rate coefficients are significant at the 5% level.

appointees may improve service delivery (Toral 2024). I show that these hypotheses match empirical evidence from Kazakhstan by collecting information from over 1 million public procurement contracts. Next, in line with qualitative evidence from Kazakhstan, I suggest that regimes should prefer its bureaucratic managers not to engage in team building activities. However, negative reactions may be moderated if the bureaucrats' use of appointment powers improves outcomes. Initial analysis shows that any negative effect of appointments on manager's career prospects is somewhat reduced in better performing districts; this effect warrants further investigation.

The paper's argument and findings have implications for research on authoritarian politics and public administration. First, the evidence adds to a growing literature on bureaucracies examining patronage as a determinant of appointment behaviour and linking patronage to both positive and negative outcomes (e.g., Brierley 2021; Hassan 2020; Toral 2024). I provide some of the first evidence in this area outside of democracies. I build on recent work by Hassan, Larreguy, and Russell (2024) and extend that agenda to contexts where local politicians' formal influence over bureaucratic hiring is absent. The paper also brings novel theory and evidence about the link between biased hiring and outcomes, and new ways to test how this link might influence government reactions to bureaucratic managers' strategic appointments. Second, the paper contributes to work on authoritarian politics by providing new, micro-level insights into how local actors and central regimes interact within state institutions.

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A Appendix

A.1 Descriptive statistics

Table A1: Descriptive statistics for baseline models

Variable	Frequency	N	Mean	SD	Min	Max	Median
Year	Annual	11680			2016	2024	2019
Senior bureaucrat appointments	Monthly	11680	0.45	0.78	0	10	0
Appointments per position	Monthly	11680	0.03	0.06	0.00	1.00	0.00
Number of senior bureaucrat positions	Monthly	11647	14.63	6.21	1	35	14
Local government payroll	Quarterly	11104	137.12	180.32	15	2184	90
Months since akim took office	Monthly	11680	16.12	9.88	1	36	15
Senior bureaucrat appointments$_{t-1}$	Monthly	11680	0.44	0.78	0	10	0
Logged population	Annual	9973	10.79	0.97	9	13	11
Appointing governor in office	Monthly	11680	1	0	0	1	1

Table A2: Descriptive statistics for quarterly models

Variable	Frequency	N	Mean	SD	Min	Max	Median
Year	Annual	1660			2016	2024	2019
Appointment count	Quarterly	1660	1.43	1.59	0	14	1
Appointment rate	Quarterly	1660	0.10	0.12	0	1	0
Payroll hire rate	Quarterly	1502	0.07	0.05	0.00	0.54	0.06
Payroll dismissal rate	Quarterly	1508	0.06	0.05	0.00	0.65	0.05
Local government payroll	Quarterly	1652	136.60	121.44	19	870	95
Quarters in office	Quarterly	1660	4.61	2.45	1	9	4
Logged population	Annual	1529	10.66	1.00	9	13	10
Appointment rate$_{t-1}$	Quarterly	1660	0.10	0.13	0	2	0
Payroll hire rate$_{t-1}$	Quarterly	1660	0	0	0	1	0
Dismissal rate$_{t-1}$	Quarterly	1660	0.06	0.05	0	1	0

Table A3: Descriptive statistics for contracts models

Variable	N	Mean	SD	Min	Max	Median
Appointing manager in office	1211075	0.60	0.49	0	1	1
Rural subdistrict	1211075	0.59	0.49	0	1	1
Finance department	1211075	0.04	0.19	0	1	0
Construction department	1211075	0.03	0.18	0	1	0
Akim's apparatus	1211075	0.23	0.42	0	1	0
Months since current head started	1049459	26.89	24.90	1	307	20
Log population	906684	10.81	0.97	8.58	13.24	10.63
Number of local government employees	997804	143.89	188.77	10	2184	93
Manager's appointing governor in office	1049459	0.69	0.46	0	1	1

A.2 Full results

Table A4: Within-district estimates of the effect of a new manager on appointments.

	(1)	(2)	(3)	(4)	(5)	(6)
After appointment	0.102 ***	0.110 ***	0.100 **	0.116 **		
	(0.019)	(0.021)	(0.033)	(0.036)		
Months in office			-0.001	-0.000		
			(0.001)	(0.001)		
After ×Months			-0.001	-0.002		
			(0.001)	(0.001)		
Binned months (−6 – −4)					-0.051	-0.048
					(0.044)	(0.051)
−3 – −1					-0.054	-0.054
					(0.038)	(0.044)
1 – 3					0.119 **	0.150 **
					(0.045)	(0.051)
4 – 6					0.064	0.065
					(0.044)	(0.049)
7 – 9					0.002	-0.001
					(0.041)	(0.044)
10 – 12					0.025	0.033
					(0.042)	(0.048)
Controls	Lag	Full	Lag	Full	Lag	Full
District FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y
N	7478	6277	7478	6277	7478	6277
Adjusted R^2	0.115	0.125	0.116	0.125	0.117	0.128
Within R^2	0.005	0.019	0.005	0.019	0.007	0.022
AIC	17330.186	14777.219	17329.644	14777.205	17321.242	14762.830
BIC	18658.773	15917.065	18672.070	15930.539	18684.427	15936.399

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.

Table A5: Within-bureaucrat estimates of the effect of moving district on appointments.

	(1)	(2)	(3)	(4)	(5)	(6)
After appointment	0.138 **	0.111 *	0.158 +	0.164 +		
	(0.049)	(0.053)	(0.084)	(0.092)		
Months in office			-0.000	0.000		
			(0.002)	(0.002)		
After ×Months			-0.005	-0.008		
			(0.003)	(0.005)		
Binned months (−6 – −4)					-0.248 *	-0.230 *
					(0.099)	(0.108)
−3 – −1					-0.205 *	-0.190 +
					(0.099)	(0.108)
1 – 3					-0.058	-0.054
					(0.081)	(0.086)
4 – 6					-0.147	-0.169
					(0.097)	(0.104)
7 – 9					-0.125	-0.163
					(0.092)	(0.100)
10 – 12					-0.058	-0.066
					(0.104)	(0.116)
Controls	Lag	Full	Lag	Full	Lag	Lag
Individual FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y
N	1923	1676	1923	1676	1923	1676
Adjusted R^2	0.101	0.117	0.101	0.117	0.101	0.118
Within R^2	0.007	0.032	0.009	0.034	0.010	0.037
AIC	4563.181	4017.910	4565.085	4019.251	4567.811	4020.672
BIC	5152.715	4587.448	5165.742	4599.636	5185.153	4617.330

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.

Table A6: Estimate of the effect of quarters in office on bureaucratic and payroll appointments

	Appointment rate (1)	Appointment rate (2)	Hire rate (1)	Hire rate (2)	Dismissal rate (1)	Dismissal rate (2)
Quarters in office	-0.004 *	-0.004 *	-0.001 *	-0.001 *	-0.001	-0.001
	(0.001)	(0.002)	(0.000)	(0.000)	(0.001)	(0.001)
$Rate_{t-1}$	0.039	0.042	0.104 *	0.104 *	0.049 +	0.036
	(0.026)	(0.030)	(0.048)	(0.049)	(0.026)	(0.026)
Logged population		0.135 **		-0.006		-0.080 *
		(0.043)		(0.036)		(0.033)
Local government payroll		0.000		0.000 +		0.000
		(0.000)		(0.000)		(0.000)
District FE	Y	Y	Y	Y	Y	Y
Quarter FE	Y	Y	Y	Y	Y	Y
N	1660	1521	1502	1376	1508	1375
Adjusted R^2	0.232	0.247	0.290	0.299	0.270	0.277
Within R^2	0.009	0.015	0.017	0.019	0.004	0.012
AIC	-2760.595	-2520.368	-5179.647	-4716.363	-5309.097	-4797.203
BIC	-1997.140	-1790.552	-4451.553	-4021.181	-4580.457	-4102.117

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.

Table A7: Estimates of the effect of an aligned appointing manager on contract number and average value

	Number of contracts (1)	Number of contracts (2)	Average contract value (1)	Average contract value (2)
Appointment rate (12 month moving average)	92.756 *	43.425	91761982.410 *	82036711.578 *
	(37.081)	(32.497)	(38958357.488)	(39189791.532)
Number of employees		0.042 ***		9776.9
		(0.008)		(5915.9)
Number of institutions		5.805 ***		1275770.2 **
		(0.499)		(470310.0)
Log population		-29.979 +		4403571.9
		(16.037)		(5998714.8)
Appointing governor in office		-3.497		-28778.5
		(2.137)		(1526467.5)
District FE	Y	Y	Y	Y
Month FE	Y	Y	Y	Y
N	6788	5771	6788	5771
Adjusted R^2	0.701	0.727	0.373	0.379
Within R^2	0.139	0.212	0.027	0.034
AIC	65480.3	55171.8	250730.1	213882.2
BIC	67472.6	56976.9	252722.3	215687.2

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.

Table A8: Estimates of the effect of appointing manager incumbency on demeaned contract spending

	(1)	(2)	(3)	(4)
Appointing manager in office	3674727.256 ***	2218477.556 *	3754490.087 ***	2151849.409 *
	(1032514.141)	(936023.142)	(1110524.315)	(974012.788)
Rural subdistrict		-3836786.189		-5197180.735 +
		(2717621.360)		(3078120.322)
Finance department		-7862323.373 **		-7905450.836 **
		(2826356.324)		(2998286.596)
Construction department		72844521.398 ***		77906714.084 ***
		(14021476.843)		(16366309.869)
Akim's apparatus		-6191429.817 *		-7112167.486 *
		(2768278.595)		(3174205.104)
Months since current head started			-24533.014	-357.612
			(17516.615)	(16386.143)
Log population			31257032.995	29166488.512
			(19006649.783)	(19654597.112)
Number of local government employees			24353.886 +	18874.353 +
			(12735.421)	(11232.265)
Manager's appointing governor in office			3441177.298 *	2965121.310 +
			(1687555.481)	(1601696.517)
District FE	Y	Y	Y	Y
Month FE	Y	Y	Y	Y
N	1211075	1211075	901464	901464
Adj R2	0.008	0.015	0.009	0.018
Within R2	0.000	0.008	0.001	0.010
AIC	48971482.7	48962228.7	36254557.5	36246231.5
BIC	48975156.8	48965950.9	36257778.2	36249499.0

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; + $p < 0.1$.