

**SKILL OR LOYALTY?
THE FATE OF RUSSIA'S GOVERNORS UNDER PRESIDENTIAL CONTROL**

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On January 22, 2010, Mintimer Shaimiev, the leader of the Republic of Tatarstan (a constituent region of the Russian Federation), announced that he would step down from the Republic's presidency¹ at the end of his term, in March. Shaimiev had been Tatarstan's leader since before the end of the USSR, becoming Communist Party first secretary in 1988 and then president in 1991. A few days after Shaimiev's announcement, Russian President Dmitrii Medvedev, on Shaimiev's recommendation, nominated the Republic's second-ranking official and Shaimiev's ally to become Tatarstan's next leader. When Shaimiev stepped down, he took over a newly created post of State Advisor, which gives him wide-ranging powers, and even kept his same office in the presidential building! (For details, see Pavlov 2010.)

On September 28, 2010, Medvedev announced that he was removing Moscow Mayor Yuri Luzhkov from office. Luzhkov, like Shaimiev, was 73 years old. He had been Moscow's mayor since 1992 and had governed it with a firm hand, drawing parallels to Chicago's first Mayor Daley. Luzhkov, especially in the early years, had enjoyed substantial popularity and had flirted with running for the presidency. When Medvedev's announcement came, Luzhkov's formal term of office had ten months remaining. He did not resign; he was publicly fired. The reason given was that Luzhkov had "lost the trust" of President Medvedev. The decision followed a period of worsening relations between Luzhkov and the Kremlin, particularly Medvedev, as well as a decline in Luzhkov's popularity. Luzhkov decried the decision and expressed fears--later proven accurate--that he and his family would become targets for prosecution. (See Petrov 2010; Slider 2010a)

Two of the most powerful regional leaders during post-Soviet Russia's first twenty years. Two quite different ends to their tenures in office. Both Shaimiev and Luzhkov had built strong and loyal political machines in the 1990s. When Vladimir Putin first entered the national arena, the merger of Shaimiev's All-Russia and Luzhkov's Fatherland in preparation for the 1999 Duma election inspired the pro-Putin party, Unity. Yet Luzhkov's opposition stance did not last long. After Putin's 2000 election as president, the Fatherland/All-Russia bloc merged with Unity, creating United Russia. Thus, both

¹The leaders of regions with the status of republics have the title of president rather than governor, and the leaders of the two cities that have the same constitutional status as regions have the title, naturally, of Mayor. We follow standard usage by referring to the heads of all the regions as "governors" regardless of their formal title.

Shaimiev and Luzhkov had been allied with Putin and his protégé, Medvedev, since the early 2000s. Despite these similarities, their exits from office were vastly different. Shaimiev's removal was carefully timed and largely on Shaimiev's terms. Luzhkov's was abrupt and entirely on Medvedev's terms. Together, these cases highlight the variety in the replacement of regional leaders since the 2005 law that ended Russia's gubernatorial elections.

The cases of Shaimiev and Luzhkov also illustrate that the new appointment process is highly political. While formally the Russian president now enjoys the right to remove governors at will and to control their appointment, the political realities are complex. The politics of gubernatorial replacements is at the core of contemporary Russian federalism and of Vladimir Putin's ongoing project to create a solid "vertical of power" in Russia. While the switch from the public electing governors to the Russian president appointing them certainly gave the latter substantial more bargaining power vis-à-vis the governors, we argue that it would be a mistake to interpret the situation as entirely under the Kremlin's control. The regions' performance in the economic, social and political spheres remains crucial to the federal leadership's goals for the country. Also, the governors are important players in national politics, including their role in promoting United Russia's success in national presidential and legislative elections (on this, see Reuter 2010). We therefore treat the Kremlin's decision about the tenure of a governor as the result of an asymmetrical bargaining process. We use events-history analysis of data from all 83 Russian regions from 2005-2011 in order to estimate the factors influencing when a governor is replaced. These factors include the region's size and ethnic composition, the governor's age, and aspects of the governor's administrative and political performance. Our analysis supports the view that Russia's center-regional politics remain highly politicized, varying cross-regionally depending on relative balance of political resources between the Kremlin and the regional leadership.

The Kremlin and the Regional Leaderships

From soon after Russia's independence in 1991, its constituent regions have been led politically by chief executives, usually referred to as governors. Initially, for the non-republics, President Yeltsin designated these leaders, frequently by tapping those who had been the first secretary of the region's Communist Party branch or who were the head of the elected legislature for the region. Republics had the right for their presidents to be chosen within the region, either by the legislature or through a popular election. By 1996, however, Yeltsin conceded the right for all governors to be elected by the voters of the region (Kirkow 1998; Solnick 1998). Popular election gave governors a source of legitimacy that increased their power vis-à-vis the federal center and led to a period in which many observers saw cen-

trifugal forces as excessive, even threatening to Russia's statehood (Alexseev 1999; Stoner-Weiss 1999; Sakwa 2002; Domrin 2006). Putin made it a central goal of his first presidency to establish greater Kremlin control over the regions. Returning the selection of governors to the Russian president was a key part of doing this. In the aftermath of the Beslan tragedy of September 2004, Putin sought and received changes in federal law that ended gubernatorial elections.

From 2005 on, governors serve as long as they maintain the confidence of the Russian president (helpful discussions of the new practices include Turovskii 2009; Ross 2010; Slider 2010b). Those in office in January 2005, when the system changed, continued in office until the end of their term, when they needed a presidential nomination to be re-appointed. Those incumbents could, however, request an expression of confidence from President Putin prior to their term expiring. Getting it would start them on a new four-year term. If an incumbent is not to be re-appointed or a vacancy exists for some other reason, the president nominates the new governor.² Following the presidential nomination, the regional legislature must ratify the nomination. (This has been a formality in all cases to date.) Under these rules, any governor can be fired at any time, plus the Russian president (Putin through May 2005, Medvedev thereafter) has had irregular but frequent formal opportunities to decide on an incumbent governor's suitability. Gubernatorial replacements, whether through the "ordinary" process such as Shaimiev's or through an extraordinary firing such as Luzhkov's--and excluding those due to the incumbent's death--occurred 10 times in 2005, 4 in 2006, 8 in 2007, 8 in 2008, 10 in 2009, 19 in 2010 and 3 during the first half of 2011.³

What drives the pattern of renewals, non-renewals and firings from 2005 on? Although scholars have only begun to tackle this question, the Kremlin's continued reliance on national elections as a source of its legitimacy has made the electoral process a natural starting point for understanding appointments and dismissals. Turovskii (2010, 67) even suggests that thinking of appointments as elections with a restricted set of voters (i.e., the president and his inner circle) is a useful analogy. With political actors in the center controlling the governors' fates, Turovskii submits that the primary determinants of replacement are the governors' abilities to provide electoral results favorable to the Kremlin and to consolidate the regional elite. Indeed, in the absence of any mechanisms for popular input, Turovskii (2010, 69-70) contends that neither the personal popularity of a governor nor the socioeconomic situation in a region matters much. Sharafutdinova (2010) offers an account that resembles Turovskii's. While the appoint-

²For how the president determines the nominee, which has changed since 2005, see Chebankova 2010, 139-140; Blakkisrud 2011.

³ Information on the sources of all our data is in the Appendix.

ment process, theoretically, provides the Kremlin greater control over regional executives, she doubts its effectiveness. From her perspective, the primary goals of the appointment process are “vote delivery” and “societal manageability,” and it is these considerations that drive gubernatorial replacements (ibid, 682). Moreover, since governors are largely left alone as long as these two goals are met, Sharafutdinova believes that the Kremlin has missed an important opportunity to link accountability to the quality of governance.

Although electoral results and societal stability may be prevailing considerations for the Kremlin, the relative weight of these two considerations seems to have varied over time and probably varies from region to region. Turovskii (2010), for example, examines the changing frequency of gubernatorial replacements and concludes that the appointment era so far has evolved in three stages: 1) inertia, when most incumbents were reappointed; 2) experimentation, when the president experimented with instilling some new blood into the regions in the form of outsiders; and, most recently, 3) replacement, as the center has become more confident in its ability to control the situation in the country. In a qualitative assessment of appointment dynamics across these three stages, Turovskii (2010, 63) draws conclusions that are broad sweeping and insightful. Among them are assertions that, early on, dismissals were largely confined to sparsely populated regions notorious for poor governance, public flogging was the exception, and generating some public effect was not a motivation for replacements. Moreover, he contends that once the Kremlin moved out of the inertia phase and into the experimentation stage, the potential risks of change were initially offset by focusing on regions with passive populations and high public confidence in the center (ibid, 72). Turovskii’s assertion that caution characterized the first two stages of the appointment process complements Shafutdinova’s (2010, 683) view that the appointment process was not solely driven by a desire to maximize power: If it had been, then Russia’s most powerful regional barons would have been replaced first.

Previous studies, then, suggest that a governor and his or her allies at the regional level can influence both the president’s desire for someone else and the cost to the president of making a change. As Gel’man and Ryzhkov (2011, 453) note, “[D]espite the numerous cases of forced resignations of regional governors . . . , the hierarchy of the ‘power vertical’ is far from an army-like chain of command, and it operates according to a different logic.” Both explicit and tacit bargaining occurs between the Kremlin and the governor.⁴ Understanding this bargaining requires that attention not only to the formal institu-

⁴On such bargaining in the Yeltsin period, see Solnick 1996; Filippov and Shvetsova 1999; Treisman 1999; Alexseev 2001; Soderlund 2003.

tional rules, which constrain the governors substantially and the president hardly at all, but also to informal power relations and other contextual constraints. Formal and informal influences do not simply coexist; they can be in tension. Chebankova (2010, 2), for instance, sees a “growing rift between the erected institutional structures [of Russian federalism] and the functioning processes taking place within them.” Meanwhile, the low supply of sufficiently qualified and trustworthy replacements not only represents the kinds of contextual constraints that initially tied the president’s hands (Turovskii 2010, 66), but that also may keep the Kremlin from being able to hold governors accountable for the quality of governance in their regions (Sharafutdinova 2010, 673).

As these comments suggest, our theoretical approach focuses on the relative power resources of different actors pertinent to a governor staying in office or being replaced. Although the research question is when the Russian president replaces a governor, we are assuming that presidential choices reflect a process of explicit or tacit (to them) bilateral bargaining and competition between the Kremlin and each regional governing team. If this assumption is correct, the pattern of gubernatorial change/retention ought to reflect cross-regional differences in factors that will make the president desire to replace the governor and in those that make the president leery to do so. In Reisinger’s (2011) five-way division of theoretical approaches, our assumptions are strategic, or resource-oriented. We are not investigating differences among the actors in their ideologies or personalities or propensity to take a certain kind of action, as a behavioral approach would. We do not examine the impact of shared cultural norms. Although formal institutions and the rules that generate them will always shape the distribution of power resources among actors, we do not examine the influence of any one formal institution or set of institutions. Indeed, the institution that gives rise to our research question is the set of rules governing presidential control over gubernatorial retention and appointment. As we noted above, this institution certainly provides the Russian president with tremendous power vis-à-vis each governor. However, this institution is the *same* for each of the bilateral relationships between the Kremlin and a regional leader. For our purposes, it is not a variable nor, therefore, an explanatory factor in our approach. As we will discuss below, the factors we will examine empirically flow from thinking about the relationship of power resources and the resulting Kremlin strategy.

Why are the Governors Replaced When They Are?

While previous work provides qualitative and impressionistic accounts of the considerations driving the gubernatorial appointment process in Russia, scholars have yet to apply methods that allow them to analyze the relative effects of rival explanations. The exception is Reuter and Robertson (2011), who

undertake to assess the impact of the election motive relative to factors that one might associate with quality of governance. Yet their logistic regression analysis of annual data does not allow them to consider why a governor is replaced *when* he or she is replaced, a question at the crux of the matter. Although the law now gives the Russian president the authority to end a governorship at any time, whether to do so will usually be a sensitive political question. Medvedev's decision about Luzhkov came after months of speculation about whether it would happen. The president's decision will naturally be influenced by numerous factors pertaining to the region, the situation in the country as a whole, the president's own political standing and, of course, the governor him- or herself. For insights into the politics of presidential control over gubernatorial power, we must examine the entire pattern in search of those factors that clearly promote or retard Kremlin action. This pattern comprises not simply whether a governor is fired or not re-appointed in a particular year. It also includes the ongoing maintenance of governors in office. Because the president can oust a governor before a term comes to an end, the formal potential for the president to remove a governor is a continuous process. Event-history (or survival) analysis is the proper technique for examining a pattern of data having this over-time character (Box-Steffensmeier and Jones 2004; Mills 2011).

Thus, with information on the governors, the regions and the national situation, we use event-history analysis to see what factors influence the survival of a governorship. We examine the pattern of gubernatorial replacements and non-replacements month-by-month from 2005 through June of 2011. We then employ multivariate models incorporating factors that a) bear on the Kremlin's desire or lack of desire to replace the incumbent governor, b) bear on the Kremlin's political readiness to make a replacement, and c) provide important controls.

Before turning to the data analysis, we need to review the initial expectations we have about the patterns in our data. They include expectations about time, regional characteristics, the incumbent governor's personal characteristics, his or her political performance from the Kremlin's perspective, and his or her administrative strength or weakness. The various factors in these categories ought to, all else equal, give the Kremlin incentives for or against making a replacement.

Time Over the six and a half years from which we draw our data, we expect the frequency of replacements to have increased from the third quarter of 2008 on. This is when the global economic crisis began to harm Russia's economy. As the economic pain grew, so did social discontent. Public dissatisfaction with poorly performing governors was rising, and having a regional governing team that could maintain social stability was of growing importance. Also, the Kremlin itself needed to show that it was responding to the economic downturn. Replacing governors therefore had particular value.

The onset of the economic crisis falls too close in time to the start of the Medvedev presidency to be able to treat his tenure in office as a time-related factor. Medvedev took over as president in early May of 2008, and only a few months later the economic downturn began. Although we connect our expectation of more frequent replacements over the last three years to the country's economic problems, Medvedev occupying the presidency might also be relevant. We cannot, though, disentangle the two.

Beyond this distinction between the pre-crisis and crisis periods, "time" has a role to play in a different sense. In a survival analysis, time is measured from when a case enters the analysis to when it leaves. For us, a case is a governorship. It begins in January 2005 or the month a new appointee takes office, whichever is later. It ends when the governor leaves office or at the end of June 2011 if he or she remains in office until then. "Time," then, for purposes of our analyses below, means the number of months a governor is in office. We expect that the likelihood of a governor remaining in office is highest in his or her first months (early 2005 for carry-overs and the first months of appointments for new governors). That likelihood should decline monotonically as the time in office grows. Below, we will show the shape of the line indicating the likelihood of a governor "surviving" in office given the number of months of his or her term. Examining this line's slope will also indicate after how many months governors begin to face a noticeably increased hazard of being fired.

Regional Characteristics We expect that the Kremlin must exhibit more care in making a leadership change in the more nationally important regions, since a poorly managed change can cause greater harm. We will measure national importance with a region's total population.⁵ The more populous regions, in other words, should see fewer gubernatorial changes.

We also expect that the predominantly ethnically non-Russian regions will see fewer leadership changes than those with ethnically Russian populations. The former are of extra sensitivity to the Russian leadership, albeit in a different sense than are the economically vital regions. Replacing a governor might lead to public outcry as an attack on control of the region by that region's titular ethnicity, especially when an ethnic Russian is brought in to be the new governor. The regions with sizable non-Russian populations have the status of republics or autonomous regions. Within that subset of the regions, though,

⁵A different way of measuring regional importance to the Kremlin would stress contribution to the national economy. Regions' population sizes are highly correlated with their gross regional product (Kendall's tau-b=.62). We opt to employ population because a few resource-rich regions such as Khanti-Mansiisk rank very high in gross regional product despite their small population size. Other than their resources, there is little to suggest that such regions are of high importance to the national leadership.

there are variations in the proportion of the population that is non-Russian. We will use the percent of ethnically non-Russian residents in a region rather than variables distinguishing regional status.

Characteristics of the Incumbent Governor We expect that several characteristics of the governor and his or her past experiences will be relevant. Those who came into office prior to 2005, especially those whose control of the regional machine is evidenced by strong electoral victories, owe their loyalty less exclusively to Putin and his team in the Kremlin than do those appointed after. Even though the new 2005 rules require the continued support of the president to continue in office, having gotten into office more independently should count for something, even if only for setting the baseline. Also, longer-serving governors should have more ways to resist a Kremlin move against them. Countering these possibilities, however, is the very fact that the Kremlin will see its own appointees as inherently more trustworthy and right-thinking. Moreover, quite a few of those governors who took office prior to 2005 actually began serving well before then, going back to the early 1990s or earlier. The very length of their tenure means their age is high and the likelihood of stagnation is also higher. For both of these two reasons, the pre-2005 group would be more of a target of the Kremlin.

Older governors should be more vulnerable to replacement because they may appear to the Kremlin as less dynamic or flexible. However, to the extent that higher age carries political experience in that region, we expect replacements to be fewer.

The Incumbent Governor's Administrative Record As the Kremlin examines the merits of retaining or replacing a particular governor, it must give strong weight to the successful management of the region by the governor and his or her team. The president and other central leaders would like all the regions to exhibit social stability, economic growth and the absence of serious infighting among the elites (Gel'man and Ryzhenkov 2011, 454). The Kremlin's interest in replacing a governor, therefore, should rise in response to such indicators as economic decline, rising crime, or worsening health statistics. Tracking the regions' economic, social and administrative success is the goal of the Kremlin's effort since 2007 to gather systematically data on regional performance (Reuter and Robertson 2011).

The Incumbent Governor's Political Performance As observers cited above have noted, the Kremlin expects more from a region's leadership than just successful governance of the region. In addition, governors are expected to provide effective support for the vertical of power, that is, for the nationwide strength of the Kremlin's party, United Russia, and for the regime more generally. The success of United Russia candidates in both regional and federal legislative elections is a criterion by which governors are judged. So, too, of course is the success of Kremlin-backed candidates in the presidential elections. We

therefore expect that, all else equal, governors of regions in which the Kremlin's party or candidate fares well electorally will be safer from replacement.

Patterns of Gubernatorial Survival, 2005-2011

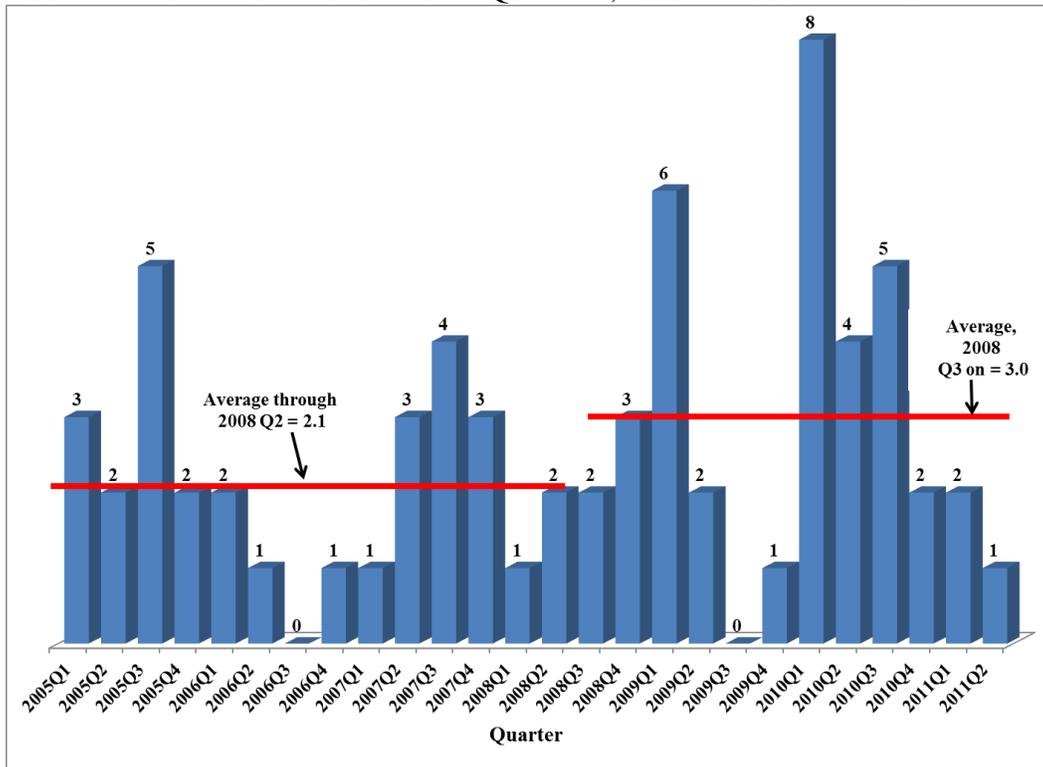
Our dependent variable is, for each governor, the number of months until he or she is removed from office. The beginning month is January 2005 for those who were governing at the time that the new system took effect or, for those appointed subsequent to that, the month of appointment. We have collected data through June 2011. We exclude the cases of the six heads of autonomous okrugs that were merged into their surrounding regions in the second half of the 2000s. We also exclude three governors who died in office: Shershunov of Kostroma, Yevdokimov of Altai and Yesipovskii of Irkutsk. This results in 146 governorships being analyzed: 83 of whom are still in office, the other 63 having left.

The 83 governors in office at the end of June 2011 become "right-censored" cases. Although the dates when they will leave office is unknown, the survival analyses will draw information from the number of months we know they did not leave office.

Overall Trends

Figure 1 shows a histogram of the number of regions experiencing a changeover in governor by three-month period. With regard to our expectation that replacements would be relatively more frequent from the third quarter of 2008 on, the pattern is indeed higher, although the variability in both periods is more striking than the difference between them. Because replacing a governor is a sensitive political issue with numerous specific considerations that the Kremlin must factor in, we might have expected to find no discernible trend in the frequency of changeovers. The highest bars in Figure 1 (when more than three replacements occurred) suggest that change has been a particular Kremlin priority during certain periods. The first three quarters of 2010 saw seventeen changes, contributing to the higher average rate for the last three years of our data. The economic downturn no doubt increased the Kremlin's interest in seeing new blood among the regional leaders and also weakened the positions of many incumbents.

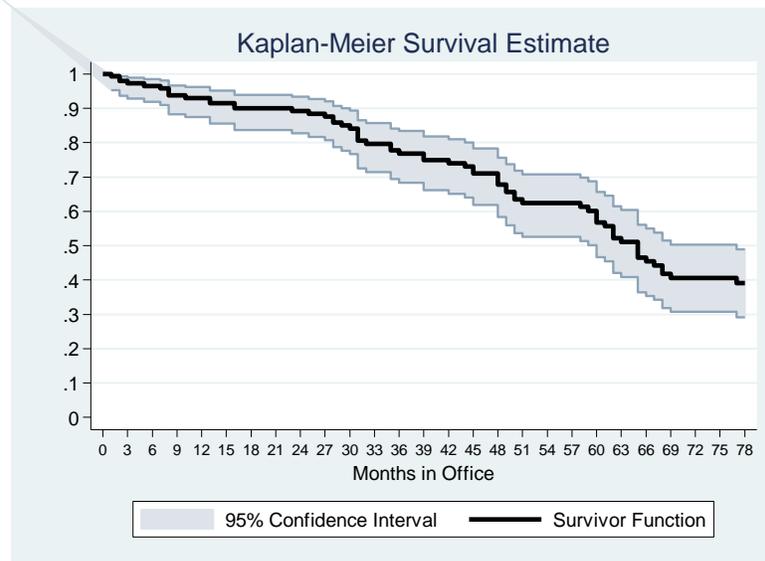
FIGURE 1: GUBERNATORIAL CHANGEOVERS BY QUARTER, 2005 THROUGH MID-2011



We turn now to describing the second kind of time pattern in our data: time in office, which forms the basis of survival analysis. Our initial description here of the overall trend, as well as our subsequent analyses, investigate time in office and what influences it. Figure 2 shows the slope of the hazard rate, also known as the survivor function, along with bands indicating the 95% confidence interval. Governors remaining in office for the entire period from January 2005 through June 2011 have tenures of 78 months, so that is the maximum “survival” length. The probability of survival is one, by definition, at the very start of a governorship. From there, that probability can only decline. Thus, survivor functions slope downward. In other words, longevity in a governorship lowers the odds of continuing in office. Those in office for less than two years (from January 2005 or after being appointed) have a 90% or more likelihood of continuing in office. Those in office for over five years have less than a 50% likelihood. For those with the maximum tenure of 78 months, the odds are .39:1. Among all governors during this period, the median number of months their tenure lasted is 44.5 (mean=43.9). In other words, roughly three years and eight months.⁶

⁶This neglects a governor’s time in office prior to the appointment era. The hazard of being fired by the president only begins in 2005, and that is what we seek to explain. We do, however, use length of time in office prior to 2005 as an explanatory variable below.

FIGURE 2: SURVIVOR FUNCTION FOR GUBERNATORIAL TENURE, 2005-2011



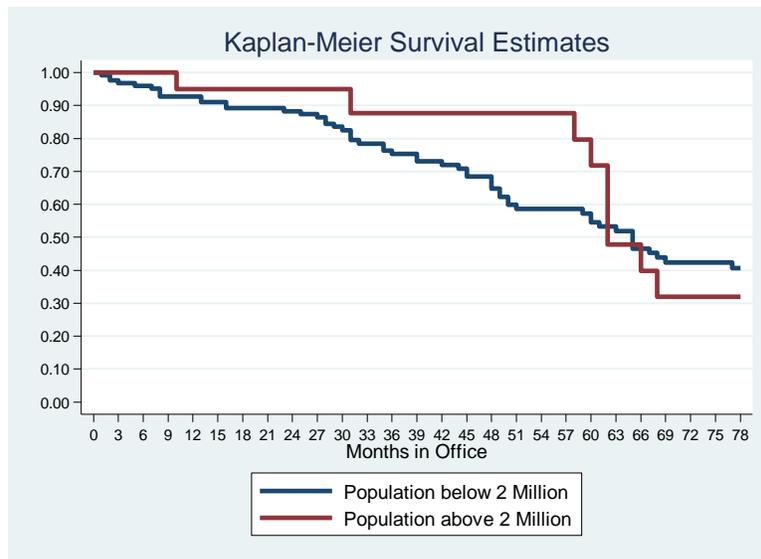
One can see from Figure 2 that the odds of a governor remaining in office decline (the slope of the survivor function declines) noticeably from about 32 months through 50 months and then again, more sharply, between 58 and 67 months. For those governors who had been in office in January 2005 and remained so, Medvedev takes over as Russian president in their 41st month and the economic crisis begins in their 44th month. To some extent, then, the downward slope from 30-50 months reflects an upsurge of replacements during the run-up to and aftermath of the 2007-2008 election cycle. The fiftieth month is February 2009, when the governors of four regions--Orel, Pskov, and Voronezh Oblasts and the Nenets Autonomous Okrug--were replaced on the same day. For that same group of governors, their 58th month in office is October 2009 and their 67th is July 2010. Replacements picked up speed during this period. Fifteen governors are replaced during this period, fourteen of whom began their tenure prior to the appointment period, including such powerhouses as Shaimiev of Tatarstan and Eduard Rossel of Sverdlovsk. As noted earlier, Turovskii (2010) depicts this as a time of greater Kremlin confidence in its ability to successfully replace governors.

Bivariate Analyses

We now present, in a series of graphs for visual inspection, differences in governors’ survival probability based on different values of key variables. We begin by checking whether the data support our expectation that governors of more populous regions had higher survival rates because of the risk to the national well-being of turnover in key regions. We divided regions into regions with populations in

2005 of below or above two million.⁷ Figure 3 shows the two survival estimates for the governors of the two types of regions. As we expected, for most lengths of tenure, governors of the larger regions have a higher probability of survival in office. This changes after five years, indicating that the Kremlin was prepared to move against governors even in the more important regions as time went on. However, while the difference between these two groups of regions is visually clear, it is modest and statistically insignificant.

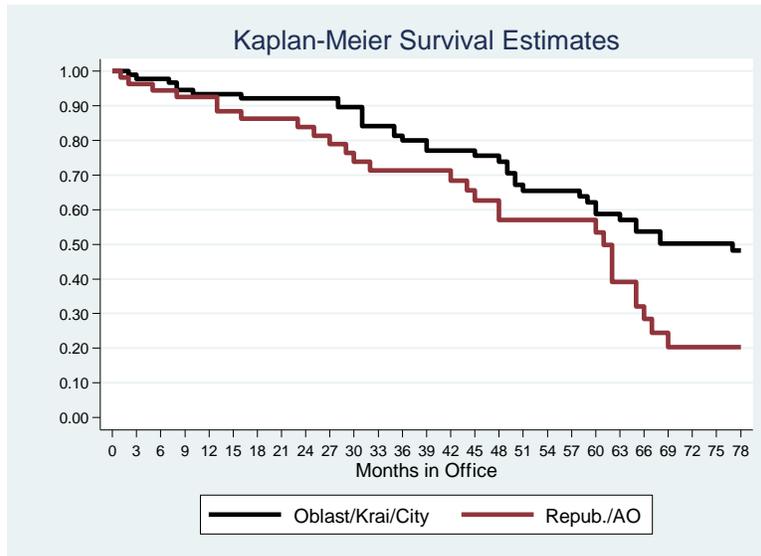
FIGURE 3: SURVIVOR FUNCTION FOR GUBERNATORIAL TENURE, BY REGIONAL POPULATION SIZE



Next, we ask whether ethnic regions (those with the status of republic, autonomous okrug or autonomous oblast’) have higher rates of survival, i.e., lower turnover, because of the greater prospect of social resistance or political-machine resistance in those regions compared to the other types of region. Figure 4 shows the two survivor functions. The line for the ethnic regions is lower at every number of months in office. From 60 months on, it becomes substantially lower. In these charts, a lower line indicates a lower probability of survival in office. Figure 4, therefore, contradicts our expectation. Governors of ethnic regions were replaced at a significantly higher rate than other governors. We will examine other patterns in the data before attempting to explain this.

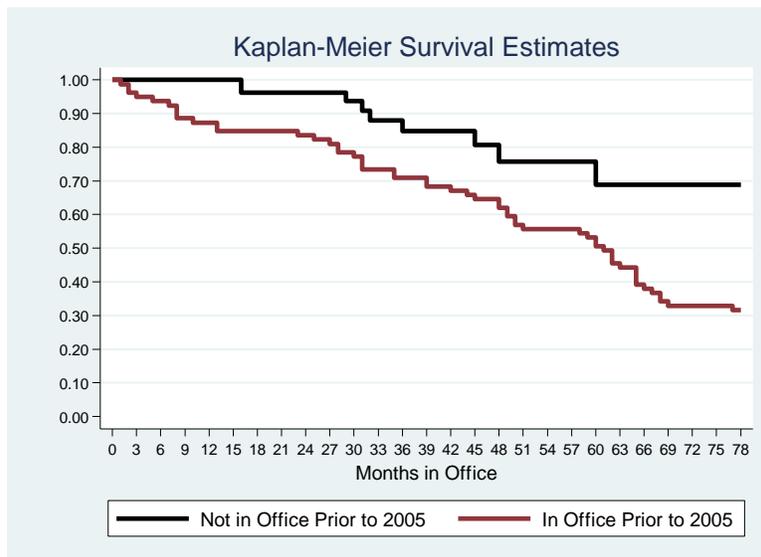
⁷This is the next round number above the mean of 1.62 million. Twenty-one of our 146 cases are in regions with two million or more residents.

FIGURE 4: SURVIVOR FUNCTION FOR GUBERNATORIAL TENURE, BY STATUS OF REGION



We now examine characteristics of the governor, beginning with whether he or she assumed the governor’s office prior to the appointment era. As explained above, one might expect turnover to be either lower or higher among those with pre-2005 experience. Figure 5 shows the survival estimates for the two groups. It indicates that the governors personally selected by Putin or Medvedev have faced less

FIGURE 5: SURVIVOR FUNCTION FOR GUBERNATORIAL TENURE, BY WHETHER GOVERNOR SERVED PRIOR TO 2005



peril than those who took over the office by their own devices. And the gap is noteworthy, even in the very early months of their tenure. The Kremlin has clearly had less patience with them than with those

appointed from 2005 on. Figure 5 also illustrates how, by 2010 (month 60 in office), the longest-serving governors were being removed at an accelerated rate.

In Figure 6, we turn to the governor’s age at the time he or she steps down. The breakdown in Figure 5 will be influenced by age because, as noted, many of the governors who took over before 2005 and have lengthy tenures since 2005 actually took power two decades or more earlier. They are in their 70s in many cases, less dynamic and possibly in poorer health. We therefore need to see if we can sort out the impact of the governor’s age from that of his or her cohort.

FIGURE 6: SURVIVOR FUNCTION FOR GUBERNATORIAL TENURE, BY GOVERNOR’S AGE

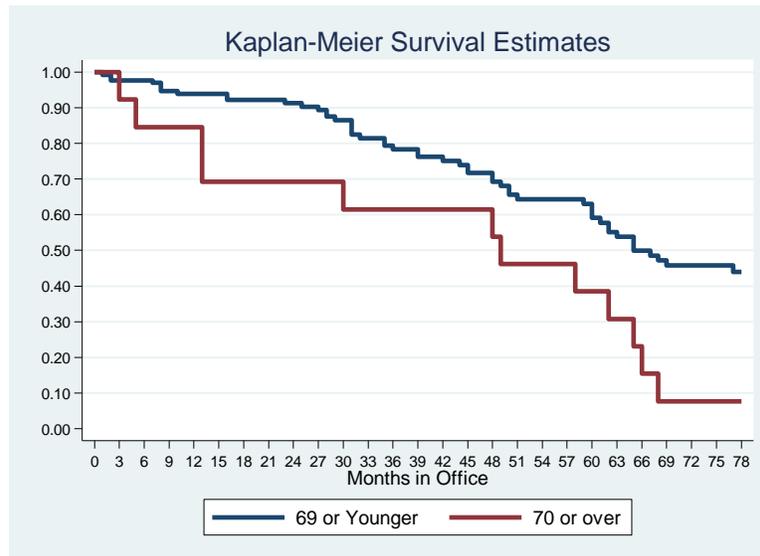
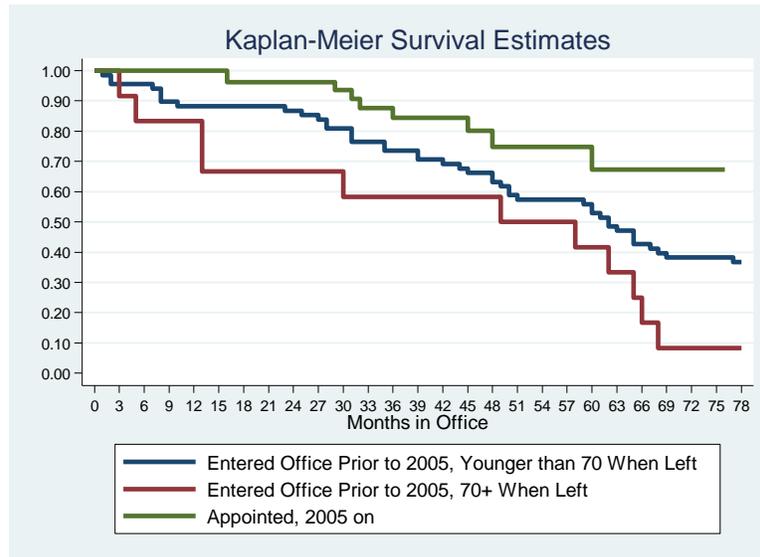


Figure 6 shows that age does matter. Those governors who have reached the age of 70 are at significantly greater risk of replacement at any period of their tenure in office. The pattern in Figure 6, though, is visually quite similar to that in Figure 5. To explore this more, we created three groups: those in office before 2005 who are below age 70 when they are replaced, those in office before 2005 who are 70 or above when they are replaced and those appointed from 2005 on. Figure 7 illustrates the survival estimates for these three groups.

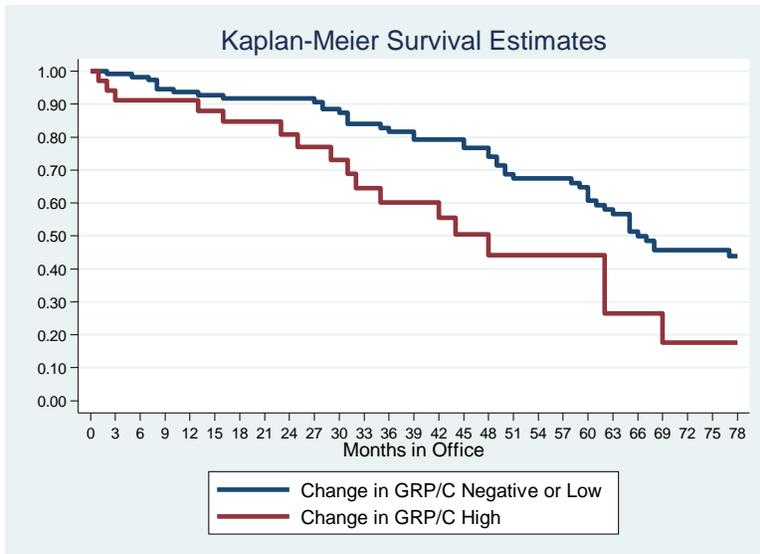
We see in Figure 7 that both age groups among those in office prior to 2005 have lower survival rates than those appointed by Putin or Medvedev since then, and within the pre-2005 group, those who reach age 70 face a consistently higher hazard of being replaced. (Our sample excludes governors who died in office.)

FIGURE 7: SURVIVOR FUNCTION FOR GUBERNATORIAL TENURE, BY GOVERNOR’S AGE AND WHETHER SERVED PRIOR TO 2005



We turn now to how well the region has fared economically. Figure 8 shows the relationship between regional economic growth and governors’ survival in office. We have separated out those regions with economic growth from 2004 to 2009 that is at least half a standard deviation above the mean growth for Russia as a whole. The red line indicating the governors of those regions is consistently and markedly lower than the line for the remaining governors. In other words, heading a relatively economi

FIGURE 8: SURVIVOR FUNCTION FOR GUBERNATORIAL TENURE, BY REGIONAL ECONOMIC GROWTH



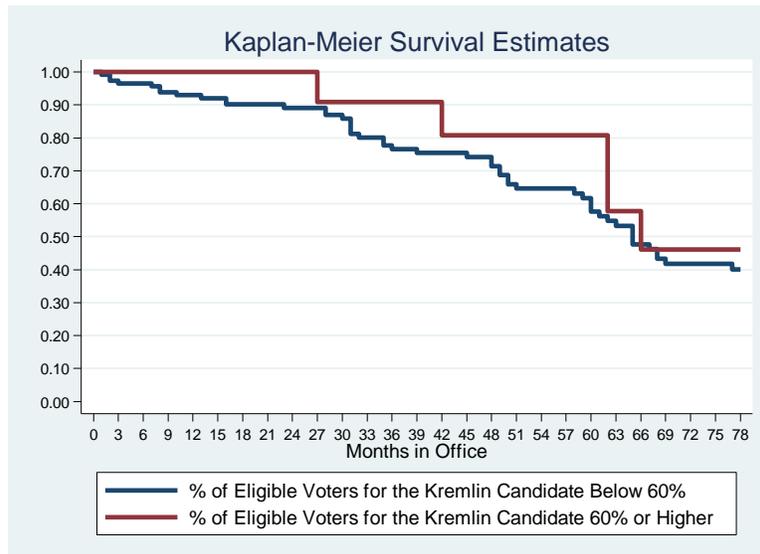
cally successful region did the governors no good. While they are unlikely to have been punished by the Kremlin for overseeing a relatively strong economy, economic strength did nothing to overcome other

factors. The pattern of replacements, at least the bivariate relationship, undercuts the claim that the Kremlin has stressed regional economic performance in its judgments of the governors.⁸

Finally, we examine the governor’s *political* performance. We measure this using based on how many votes the United Russia candidate for president won in a given region in the most recent federal election prior to the governor being replaced. This means either Putin in 2004 or Medvedev in 2008. During these elections, politically loyal governors and their teams worked hard to provide both a high regional voter turnout and a large share of the votes cast for Putin or Medvedev. Therefore, we compare how well the governors did this with the votes for Putin or Medvedev as percent of all eligible voters in the region (see also Reisinger and Moraski 2009). Using all eligible voters as the denominator rather than all those who actually voted incorporates how successfully turnout was enhanced. The Appendix explains this indicator in greater detail.

We broke the governors into two groups: those from regions which delivered less than 60% of the votes for the Kremlin candidate in the presidential election preceding the end of their tenure versus those from regions which delivered 60% or above. Sixty percent of all *eligible* voters is a phenomenally high proportion to turn out and vote for the same candidate. The average across all the regions is just below 50% in both elections. In 2004, 13 regions exceeded the 60% level, and in 2008, 20 did.

FIGURE 9: SURVIVOR FUNCTION FOR GUBERNATORIAL TENURE, BY REGIONAL VOTING FOR THE KREMLIN PRESIDENTIAL CANDIDATE



⁸Substituting measures of change in measures of social prosperity, such as crime rates and health indicators, produces similar results: either no difference between strong and weak regions or the governors of the stronger regions having lower survival rates.

Figure 9 shows the survival estimates for the two sets of governors. Those who had “delivered” very high levels of pro-Kremlin votes in the most recent presidential elections have a higher survival rate. Although the difference between the two groups is not marked, it contrasts with the opposite relationship between strong regional economic (or social) performance and gubernatorial survival.

While exploring our expectations of the relationship between the Kremlin and the governors’ fates in a bivariate manner yields useful insights, an examination of the robustness of these insights demands a multivariate analysis. We now turn to that analysis.

Multivariate Analyses

Events-history techniques permit the estimation of multivariate models, using partial likelihood methods such as the Cox proportional hazards technique that we employ. We begin by examining the results of models that relate only to the Kremlin’s interest in replacing a governor. We then introduce explanatory variables that indicate a governor’s ability to resist being replaced, allowing us to contrast the relative influence of the two types of factors. Although observers of Russian politics have reason to be interested in whether the lengths of gubernatorial appointments under Presidents Medvedev and Putin have varied, we have noted that the observation of such an effect cannot be conclusive since the change in presidential leadership coincided with the onset of the global economic downturn. Thus, to the extent that one witnesses a different pattern in gubernatorial fates before and after May 2008, one cannot speak definitively about the precise cause of the variation. It may result either from different political personalities or different political incentives.

Still, it is clear that the onset of economic crisis *and* a new presidency initiate a new period in the appointment era and that the prospects for gubernatorial survival (i.e., staying in office) should differ across the two periods. An intuitive approach for capturing this variation would be to add a dichotomous variable to the multivariate analysis to distinguish governors who served after April 2008 from those who served only under Putin. The problem with such an approach, however, is that it distorts the effects of the new presidency and economic crisis on gubernatorial survival because we are interested in the *total* number of months that *all* of Russia’s appointed governors have survived rather than how long a subset of governors—those in office during the Medvedev presidency and the economic crisis—have survived. A few specific examples illustrate the difference.

For the period under investigation, Governors Malakhov (from Sakhalin), Potapenko (Nenets) and Yevkurov (Ingushetia) served 31, 32, and 33 months, respectively. However, Malakhov’s tenure was all during the Putin era—that is, he lasted for 31 months under Putin. Potapenko, on the other hand, survived

23 months under Putin, but lasted only nine months under Medvedev. Meanwhile, Yevkurov's entire tenure so far has been under Medvedev. A dummy variable distinguishing governors serving only under Putin era from those serving under Medvedev could capture the contextual differences between when Malakhov and Yevkurov were in office. However, it would fail to adequately distinguish Potapenko's experience from Yevkurov's since both served, partially or entirely, under Medvedev and during the economic crisis. Worse yet, the dummy variable would take on undue explanatory power. By definition, it distinguishes Putin-appointed governors who failed to survive into the Medvedev era not only from Medvedev's appointees *but also* from Putin-appointed governors whose tenures continue beyond Putin's presidency. As a result, the variable gives Putin full credit for the governors he fired but no credit for those who "survived" him. Even worse, our focus on total time in office means that, the Putin-era tenures of these governors are carried over into the Medvedev era, thus inflating the survival rates of Medvedev-era governors. Returning to our examples, although Potapenko survived longer under Putin than Medvedev, the dummy would treat Potapenko as a *Medvedev* survivor with 32 months in office, crediting Medvedev not only with Potapenko's nine months during his presidency but also with the 23 months Potapenko served under Putin!

Although future research may wish to examine the survival rates of governors from May 2008 on, we prefer to focus on all appointees since the beginning of the appointment era. Of course, we still need to distinguish between the fate of governors under President Putin and under President Medvedev. We just wish to do so without adding a biased explanatory variable to our multivariate model. Fortunately, survival analysis permits just such an option.

In a right-censored Cox proportional-hazard model, the left-hand side is the survival object and is created by a survival function that considers the length of time to the event in question with an observed event receiving the value of 1 and a censored observation receiving 0 (Fox 2002, 3). In our analysis, time is the total number of months in office until the governor is fired (1) or right-censored (0). The right-side of the equation of a Cox proportional hazard is the same as that of a linear model. Survival analysis also provides the option of adding a cluster function to this side of the equation. The cluster function allows one to capture a natural or artificial clustering of subjects that could likely result in non-independent observations (such as mice from the same litter) (Gharibvand and Liu 2009, 1). Our multivariate analysis, then, uses a cluster that separates the governors into three categories: 1) governors who served only under Putin, 2) governors who served only under Medvedev, and 3) governors who served under both presidents. Doing so allows us to estimate the effects of the covariates that interest us while controlling for any dependence among these observations.

Table 1 presents our multivariate analysis. The table provides three reduced models and one full model. The three reduced models allow us to continue our step-by-step assessment of the effects of regional characteristics, gubernatorial performance, and the governors’ ability to resist replacement on the governors’ survival rates. For each model, we present, in separate columns, the exponentiated coefficients and robust standard errors for each independent variable. The exponentiated coefficient, or hazard ratio, represents the multiplicative effects on the hazard. It is the central statistic when interpreting the Cox model (Mills 2011, 94). Estimated hazard ratios greater than 1 are associated with an increased hazard of having the event (i.e., gubernatorial replacement). Estimated hazards less than 1 indicate a decreased hazard. Hazard ratios of 1 indicate no association between the covariate and hazard. Alongside the hazard ratios, we indicate its significance level for two-tailed tests. The final four rows of Table 1 present two common goodness of fit estimates for Cox proportional hazard models—the likelihood ratio test and the score (logrank) test—as well as their significance levels.

TABLE 1: COX ESTIMATIONS CLUSTERING GOVERNORS BASED ON THE PRESIDENT(S) THEY SERVED

	Reduced Model 1		Reduced Model 2		Reduced Model 3		Full Model	
<u>Regional Characteristics</u>	Exp (Coef)	Robust S.E.	Exp (Coef)	Robust S.E.	Exp (Coef)	Robust S.E.	Exp (Coef)	Robust S.E.
Population	0.999	0.000					0.999	0.000
Percent Non-Russian	1.010***	0.003					0.966***	0.020
<u>Performance</u>								
Crime Rate Change			0.975	0.118			1.000	0.115
Life Expectancy Change			0.954	0.136			0.978	0.024
GRP per capita Change			0.932*	0.030			0.947 ⁺	0.028
Recent Presidential P.O.E.			1.008***	0.003			0.943***	0.006
<u>Ensconed</u>								
Prior Tenure (Months)					1.005***	0.000	1.006***	0.002
Governor’s Age					0.997	0.015	1.020	0.017
<u>Interaction Term</u>								
Non-Russian*Pres. P.O.E.							1.001***	0.000
<hr/>								
Likelihood ratio test	5.77		1.19		7.4		23.27	
p=	0.06		0.88		0.02		0.01	
Score (logrank) test	6.31		1.23		7.84		25.52	
p=	0.04		0.87		0.02		0.00	

As the first equation in Table 1 suggests, the population size of a region has no significant effect on gubernatorial survival. The hazard ratio is only slightly below 1.0 and fails to attain statistical significance. Meanwhile, the percentage of non-Russians in a region proves quite statistically significant in this reduced model, reaching the .001 level. Using the exponentiated coefficient (e^b) and the formula of $(e^b - 1) * 100$ (Mills 2011, 95), we learn that, all else equal, a one percent increase in the percentage of non-Rus-

sians results in a one percent increase in the hazard: $(1.01-1)*100 = 1$. The first reduced model, then, largely confirm the findings from the bivariate analysis presented in Figures 3 and 4.

The second reduced model in Table 1 presents the results when only gubernatorial performance variables are included in the model. At this point we present these equations separately, rather than in an additive fashion, due to high collinearity between the percentage of non-Russians in a region and the percentage of eligible voters from a region tallied as supporting the Kremlin-backed candidate in the most recent presidential election: Pearson correlation = 0.774, significant at the .001 level. Since we are greatly interested in how electoral performance (i.e., producing electoral support for the Kremlin) affects gubernatorial survival, it seems best to start with a model that directly taps that dynamic and that would cut closest to home for the Kremlin, presidential elections.⁹

To capture the governors' administrative performance, we calculate the percent change in several measures of regional standard of living from 2004 until the year in which the governor is dismissed, when possible. We use the change between 2008 and 2009 for cases serving in 2009 and after. Because the data are annual, we use the previous full year's number as the numerator if the governor's departure occurs prior to July 1 and the year of the departure if it occurs in the second half of the year. The numbers are indicators of public perceptions of the quality of life declining, and this compromise reflects our desire to capture that. We use three indicators of quality of life change: overall crime rate, life expectancy, and gross regional product per capita. We expect annual increases in the crime rate to increase the hazard of replacement while increases in life expectancy and gross regional product per capita to lower the hazard.

Our second reduced model provides some support for the expectation that a governor's performance in office influences their survival. Although neither changes in the relative crime rate or relative life expectancy prove statistically significant in this model, both changes in GRP per capita relative to the national average rate of change and demonstrations of support for the Kremlin's candidate in the most recent presidential election are significant at the .05 level and .001 level, respectively. GRP per capita functions as expected. A one percentage point improvement above the national average lowers the hazard of removal by 6.8 percent $[(.932-1)*100 = -6.8]$. Notice, however, that a one percent jump in the number of eligible voters supporting the Kremlin's presidential candidate yields a one percent *increase* in the hazard. While one might expect this outcome given the high correlation between this variable and the percentage of non-Russians, the result defies expectations drawn from the literature. It suggests that gover-

⁹ We also have data on the percentage of eligible voters in a region tallied as supporting United Russia in the most recent national legislative election preceding each governor's dismissal (or June 2011). The results of the analysis with that variable are presented in Table 2.

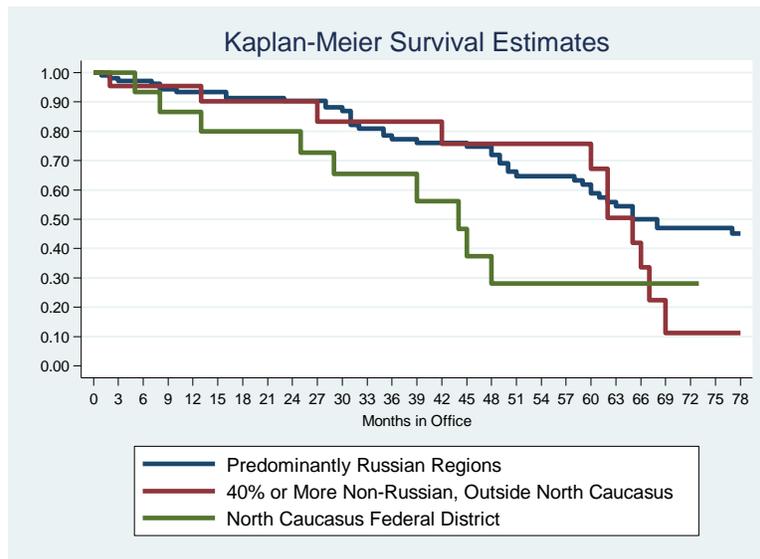
nors from more deferential regions are *more at risk* than those where the Kremlin's candidate enjoyed less support. We return to this issue in the full model.

The third reduced model estimates the ability of more ensconced governors to resist replacement. As previously discussed, governors who served prior to 2005 did so by winning a popular election, which suggests that they possessed their own basis of legitimacy (either among the population, among regional elites, or both). While this autonomous source of power may be sufficient cause for removal, we also assert that the longer the tenure (i.e., lasting not only into Yeltsin's presidency but for some predating the official collapse of the Soviet Union) could further motivate the Kremlin to instill new blood in the region as a way to avoid, if not overcome, stagnation. While age and prior tenure are certainly correlated (Pearson $r = 0.535$), we include age of the governor in the model because those serving in office prior to the appointment era were not necessarily so old as to justify removal on the basis of age-related factors. Including age in the model, then, allows us to more carefully differentiate among the governors and to attain a more accurate estimate of the impact of prior tenure. Still, as Table 1 illustrates, age fails to influence gubernatorial survival significantly independent of prior tenure. As expected, prior tenure has a strong and statistically significant impact on removal. For every month a governor held office prior to January 2005, the hazard rate increases by one percent and this effect is significant at the .001 level.

The final equation in Table 1 presents the full model. Simultaneously including indicators for the regional characteristics, gubernatorial performance, and the degree to which governors are ensconced in their regions produces a model with the best goodness of fit measures so far. Both the likelihood ratio test and the score (logrank) test attain significance at the .01 level or higher.

Besides including all of the variables examined previously, the full model adds the interaction term, non-Russian*Recent Presidential POE. Including the interaction term and its components in the model allows us to determine whether a synergistic relationship might exist between the percentage of non-Russians from a region and the level support from the region for Kremlin-backed presidential candidates. Remember, our expectations were that the Kremlin would move more cautiously in regions with more non-Russians and would more likely reward governors overseeing high levels of pro-Kremlin electoral support. While the reduced models depict the opposite relationships, based on previous research on the spatial dynamics of regional deference to the Kremlin in national elections (Reisinger and Moraski 2010), we know that many of Russia's most electorally deferential regions have been ethnic republics located in the North Caucasus, a region which has faced violence and social disruptions not experienced elsewhere in Russia. With this in mind, we suspect that these regions are driving the results in the reduced models. Figure 10 supports this view.

FIGURE 10: SURVIVOR FUNCTION FOR GUBERNATORIAL TENURE, BY REGIONAL LOCATION AND ETHNIC COMPOSITION



This figure shows that the governors in the North Caucasus regions were at significantly greater risk of being fired than governors elsewhere during almost every period of gubernatorial tenure. The green line showing the survival probability for North Caucasus governors is clearly and, for certain lengths of tenure, dramatically lower than both of the other lines. The green line is horizontal from month 48 on because none in the region lasted more than four years in office during the appointment period. For regions outside the North Caucasus, the difference between predominantly Russian and non-Russian regions is small until the 65th month. With this information at our disposal, then, we include the interaction term in the full model as a way to capture the relationship between these regions and the Kremlin while the components of the interaction term estimate the effects of non-Russian ethnicity and electoral deference once the Kremlin’s relationship with highly deferential-highly non-Russian regions is controlled for.

The results of the full model appear to justify the inclusion of the interaction term. Its hazard ratio is statistically significant with governors from regions producing highly deferential election results and with higher percentages of non-Russians more likely to be removed from office. Interpreting the fixed effects for the interaction term is less straightforward than for the other variables in the analysis. With all other covariates held constant, the *product* of a one percent increase in the percentage of eligible voters for the Kremlin-backed candidate and a one percent increase in the percentage of non-Russians yields a 0.1 percent [(1.001-1)*100] increase in the likelihood of gubernatorial removal. While the increase initially may seem trivial, since increases in the components of the interaction effect have a multiplicative

effect on the term itself, they also have a multiplicative effect on the hazard ratio. In this case, the function for converting the interaction effect into the hazard ratio involves multiplying the product of the two components' increases by a factor of ten [$x*(.01)*(.01) = .001$ where $x=10$]. So, for example, a 10% increase in both components should yield a 10% increase in the hazard [$10*(.1)(.1) = .1$].

Once we control for the interactive effect between highly deferential and highly non-Russian regions, the results conform to our original expectations. A one percent increase in the number of non-Russians in a region significantly lowers the hazard of removal, doing so by 3.4 percent $[(.966-1)*100]$. Meanwhile, a one percent increase in the percentage of eligible voters going toward the Kremlin's presidential candidate lowers the hazard by 5.7 percent $[(.943-1)*100]$. The other significant variables in the model perform largely as they had previously. Better annual change in GRP per capita lowers the hazard, though it does not come up as significant in the full model as it had in the reduced model. Ultimately, then, administrative performance, even economic performance, does not appear to be a determining factor in the removal of incumbent governors according to this model. Prior tenure, on the other hand, continues to be determinative. As in the reduced model, every month a governor held office prior to January 2005 increases the hazard by one percent and the effect is significant at the .001 level.

Despite the collinearity between non-Russian and our measure of electoral deference, we believe that using the interaction term alongside its components is a reasonable approach for assessing the influences of regional ethnicity and electoral performance on gubernatorial survival in the appointment era. All three variables—the interaction term and its components—have statistically significant coefficients and signs in the expected directions. Still, another way to get at the effect of electoral performance and gubernatorial survival while controlling for the percentage of non-Russians from a region is to use a measure of electoral performance that is not as highly correlated with the percentage of non-Russians. One specific option is to use the percentage of eligible voters supporting the party of power, United Russia, in the most recent national legislative elections. Of course, the two variables are still related, but the relationship is not as strong: the Pearson correlation between non-Russian and support for United Russia is 0.67 (significant at the .001 level).

Table 2 presents the results of an alternate reduced performance model and two alternative full models where the pro-United Russia percentage of eligible voters in legislative elections replaces the percentage supporting the Kremlin's candidate in presidential elections. Given the failure of the regional percentage of eligible voters for United Russia to attain significance in the new reduced model, we present a specification of the full model with an interaction term and one without it.

As the likelihood ratio and score (logrank) tests reveal, using the percentage of eligible voters supporting United Russia in recent national legislative election produces better fitting models than using the percentage of eligible voters supporting the Kremlin's presidential candidate. Even though the electoral performance variable based on United Russia fails to attain significance in the reduced performance model in Table 2, the goodness of fit estimates are significant at about the .10 level for a two-tailed test. These same estimates are nowhere close to significant in Table 1 for the performance-only model. It is also notable that in this estimation, improvements in relative life expectancy significantly reduce the likelihood of removal: A one percent improvement in life expectancy relative to the national average yields a 24.8 percent drop in the hazard.

The second equation in Table 2 represents our first alternative estimation of the full model. This version uses the percentage of eligible voters supporting United Russia in the most recent national legislative election and the percentage of non-Russians in the regions without an interaction between them. Not only do the goodness of fit estimates emerge as extremely significant, but many of the explanatory variables behave as expected. One notable development is the importance of regional population in this estimation. In this model, governors in regions with larger populations now experience significantly lower hazard rates (as expected), as do governors whose regions experienced improvements in relative life expectancy. Also as expected, governors in regions with higher electoral support for United Russia in the most recent national election enjoy lower hazards. Although the relationship is significant only at the .10 level for a two-tailed test, a one point increase in the percentage of eligible voters backing United Russia reduces the hazard of removal by 5.7 percent. Meanwhile, governors with longer prior tenures continue to experience higher hazard rates, as do governors of regions with larger non-Russian percentages. Given the reversal of the latter relationship in the full model presented in Table 1, our final model test for the possibility of an interaction effect between highly non-Russian and highly deferential regions.

The final model in Table 2 not only performs better than any previous model, it also supports the finding from Table 1 that governors of largely non-Russian and highly deferential regions are at greater risk than governors where only one of these characteristics is at play. Again, since our previous work has shown that Russia's more electorally deferential regions are in the North Caucasus, one could interpret this finding as indicating that the Kremlin has used gubernatorial appointments to assert its control over this traditionally troublesome territory. Finally, it is important to note that while both prior tenure and age appear to increase the hazard of removal, it is age rather than prior tenure that proves statistically significant in this last estimation. A one year increase in a governor's age is associated with a three percent increase in the hazard.

TABLE 2: COX ESTIMATIONS CLUSTERING GOVERNORS BASED ON THE PRESIDENT(S) THEY SERVED AND REPLACING PRESIDENTIAL P.O.E. WITH UNITED RUSSIA P.O.E.

	Reduced	Model 2.2	Full Model 2		Full Model 3	
<u>Regional Characteristics</u>	<u>Exp (Coef)</u>	<u>Robust S.E.</u>	<u>Exp (Coef)</u>	<u>Robust S.E.</u>	<u>Exp (Coef)</u>	<u>Robust S.E.</u>
Population			0.999***	0.000	0.999***	0.000
Percent Non-Russian			1.03***	0.005	0.974***	0.001
<u>Performance</u>						
Crime Rate Change	0.998	0.137	1.080	0.017	0.938	0.221
Life Expectancy Change	0.752***	0.048	0.755***	0.043	0.880*	0.055
GRP per capita Change	0.984	0.064	0.950	0.096	0.920***	0.013
Recent United Russia P.O.E.	0.971	0.032	0.943 ⁺	0.031	0.871***	0.032
<u>Ensconed</u>						
Prior Tenure (Months)			1.005***	0.001	1.010	0.003
Governor's Age			1.020	0.014	1.03***	0.008
<u>Interaction Term</u>						
Non-Russian*UR P.O.E.					1.001***	0.000
<hr/>						
Likelihood ratio test	8.59		41.27		57.12	
p=	0.07		0.00		0.00	
Score (logrank) test	7.45		47.51		56.04	
p=	0.11		0.00		0.00	

Conclusion

Why are the governors replaced when they are? We have tackled this question using data on all governors of Russian regions who were in office during the period from January 2005 through June 2011. Using statistical techniques known as survival or event-history analysis, we examined the tenures of those who left the governorship during this period as well as those for whom we do not know when their tenure will end, because they remain in office at the end of the period we study. Although the Russian president changes from Putin to Medvedev during this period, the two are closely allied and represent a single presidential administration. Thus, the patterns we find over the six and a half years shed light on the Kremlin's strategies and its relations with regional leaders.

We find that when governors are replaced stems from a combination of factors: the region's size and ethnic composition, the governor's age, and aspects of the governor's administrative and political performance. Advancing age makes replacement more likely. Governors of populous regions face a lower hazard of being replaced, *ceteris paribus*, as do governors of regions with higher proportions of ethnically non-Russian residents. Regions experiencing relatively good performance in terms of life expectancy and economic growth give their governors a degree of protection from removal. Governors able to provide

the Kremlin with strong support for the ruling party in federal legislative elections also face a reduced hazard of losing office.

These findings provide support for an image of Russia's gubernatorial replacement process as a political process. Federal law gives the Russian president the upper hand but not political carte blanche. Power plays and some form of bargaining must underlie these patterns, with some governors finding themselves closer to the enviable position of Shaimiev while others receive some version of Luzhkov's treatment.

Appendix: Data Sources and Variable Construction

Our information on the names and tenures of the regional leaders comes from Rulers.org (<http://rulers.org/russdiv.html>), modified and augmented by media reports from a variety of sources. The governors' birthdates are taken, when possible, from the official website of the governor or the regional executive branch, augmented as necessary from other sources.

Data on regional population size, gross regional product, crime rates and life expectancy all come from *Regiony Rossii* (Russian Federal State Statistics Agency various years). Data on the ethnic make-up of the regions come from the 2002 census (Russian Federal State Statistics Agency 2005).

Data on regional voting and number of eligible voters come from Golosov (2008).

Our measure of the governor's political performance is based on federal election results. For each federal election from 1991 on, we calculate the votes received by the Kremlin's candidate or party as a percentage of the total *eligible* voters in that region. The Kremlin's candidates were Yeltsin in 1991 and 1996, Putin in 2000 and 2004, and Medvedev in 2008. The pro-Kremlin parties, or "parties of power" as they are dubbed in Russia, were Russia's Choice in 1993, Our Home is Russia in 1995, either Unity and Fatherland/All Russia (whichever received the most votes in a given region), and United Russia in 2003 and 2007.

Using the percent of all eligible voters is a way to incorporate both high vote totals and high levels of turnout. Regions that produced high turnout were doing the Kremlin a favor both because some of Russia's federal elections required certain turnout levels to be valid and to enhance the democratic legitimacy of a victory. From 2003-2008, achieving high levels of turnout was a stated aim of the Kremlin. In some elections in the 2000s, quite a few regions produced turnout above 80% and, among those voters, pro-Kremlin totals also above 80%. Ingushetia, for instance, reported 98% voting for Putin in 2004 with 96% of the republic's eligible voters turning out. Clearly, totals of this sort cannot reflect public choice, whatever the level of Putin's popularity. By contrast, take Orenburg Oblast'. Its turnout of 62% was at the median for the regions. It gave Putin 59% of the votes, a dominant victory in most settings but well below the mean. Calculating the votes for the Kremlin candidate or party as a percent of all eligible voters in the region is an arithmetically simple way to allow both voting and turnout to influence the region's score. Ingushetia's score on the measure of pro-Kremlin votes as a percent of all eligible voters in that election is 94.4. Of all eligible voters in Orenburg, by contrast, Putin received 37%. For all the regions in 2004, pro-Putin votes as a percent of eligible voters ranged from 30.5% to Ingushetia's 94.4%. The mean was 47.8 and the median 42.9. (The median is much lower because a minority of regions has very high scores.)

We acknowledge the risk that a few regions will have a high score due to actual high enthusiasm for the Kremlin's candidate or party. For example, voters in several regions in 1991 were genuinely enthusiastic about Yeltsin, producing scores above 50%. These regions included Sverdlovsk, Yeltsin's home region, and others with populaces that were demographically more pro-reform. Even in 1991, though, several of the highest scoring regions lacked those demographic characteristics--notably Chechnya-Ingushetia (one region at that time), with 63% of the eligible voters supporting Yeltsin—indicating pressure from the regional leaderships not pro-reform enthusiasm. By comparative standards, moreover, any combination of voting and turnout that produces over 50% of the eligible voters supporting one candidate is highly unlikely in democratic settings.¹⁰ Similarly, even dominant legislative victories in democratic multi-party settings seldom exceed 35% of eligible voters.¹¹

Even with the changes in the average level from election to election, our measure correlates across elections very well. Excepting the 1993 and 1995 Duma elections, which have no deferential regions, the measures for every election is significantly positively correlated with every other. The 1991 presidential election correlates least well with the other elections (from .30 to .40), but these are nonetheless statistically significant at the .01 level. The deference measure for the 1996 second-round correlates from .36 to .45 with those for the elections of Putin and Medvedev. The correlations among the elections in the 2000s range from .53 to .93 (the 2007 and 2008 results).

Another validity check is that our measures, which are calculated from published election results, correlate well with experts' ratings of the different regions degree or absence of democracy. The Carnegie Moscow Center gathered both quantitative measures and expert evaluations of each region's democratic characteristics on numerous dimensions. (Petrov and Titkov 2008). Our measures of electoral deference are significantly correlated in the expected direction with all three Carnegie measures in every election from 1996 on, with the exception of 1999 when the correlation with Carnegie's quantitative index of electoral democracy is in the expected direction but insignificant.

¹⁰Barack Obama's decisive victory in 2008 came with 32% of the eligible voters nationwide voting for him. Ronald Reagan's 1984 win rested on votes from 31% of the eligible population.

¹¹A rare exception was the victory of the Canadian Progressive Conservative Party under Brian Mulroney in 1984, the largest victory in Canadian history, which just exceeded our cut-off level by getting support from 37% of the eligible voters. Most other landslides fall below it. In the 1957 West German federal election, the Christian Democratic Union received votes from 34.8% of the eligible voters. Margaret Thatcher's Conservative Party won the 1983 British general election in what was considered a landslide with votes from about 31% of the eligible voters. In April of this year, the Hungarian Fidesz Party won an outright majority of seats against nine other parties, the largest victory in Hungary post-1989, and their votes were 31% of the eligible voters.

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