Working paper

Shuffling to co-opt: Subnational governance, patronage, and political careers in Kazakhstan

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Abstract Why do autocrats 'shuffle' elites around positions? Existing work suggests this practice aims to boost performance, with underperforming officials more frequently rotated. Yet I show that in Kazakhstan there is no association between performance and rotation. Instead, I explain shuffling as a strategy of co-optation. Shuffling prevents some of the potential downsides of co-opting elites through state office by disrupting network formation and freeing up positions for junior cadre. At the same time, it keeps co-optation credible by reassuring most elites of their long-term seniority. To test this argument, I present a detailed biographic dataset of regional governors (*akim*s) in Kazakhstan between 1997 and 2022. Consistent with my argument, elites holding these posts are frequently shuffled to and from other senior positions. By contrast, there is a robust lack of association between regional socioeconomic measures and when a governor is rotated or dismissed. Sometimes, shuffling aims more at enhancing elites' loyalty than their performance.

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1 Introduction

In many autocracies, senior officials are replaced, rotated, and dismissed with metronomic regularity. From cabinet ministers in Ethiopia (Woldense 2018) to Ottoman and Turkish governors (Magiya, Popescu, and Tezcür 2023) and Kenyan district security officers (Hassan 2020), researchers have noted this elite 'shuffling' in diverse contexts. Dominant explanations see autocrats' cadre selection and rotation policies as based on individual performance: regimes enforce goal alignment between elites and the ruling coalition by more quickly rotating those who fail to signal loyalty or meet performance goals. Some work focuses on officials meeting economic goals (Rochlitz et al. 2015; Landry, Lü, and Duan 2018; Buckley and Reuter 2019; Aaskoven and Nyrup 2021). Others highlight political performance (Reisinger and Moraski 2013; Reuter and Turovsky 2022; Magiya, Popescu, and Tezcür 2023) or group loyalty (Hassan 2020).

In some contexts, though, performance is dominated by other considerations. In Kazakhstan, which I focus on, shuffling is an established practice. The elites I study here—those who have held roles as regional governors—have spent much of their careers on regular rotation between diverse high-level state roles. Yet performance does not explain decisions over the timing and rank of reappointment. Demotion or wholesale dismissal is very rare and, as Figure 1 previews, there is a robust lack of association between the timing of rotation and an array of socioeconomic statistics.[1] This tension between existing goal alignment-focused accounts and a lack of interest in outcomes raises the question: What explains elite shuffling, if not the regime's demand for performance?

To answer, I turn to theories of elite co-optation (Meng 2020; Meng, Paine, and Powell 2023; Gerschewski 2023). Elites holding high-level senior positions have likely already proven a level of competence and loyalty. In many roles they themselves may have only a relatively small influence on outcomes due to the wider national context, support from permanent bureaucratic staff, and institutional inertia. The issue regimes often face with these elites is securing their continued loyalty (Magaloni 2008; Gandhi and Lust-Okar 2009; Svolik 2012). The regime ought to keep its elites from attempting to seize power or defecting to opposition movements. It also wants to keep them actively working for the state—there is no unlimited supply of capable elites trusted to take positions as ministers, governors, or ambassadors. What is required is demonstrating long-term commitment to their employment.

I argue that shuffling supports credible elite co-option. Appointment to senior state positions is a means of distributing patronage to elites because of the wages, influence, and graft which officials can access (Xu 2018). While existing work demonstrates how state office works to co-opt,

[1]Figure 1 shows the predicted probability of a governor being shuffled or dismissed conditional on socioeconomic statistics from their region (lagged by 12 months). Models include controls and region fixed effects. For full results, including with variables that compare performance across regions, see Section 5. For robustness checks, see Appendix A.3.

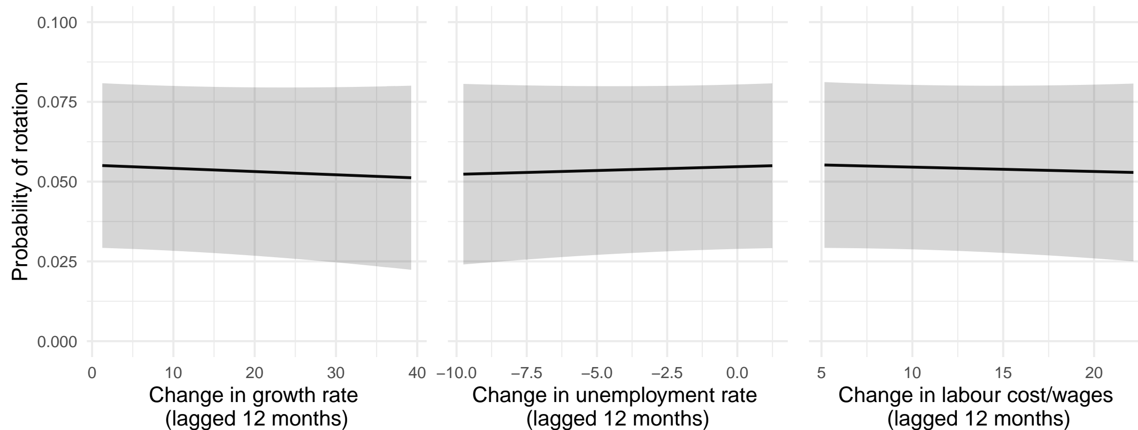


Figure 1: Association between the predicted monthly probability of a governor being rotated or dismissed and their region's socioeconomic results in the previous year (95% confidence intervals)

it rarely addresses how regimes maintain loyalty following appointment (Meng 2020). Long-term postings pose certain complications, some of which I call 'stagnation'. For one, elites may become overly embedded—building up independent and potentially threatening networks—in local economies or particular departments (Hassan 2020; Tolstrup and Souleimanov 2022). For two, stagnation undermines regimes' promises of advancement for lower-level cadre (Liu 2023). Shuffling is a powerful solution here. On the one hand, it breaks ties and frees-up positions. On the other, by consistently moving elites between equally senior posts in different parts of the state, it makes them certain of their longer-term position in the ruling coalition. Still, focusing on credible co-optation has a core trade-off—it undermines a regime's ability to enforce competency by removing more than a few poor performers.

Shuffling being used to co-opt elites should have three core features. First, positions across the state should be filled by tried-and-tested cadre who have proved their loyalty by coming through the ranks of the state. When selecting the governors who I study, the regime focuses more on drawing from this wider pool of elites than individuals with local knowledge or relevant experience. Second, cadre should only hold office for a consistent and relatively short period before they are rotated. Third, with few exceptions, they soon move to jobs elsewhere in the state at a similar rank. By contrast, shuffling based on performance would see rotation or dismissal follow failure to produce sufficiently good outcomes. Section 2 presents these arguments in more detail.

I demonstrate the co-optation shuffle in Kazakhstan, a resource-rich autocracy similar to many world-wide in how the regime employs a large state, rigged elections, and selective repression to retain power (see Section 3). With new and detailed biographic data, I trace the careers of the country's appointed regional governors (*akim*s) between 1997 and 2022—over a hundred

individuals, 150 tenures, and 1600 job entries. My data include each individuals' background, education, and detailed career histories allowing an unusually in-depth analysis of governors' careers. In Section 4, I use this data to describe the country's system of cadre rotation. I show that akims have spent long periods in senior central government roles before appointment and are frequently rotated to positions at similar level elsewhere in government. In Section 5, I use a fixed-effects design to demonstrate that there is no link between socioeconomic performance in a region and the likelihood that its head is rotated or dismissed.

My main contribution is showing that elite shuffling can serve a long-term loyalty-making function. Whereas existing accounts of elite co-optation under authoritarianism typically focus on the initial decision to use high-level positions to co-opt (e.g., Meng 2020), I focus on how regimes promote loyalty over time through continued high-level employment. Second, I develop research on subnational governance in autocracies and discuss the implications of provincial institutions being integrated into national systems of co-optation (e.g., Aaskoven and Nyrup 2021; Reuter and Turovsky 2022; Melnikov 2023). Third, I make an empirical contribution by collecting and presenting a new dataset of ruling elites' career paths to study the inner workings of a closed regime.

2 Co-optation, subnational governance, and cadre rotation

2.1 Co-optation

Elite co-optation is key for regime stability (Svolik 2012). Elites are individuals who control the money, networks, or support necessary to make demands on or challenge the incumbent regime. Co-optation is the targeted distribution of money, policy-influence, and other benefits intended to incentivize membership in the ruling coalition (e.g., Gerschewski 2013, 2023; Meng, Paine, and Powell 2023). The deal is simple: the regime allows an individual access to patronage just as long as they remain loyal. Co-optation succeeds to the extent that regimes make a credibly long-term offer of benefits. Distributing rents just once will not provide a stable foundation for autocratic rule (Magaloni and Kricheli 2010; Frantz and Kendall-Taylor 2014). The key mechanism through which co-optation prevents defection is the risk of rewards stopping. That risk only motivates elites to stay loyal if rewards will credibly be repeated. A regime's mere promise of more to come is unlikely to suffice, since elites know that there is little to stop autocrats reneging in the future (Svolik 2012). When co-optation is not credible, elites recognize there is a risk of spoils stopping and have incentives to look elsewhere.

I focus on co-optation aimed at tying elites to the regime. Most work highlights ruling parties and the 'mock democratic' institutions of elections and legislatures, casting them as a tool to distributing money, policy-making influence, and criminal immunity to the most threatening elites (e.g., Smith 2005; Magaloni and Kricheli 2010; Reuter 2017; Lust-Okar 2006; Wright

2008; Gandhi 2009; Gandhi and Lust-Okar 2009; Blaydes 2010). These institutions function to make co-optation credible by providing policy-influence and monitoring opportunities in arenas which are costly to shut down (e.g., Gandhi and Przeworski 2006; Magaloni 2008; Boix and Svolik 2013; cf. Pepinsky 2014; Brancati 2014; Levitsky and Way 2022).

An alternative variety of co-optation is the distribution of state employment. States may employ swathes of the population through bureaucracies and state-owned enterprises (SOEs) (Rosenfeld 2021). A state's day-to-day operations create high-level positions which can be used as part of elite patronage distribution (Ang 2016; Makarchev and Wieprzowski 2021). These positions might be used to prevent defection by long-serving 'cadre'—the bureaucrats who spend their careers moving through state roles. These individuals are elites not because of independent wealth but because of the resources, networks, and influence they have gathered through service in regime structures. Senior state positions—such as ministerial positions, bureaucratic roles as an agency head, or SOE leadership—provide patronage benefits such as wages, access to graft, or policy-influence opportunities (Xu 2018). Holders are encouraged to be loyal by these offices being contingent on loyalty and the risk that alternative regimes would purge the state's upper ranks. In many regimes, experienced cadre form the foundation of a stable system of co-optation through state employment. For this co-optation to work, the benefits—including wages and informal benefits, like those from corruption or job prestige—should be as good as what cadre believe they might secure under an alternative regime. They must also be greater than those available in private sector work. Individuals in non-state work become less reliant on the regime and less inclined to support it (Rosenfeld 2021). For those lower down the system, state employment should include prospects of promotion (cf. Liu 2023). Second, this deal needs to be credibly long-term. If cadre believe that state employment will be fleeting, they have incentives to shirk, look for alternate employment, or defect.

2.2 Subnational governance

I focus on one position—regional governor—that can be used to co-opt elites but which is largely overlooked in existing work. Governors, who lead provincial bureaucracies, play key roles in regional politics and are usually delegated significant budgetary and political responsibilities. I study governors who are appointed and dismissed at will by central government, rather than those elected by the public or regional legislatures.

Existing work frames the problem of subnational governance, for autocrats, as being how to maximize governor competence while minimizing disloyalty. Nevertheless, if few agents are competent, fewer still are competent and loyal. Competent agents are incentivized to be disloyal, since they can identify strong challengers and have good prospects of a job in any new regime (Egorov and Sonin 2011; Zakharov 2016; Abbott et al. 2020; Ketchley and Wenig 2023). Governors work far from the centre of power, enhancing the monitoring and principle-agent problems underlying this loyalty-competence trade-off.

Autocrats need competent governors. Governors typically have fiscal powers and control over infrastructure, enabling them to shape provincial economic outcomes. They may be delegated responsibility over the regional political situation and lead branches of the regime party, deal with local elites, deliver electoral support, and manage local protests (Reuter 2013; Bader and van Ham 2015; Rundlett and Svolik 2016; Tertytchnaya 2023).

Existing scholarship suggests that regimes aiming to improve local economic or political results orient governor management around performance targets. In Russia, **<empty citation><empty citation>**re VoteMobilizationEconomic2022 find that governors are dismissed if they fail to generate turnout and support for the ruling party (see also Reisinger and Moraski 2013; Reuter and Robertson 2012; Rochlitz et al. 2015). It is their deputies with direct responsibility for regional finances who are dismissed for poor economic results (Buckley and Reuter 2019). Appointed governors and mayors, additionally, are likely to have more governance experience than their elected colleagues (Buckley, Frye, et al. 2014; Buckley, Garifullina, et al. 2014; Reuter 2023). In China, especially at the lower levels of subnational governance, some work finds that the regime priorities economic outcomes (e.g., Li and Zhou 2005; Landry 2008; Lü and Landry 2014; Rochlitz et al. 2015; Landry, Lü, and Duan 2018; Bulman and Jaros 2020). These results, though, are robust only under certain general secretaries (Sheng 2022; Wiebe 2024).An alternative perspective is that the central leadership neglects performance relative to factional ties (e.g., Shih, Adolph, and Liu 2012; Choi 2012; Chen and Hong 2021; Francois, Trebbi, and Xiao 2023). Aaskoven and Nyrup (2021) demonstrate that provincial economic performance explains governor promotion in pre-war Nazi Germany.

Loyalty is also key. Regimes are wary of governors abusing their powers to embed themselves, form regional patronage networks, and gain leverage over the centre (Tolstrup and Souleimanov 2022; Remington et al. 2022; in democracies, Gibson 2005; Gervasoni 2010). 'Embedded' governors may use patronage to secure local popularity and the support of regional elites in order to demand more powers, money, or independence (Melnikov 2023). In the Soviet Union, for instance, long-serving regional first secretaries exploited their connections to run massive corruption schemes and defraud the planning system (Gorlizki and Khlevniuk 2020). Radnitz (2010) shows how regional elites instrumentalised their local ties to mobilise anti-regime protest in Kyrgyzstan.

One response is regularly 'shuffling' cadre through positions and regions, regardless of their performance (Pepinsky, Pierskalla, and Sacks 2017, 254; Woldense 2018; Stovel and Savage 2006). Cadre rotation can disrupt the formation of networks by not allowing governors time to become embedded (Tolstrup and Souleimanov 2022, 449). Hassan (2020) shows that Kenyan presidents selectively shuffled provincial officers perceived, because of their ethnicity, as disloyal into regions where they posed less of a threat. Carter and Hassan (2021) make a similar argument, comparing appointment strategies in Congo and Kenya. In Turkey, Magiya, Popescu, and Tezcür (2023) show that more insecure leaders have tended to shuffle governors more frequently, perhaps because their weakness makes them especially fearful of disloyalty. Siegel (2018) argues that shuffling has helped post-independence regimes to centralise power in Kazakhstan, but not Kyrgyzstan. Rotation failed in the latter because the centre was too

weak and too poor to force regions to accept 'outsiders'. These arguments highlight shuffling's power to break local ties. Building from them, I argue that rotation not only prevents over-embeddedness, but does so in a way compatible with credible co-optation.

2.3 The co-optation shuffle

What does a governor's career look like? They might be drawn from their regions as 'insiders' (Reuter 2023). Alternatively, governors might be appointed from a national-level 'cadre reserve'. Co-optation through state employment creates numerous experienced managers in the civil service who might be called upon to take up roles as governors. These cadre have worked in various government bodies, including in central government, regional branches of ministries, or SOE leadership. This allows regimes to place 'outsider' governors in regions where they have no pre-existing networks (Melnikov 2023). Second, it allows governor positions—with their associated resources, appointment powers, and local prestige—to be used for co-optation. Then, governors are *integrated* in the broader national system of co-optation through state employment. This creates additional challenges for regimes' governor management. The need to balance outcomes and loyalty remains, but must be approached while maintaining the credibility of co-optation.

Stagnation, an excessively stable cadre system where individuals hold the same roles for long periods, is a key threat. First, stagnation enables a governor to become overly embedded in a region. This risks them building the networks necessary to make demands on the centre (Woldense 2018; Hassan 2020; Tolstrup and Souleimanov 2022). For highly established and centralised regimes, this may not be a major problem. Rewards can only be secured through cooperating with the centre and there is little potential benefit to guarding against the regime reneging on promises through a risky attempt to build independent power. Beyond claims to autonomy, still, elites who spend too long in one place gain knowledge and connections which enable them to engage in excessive corruption, hurting outcomes and reducing the pot of graft available for the centre. Rotation heads off these problems. Though cadre are constantly being dismissed from their roles, credibility arises from the certainty about prospects of being reappointed that comes from a stable system of rotation. Elites are confident that—even if the regime does not allow them to retain a particular office for long—their next role will be just as good. This helps solve the tension between not allowing anyone to stay in a job for too long with the need to make long-term commitments to employment.

Second, stagnation reduces the credibility of promises of long-term mobility. Prospects for advancement may be key in ensuring loyalty, especially for middle-ranking cadre (Liu 2023; Kou and Tsai 2014; Pang, Keng, and Zhong 2018). If promotion looks unlikely, the attraction of joining a private firm or supporting an alternate regime—anything offering a quicker route to the top—rises. When high-ranked elites hold positions for too long, the regime's ability to assert that it is offering mobility is diminished because cadre assume that chances for

promotion will be rare. Rotation may suggest that top-level positions are not saturated and so lower-level cadres are able to work their way up the ladder.

Together, rotation functions to broaden time horizons and emphasize that elites' long-term interests are best served through continued loyalty to the centre. By removing the uncertainty associated with *ad hoc* appointments and preventing stagnation in the cadre system, shuffling increases the credibility of a regime's promises to keep elites employed and mobile into the future. This helps the regime balance the risks of embeddedness with the uncertainty resulting from dismissing governors too often. I call this logic *co-optation shuffling*.

2.3.1 The risks of shuffling

How might shuffling go wrong? First, frequent rotation undermines governors' ability to learn about the area they lead. Local connections have undesirable properties, but can improve governance by increasing understanding of context. Rotation may also reduce regimes' ability to incentivize cadre performance through selectively dismissing poor performers. Few governors can be 'punished' without creating a sense of insecurity that undermines credibility. Regimes can mitigate against these threats to outcomes. They might place individuals in appropriate places. Those with experience in the state oil company might be sent to an oil-rich region, where they can use their knowledge of the industry. The regime might filter out especially incompetent cadre at lower levels, ensuring those with poor governance abilities never make it into the state elite.

Second, a regime which shuffles cadre *too* frequently may create uncertainty. While cadre may accept that being shuffled every few years is part of an ultimately beneficial system of state employment, more frequent rotation may be unacceptable. This may be because frequent re-appointment creates uncertainty about whether their next role is likely to be particularly undesirable or because repeated moves are unpleasant.

Third, governors might 'play the game'. Even in hegemonic regimes, with unquestioned control over cadre appointments and dismissals, governors have their own incentives (Bilev 2019, 121–124; Tolstrup and Souleimanov 2022; Melnikov 2023). They may try to mitigate the effect of rotation on network building or seek to use informal connections to achieve longer tenures or quicker promotion. As such, regimes are likely to use a mix of approaches. Cadre rotation may be the core of the system, but regimes can also use straight dismissal of especially poor-performing or disloyal cadre, monitoring of governors by plenipotentiaries, limitations on powers, and similar strategies. The core constraint on such strategies—in hegemonic regimes, at least—is the need to maintain regularity in the cadre system.

2.3.2 Two logics

I propose two contrasting logics of governor management. The first is *co-optation shuffling*. Governors are appointed, dismissed, and re-appointed to support national systems of co-

optation. A first observable implication relates to governor appointment. Governors are not generally appointed from the provincial elite or chosen based on their local knowledge. Instead, they are appointed from a national 'cadre pool', where they have spent a number of years working in central government structures and gaining the regime's trust.

> **Implication 1 (Appointments):** Governors have significant experience in central state structures before their appointment. They typically have more experience working for central government and SOEs than in the regions they go on to lead.

A second implication is that, to prevent stagnation, governors are frequently rotated regardless of their performance.

> **Implication 2 (Management):** Governors rarely spend more than a few years leading any particular region, and are frequently rotated to other regions or roles.

A third implication relates to governors' post-office careers. To maintain the credibility of co-optation, outgoing governors move into a new role at a similar 'rank'. Only in special circumstances—retirement, extreme disloyalty, especially poor performance, or excessive criminality—are governors demoted or dismissed entirely.

> **Implication 3 (Career trajectories):** After their tenures, ex-governors soon take a new role leading another region or at a similar level elsewhere in government.

All this makes sense if regimes are largely focused on managing elites and maintaining their ruling coalition. By contrast, building from Section 2.2, the main alternative explanation that I consider has regimes focused on performance and competence. Whether because the regime aims to boost its political standing (e.g., Reuter and Turovsky 2022) or improve the economic situation (e.g., Landry 2008), in *performance shuffling* governors are managed based on local results.

> **Alternative implication (Performance):** Poor performance by a governor is associated with dismissal or demotion.

3 Case and data

I examine governor appointments in Kazakhstan. The country became independent in 1991 as a result of the collapse of the Soviet Union. Nursultan Nazarbayev has been the key political player in modern Kazakhstan (Cummings 2005). He headed government in the country between 1989, when he became First Secretary of the Communist Party of the Kazakh Soviet Socialist Republic, and 2019, on handing over presidential office to his arranged successor, Kassym-Jomart Tokayev. He established a hegemonic regime in the 1990s, overcoming resistance from the parliament and regional elites (see, e.g., Jones Luong 2002; Cummings 2005;

McGlinchey 2011; Webb Williams and Hanson 2022). President Nazarbayev's regime pushed through reforms to increase his power, secured high vote shares in increasingly unfair elections, and selectively repressed opposition figures. It established a firm 'pyramid of power', supported by the targeted distribution of rents (Junisbai 2010; Peyrouse 2012; Hale 2015). Key here was regime control over profits from foreign and domestic exploitation of Kazakhstan's significant oil and gas reserves (Jones Luong and Weinthal 2010, 259–298; McGlinchey 2011).

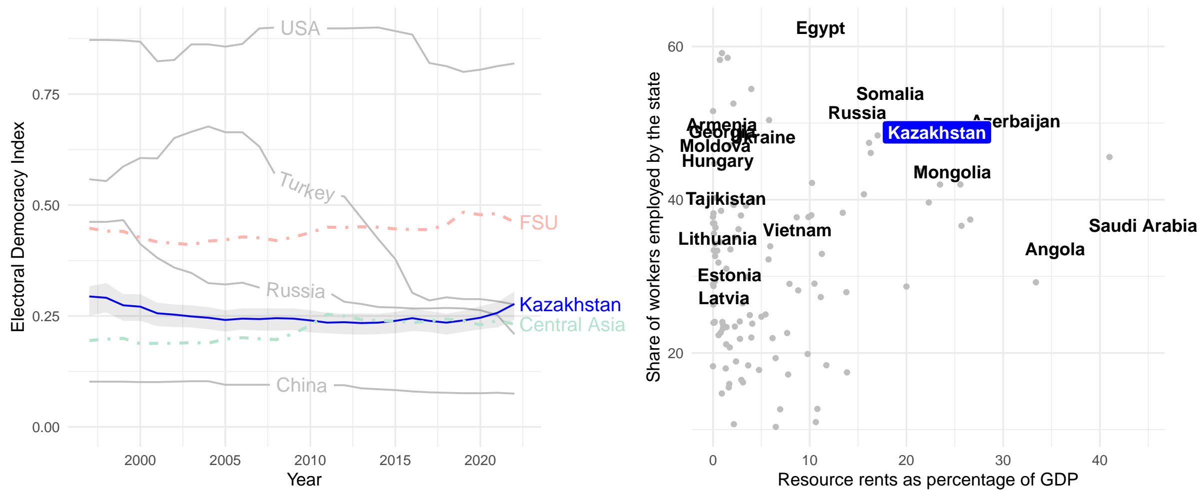
The last major bout of elite resistance was the Democratic Choice of Kazakhstan party (*Demokraticheskiy Vybor Kazakhstana*—DVK), established in late 2001. DVK mixed oligarchs tired of the growing economic power of Nazarbaev's inner circle, regional elites, and young technocrats committed to a more open political system (Junisbai and Junisbai 2005; LaPorte 2017). The regime dealt with this challenge through a mix of institutional reforms and coercion designed to drive disloyal elites out the system (Isaacs 2022). It consolidated pro-regime support into ruling party Nur Otan, which—renamed to Amanat in 2022—remains dominant (Isaacs 2011). Elites that could not be brought were repressed, both in Kazakhstan and in exile (Cooley and Heathershaw 2017). From the mid-2000s, Kazakhstan was a hegemonic electoral autocracy.[2] The regime held multi-party elections for president and the *Mazhilis* (parliament), but their outcomes were never in doubt. Elite opposition is rare, though there have been sporadic outbreaks of mass contention in the past 15 years (Isaacs 2022). Nazarbayev left office in March 2019. Tokayev—a long-time insider—runs a similar regime to Nazarbayev, who retained substantial influence until 2022's 'Bloody January' (in Kazakh, *Qandy Qantar*). These mass protests saw hundreds of civilians killed by security forces and prompted Tokayev to start a large-scale sweep of 'old regime' influence (Kudaibergenova and Laruelle 2022).

3.1 Case selection

Focusing on a single-country case isolates contextual variation in history, regime type, social divisions, and especially subnational institutional arrangements (Soifer 2019). An enduring concern about single-country studies is that they result in explanations which fail to generalise (Pepinsky 2019). Existing research focuses on two cases—Russia and China—which have rare institutional arrangements that might mean results from them do not apply elsewhere and make a case for testing existing theory beyond them. Russia has an unstable, nominally federal set-up. China is run by a Leninist ruling party and employs a system of 'dual' party-state control over provinces.

Kazakhstan has several characteristics shared with other electoral autocracies that make it appropriate for testing my argument. First, Kazakhstan has a typical electoral autocratic regime which maintains power mostly through co-option and legitimacy rather than large-scale repression. One proxy tapping these features is V-Dem's electoral democracy index, which tracks electoral competition and political liberties (Coppedge et al. 2023). The left

[2] See, e.g., Levitsky and Way (2010) and Schedler (2013).



Note: Averages for the former Soviet Union (FSU) and Central Asia exclude Kazakhstan. Shading is V-Dem's 95% confidence interval. State employment and resource rent shares are averages between 2005 and 2015. Many countries only have data for one or a few years in this period. *Sources*: V-Dem version 13 (Coppedge et al. 2023). World Bank Worldwide Bureaucracy Index for share of state employment (Baig et al. 2021). World Bank Changing Wealth of Nations for resource rents (World Bank 2021).

Figure 2: Kazakhstan's regime type and state employment in comparative context

panel of Figure 2 highlights that Kazakhstan is comparable in these respects to key electoral autocracies and regional averages. Second, Kazakhstan has a highly centralised political system with a unitary, appointment-based system of regional government. Politics is also centralised in a more informal sense. As elsewhere—not least Russia—the regime has employed resource wealth, institutional control, and coercive strength to build a centralised 'pyramid of power' (Hale 2015). Third, Kazakhstan has a market economy that is nonetheless dominated by the state sector. As the right panel of Figure 2 shows, in common with numerous resource-rich states, a significant share of Kazakhstan's population is employed by the state and SOEs.

3.2 Subnational governance in Kazakhstan

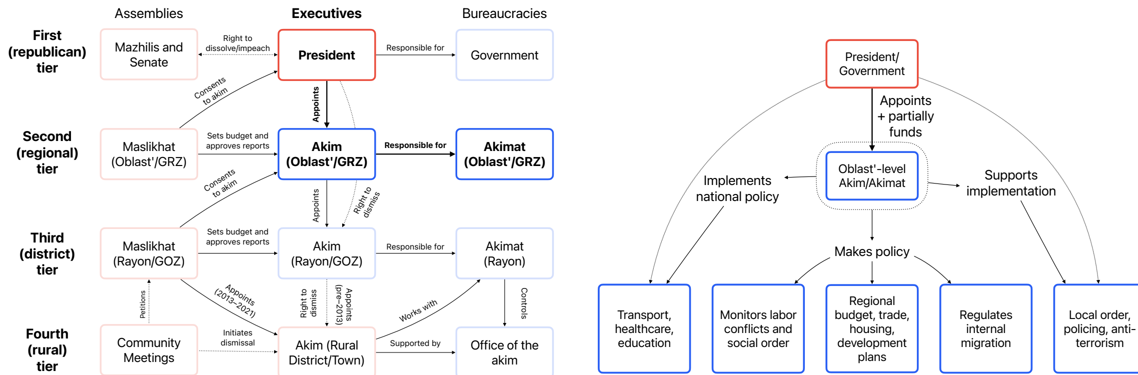
I study governors in Kazakhstan between 1997 and 2022, when the country had the subnational divisions shown in Figure 3.[3] I focus on the initial tier of subnational governance, the regional level. Between 1997 and 2022, Kazakhstan had 14 regions (in Kazakh, *oblysy*; in Russian, *oblast'*). These were joined at the regional level by the capital, Astana, and Almaty, a 'city of republican significance'. In 2018, South Kazakhstan oblast' was split into Turkestan oblast' and a new city of republican significance, Shymkent. My analysis therefore includes

[3]Maps use 2018 data, packaged into shapefiles by Rodionov (2021).

Figure 3: The regions and districts of Kazakhstan (before reform in 2022)

17 top-level units (16 before 2018). Figure 4a summarises the institutions structuring subnational governance in Kazakhstan (Makhmutova 2006, 277–281). Each region has a provincial bureaucracy (*akimat*), led by a governor/mayor (*akim*) who is appointed and dismissed by the president (Onalbaiuly 2019). I focus on these region-level akims. Akims are supervised by an elected regional assembly (*maslikhat*). The maslikhat has nominal powers to approve akim appointments and local budgets, but in practise is generally subordinate to the akim (Junussova 2020, 21–23). Each region and major city is split into between three and twenty districts. These are either a district (*audan/rayon*), of which there are 177, or a city of region significance, of which there are 38. Mirroring the region-level structure, the respective regional akim appoints a junior akim to lead each district akimat, supervised by an elected district maslikhat. The fourth tier of governance includes akims of over 1,400 minor cities, towns, villages, and rural districts. Since 2021, direct elections have been held for these posts.

Akims play significant roles in national politics and regional economies (Cummings 2005). In the early 1990s, akims were key players in defining constitutional struggles between the regions and Nazarbayev's regime (Jones Luong 2002). By the mid-2000s, the regime was firmly established and regions' economic influence reduced by centralisation (Sharipova 2018). Nevertheless, akims retain significant economic powers and policy influence, and are the key political figures in their regions. Figure 4b summarises their main roles. Akims have direct policy-making responsibilities over regional development, inter-regional trade, internal migration, and housing (Makhmutova 2006; Junussova 2020). They also implement national policy on transport, healthcare, and education. Akims shape implementation in these areas through



(a) The structure of subnational governance in Kazakhstan

(b) The main roles of region akims

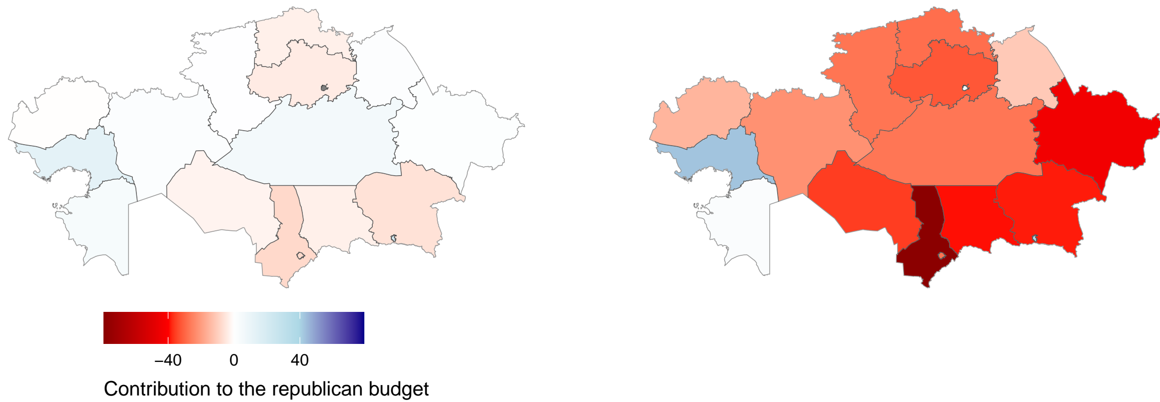
Figure 4: Subnational governance institutions and their powers

channelling funding and appointing key bureaucrats. Akims also help maintain local order. Policing is run by the national Ministry of Internal Affairs, but akims support central crime and anti-terrorism measures. They have responsibility for monitoring labour conflicts and akims of cities of republican significance—district-level akims elsewhere—are responsible for issuing protest permits.

Akims' key source of funding is the republican (national) budget. A range of taxes are automatically transferred directly to regional government after being collected by the central government at a nationally-determined rate. Akimats directly receive smaller revenues from various permits and regionally-owned state enterprises. Akimats in oil-producing regions receive support from foreign oil firms' 'social responsibility' efforts (Jones Luong and Weinthal 2010, 274–278). Finally, regions receive or must pay redistributive central subventions to make up for the difference in their revenue producing potential. Figure 5 shows how dramatically the scale and share of most regions' reliance on these transfers has grown. In 2000, eight regions were net contributors. By 2021, it was three. Three regions have consistently contributed over time—Atyrau and Mangistau (both oil-producing centres) and Almaty city. Astana contributes inconsistently.

I focus on akims at the region-level, first, because they have much larger budgets than lower-level districts. Second, region akims are appointed and dismissed by the president. Lower level akims are chosen by separate individuals with potentially distinct motivations and appointment strategies. Third, data over this long a time period is harder to locate on district akims.[4]

[4]I am carrying out significant further data collection on these akims from 2016 onwards for another project.



Note: Billions of tenge (2000 real terms). *Source*: Republican budget (see Section A.2.2).

Figure 5: Redistributive transfers to and from the republican budget by region

3.3 Regional *akim*s and their careers, 1997–2022

I rely on an original dataset of region akims' tenures, careers, and personal characteristics. My primary source of information is *Zakon*, a private legal news and information website hosting Russian-language biographies of political, business, and legal notables in Kazakhstan.[5] Figure 6 exemplifies the information that these biographies make available. Personal characteristics include date of birth and education. Biographies include detailed work histories, often starting with the first post-education job and continuing to retirement or the present day. A key advantage over other sources is that Zakon's biographies are fairly consistently structured, allowing me to efficiently collect information from them. Zakon is missing month-level tenure information or work history for 16 akims, mostly from the late 1990s. To include the universe of region-level akims, I use alternate sources in these cases.[6]

To collect and systematise this information, I scrape all 7071 biographies hosted by Zakon.[7] This includes 917 individuals who have held the position of akim at any level (1651 tenures). Here, I study 118 individuals in region-level positions between 1997 and 2022 (155 tenures). Tenure information is monthly (see Figure A.1). Personal characteristics are easily extracted. Cleaning job histories is more involved because of the diversity of roles in the data. The 118 individuals have just over 1600 jobs recorded in their biographies. About two-thirds of

[5]Spravki: Kto Est' Kto [*References: Who Is Who*]," *Zakon*, accessed February 24, 2024, https://online.zakon.kz/infowho.aspx.

[6]Daniyar Ashimbaev, "Kto est' kto v Kazakhstane [*Who's who in Kazakhstan*]," https://kazbio.info/, and "Cpisok akimov oblastey Kazakhstana [*List of akims of the regions of Kazakhstan*]," *Wikipedia*, https://ru.wikipedia.org/wiki/%D0%A1%D0%BF%D0%B8%D1%81%D0%BE%D0%BA_%D0%B0%D0%BA%D0%B8%D0%BC%D0%BE%D0%B2_%D0%BE%D0%B1%D0%BB%D0%B0%D1%81%D1%82%D0%B5%D0%B9_%D0%9A%D0%B0%D0%B7%D0%B0%D1%85%D1%81%D1%82%D0%B0%D0%BD%D0%B0.

[7]I carried out this scraping on 5 November 2023.

Жылкышиев Болат Абжапарулы	**Zhylkyshiev Bolat Abzhaparuly**
Дата рождения: 17.09.1957	**Date of birth:** 17.09.1957
Место рождения: КазССР; Южно-Казахстанская область; Келесский район; с. Абай ...	**Place of birth:** Kazakh SSR; South Kazakhstan oblast'; Kelesskiy rayon; Abay...
Образование, специальность (квалификация), лицензии:	**Education, specialisation (qualification), licenses:**
• Казахский химико-технологический институт (1979)	• Kazakh Chemical-Technological Institute (1979)
Инженер-механик ...	*Engineer-Mechanic ...*
Трудовой стаж:	**Work history:**
• ...Заместитель председателя Чимкентского горисполкома (1991-1992);	• ...Vice chair of Shymkent city executive committee (1991-1992);
• Глава Дзержинской (Аль-Фарабийской) районной администрации города Шымкента (1992-1995);...	• Head of Dzerzhinskiy (Al-Farabiyskiy) rayon administration in the city of Shymkent (1992-1995);...
• Аким города Шымкента (03.2001-08.2002);	• Akim of Shymkent (03.2001-08.2002);
• Аким Южно-Казахстанской области (30.08.2002-20.09.2006);	• Akim of South Kazakhstan oblast' (30.08.2002-20.09.2006);
• Вице-президент АО «Национальная атомная компания «Казатомпром» (10.2006-08.2007);...	• Vice President of the National Atomic Company "Kazatomprom" (10.2006-08.2007);...
Выборные должности, депутатство:	**Elected posts, deputyships:**
• Депутат Дзержинского СНД (1989-1992);	• Deputy, Dzerzhinskiy People's Soviet (1989-1992);
• Депутат Сената Парламента Республики Казахстан, член постоянного Комитета...	• Senator, Member of Standing Committee...

Note: My translation. *Source*: "Zhylkyshiyev Bolat Abzhaparuly (personal'naya spravka) [*Zhylkyshiyev Bolat Abzhaparuly (personal reference)*]," *Zakon*, https://online.zakon.kz/Document/?doc_id=30120735.

Figure 6: Abridged example of an akim's *Zakon* biography

entries are systematic enough to use keyword matching to record type, rank, and employer. I manually code the remaining jobs as well as region-level location for all positions. Some missingness remains due to unclear entries, especially for location information. Section A.1 describes the coding process and how I deal with ambiguity.

4 Co-optation shuffling in action

This section provides a detailed illustration of governor career paths in Kazakhstan. I show that akims generally have significant experience in central government roles before their tenures (Implication 1). Second, governors are frequently rotated, with an average tenure of about three years (Implication 2). Third, following their tenure, individuals quickly take another region akim posting or return to jobs at a similar level elsewhere in the state (Implication 3). Geographically, akims' career paths are *circumscribed* and typically spent in three places: the capital, the regions cadre end up leading, and neighboring regions. Through strategies such as appointing governors in regions where they have existing experience, the regime balances rotation with promoting competence. This is possible due to the regime's entrenched status in a country with relatively weak geographic social divisions.

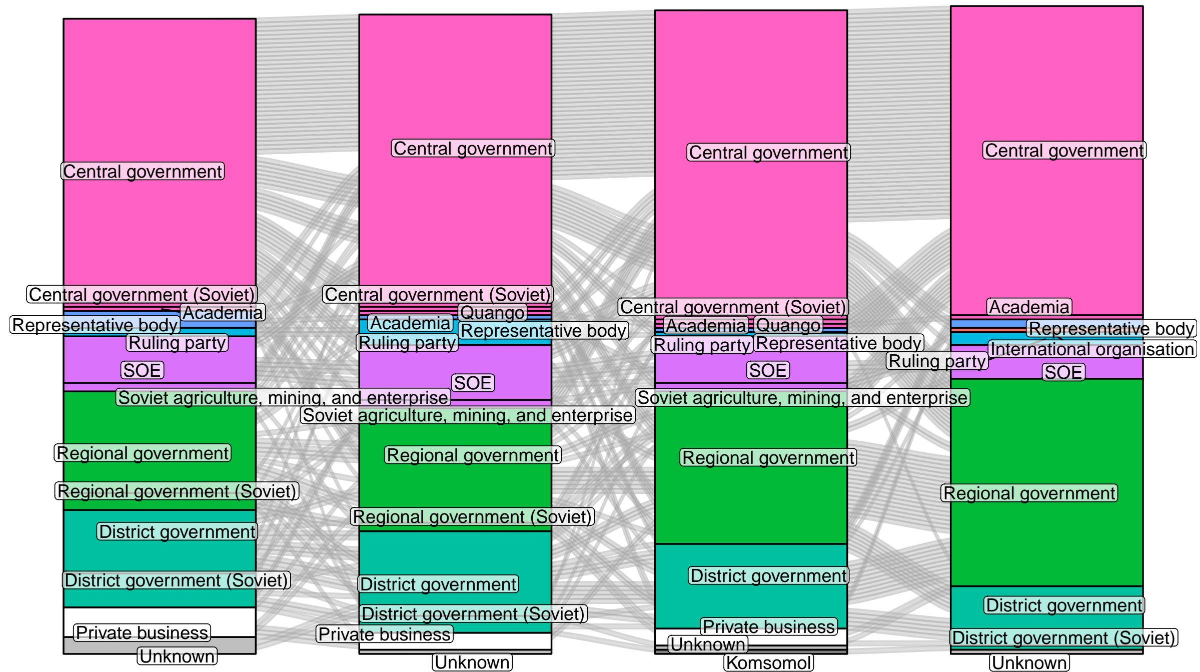


Figure 7: Akims' previous four jobs before appointment

4.1 Rotating to and from regional government

4.1.1 Appointments

The first implication of my theory suggests that governors embedded in a system of co-optation have spent the majority of their careers working in state roles, especially central government and SOE positions. Figure 7 summarizes my data on akims' pre-tenure careers, showing which organizations individuals worked for in their four jobs before appointment to regional leadership.[8]

Most akims previously worked exclusively or almost exclusively in state employment. Every akim in my data had previously worked in government before appointment. In only 29% of cases did akims have recorded private sector experience before leading a region. Even this small group had just over one private sector job on average before appointment (about 10% of recorded work). The maximum proportion of a pre-tenure career spent outside the state is 43%. Nine akims spent more than 15% of their pre-appointment careers outside state roles. No individuals worked in the private sector immediately before their appointment as akim.

[8]Apart from when discussing tenure lengths, I include all akims in my data, whether or not their tenures were complete at the time of data collection.

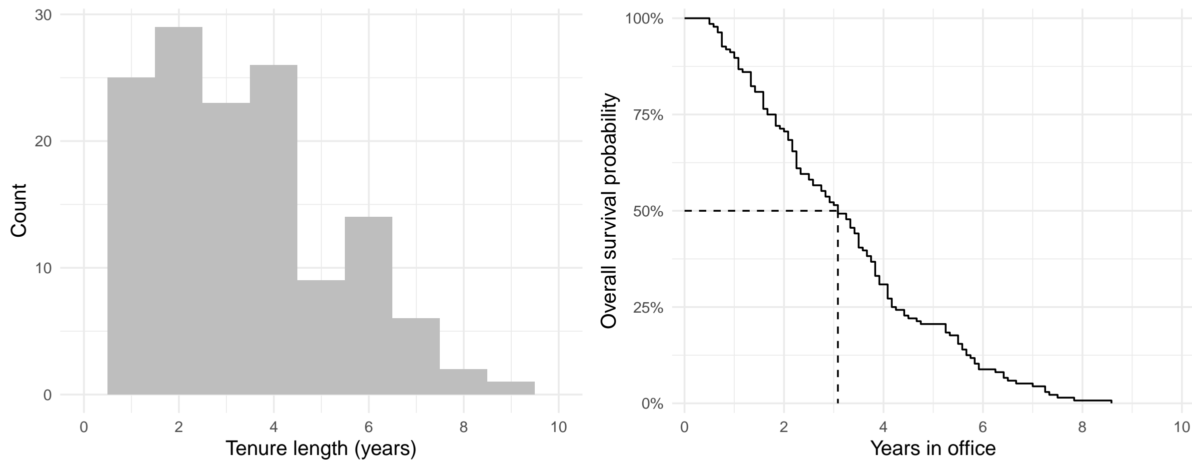


Figure 8: The distribution of tenure lengths and Kaplan-Meier survival estimate for region akims

Fully 86% of appointments were of individuals who had previously worked in a *central* government position or for a SOE.[9] 76% had worked in region-level government, and 59% in district-level government. Almost all appointments, then, were of people who not only had held previous government roles but had done so at the national level. 57% of akims worked in a central government or SOE role directly before appointment. 32% worked in regional government, usually as a region akim elsewhere or, if not, as vice region akim. 9.8% worked in district government, and mostly were promoted to the region akim role from a position as akim of a district or minor city.

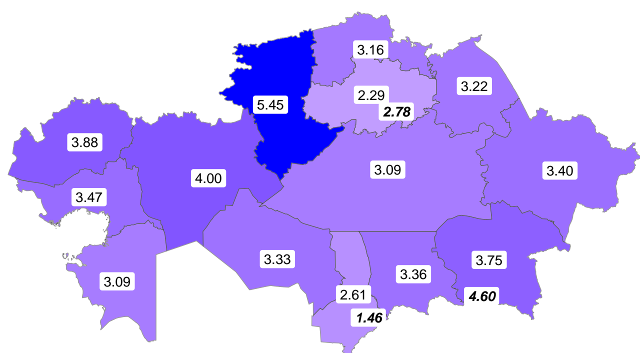
In Kazakhstan, most governors have significant experience in central state roles before appointment. In line with my theory, the regime appoints akims from a national 'cadre pool' of experienced state elites.

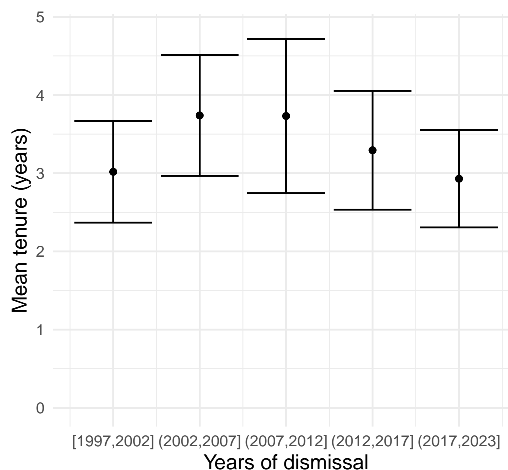
4.1.2 Management

How long do akims hold office?[10] 'Tenure' is the period between appointment and dismissal—both by presidential decree (*ukaz*). The mean tenure is 3.28 years and the median 3.05 years. The shortest I record is 0.419 years and the longest 8.59 years. Figure 8 summarizes the distribution of tenures. The clear majority of tenures are between one and four years. There is no concentration of tenure length since akims are not appointed for a particular period. They

[9]These figures include positions in Soviet republic-level government but are similar if such roles are excluded. 82% had worked in central government. 37% had worked for a national SOE.

[10]This data includes only akims with complete tenures starting or ending after 1997. This includes 136 complete tenures.





Note: Italicised values are for cities. YuKO (pre-2018) and Turkestan (post-2018) are combined. Shymkent includes only post-2018 tenures. Error bars are 95% confidence intervals.

Figure 9: Differences in mean tenure across region and time

must only be nominally reappointed after a presidential election—usually most akims are—and after reaching the retirement age of 63. The survival fit confirms these observations. The probability of leaving office stays fairly constant over the first four years of an akim's tenure. A small share of akims hold office for six years or more, perhaps having secured the regime's unconditional support. A prominent example is the longest-serving akim, Danial Akhmetov, who was akim of East Kazakhstan for nine years. He was 69 years old when he left office in 2023, having been reappointed a number of times after reaching the retirement age.[11]

Figure 9 shows that, in general, there is little variation in mean tenure across regions and time periods. The only region with a notably higher average tenure is Kostanay, where six akims lasted an average of just under five and a half years. Regions with lower average tenures include Akmola, which had four akims dismissed between 2010 and 2014, and Shymkent, recently designated city of regional significance. I group akims by the five-year period in which they were dismissed.[12] The mean tenure is stable over time—the difference between the highest and lowest point averages is 0.81 of a year. The means for Nazarbayev's and Tokayev's presidencies differ by under two months.

The brevity of tenures matches evidence of frequent akim rotation in Junisbai (2010) and Siegel (2018). In line with my theory, the regime regularly rotates governors and almost never gives them the time necessary to embed themselves in the regions they lead.

[11]'Danial Akhmetov, 9 let rukovodivshiy Vostochno-Kazakhstanskoy oblast'yu, pokinul post. [*Danial Akhmetov, the head of East Kazakhstan oblast' for nine years, left the post.*], *Radio Azattyk*, 16 June 2023, https://rus.azattyq.org/a/32461753.html.

[12]The groups include, in order, 26, 24, 20, 26, and 40 dismissals. The final, 2017 to 2023 bin includes five tenures which began before and end after 2022.

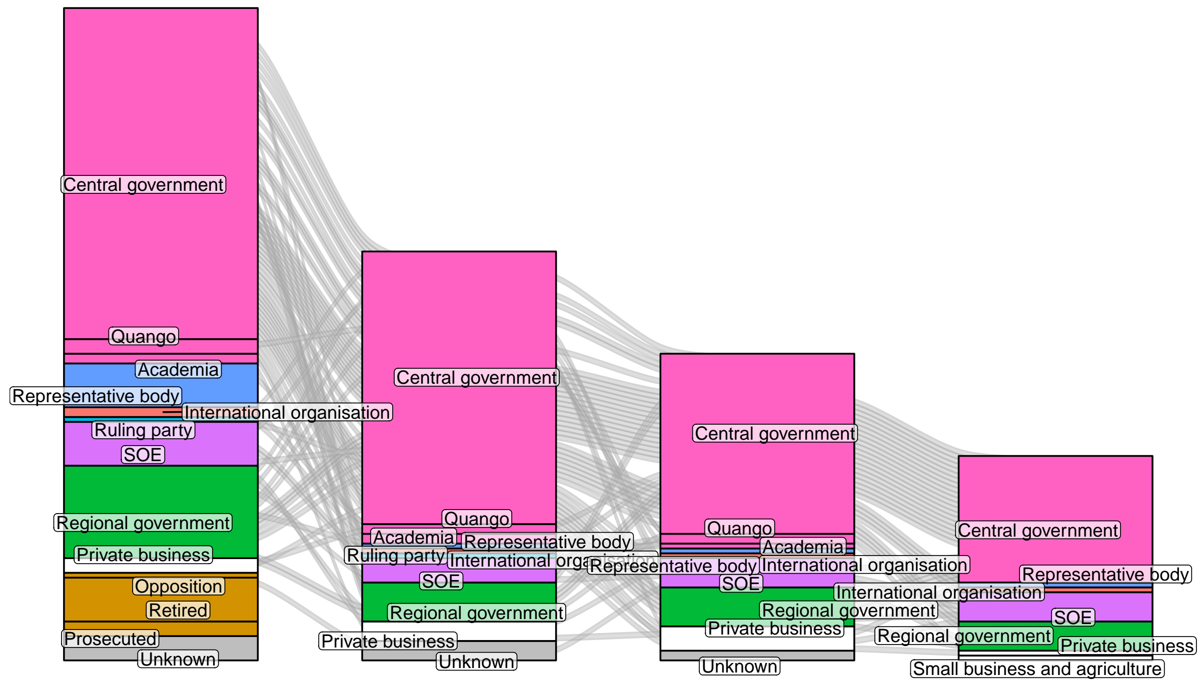


Figure 10: Akims' next four jobs following appointment

4.1.3 Career trajectories

Figure 10 summarizes post-tenure work. There is less data to work with here since some akims remained in office when data were collected or have had relatively little time since dismissal to work in more than a few post-tenure jobs. Akims have been overwhelmingly likely to remain in state employment. Tenures were immediately followed by private sector employment in only three cases. Just 10% of individuals in my data have taken private employment at all since their tenured ended. Nine tenures were followed by retirement. Three dismissed akims were prosecuted on leaving office. The ubiquitous reason for prosecution is 'corruption'. Nonetheless, autocrats may use corruption as an excuse to persecute disloyal individuals or those that they want removing from the cadre system. Regardless, in Kazakhstan, only a very small proportion of tenures end in prosecution. In total, 80% of individuals have some sort of central government job recorded after their tenure as akim, including work in SOEs, the parliament, and state-affiliated organizations ('quangos').[13] They generally took a central government job on or soon after their dismissals as akim and their tendency is to remain in central government and SOE roles in the longer term. Excluding those reappointed to another post as akim, in only one case was an akim's next role in regional government.

This is initial evidence that the third part of my theory applies in Kazakhstan. It shows

[13]63% have direct central government roles recorded, and 19% SOE roles.

that the regime moves akims back into central state employment following their tenures. This suggests that governors continue to be co-opted following their appointments. Only rarely are they removed from the cadre system entirely.

4.1.4 Promotion and demotion

Implications 1 and 3 suggest that governors come from and return to posts of a similar, senior 'rank'. To proxy for rank, I code recorded job titles as falling into a number of categories (see Section A.1). Figure 11 summarizes akims' rank before and after their tenures. It supports the view that akims are rotated to and from positions of similar prominence.

Aside from reappointments to be a region akim elsewhere, the most common reappointments include to ministerial and vice ministerial positions, executive or board roles at SOEs, roles as the professional heads of departments, and roles as advisor to the president and prime minister. Few postings are clear demotions. I have already discussed akims who retired or were prosecuted. One akim took a demotion from akim to vice akim of Almaty region (though even he later returned to be akim of Zhambyl and Almaty regions). Two took arguably more junior roles as department regional branch heads—one to the anti-monopoly committee of the region he had led, another to be the president's representative in Almaty city. These apparent demotions suggest one way in which shuffling can be flexible, allowing for punishment for bad behaviour or performance in a limited number of cases.

4.2 Insider and outsider *akim*s

Regimes might appoint 'insider' governors, with knowledge and connections in the region they lead (Reuter 2023). Or, they might appoint 'outsiders' who must work harder to establish roots and knowledge, but might be less inclined to prioritize the region over the centre (Melnikov 2023). My theory suggests that regimes generally avoid appointing provincial elites—whose careers and support are tightly linked to their regions—to avoid having governors become too 'embedded'. Nevertheless, drawing governors from a central pool of trusted and tested cadre might ease the risks associated with appointing people to their 'home' regions. Akims in Kazakhstan are rarely 'true' insiders—they almost all have experience in the centre—but they do tend to have more experience in certain regions. I use that experience as a proxy for insider status.

Daniyar Ashimbaev argues that the regime in Kazakhstan takes a mixed strategy:

> ...Astana's cadre politics often follows the alternation of local cadre and *variagi* [outsiders]. The first knows local specifics, but has a tendency to be overly involved in regional interests. The second perceive the unfamiliar region [*chuzhoy region*] somewhat impersonally, which gives the possibility of making decisions objectively.

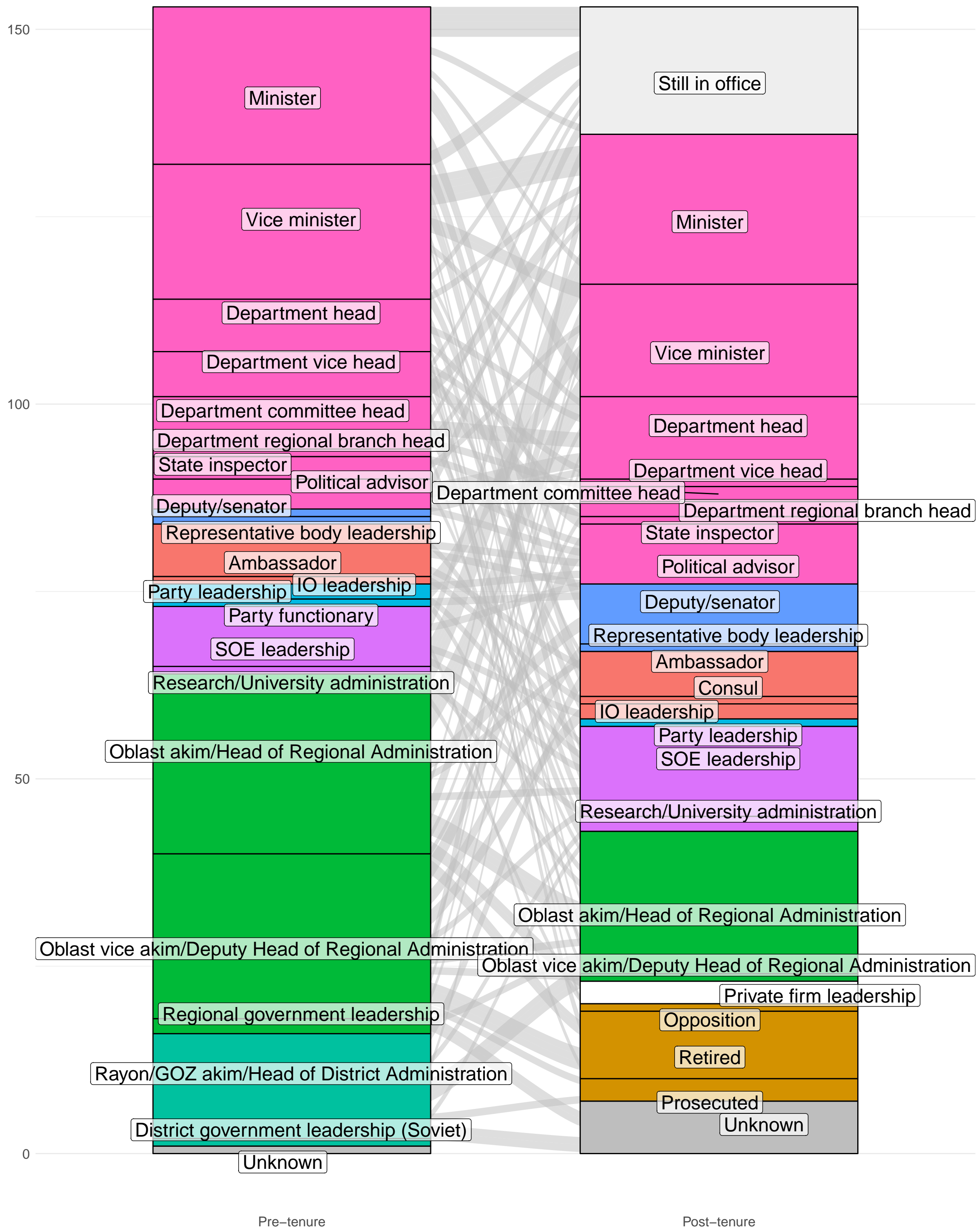


Figure 11: Pre- and post-tenure job titles

> In some regions with complex economic structures, the local choices are more extensive.[14]

The data, broadly, agree. Excluding akims of Astana, Almaty, and Shymkent, I examine what proportion of akims are appointed to lead the region that they have the most recorded work in. This is a rough measure: due to data limitations, I use number of jobs per region, not time per region. 56% of tenures begin in the region with the most or joint most work in an akim's biography.[15] Including only the first time an individual was appointed to lead a region, 65% of akims were insiders in this sense when they began their first tenure.[16] If jobs in Astana and Almaty are included, first-time akims were only insiders in 45% of cases. Taking a stricter definition of 'insider', 40% of individuals began their careers as akims in the only region they had ever worked in (excluding jobs in Astana, Almaty, and abroad).[17] With the strictest definition, only 17% of individuals in my data took their first job as an akim without having a recorded job in another region (*including* Astana, Almaty, and abroad). 38% of appointments are 'true' outsiders, someone who has never worked in the region. Including only where the appointee is a first-time region akim, this drops to 30%.

Akims have generally spent long periods in the regions they end up leading. Only in rare cases, however, have they never worked elsewhere. This is one way of minimizing the risks of shuffling. Governors often lead regions they know, but only if they have spent sufficient time working elsewhere, where they are visible to the regime and—perhaps—lose their local loyalties.

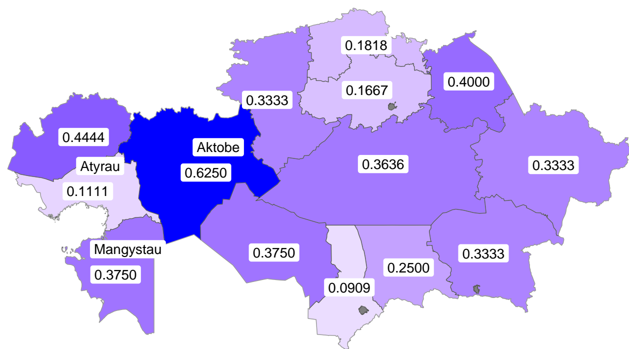
Figure 12 suggests that the regime has varied its strategy across space and time. Only one region, the relatively rich industrial and fossil-fuel center Aktobe, has had more than half of its akims be insiders. As Ashimbaev suggests, regions with higher proportions of insiders also tend to be richer. The richest region, Atyrau, is the exception, with the second lowest proportion of insiders. This might reflect the regime adjusting to local realities, given the west's well-earned reputation for strikes (although Mangystau, arguably more restive, has a higher insider rate). There are differences over time. While the last three half-decade periods have similar shares, the 2002 to 2007 period saw an especially low degree of insider appointments, especially compared to the significantly higher share in the 1997 to 2002 group. One interpretation is that this reflects a heightened emphasis on elite loyalty in the mid-2000s. This was when the oligarch and technocrat-led DVK emerged, including some ex-akims, which the regime reacted to through attempting to consolidate elite networks and eliminate opposition groups (Junisbai and Junisbai 2005; Isaacs 2011, 2022).

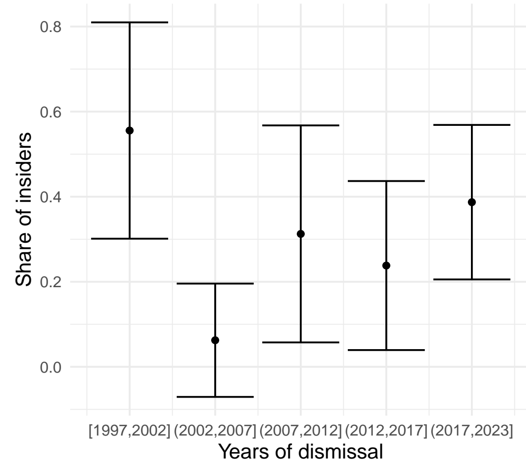
[14] Erkezhan Almabaeva, "Akim so storony: politolog o naznachenii Nurmukhambetova [*An akim from the outside: a political scientist on the appointment of Nurmukhambetov*]," *365info.kz*, 23 September 2023, https://web.archive.org/web/20230925171208/https://365info.kz/2023/09/akim-so-storony-politolog-o-naznachenii-nurmuhambetova.

[15] 52% if only the region with strictly the most work is counted.

[16] 61% if only the region with strictly the most work is counted.

[17] 30% of tenures in total.





Note: 'Insiders' here are akims appointed to lead the only region that they have recorded work in (excluding work in Astana, Almaty, and abroad). Error bars are 95% confidence intervals. Named regions are those discussed in the text.

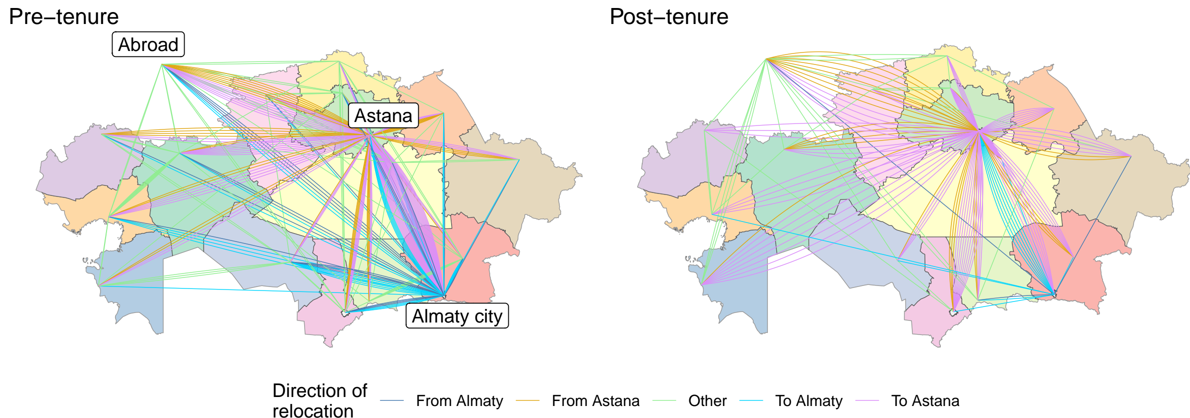
Figure 12: The share of 'insiders' across region and time

4.2.1 Cadre mobility

Implications 1 and 3 suggest that cadre should spend much of their careers working in the geographic nucleus of government—the capital Astana and largest city Almaty. In Figure 13, each line represents a case where I record an individual having a job in a region different from their previous posting. Providing further evidence of circumscription in shuffling and that governors tend to have had careers focused on central-government work, the vast majority of relocations—before and after tenures—are between a region and Almaty or Astana. In very few cases do cadre move *between* regions.

4.2.2 Targeted rotation

The regime in Kazakhstan is happy to appoint akims to lead their home regions. While increasing the risks of a governor becoming too embedded, this sort of targeted rotation allows cadre to build specialised knowledge and local connections (Woldense 2018). Why is the regime confident in appointing 'insiders' despite the risks? For one, the degree of political centralisation following the dismantling of regional networks in the 1990s—enabled by resource wealth—means that akims often owe their careers to the centre in ways that might overpower local allegiances. Kazakhstan's regime has an especially credible ability to threaten disloyal cadre. For two, the regime has contained sociocultural divisions. In Kenya, for instance, Hassan (2020) argues that geographically dispersed shuffling was required to ensure the loyalty of non-co-ethnic bureaucrats to the regime. Elsewhere in the former Soviet Union substate regimes and breakaway states instrumentalised ethnicity in asserting independence from the



Note: YuKO, Turkestan, and Shymkent are combined. 'Abroad' refers to all postings outside Kazakhstan.

Figure 13: Cadre relocation

centre—such as in the Chechen Republic in Russia, and Ajaria and South Ossetia in Georgia. Ethnic, linguistic, and regional identities certainly exist in Kazakhstan. Yet by preventing the emergence of a Russian-Kazakh cleavage and avoiding 'clan' and regional conflict (Junisbai 2010), the regime has minimised the threat such divisions pose. To the degree it has prevented social division, the regime has been able to ignore these factors when managing governors.

5 Testing for performance shuffling

This section addresses my key alternative explanation—*performance shuffling*, where rotation is guided by performance. I present evidence that there is no systematic association between turnover and outcomes in Kazakhstan. Competency does not appear to drive the regime's cadre strategy.

Performance shuffling implies that poor performance should be punished with a governor's dismissal. Research on Russia, China, and Nazi Germany has found varying relationships between economic outcomes and governor tenure or promotion (e.g., Reuter and Turovsky 2022; Landry, Lü, and Duan 2018; Aaskoven and Nyrup 2021). Generally, autocrats prioritize competence only in regions and periods in which they have a secure hold over power. In Kazakhstan, the regime's firm grip on power suggests that a performance logic might apply. Since the mid-2000s, the regime has been hegemonic and highlighted its ability to promote growth and deliver services (Baturo and Tolstrup 2024). Akims have an ability to influence economic outcomes in their regions, and might be judged on how they do so.

Kazakhstan's capital suggests one example of how akims might undermine growth. Built largely from scratch in the late 1990s, Astana grew rapidly and suffers from serious traffic

Note: The column is overlooked by the president's residence (right), the parliament (centre), sovereign wealth fund offices (the gold tower), and the House of Ministers (back left). Author's photo.

Figure 14: A concrete column from Astana's light rail project

issues. Since the 2000s, Astana's akimat has planned to build an elevated light rail system.[18] Initial tenders were issued in 2011, but construction only began in 2017. The company constructing the line, however, collapsed in 2019 amidst a corruption scandal. Current plans aim for completion by 2025. For now, huge concrete columns erected in the early stages of construction are scattered about the city centre in a visible symbol of the project's mismanagement. Many are overlooked by the presidential palace and parliamentary and ministerial buildings (Figure 14). If the regime focuses on competence, cases like these might lead it to remove akims quicker. On the one hand, while one responsible akim lasted six years in office, four other akims have lasted about two years on average. On the other, these akims have not been 'punished' for incompetence. While an ex-deputy akim was arrested over the issue, Astana's recent akims have moved directly onto roles as the Minister of Defence, Vice Prime Minister, Minister of Trade, and, twice, Head of the Presidential Administration. As I argued in Section 2, the lack of apparent punishment meted out to Astana's akims might reflect performance shuffling being incompatible with a system of credible co-optation. In this section, I test that argument more systematically.

[18] E.g., Paolo Sorbello, "Kazakhstan's Light Rail Corruption Case Drags on", *The Diplomat*, 16 October 2021, https://thediplomat.com/2021/10/kazakhstans-light-rail-corruption-case-drags-on/

5.1 Data and method

5.1.1 Economic data

I link my tenure data to region-level economic indicators from the national statistics agency. The main concern with these data is bias. First, local officials—including akims and their juniors—might misreport data because they perceive that they are less likely to be dismissed following positive results (Garbiras-Díaz and Slough 2022). Statistical data in the regions is collected by regional committees of the national statistics bureau, but they may still rely on akims for certain information (for evidence of this in Kazakhstan, see Onalbaiuly 2019, 140–42; Sharipova 2018, 51–52). I try to minimise this issue by using a range of data. A key measure, gross regional product (GRP), is calculated by the central statistics office with data from national ministries and national-level surveys (Maldybaeva 2017).[19] This indicator should not be influenced by lower-level units. Second, central officials may be behind misreporting and prefer not to report poor performance (Martínez 2022). Again, official statistics would then not reflect regime perception of competency. The economic data do tend to be positive. GRP rarely falls and unemployment rarely rises. Nevertheless, there are sustained differences between regions. Using data from between 2004 and 2009, Propastin and Kappas (2012) compare Kazakhstan's GRP figures to nightlight strength—proxying regional economic activity—and find a reassuringly strong correlation.

I show results for three economic variables. Growth (annual change in GRP) may reflect akims' observable abilities to maximize output and support national development. The second variable measures the annual change in regional unemployment rates. The third proxies for changes in wages with cost of employment data.[20] These measures may reflect an akim's ability to bolster regime legitimacy claims by supporting citizen welfare. Each variable reflects a plausible goal for a performance-seeking regime, ensuring I can offer a more complete analysis of economic performance's association with akim turnover. Second, since they are calculated in different ways with different data, using multiple variables helps guard somewhat against the risk of bias.

5.1.2 Modelling strategy

Each row in the panel data represents a single region for a single month, with an indicator $\text{turnover}_{r,t} = 1$ where an akim has their tenure as akim of region r formally ended. Each region-month is associated with values for growth, change in employment, and change in labour costs. I estimate turnover with these variables using a linear probability model.[21]

[19] This evidence comes from the statistics agency's official journal (see Section A.2.3).
[20] Actual wage data is similar but available for fewer years (see Figure A.3).
[21] This follows recent work on governor tenure (Landry, Lü, and Duan 2018; Aaskoven and Nyrup 2021), as well as broader shifts away from harder-to-interpret logistic regression (Hellevik 2009; Mood 2010). I find substantively similar results, not reported here, with logistic regression.

The baseline models use data from the beginning of 2004 (Table A.4 includes descriptive statistics). GRP is available from 2002, with changes measurable from the next year and lagged changes the year after. The final observations are at the end of 2021, just before major protests and resulting changes to subnational governance. The data are left truncated, so I include akims who took office before 2004, and right censored, so some akims do not leave office before the end of the data (Box-Steffensmeier and Jones 2004). To capture that these data are generally not available in real time and that the regime does not make decisions immediately, I lag the predictors. The baseline regressions follow the literature with twelve-month lags. Since the economic data is annual, each group of annual observations is associated with a single predictor value—that recorded the year before.

I include a number of controls. Some models include region fixed effects, so that results reflect associations in the same region over time (absent time-invariant region-specific influences on dismissal).[22] For instance, the regime might put more emphasis on growth in richer, oil-producing regions. I control for time variant regional characteristics (logged population and gross regional product per capita). This aims to isolate the effect of regions' productive potential. Controlling for age aims to parse out the affect of mandatory retirement. Finally, I include cubed terms for number of months in office ('tenure'). This method of modelling time dependence means my analysis approximates the standard Cox proportional hazards model (Carter and Signorino 2010).[23]

The baseline specification is, therefore,

$$\text{turnover}_{r,t} = \alpha + \text{predictor}_{r,t} + \mathbf{X}_{r,t} + \text{region}_{r} + \text{tenure}_{r,t} + \text{tenure}^{2}_{r,t} + \text{tenure}^{3}_{r,t} + \epsilon_{r,t},$$

where α is the intercept, $\text{predictor}_{t,r}$ the economic predictor for month t and region r, $\mathbf{X}_{r,t}$ the matrix of region-month controls, region_{r} represents the fixed effects, $\text{tenure}_{r,t}$ the number of months a region's incumbent akim has been in office, and $\epsilon_{r,t}$ is the error term. The regressions estimate the association of the previous year's economic outcomes in a region with the monthly probability of that region's akim being dismissed, net of controls and time-invariant region-specific features. If the regime dismisses akims based on performance, the coefficients on the growth and wage change variables should be negative (the more growth or higher wages, the lower the chance of turnover) and on the unemployment change variables positive (the less unemployment, the lower the chance of turnover).

Table 1: Regressions of turnover on the basic economic variables

	Model 1	Model 2	Model 3	Model 4
Growth_{t-12}	0.0000	-0.0001	-0.0000	-0.0001
	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Controls	No	Yes	No	Yes
Tenure terms	Yes	Yes	Yes	Yes
Oblast' fixed effects	No	No	Yes	Yes
R^2	0.0145	0.0161	0.0203	0.0221
Adjusted R^2	0.0134	0.0141	0.0143	0.0153
N	3456	3456	3456	3456

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

	Model 1	Model 2	Model 3	Model 4
$\Delta\text{Unemployment}_{t-12}$	0.0000	0.0003	0.0001	0.0002
	(0.0006)	(0.0006)	(0.0006)	(0.0006)
Controls	No	Yes	No	Yes
Tenure terms	Yes	Yes	Yes	Yes
Oblast' fixed effects	No	No	Yes	Yes
R^2	0.0145	0.0160	0.0203	0.0221
Adjusted R^2	0.0134	0.0140	0.0143	0.0152
N	3456	3456	3456	3456

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

	Model 1	Model 2	Model 3	Model 4
$\Delta\text{Labour costs}_{t-12}$	0.0001	-0.0001	-0.0000	-0.0001
	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Controls	No	Yes	No	Yes
Tenure terms	Yes	Yes	Yes	Yes
Oblast' fixed effects	No	No	Yes	Yes
R^2	0.0145	0.0160	0.0203	0.0221
Adjusted R^2	0.0134	0.0140	0.0143	0.0152
N	3456	3456	3456	3456

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

Table 2: Regressions of turnover on relative outcomes

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Relative Growth$_{t-12}$	-0.0002	-0.0002				
	(0.0002)	(0.0003)				
Relative ΔUnemployment$_{t-12}$			0.0002	0.0001		
			(0.0009)	(0.0009)		
Relative ΔLabour costs$_{t-12}$					0.0003	0.0003
					(0.0005)	(0.0005)
Controls	No	Yes	No	Yes	No	Yes
Tenure terms	Yes	Yes	Yes	Yes	Yes	Yes
Oblast' fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.0204	0.0222	0.0203	0.0220	0.0204	0.0221
Adjusted R^2	0.0145	0.0153	0.0143	0.0152	0.0144	0.0153
N	3456	3456	3456	3456	3456	3456

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

5.2 Baseline analysis

5.2.1 Basic variables

Table 1 summarises results for the basic predictors. The first two columns are without region fixed effects. The final two include them. Across models, none of the predictor variables meet conventional levels of significance. These initial models provide no evidence for an association between these economic outcomes and the likelihood of turnover. None of the controls are significant at conventional levels, except for the time an akim has spent in office.

5.2.2 Inter-regional competition

Next, I test whether an akim's competence is judged in comparison with the performance of their peers. First, I calculate the difference in each region's annual figures for growth, change in unemployment share, and change in labour costs with the mean for other regions in that year.[24] These regressions then capture whether there is a relationship between an akim's likelihood of

[22]Standard errors are *not* clustered at the region-level due to the small number of clusters (a maximum of 17).

[23]This follows applications in the literature, such as Buckley and Reuter (Buckley and Reuter 2019) and Reuter and Turovsky (Reuter and Turovsky 2022).

[24]Relative growth $g^*_{r,t}$, for instance, is

$$g^*_{r,t} = g_{r,t} - \frac{(\sum_{r=1}^{R} g_{r,t}) - g_{r,t}}{R-1},$$

where g is growth in region $r \in R$ in month t.

Table 3: Regressions of turnover on detrended relative performance

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Performance (Growth)$_{t-12}$	0.0001	-0.0000				
	(0.0003)	(0.0003)				
Performance (ΔUnemployment)$_{t-12}$			0.0013	0.0012		
			(0.0010)	(0.0010)		
Performance (ΔLabour costs)$_{t-12}$					0.0004	0.0003
					(0.0004)	(0.0004)
Controls	No	Yes	No	Yes	No	Yes
Tenure terms	Yes	Yes	Yes	Yes	Yes	Yes
Oblast' fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.0203	0.0220	0.0208	0.0224	0.0206	0.0222
Adjusted R^2	0.0143	0.0152	0.0148	0.0156	0.0146	0.0153
N	3456	3456	3456	3456	3456	3456

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

dismissal and their region performing better—or worse—than the national average. 'Worse' results being associated with dismissal would suggest a negative sign on the growth and wage change variables and a positive sign on the unemployment change variable. Table 2 includes results for these 'relative' variables in the fixed effects specification, lagged 12 months. None of the predictors are significant. Comparing akims to their colleagues provides further evidence that the regime does not base dismissals on economic performance.

I then follow Sheng (2022) and construct 'performance' measures which compare regional outcomes both to the contemporary outcomes of other regions *and* outcomes under the current akim's regional predecessors. This captures the idea that the regime will compare a governor's record to others who have led the same region. I calculate a moving average of *relative* growth, unemployment, and labour cost for each akim across their tenure.[25] I subtract the regional trend—the moving average of the region's economic outcomes across all available years until just before the akim came to office.[26] A performance logic suggests results with the same set

[25]This moving average $\bar{g}_T$ is

$$\bar{g}_T = \frac{\sum_{t=t_s}^{T+t_s} g^*_{r,t}}{T},$$

where T is the number of months so far akim i of region r has spent in office (i.e., $T = \text{tenure}_{r,t}$) after assuming the post at time t_s ($\implies T = t - t_s$).

[26]This final step is

$$\text{performance}_{r,t} = \bar{g}_T - \frac{\sum_{t=0}^{t_s-1} g_{r,t}}{t_s}.$$

This includes unemployment and labour costs from 2003. Where the akim began office before the data start, I set this trend to the whole-sample mean for the region. Results are robust to using the first reported figures under the akim or to 0.

of signs as above. Table 3 includes results with the more complex detrended performance$_{r,t}$ predictors. The coefficients remain insignificant. Altogether, these analyses show no evidence for an association between akim dismissal and their relative performance.

5.2.3 Robustness and sensitivity checks

Section A.3 presents a range of analyses to confirm that these results are not an artefact of variable selection and specification decisions. First, I show that the null findings are robust when demotion to a junior position or removal from the entire cadre system is the dependent variable. Second, I show that the model estimates are highly sensitive to the number of months predictor variables are lagged by. Coefficients are significant for only a few variables with surprisingly long lags. Third, I show that the estimates are sensitive to the period of data included. Again, if any results are significant it is for tightly circumscribed periods. Fourth, I run the models separately in each region. While most variables are significant in one or two regions, again the sensitivity of results suggests that non-systematic quirks in the data are driving the results. These checks increase confidence in a lack of association between outcomes and turnover.

5.3 Discussion

This section tests whether the regime systematically prioritises competence by rotating or demoting akims of poorly performing regions. These analyses indicate that akims are not dismissed quicker following poor results. One explanation—which would undermine my argument—would be that these data do not reflect how the regime judges competence. The regime may simply not release especially bad results that would lead to an observed relationship or might use socio-economic indices different from those I include here. To minimise the risk that this is driving my results, I employ a range of variables and sensitivity analyses. Alternatively, the regime might not focus on *economic* outcomes. In Russia, for example, Reuter and Turovsky (2022) show that political outcomes are the key focus. While the range of economic variables I use may influence public opinion in a way that should feed through to political events, direct measures—such as electoral results—would offer stronger evidence here.

6 Conclusion

I examine how the role of governor fits into systems of co-optation and the implications for how autocrats manage subnational governance. I contrast two strategies. *Co-optation shuffling* involves regimes prioritising elite co-optation, with governors appointed from the ranks of

central state elites, regularly being rotated, and slotting back in to the broader cadre system. Alternatively, regimes focused on results might employ *performance shuffling*. Here, governors are appointed and dismissed with the aim of maximising their competence and improving outcomes. To illustrate the co-optation shuffle, I study the careers of appointed governors in Kazakhstan. Through original and detailed data, I show that governor appointments are integrated into a system of co-optation through state employment. Before appointment, akims typically held senior central state roles (Implication 1). Their tenures tend to be short and they are frequently rotated (Implication 2). After their tenures, almost all akims return to senior roles elsewhere in the state (Implication 3). In contrast with the logic of performance shuffling, economic outcomes are not associated with the likelihood of akim dismissal and demotion.

For the regime, frequent rotation might help secure elites' loyalty. For the public, the advantages are less clear. A system of reappointment independent of results does not need to result in a completely incompetent akim corps. My findings suggest, though, that regime will be more tolerant of governors' economic failings and less responsive to citizen demands. For Kazakhstanis, the need for responsiveness and competence was clearest—and most tragic—during 2022's Bloody January (Kudaibergenova and Laruelle 2022). *Qandy Qantar* ended with nearly 250 protesters dead, but it began with protests outside the offices of city and region akims in Mangistau.[27] Initial demands focused on regional economies and called for akim elections.[28] Akimats were the nucleus of protests as they spread across the country and were sometimes violently targeted. In Shymkent, 20 people were shot dead while—according to the government—attempting to storm the akim's office.[29] Perhaps the most used image from January 2022 is the Almaty akimat burning. Qantar highlights the importance to autocrats of provincial officers able to govern well and manage unrest. Existing research highlights how regimes balance loyalty with these roles. My argument underlines how, due to the need to maintain credible elite co-optation, competence may be even further down the centre's agenda. In the final analysis, autocrats tend to prioritise keeping elites on side over the needs of their people.

I build from work on the role of resource-funded state employment as a means of co-optation (e.g., Jones Luong and Weinthal 2010; Hertog 2010; Rosenfeld 2021; Liu 2023). I show how the post of governor is one example of this sort of posting. Second, I develop work on provincial governance in autocracies (e.g., Aaskoven and Nyrup 2021; Reuter and Turovsky 2022; Sheng

[27] Cheryl L. Reed, "Kazakhstan's Bloody January: Day 1, Zhanaozen to Aktau", *The Diplomat*, 2 January 2023, https://web.archive.org/web/20230103040623/https://thediplomat.com/2023/01/kazakhstans-bloody-january-day-1-zhanaozen-to-aktau/.

[28] Ol'ga Ivshina, "'Vlasti pereotsenili spokoystviye': chego zhdat' ot protestov v Kazakhstane? [*'The authorities overestimated the calm': what to expect from protests in Kazakhstan?*], *BBC Russkaya Cluzhba*, 5 January 2022, https://www.bbc.com/russian/news-59886446.

[29] "Krovavyy yanvar': pri shturme akimata Shymkenta byli ubity 20 chelovek [*Bloody January: 20 people were killed during the storming of the akimat of Shymkent*]," *Ulysmedia*, 19 April 2022, https://ulysmedia.kz/news/6973-tragicheskii-ianvar-pri-shturme-akimata-shymkenta-byli-ubity-20-chelovek/; Cheryl L. Reed, "Kazakhstan's Bloody January: Day 5, Taraz to Shymkent", *The Diplomat*, 6 January 2023, https://thediplomat.com/2023/01/kazakhstans-bloody-january-day-5-taraz-to-shymkent/.

2022; Magiya, Popescu, and Tezcür 2023). I test these arguments in a new setting and argue that how governors integrate into national politics shapes the trade-offs autocrats face. Finally, my overarching contribution is to research on authoritarian power-sharing (e.g., Svolik 2012; Meng 2020; Meng, Paine, and Powell 2023; Gerschewski 2023). I demonstrate how one regime has distributed patronage through political office in order to develop and co-opt a loyal class of state elites.

Where might my argument travel? One set of scope conditions relate to regimes' ability to build a large, centralised state. In Kazakhstan, that task has been eased by the legacy of Soviet bureaucracy and by resource revenue. Oil and gas rents enable the regime to employ a significant share of the population. Centralised control over resource revenue has helped avoid regionalism. A second set of conditions are those related to subnational governance. Kazakhstan's regime has only been able to use governor postings for co-optation because of its institutional control over appointments. That it need not contend with social divisions with an especially strong geographic basis also enables the way it manages cadre. It is in other cases of hegemonic, centralised autocracy with provinces with less capacity to make demands on the centre that my argument is most likely to apply.

A first key limitation of my analysis is that it is unclear how reliable the economic data I use is and how much it reflects the information used by the regime. I try to limit the effect of biased data by using a range of indicators. Future work should further probe the data's accuracy. Second, poor availability of sociological data—such as protest counts and local election results—means I cannot directly test the importance of *political* outcomes on akim turnover. Future work should collect and analyse these indicators.

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A Supplementary material

A.1 Coding process for the *akim*s dataset

After extracting each line of akims' job histories, I code a summary of the job, the type/'rank' (a more generalised summary), the organisation, and the place of the job (in the 1997—2018 oblast' boundaries). About two-thirds of the first three variables can be coded by string matching because they use regular phrases to refer to jobs which always have the same employer. For example, common phrases coded in this way include *ministr* (minister, central government) or *polnomochnyy posol* (ambassador, central government). Some are only coded for type—for example, entries for *rukovoditel' apparata akima* refer to the head of an akim's apparatus (equivalent to the president's chief of staff), but whether that is at the oblast' or rayon level needs manual coding. Finally, I manually code all job locations. Examples of this coding process are in Table A.1, which includes ten randomly sampled examples from the data.

In some contexts—such as China—using cadres' job titles to identify rank is relatively simple. In Kazakhstan, the cadre system is less well defined. Context is as important as job title. Reappointment from a relatively poor region to lead a ministry might clearly be a promotion where the same move from a rich region would not be. These data can only provide a rough measure of rank. I code recorded positions into a number of categories. For instance, a 'minister' is the political head of a ministry, such as the minister of finance.[A1] A 'department head' is a ministry's senior civil servant, and a 'department committee head' the person who leads a ministerial sub-department, agency, or committee. In the ministry of finance, one such body is the Agency for Customs Control. A 'department regional branch head' has a specific territorial responsibility (usually defined by oblast') but works under the aegis of a central department, rather than being responsible to an akim. The Ministry of Finance, for example, maintains oblast' Committees for Financial Control to audit regional spending. Similar divisions exist in akimats and their departments. Other individuals, for example, are coded as 'political advisor' if they work directly for a senior political figure (in most cases, the president or prime minister).

I code some entries—especially for the location variable—as 'unknown' because the entry is unclear. Often, this is for early, Soviet-era work where an individual is recorded as a 'worker' in an unspecified *sovkhoz* (state farm) or similar. A potentially bigger problem is entries, concentrated in the 1990s, involving work as a director for a *TOO* (equivalent to a western LLP), or similar business, that has long-since stopped operating and has no internet presence. As well as this usually meaning place of work cannot be determined, the difficulty here is that businesses like these can be private concerns, run by local government, or part of national SOEs. I record these as 'unknown' rather than making any assumptions about individuals' employers. Some coding involves a degree of conjecture. The most important example is

[A1] I code 'Prime Minister' and 'Vice Prime Minister' as Minister and Vice Minister respectively.

Table A.1: Examples of biography entry coding

Original	Translation	Type	Organisation	Place
Председатель Ленинского райисполкома города Алма-Аты (1986-1989)	Chair of the Leninskiy rayon executive committee of Alma-Ata city	District government leadership (Soviet)	District government (Soviet)	Almaty city
Советник-посланник Посольства Республики Казахстан в Исламской Республике Иран (2007-2008)	Advisor-envoy to the Ambassador of the Republic of Kazakhstan to Iran	Consul	Central government	Rest of World
Советник председателя совета директоров - Генеральный представитель АО «Народный банк Казахстана» (11.2013-02.2014)	Advisor to the Chair of the Board — General Representative of AO "People's Bank of Kazakhstan"	Private firm leadership	Private business	Almaty city
Начальник Каражанбасского управления по повышению нефтеотдачи пластов и капитальному ремонту скважин и начальником нефтегазодобывающего управления «Каражанбастермнефть» (1982-1987)	Head of the Karazhanbasskiy Department for Enhanced Oil Recovery and Well Overhaul and Head of "Karazhanbastermneft" Department for Oil and Gas Production	Soviet management	Soviet agriculture, mining, and enterprise	Mangistau
Заместитель руководителя Администрации Президента Республики Казахстан (04.1998-08.1998)	Vice Head of the Administration of the President of the Republic of Kazakhstan	Department vice head	Central government	Astana
Директор Уральского филиала ОАО «Темирбанк» (1998-2003)	Director of the Ural'sk brank of OAO "Temirbank"	Worker	Private business	ZKO
Преподаватель Актюбинского государственного педагогического института, директор Центра подготовки олимпийского резерва Актюбинской области (2004-2007)	Chair of the Aktobe State Pedagoloichical Institute, Director of the Training Centre for the Olympic Reserve of Aktobe Oblast'	Research/University administration	Academia	Aktobe
Заместитель Премьер-Министра Республики Казахстан (25.02.2019-20.08.2019)	Vice Prime-Minister of the Republic of Kazakhstan	Vice minister	Central government	Astana
Исполняющий обязанности директора, директор департамента финансового регулирования Министерства транспорта и коммуникаций Республики Казахстан (2002-2003)	Acting director, director of the Department of Financial Regulation of the Ministry of Transport and Communication of the Republic of Kazakhstan	Department committee head	Central government	Astana
Электромонтер станции Кандагач (1984)	Electrician, Kandahach station	Worker	District government (Soviet)	Aktobe

for ministerial and other government positions. Location for these is generally not explicitly given, but it is reasonable to assume that ministers work in the capital. Inaccuracy here may be introduced as a result of the 1997 switch of Kazakhstan's capital from Almaty city to Astana. I code these positions as being in Astana from the end of 1997, though some ministries may not have completed the move until after this date. Nevertheless, this issue only affects a small proportion of entries. Moreover, these are only used in descriptive analyses where, for this period, both Almaty and Astana can be thought of as 'the centre'.

In Table A.2, I summarise this coding. By far the most common type of job recorded in biographies is work for central or regional government. This includes work as an akim (or regional administration head, as the position was known in the early 1990s).[A2] It also includes a variety of senior-level positions in government structures, as minister/vice minister, vice akim, or the bureaucratic head of a department or departmental committee. Given this, it is unsurprising that the most common places of work recorded in the biographies are Astana and Almaty, respectively the country's capital and biggest city (and pre-1997 capital). Other regions are far less frequently recorded in the data. For example, more biography entries record work abroad, in an embassy or at an international organisation, than in eight regions. This reflects the importance of work in the centre, as well as the concentration of people—and political opportunities—in certain parts of Kazakhstan.

A.2 Economic data and descriptive statistics for regressions

Through this section, shorthand in figures refers to the codes for Kazakhstan's regions listed in Table A.3.

A.2.1 Turnover

Figure A.1 presents more detail on the dependent variable—the timing of oblast' akims' dismissals—showing the month they left office for the full length of my data. The left panel is a set of timelines by oblast', with dots indicating dismissal. The right panel is a histogram of the count of dismissals by month (i.e., how many akims were dismissed in month x).

A.2.2 Subventions

Figure 5 summarized how subventions to and withdrawals from oblast' budgets by the centre have changed over time. These data are taken from the annual republican budgets from 1999

[A2]Note that the count of jobs as an akim is higher than the number of akim tenures included in my core analyses because this career path data includes the period prior to 1997 (i.e., an akim may have started their tenure in my data in 2000, but have previously held an akim post in 1995, which is included in the 'pre-tenure' career data but not as a tenure).

Table A.2: Summary of the career path data

Job type	Count	Organisation	Count	Place	Count
Oblast akim/Head of Regional Administration	166	Central government	570	Astana	538
SOE leadership	117	Regional government	312	Almaty city	218
Vice minister	111	Soviet agriculture, mining, and enterprise	129	Unknown	126
Minister	97	SOE	119	Aktobe	68
Worker	90	District government	103	ZKO	65
Oblast vice akim/Deputy Head of Regional Administration	85	Unknown	76	YuKO/ Shymkent/ Turkestan	62
Department committee head	84	District government (Soviet)	54	Karaganda	60
Rayon/GOZ akim/Head of District Administration	75	Academia	45	Pavlodar	60
Unknown	74	Private business	43	Kostanay	51
Soviet functionary	68	Regional government (Soviet)	39	Akmola	47
Engineer/geologist	48	Komsomol	32	Almaty	46
Department head	45	Central government (Soviet)	22	Atyrau	43
Regional government leadership	43	Representative body	19	SKO	42
Political advisor	40	Quango	16	VKO	41
Private firm leadership	38	Ruling party	16	Mangistau	39
Ambassador	37	Small business and agriculture	15	Kyzylorda	35
Department functionary	36	Local government (Soviet)	10	Zhambyl	34
District government leadership (Soviet)	34	International organisation	6	Russian Federation	18
Department regional branch head	32	Local government	6	FSU (exluding Russia)	17
Department vice head	30	Retired	5	Rest of World	17
Other	295	Other	8	Other	18
Total	1645	Total	1645	Total	1645

Note: Data are individual level—i.e., each biography is only counted once, not once per tenure. Soviet and non-Soviet government work is separated—e.g., Obkom first secretary is recorded as a separate type of work to akim/regional administration head and catagorised under 'Regional government (Soviet)'. Includes full reported career information for 113 individuals.

Table A.3: Oblast' ISO codes

Oblast' name	ISO code	Oblast' name	ISO code	Oblast' name	ISO code
Akmola	KZ-11	Karaganda	KZ-35	North Kazakstan (SKO)	KZ-59
Aktobe	KZ-15	Kostanay	KZ-39	East Kazakstan (VKO)	KZ-63
Almaty	KZ-19	Kyzylorda	KZ-43	Gorod Astana	KZ-71
Atyrau	KZ-23	Mangistau	KZ-47	Gorod Almaty	KZ-75
West Kazakstan (ZKO)	KZ-27	South Kazakstan (YuKO)	KZ-61	Gorod Shymkent	KZ-79
Zhambyl	KZ-31	Pavlodar	KZ-55	Turkestan	KZ-TU

Formally, Turkestan is KZ-61. I use KZ-TU to distinguish it from YuKO.

(2004 for Astana).[A3] These figures do not include ring-fenced discretionary contributions by the government, which further increase regions' fiscal reliance on the centre. Information for Astana is only available after 2004. Before this, as its construction as Kazakhstan's new capital continued, the city was funded through a mixture of other mechanisms. To put the 2021 values in real 2000 terms, I divide the nominal values using a deflator calculated with national end-of-year inflation data from the Office of National Statistics. More detail on these adjusted data are in Figure A.2, which shows the distribution of real-terms subvention data over time for each oblast'.

A.2.3 Growth data calculation

The source for GRP calculation being carried out nationally is Maldybaeva 2017, then the Head of the Department of National Accounts of the Committee for Statistics under the Ministry of National Economy (*rukovoditel' Upravleniya natsional'nykh schetov Komiteta po statistike Ministerstva natsional'noy ekonomiki Respubliki Kazakhstan*). She writes that

> despite there being territorial units of the statistical committee in every region, GRP calculations by the production method are carried out in the central office [*v tsentral'nom apparate*]. This makes it possible to ensure methodological comparability of the macroeconomic indicator at the regional level. The calculations of GDP [*VVP*] and GRP [*VRP*] are based on the international standard 'System of National Accounts' which is a standard set of recommendations for the calculation of macroeconomic indicators in agreement with internationally agreed concepts, definitions, classifications and accounting rules...
>
> The sources of information are national statistical observations submitted by respondents (enterprises, individual entrepreneurs, households) and also administra-

[A3]For example, for 2020, these data are in article (ctat'ya) 5 and article 10 of 'O respublikanskom byudzhete na 2020—2022 gody [*On the republican budget for 2020—2022*]', Zakon Respubliki Kazakhstan № 276-VI ЗRK (4 December 2019), https://adilet.zan.kz/rus/docs/Z1900000276.

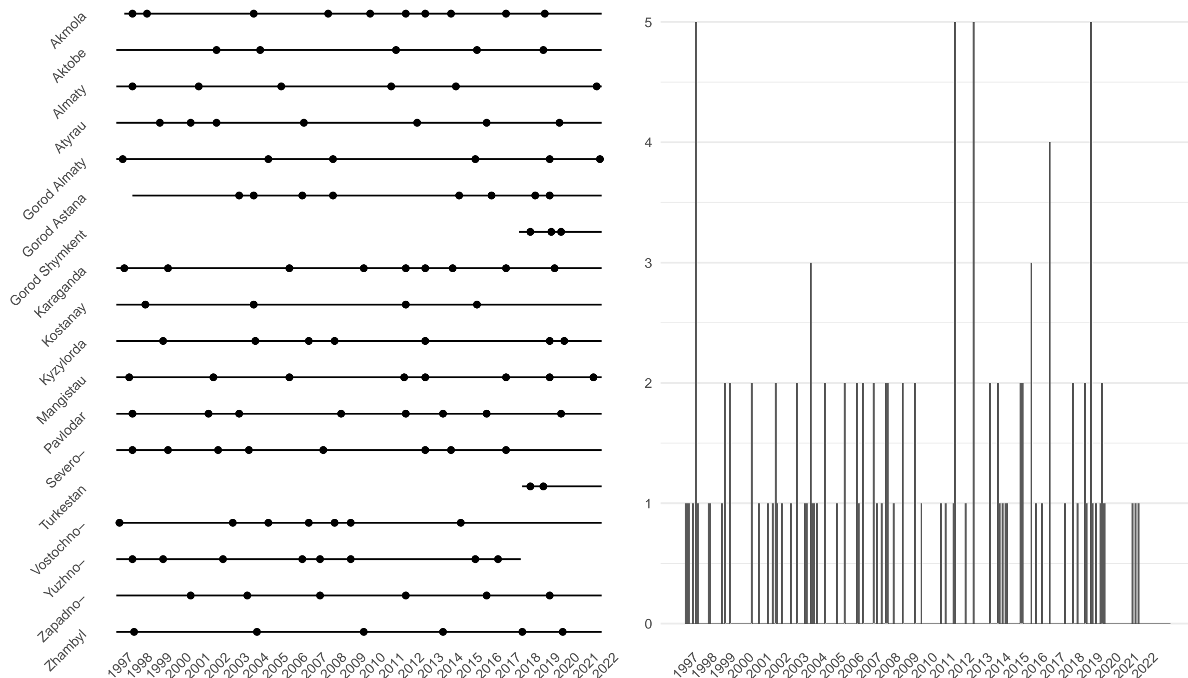


Figure A.1: Departures by oblast' and monthly departure count

> tive sources of data (the National Bank of Kazakhstan, Ministry of Finance of Kazakhstan). (Maldybaeva 2017, 4)

The Committee for Statistics is the forerunner of today's Office of National Statistics (*Byuro natsional'noy statistiki*), which was formed in 2020 as part of the newly created Agency for Strategic Planning and Reform (*Agentstvo po strategicheskomu planirovaniyu i reformam*). Maldybaeva was writing in the official journal of the committee, *Ekonomika i statistika* (Economics and Statistics).[A4]

A.2.4 Wage and annual labour cost

In the empirical sections, I use data on annual labour costs, rather than wages. While these data are available for a longer period than pure wage data, they also include other costs of employment—such as pension contributions—that may vary systematically across oblast' and make the two measures incomparable. Examining both measures, though, shows that they are fairly tightly correlated. The left panel of Figure A.3 shows the absolute values of both

[A4]See "Nauchno-informatsionnyy zhurnal «Ekonomika i statistika» [*Scientific information journal 'Economics and Statistics'*]," *Tsentral'naya nauchnaya biblioteka RK*, http://library.kz/ru/2015-04-22-05-14-24/ekonomika-i-statistika.html.

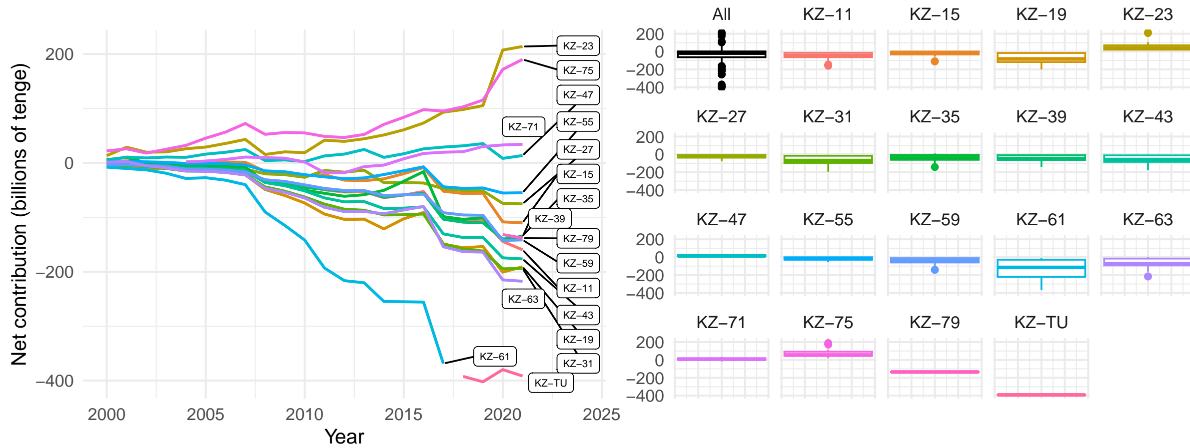


Figure A.2: Subventions to and withdrawals from the republican budget (2000 real terms)

Figure A.3: Comparison between the annual labour cost and wage measures

measures in each year. The right shows the correlation between changes in the variables, coloured by oblast'.

A.2.5 Regression descriptive statistics

Economic variables may not predict when akims are dismissed, but might predict when akims are not reappointed and removed from the state cadre system entirely. These models predict monthly likelihood of *demotion*. I recode turnover$_{r,t}$ to '1' in months where an akim departs from office *and* their next recorded job is a demotion. 'Demotions' include private sector positions, prosecutions, retirement, two cases of taking a low-level job in an SOE or district government, two cases of akims having no recorded next job, and one case of the akim joining

the opposition.[A5] There are 10 cases. Turnover is '0' if an akim remains in office and '0' if they depart and take another state post. The intuition here is that complete exit from the state system is the least desirable outcome, whereas remaining in office or reappointment to elsewhere in the cadre system are signs of continued co-optation. Unlike similar exercises, such as in work on China by Li and Zhou 2005 and Sheng 2022, I do not code a third level for promotion, given that it is unclear what counts as a 'promotion' in Kazakhstan's cadre system. The regime demoting poor performers should result in the same coefficient directions as in the previous sections.

Table A.4: Descriptive statistics for the baseline regressions

Variable	N	Mean	SD	Min	Max	Median
Left Office	3456	0.02	0.15	0.00	1.00	0.00
Growth$_{t-12}$	3456	19.15	15.33	-17.04	100.17	16.91
ΔUnemployment$_{t-12}$	3456	-3.51	4.57	-19.24	8.16	-2.26
ΔLabour costs$_{t-12}$	3456	13.66	7.11	-1.92	40.47	13.70
Relative Growth$_{t-12}$	3456	2.24	10.66	-27.12	64.87	2.09
Relative ΔUnemployment$_{t-12}$	3456	-0.31	2.99	-10.82	7.26	-0.14
Relative ΔLabour costs$_{t-12}$	3456	1.52	5.06	-15.61	25.97	1.49
Performance (Growth)$_{t-12}$	3456	-22.67	9.52	-51.42	20.18	-21.97
Performance (ΔUnemployment)$_{t-12}$	3456	5.46	3.07	-6.56	17.18	5.24
Performance (ΔLabour costs)$_{t-12}$	3456	-9.78	6.92	-43.96	26.66	-10.58
Log GRP per capita$_t$ (Millions of Tenge)	3456	14.26	0.97	11.73	16.60	14.36
Log population$_t$	3456	13.73	0.45	12.76	14.86	13.59
Age$_t$	3456	52.92	7.14	36.79	68.99	53.00
Months in office	3456	27.05	20.10	1.00	94.00	22.00

Table A.4 includes descriptive statistics for the variables used in the baseline regressions. These statistics are for the data between 2004 and 2022 used in those models.

A.3 Robustness and sensitivity checks

A.3.1 Demotion

Tables A.5, A.6, and A.7 reproduce the previous models with demotion as an outcome. The predictor variables remain insignificant in all models. These results are robust when 'retire-

[A5]I code retirement as a demotion—it might seem that way to cadre not reappointed at 63, even as their peers are re-appointed. As a robustness check, I repeat the analysis with retirement coded as 0. Results remain consistent.

Table A.5: Regressions of demotion on the basic economic variables

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Growth_{t-12}	-0.0001	-0.0000				
	(0.0001)	(0.0001)				
$\Delta\text{Unemployment}_{t-12}$			0.0002	0.0001		
			(0.0002)	(0.0002)		
$\Delta\text{Labour costs}_{t-12}$					-0.0000	0.0001
					(0.0001)	(0.0001)
Controls	No	Yes	No	Yes	No	Yes
Tenure terms	Yes	Yes	Yes	Yes	Yes	Yes
Oblast' fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.0053	0.0068	0.0052	0.0067	0.0049	0.0068
Adjusted R^2	-0.0008	-0.0002	-0.0009	-0.0002	-0.0012	-0.0002
N	3456	3456	3456	3456	3456	3456

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

Table A.6: Regressions of demotion on relative outcomes

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Relative Growth_{t-12}	-0.0001	-0.0001				
	(0.0001)	(0.0001)				
Relative $\Delta\text{Unemployment}_{t-12}$			0.0001	0.0000		
			(0.0003)	(0.0003)		
Relative $\Delta\text{Labour costs}_{t-12}$					-0.0000	-0.0000
					(0.0002)	(0.0002)
Controls	No	Yes	No	Yes	No	Yes
Tenure terms	Yes	Yes	Yes	Yes	Yes	Yes
Oblast' fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.0050	0.0069	0.0049	0.0067	0.0049	0.0067
Adjusted R^2	-0.0011	-0.0001	-0.0012	-0.0002	-0.0012	-0.0002
N	3456	3456	3456	3456	3456	3456

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

Table A.7: Regressions of demotion on detrended relative performance

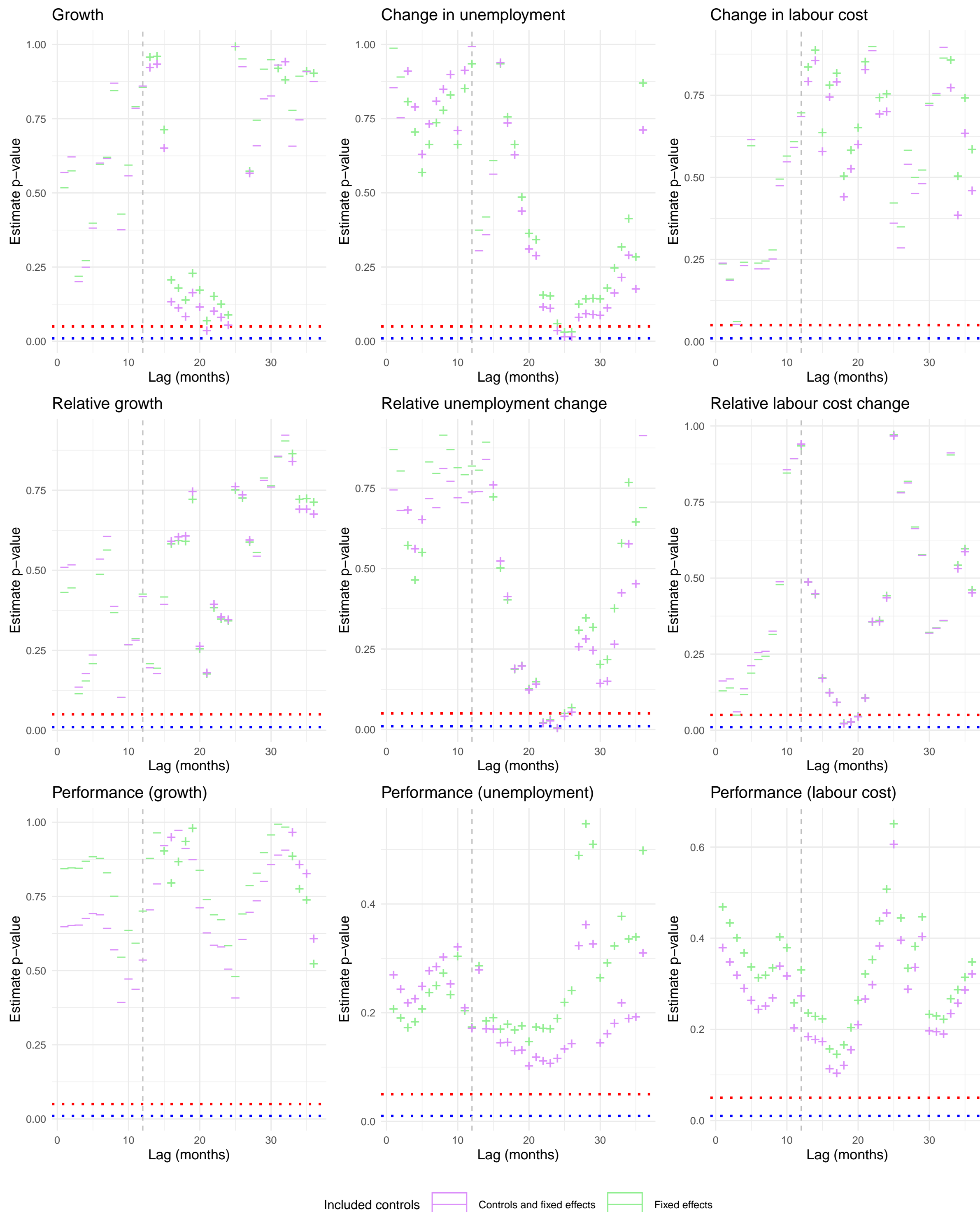
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Performance (Growth)$_{t-12}$	-0.0000	0.0000				
	(0.0001)	(0.0001)				
Performance (ΔUnemployment)$_{t-12}$			0.0000	0.0002		
			(0.0003)	(0.0003)		
Performance (ΔLabour costs)$_{t-12}$					-0.0001	-0.0000
					(0.0001)	(0.0001)
Controls	No	Yes	No	Yes	No	Yes
Tenure terms	Yes	Yes	Yes	Yes	Yes	Yes
Oblast' fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.0049	0.0067	0.0049	0.0068	0.0051	0.0067
Adjusted R^2	-0.0012	-0.0002	-0.0012	-0.0002	-0.0010	-0.0002
N	3456	3456	3456	3456	3456	3456

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

ment' is not coded as a demotion. In all, neither dismissal nor demotions have any significant association with economic outcomes in these baseline models.

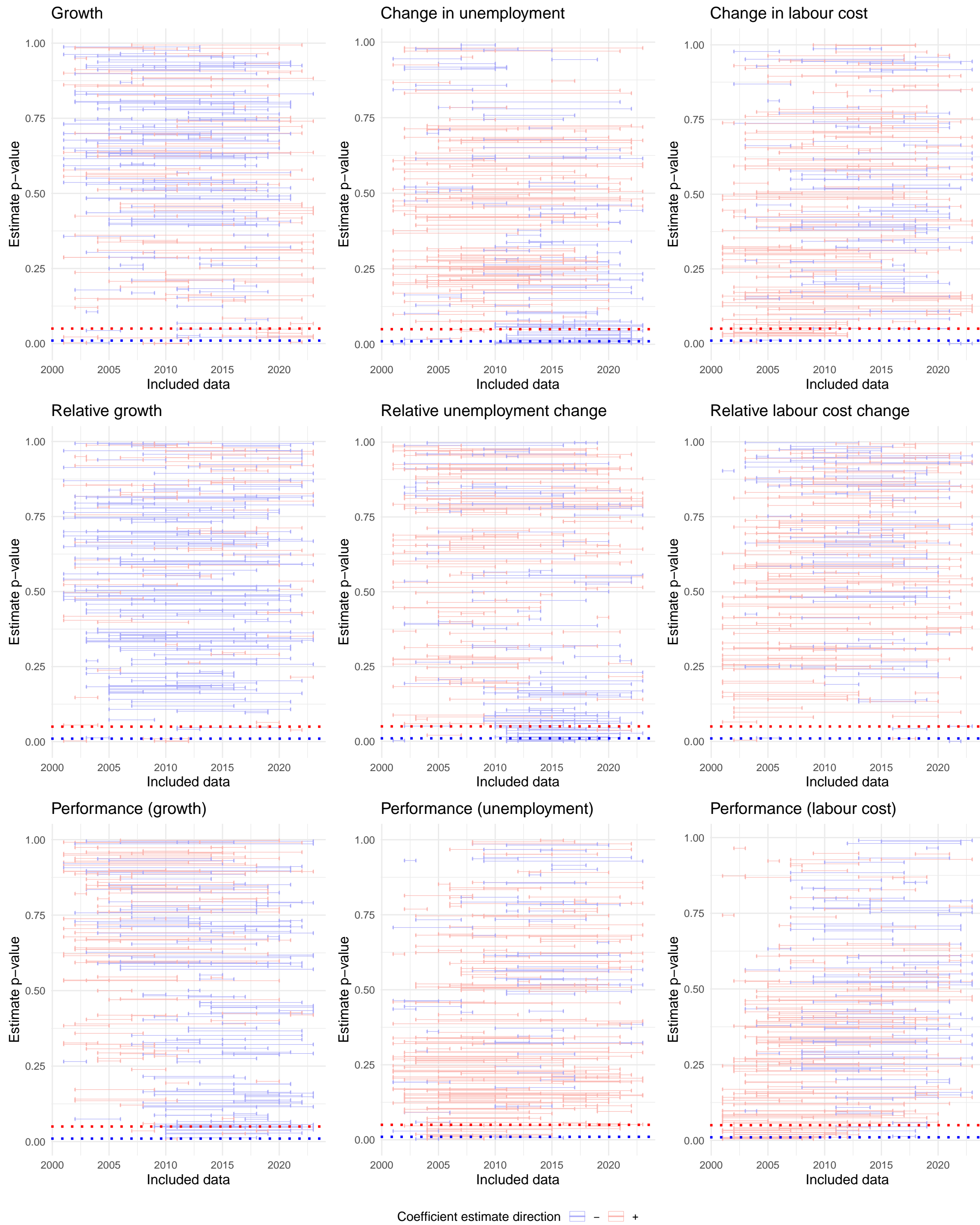
A.3.2 Varying lags

The above models all include predictors lagged by 12 months from when they are reported, the standard in the literature. Regime reaction to poor economic performance might be quicker—say, if it has early access to the data—or longer—if local unhappiness takes time to build. Confidence that the null findings so far do not result from this lag selection is greater to the degree that estimate direction and significance do not fluctuate with small changes in specification. Figure A.4 shows how the directions and p-values of the point estimate for predictors for the baseline models vary with lags between 0 to 36 months.[A6] The estimates are very sensitive to changes in lag. Where estimates are significant at conventional levels, the lag is surprisingly high—somewhere around 20 months. These estimates are only significant for a tightly circumscribed set of months. Unless the regime consistently reacts to economic results after a set period, this sensitivity indicates that any significance in the estimates are artefacts of lag selection.



Note: A '+' indicates a positive point estimate and a '-' a negative point estimate. The red line indicates 5% significance and the blue line 1% significance. The grey vertical line is the standard 12 month lag. Aside from oblast' fixed effects, controls are tenure terms, logged GRP per capita, logged population, and age.

Figure A.4: Predictor estimate direction and *p*-value by size of lag



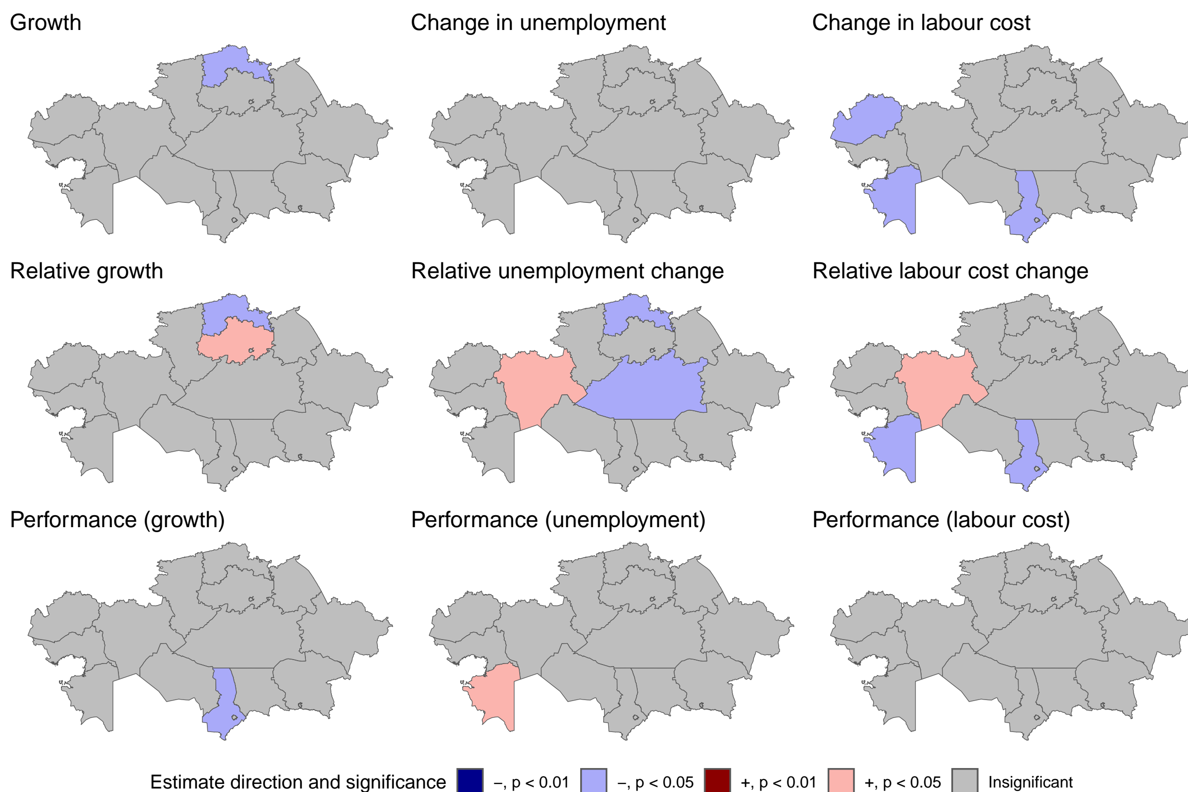
Note: All variables have a 12 month lag. The red line indicates 5% significance and the blue line 1% significance. Regressions include oblast' fixed and all controls. Whiskers indicate the start and end of the data.

Figure A.5: Predictor estimate direction and p-value by data time period

A.3.3 Varying included time periods

Another specification decision is the time period included in the regressions. The baseline results use 18 years of data, from 2004 to the end of 2021, to enable me to use the full growth data. This reduces the number of observations I can use for the unemployment and labour cost variables, which are available a year earlier than growth. It also includes a range of periods in which the regime's approach to akims might have differed. This may bias against finding significant results if the regime punished poor performance much less in some periods than in others. Here, I use all available data and vary the window of data included in the regressions. I subset the data for each combination of years between 2001 and 2023.[A7] With each subset, I run the baseline regressions, including controls and oblast' fixed effects with a 12-month predictor lag.[A8] Figure A.5 presents the results. Each line is the full model run on data from a single time period, with the length indicating the start and end date of the data included in the regression. The vertical position is the predictor estimate *p*-value and colour indicates whether the estimate is positive (red) or negative (blue). Included time periods for which the predictor is significant at the 5% level are those with lines below the red dotted line (at the 1% level below the blue line).

Results are highly sensitive to the included period. Most estimates are, as with the baseline results, statistically insignificant. Generally, where an estimate is significant it is only significant for a specific, small number of years and estimates with slightly different dates are non-significant.[A9] This suggests that significant results may be driven by particular events—perhaps an akim with especially bad performance being fired—rather than a genuine policy change leading to a systematic focus on competence. For some of the predictors, denser patches indicate periods that might be thought of as 'effective samples' in which associations between dismissal and outcomes are potentially relevant (cf. Samii 2016; Aronow and Samii 2016). These are generally clustered in the 2010s, and can be most clearly seen for the change in unemployment and performance (labour cost) variables. These periods match when the regime has appeared most secure with respect to rival elites but most vulnerable to mass contention (Isaacs 2022). That might suggest some sustained effort by the regime to enforce competence as a legitimacy-boosting exercise. Still, these periods are not robust to variable choice—for instance, the dense patch covers different periods for raw unemployment change and Sheng's performance (unemployment) variable. The coefficients are often in the opposite direction to what this explanation would suggest. For example, they suggest increasing unemployment is associated with a *lower* chance of dismissal.



Note: All variables have a 12 month lag. Excludes Turkestan and Shymkent after 2018. Regressions include all controls (but not oblast' fixed effects).

Figure A.6: Predictor estimate direction and p-value by oblast'

A.3.4 Results by oblast'

It may be that the regime focuses on competence in some places more than in others. The baseline models account for this with oblast' fixed effects. Here, I disentangle this approach by running separate regressions on each oblast'. In Figure A.6, a region's colour reflects whether the predictor estimate is significant—and in which direction—when a regression with full controls is run on data from the region. The results are sensitive to region. Bar change in unemployment and performance (labour cost), every predictor has a region significant at the 5% level. Very few regions are significant in more than one model, though. These results do not provide robust evidence about any region being the subject of particularly stringent performance incentives.

[A6] $N = 3240$, lower than above because the first observations are from 2005 (2021 for Shymkent and Turkestan) to allow up to 36 months of lag.

[A7] That is, $2001 : 2002, 2001 : 2003, \ldots, 2001 : 2023, \ldots, 2022 : 2023$.

[A8] This is just under 400 models.

[A9] So it is easy to find almost the same line 'shifted' upwards and outside of the significance bounds.