

# **Rethinking principal-agent dynamics and electoral manipulation: Local risks, patronage, and variation in tactic**

Cole J. Harvey

[harveyc@live.unc.edu](mailto:harveyc@live.unc.edu)

UNC-Chapel Hill

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**Abstract:** Several theories have been proposed to explain variation in the severity and type of electoral manipulation. Principal-agent models of manipulation move this debate forward, but a focus on the risk of electoral defeat for patrons limits their ability to explain why some forms of manipulation persist in competitive settings. This paper addresses this puzzle by showing that patronage resources—not incumbent popularity—make manipulation appealing to agents, while local political conditions can make manipulation risky for them. Agents can mitigate these risks by shifting to more dispersed forms of manipulation, helping explain why such tactics endure. These hypotheses are tested using election-forensic analysis of data from more than 90,000 precincts across Russia's 83 regions, per election-year from 2003 to 2012.

During the 2011 Russian legislative election campaign, the city manager of Izhevsk, a regional capital, was filmed while speaking to a meeting of local veterans' groups. In the video, city manager Denis Agashin speaks bluntly about the rewards the veterans can expect if they contribute to the ruling party's victory in the polls. 'If the party receives less than fifty percent of the vote in your district,' Agashin declares, 'that means nothing will change....If the party receives between 50 and 54 percent, we will fund [the local veterans' groups] with 500,000 rubles.' Agashin went on to add rewards for even more specific targets up to 1,000,000 rubles for

a 60% vote-share.<sup>1</sup> Despite multiple efforts by opposition parties to bring political and criminal penalties against Agashin,<sup>2</sup> he was largely protected from punishment by the local dominance of the ruling party, United Russia's. Others have not been so fortunate. For example, in 2009 a district court in Saratov oblast levied a 200,000 ruble fine against the chair of a precinct election commission for falsifying votes in favor of United Russia; still others have received suspended prison sentences.<sup>3</sup> Such punitive outcomes are not uncommon even in a relatively closed case like Russia: after the 2016 legislative election, the Russian Central Election Commission reported 32 criminal cases related to electoral manipulation, in addition to approximately 1,000 administrative cases and 300 fines (Tikhonova 2016).

These anecdotes illustrate the personal risk undertaken by those who actually tamper with elections, an aspect of manipulation that has been largely overlooked by research that emphasises the costs and risks borne by political leaders (e.g. Simpser 2013, Magaloni 2010, Ziblatt 2009, Hyde 2011). A recent principal-agent model of electoral manipulation addresses this gap, by highlighting risks faced by agents if their patron loses the election. However, this emphasis on the risk of electoral defeat does not account for evidence that shows illegal electoral manipulation tactics are often used as substitutes, with one tactic increasing in severity as another declines (Harvey 2016; Kuo and Teorell 2017; Sjoberg 2013). In particular, some forms

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<sup>1</sup> See <http://www.newsru.com/russia/30oct2011/agashin.html> for a summary of the event, and the video clip.

<sup>2</sup> These included efforts to remove him from office, and pressure on the regional prosecutor to bring criminal charges. See <http://www.dayudm.ru/article/51302/> (Russian) for details.

<sup>3</sup> A website for the Honest Elections Public Council, a Kremlin-approved non-governmental agency, maintains a list of dozens of other incidents of arrests, administrative charges, and criminal proceedings against individuals who have allegedly helped manipulate an election: <http://www.chest-vibor.ru/>

of manipulation stubbornly persist even as the risk of patron defeat increases along with growing levels of competition and democratization (Asunka et al 2017; van Ham and Lindberg 2015).

The model presented here helps reconcile these findings by arguing electoral defeat for their patron is not the only risk that agents face. Instead, local political conditions—like active opposition parties or independent courts—can make participation in electoral manipulation costlier for agents, even if their patron remains in power, by increasing the local risks of exposure and political or criminal penalties for the perpetrator. However, agents can insulate themselves from local risks by engaging in forms of manipulation that are harder to observe and trace, such as vote-buying and voter pressure, which helps explain the persistence of these tactics even as political competitiveness increases. These hypotheses are supported by election-forensic analysis of two types of electoral manipulation, using electoral data from more than 90,000 precincts in each election year, across Russia’s eighty-plus regions during six national elections from 2003-2012.

This article makes several contributions to existing research. First, it adds to a dynamic literature on the function of democratic institutions in authoritarian contexts. The modal authoritarian regime today is one that has adopted democratic institutions like multi-party elections (Levitsky and Way 2010; Magaloni and Kricheli 2010). Researchers have investigated the benefits that elections can provide for incumbents in authoritarian systems, by revealing information (Brownlee 2007), co-opting the opposition (Gandhi and Przeworski 2007), distributing spoils (Blaydes 2011), and testing the competence and loyalty of party subordinates (Blaydes 2011; Reuter and Robertson 2012). More recent works, including this paper, build on this literature by probing the underlying mechanics of authoritarian elections, and the conditions

that make them likely to succeed or fail in propping up incumbents (e.g. Donno 2013; Frye et al 2014; Reuter and Robertson 2015).

Second, it addresses an ongoing debate over a central question in the study of authoritarian elections: why are some elections manipulated more severely than others? There have been a number of efforts to understand the causes of this variation: as signaling efforts by dominant ruling parties (Simpser 2013), as a response to opposition strength (Magaloni 2010), and as a function of state patronage (Greene 2007), domestic institutional design (Birch 2007), or socioeconomic structures (Frye et al 2014; Nichter 2008; Stokes 2005; Ziblatt 2009). One of the best current explanations for variation in the severity of electoral manipulation is a formal model provided by Rundlett and Svobik (2016), referred to hereafter as the incumbent-popularity model. However, these models generally treat electoral manipulation as a single tool, rather than a family of substitutable techniques as recent empirical work (cited above) has shown. The results presented here demonstrate that the central mechanism of the incumbent-popularity model—local information about incumbent popularity—is incomplete without taking into account incumbent’s broader patronage resources. Furthermore, they show that local conditions do more than convey information about an incumbent’s national popularity, but can actively constrain ruling parties’ options. Contrary to the predictions of the Rundlett and Svobik model, I find no relationship between levels of manipulation and incumbent approval rating, and show that extensive manipulation may still occur in highly contested areas so long as the effort relies on harder-to-detect forms of manipulation. This has three implications for understanding electoral manipulation.

First, cleaner elections will not necessarily follow from declining incumbent popularity if she is able maintain control over patronage resources. A prominent example of this dynamic

would be the 1996 presidential election in Russia, in which the deeply unpopular Boris Yeltsin was able to muster the support of a patronage network consisting of oligarchs and regional power brokers and generate enough clientelistic support and electoral manipulation to win a second term (Hale 2014 pp. 135, 267; Myagkov et al 2009). Second, by showing that less attributable forms of manipulation are less susceptible to agency loss than other techniques, it offers an explanation for the persistence of manipulation in more competitive settings as long as patronage resources are consolidated by the incumbent (see also Greene 2007). Finally, it highlights the important role that civil society groups and opposition parties can play in shaping patterns of electoral manipulation at the subnational level, in contrast with the incumbent-popularity model's focus on national conditions; this subnational focus complements previous work on opposition effects at the national level (Bunce and Wolchik 2010) and helps interpret recent dynamics in Russian politics.

### **Principals, agents, and electoral manipulation**

Electoral manipulation refers here to illegal efforts to influence the outcome of an election, including activities like vote-buying and tampering with election returns, but excluding legal mechanisms of biasing election results. Electoral manipulation has a variety of benefits for candidates and leaders: it can send a signal about the ruling party's organizational capacity and staying power to other political actors (Gehlbach and Simpser 2015; Simpser 2013), and can induce ambitious politicians to join with the ruling party and help prevent elite splits (Magaloni 2006), leaving opposition parties to recruit from a pool of relatively extreme ideological activists (Greene 2007). Despite these benefits, there is wide variation in the severity of electoral manipulation (Simpser 2013).

Previous research has identified a variety of factors that affect the prevalence of electoral manipulation, including inequality in wealth and power (Lehoucq and Molina 2002; Ziblatt 2009), poverty (Nichter 2008; Simpser 2013; Stokes 2005), education levels (Kitschelt and Wilkinson 2007), and urbanization (Birch 2011; Dominguez and McCann 1998; Lehoucq and Molina 2002). Additionally, dense ethnic networks can make manipulation more appealing, by easing the monitoring of voters and reducing the likelihood that misdeeds will be exposed (Goodnow et al 2014; Hale 2007), while population size is negatively correlated with tampering (Lehoucq and Molina 2002; Nichter 2008; Simpser 2013). Corruption levels (Birch 2011) and electoral system design (Birch 2007) also influence manipulation.

The competitiveness of the electoral environment has been identified as a central factor in several theories, first a positive driver of manipulation (Argersinger 1985; Lehoucq 2003; Lehoucq and Molina 2002; Ziblatt 2009). However, Simpser (2013) convincingly argues that ruling parties with few constraints and large resource advantages engage in excessive manipulation in uncompetitive environments as a signal of dominance. While this argument helps explain the puzzle of excessive electoral manipulation, its implications are less clear for cases in which dominant ruling parties fail to deliver excessive manipulation; principal-agent models can offer an explanation.

Unlike many prior formal-theoretic models of electoral manipulation (e.g. Gehlbach and Simpser 2015; Little 2012; Magaloni 2010), Rundlett and Svulik (2016) devise a formal principal-agent and collective-action model of electoral manipulation in which manipulation is deterred not by leaders' fear of protest but by front-line agents' fear or punishment. Their approach usefully addresses both excessive manipulation and under-production of manipulation by strong governments. However, it has two main limitations, which this paper addresses. First,

the model assumes that all forms of electoral manipulation are equally subject to principal-agent problems. However, electoral manipulation tactics are known to shift in response to changes in the local environment. For example, the presence of election monitors has been shown to lead to increases in harder-to-observe tactics such as voter pressure and covert spending to help favored candidates (Beaulieu and Hyde 2008; Simpser and Donno 2012), along with increased falsification in unmonitored precincts (Sjoberg 2013). Likewise, increased local competitiveness is associated with more vote-buying and voter pressure, and less administrative fraud (Harvey 2016). The incumbent-popularity model does not account for these differences, since it predicts that all types of electoral manipulation should rise and fall with the leader's popular support.

Second, the assumption that agents' local political environment serves only as a signal of the principal's unknown national popularity obscures two important features of electoral authoritarian politics: that an incumbent's popularity is only one aspect of her overall likelihood of retaining office (Gerschewski 2013), and that local politics in some regions can be sufficiently open and competitive as to meaningfully constrain the ruling party's freedom of action (Belokurova and Vorob'ev 2011).

In short, the model advanced by Rundlett and Svulik (2016) is a significant step forward in understanding electoral manipulation, but the underlying mechanisms driving the model cannot account for observed local variation in manipulation tactics. The following theory addresses this puzzle by tying local risks to the type of manipulation employed by agents, and by broadening the conception of the incumbent's staying power to include patronage resources rather than popularity alone.

## **Theory and hypotheses**

For the purposes of this paper I consider a principal to be a national-level executive or party leader, while agents are the front-line individuals tasked with directly influencing election results by illegal means. As a result, I refer to principal-level effects as national, and agent-level effects as local. I argue that, while principals benefit from increased electoral manipulation, agents' willingness to manipulate elections is conditional on two broad factors: the national consolidation of the patronage network the principal controls, and the local-level constraints faced by the agent. These two factors interact to influence agent behavior. When patronage networks are consolidated, agents have a strong incentive to participate in electoral manipulation on behalf of the dominant network; however, local factors like high partisan contestation can make engaging in manipulation risky for agents. Agents can reduce their exposure to local risk by shifting to harder-to-trace forms of electoral manipulation like vote-buying or voter pressure, rather than more easily monitored and traced activities like falsification.

In order to reap the benefits of electoral manipulation, political candidates must rely on large networks of agents to affect the results. These networks are usually pyramidal, with actors at each level responsible for overseeing a larger number of actors at the next level down (Auyero 2007; Hale 2014). Political candidates' dependence on agents raises the possibility that agents' may not always behave as the boss might prefer (Rundlett and Svolik 2016).

Political principals can benefit directly from electoral manipulation (Greene 2007; Magaloni 2006), since it improves their chance of winning close elections (Lehoucq and Molina 2002), and widens the margin of victory (Simpser 2013; Gehlbach and Simpser 2015). By contrast, agents do not directly benefit from each manufactured vote they generate. Instead, agents perform their assigned tasks in order to remain embedded within a principal's patronage

network. For example, Russia's primary election-monitoring group recorded numerous incidents of voters being pressured to support the ruling party by their employers during the 2011 election.

The following example is representative:

At Kindergarten No. 620 [in St. Petersburg], a meeting was held in which employees were compelled to take absentee ballots in order to vote on school grounds. It was said that otherwise the district would be cut off from funding, but that voting by absentee would be rewarded with cash bonuses and time off. ...It was pointed out that [Duma] Deputy S. Shatunovskii (a member of United Russia) had done a lot for the district and it was necessary to support him (Golos 2011).

As the anecdote illustrates, local school administrators pressured their employees with the risk of job loss and the promise of bonuses, in order to remain within the ruling party's patronage network. This sort of voter pressure / vote-buying is common in sectors that rely on state patronage for their success (Frye et al 2014). Other forms of manipulation which rely more directly on state actors, such as ballot-stuffing or falsification of results, are also carried out in order to retain access to patronage. Principals in electoral authoritarian regimes tie access to the state and its associated opportunities for rents and patronage to electoral success (Díaz Cayeros 2006; Lust-Okar 2006; Reuter and Robertson 2012; Reuter & Robertson 2015), and can use the same resources to penalize opponents (McMann 2006). This creates a powerful incentive for local agents to boost the principal's vote-share by whatever means are available, including misuse of the election administration apparatus, in order to remain within the privileged network.

However, if the principal appears less likely to control access to patronage due to electoral defeat or intraparty rivalry, her offer of post-election patronage will appear less viable to agents, reducing their incentive to work on her behalf (Hale 2006). Following Hale's (2014) conception of 'patronal politics,' I argue that a principal's ability to credibly promise post-

election patronage is contingent on the share of resources controlled by her patronage network, relative to those of potential rivals.<sup>4</sup>

When one patronage network controls a large share of resources, agents have a strong incentive to support the principal: access to rents and resources outside that network is limited, competing offers of patronage by opposition figures are necessarily discounted, and punishment of defectors by exclusion from the network seems assured (Hale 2014). In a society characterised by multiple patronage networks, by contrast, the credibility of an individual principal's offer is contingent on the likelihood that the principal will win the election or leadership struggle. As a result, clients 'hedge their bets or pin their hopes on different networks in an uncoordinated fashion' (Hale 2014, p. 72). Consequently, agents are more strongly incentivised to participate in electoral manipulation efforts when patronage networks are more consolidated.

However, conditions at the agent's level can constrain agents' ability to engage in manipulation, by increasing the risk of exposure and punishment, even if the principal's access to patronage appears secure. Local agents are valuable to principals in part because of their deep knowledge of their local environment, which better enables them to monitor voters, distribute clientelistic benefits, or otherwise alter election results (Frye et al 2014; Zarazaga 2014). However, this local knowledge also allows agents to make strategic judgments about the level of local risk involved in manipulating an election. In more competitive settings, local agents have an 'exit option,' and may stop mobilizing voters or switch parties if the status quo becomes too risky (Stokes et al 2013, pp. 121-126). A variety of political factors influence local risk. For example, when opposition parties have limited or no representation on election commissions,

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<sup>4</sup> This corresponds to Hale's (2014) conceptualization of "single-pyramid" and "multiple pyramid" patronage systems (p. 10).

pro-incumbent manipulation is easier to accomplish and harder to expose (Kovalov 2014; Bader 2012; Calingaert 2006). The presence of election monitors deters election-day forms of electoral manipulation (Hyde 2011, Sjoberg 2013), and makes it more likely to be exposed (Kelley 2012). Monitors are more likely to be present in politically open territories (e.g. Buzin et al 2016), and more likely to be effective in more competitive districts (Asunka et al 2017). In cases where a dominant party machine exercises control over regional courts, opposition party figures are less likely to pursue complaints in regional courts (Popova 2006), reducing the risk to agents of engaging in manipulation. Even authoritarian regimes may allow lower courts to remain somewhat independent, in order to reduce corruption, increase investment, and enhance regime legitimacy (Moustafa and Ginsburg 2008). In turn, these courts sometimes act to redress low-level electoral violations. For example, Popova (2012) finds that district courts in Russia were more likely to hear election-related cases in competitive districts, and that pro-government candidates were not systematically more likely to win than pro-opposition candidates (pp. 94-95). By increasing risks to agents, local constraints affect the relative value of a principal's offer of patronage; a particular patronage offer may be sufficient to convince an agent to engage in manipulation in a local setting where constraints are low, but insufficient in cases where constraints are higher. As a result, the interaction of patronage and constraints affects the level of manipulation observed.<sup>5</sup>

Qualitative evidence indicates that this effect is not purely driven by leaders' fear of losing legitimacy. Exposed agents can face punishment, even in relatively uncompetitive regimes in which incumbent leaders retain power. A report on the punishment of election commissioners

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<sup>5</sup> I use the term *constraint* rather than *competition* since partisan competition is only one potential limitation on agents' ability to manipulate, which also include the courts, civil society monitoring groups, the media, and others.

for violations of the election law from 2009 to 2015 in Russia found that, while most infractions are punished by small fines, significant punishments could be brought in cases with sufficient local political pressure (Golos 2015). In some cases recorded by the monitoring group, election commissioners were found guilty of criminal offenses and faced stiff penalties, including fines of over half an average annual salary.

In sum, a greater local risk of exposure and punishment can make participating in manipulation less appealing to agents. However, this effect does not mean that incumbents are unable to find agents willing to manipulate elections in competitive, monitored localities; instead, agents can choose to engage in forms of electoral manipulation that are more difficult to observe and trace back to perpetrators. Agents who engage in forms of manipulation that take place in the polling center or the election administration are more exposed to local risks, since these activities are easier to observe and to attribute to their perpetrators. These forms of manipulation are usually carried out by agents who occupy a public, official position in the election administration and/or political parties (Birch 2011, p. 61). Election commissioners, for example, have a variety of means by which they can influence election results. However, discrepancies are easily traced back to them, especially when there is political and legal pressure to do so. By contrast, forms of electoral manipulation that are more dispersed—like vote-buying and voter-pressure—are harder to observe and to trace back to organisers, who may be employers (Frye et al 2014), neighborhood brokers (Stokes et al 2013), and other non-state actors (Mares and Young 2016). Unlike more centralised tactics, partisan and civil-society monitors do not know where and when to look for these activities, making them more difficult to trace than direct manipulation of the election administration (Birch 2011). For example, a Russian NGO report finds that the phrase ‘unidentified persons’ arises frequently in criminal cases against

election commissioners, to designate the shadowy individuals who coordinate multiple-voting rings, and pay or intimidate commissioners to influence the vote. Lack of evidence means these unidentified persons are rarely called to account (Golos 2015). This is not to say that vote-buying, voter pressure, and related tactics are impossible to detect. Rather, the nature of this kind of clientelistic exchange—in which brokers often know their clients directly, can exercise their political influence in clients' day-to-day life, and benefit from either an asymmetrical power relationship (Frye et al 2015) or a sense of trust (Kramon 2016)—makes these techniques harder for monitoring organizations to expose.

An objection might be raised: do agents in competitive circumstances have an incentive to work especially hard for their principals, in order to deliver as many votes as possible and possibly keep the boss in office? This could be true in exceptional circumstances, but in most cases the number of votes that any individual agent can influence has a negligible effect on the overall result. This creates the coordination problem identified by Rundlett and Svulik (2016). As the election becomes more competitive, the efforts of more agents are necessary to secure victory; at the same time, the diminishing prospect of success makes it less likely that so many agents will in fact cooperate.

Finally, manipulation on a national scale can be very expensive, and principals' resources are not limitless. Even relatively cost-effective tactics like co-opting employers to pressure voters requires monitoring efforts and rewards for compliant businesses (Frye et al 2014, p. 207). Agents and brokers engaged in falsification or other types of manipulation must still be organised and compensated (Langston and Morgenstern 2009). Vote-buying, however, is especially costly (Lehoucq and Molina 2002, Wang and Kurzman 2007), and such efforts become increasingly expensive as competitiveness increases (Corstange 2017). As a result,

incumbents are likely to prefer centralised forms of manipulation in low risk areas, due to their cost-effectiveness. This pattern has been documented both domestically in Russia (Harvey 2016) and cross-nationally (van Ham and Lindberg 2015). Consequently, if higher local constraints make agents less willing to tamper with elections in administrative ways, principals may find agents both more expensive to hire (as they turn toward vote-buying and similar tactics) and more likely to shirk their duties on election day (as they become harder to monitor). This limits the ability of principals to compensate for higher competitiveness by boosting payments for agents.

In summary, national patronage consolidation attracts election-manipulating agents, but this attraction must be weighed against risks created by local political conditions. Agents are more willing to tamper with elections when incumbent's control of patronage appears more secure. However, where local constraints are high, agents engage in harder-to-trace manipulation in order to insulate themselves from the risks of exposure. Since cost-efficient manipulation by election administrators does little to protect agents from exposure, they are more willing to perform activities like falsification in places where local risks are already low. Two testable hypotheses can be drawn from this theory. A third hypothesis tests the corresponding prediction from the incumbent popularity model.

Hypothesis 1: Higher local constraints will be associated with more vote-buying and voter pressure as patronage consolidation increases.

Hypothesis 2: Lower local constraints will be associated with more falsification as patronage consolidation increases.

Hypothesis 3 (incumbent popularity): Increases in the principal's national approval rating will be associated with higher levels of falsification, vote-buying, and voter pressure, especially in regions where the ruling party is popular.

### **Case selection: local and national political conditions in Russia**

Russia provides an excellent case with which to test the theory. The country is large and diverse, with wide variation in socioeconomic variables across its 80-plus regions. There is also wide variation in local political opposition, with the ruling party's margin of victory in the 2011 election ranging from one percentage point in the most competitive regions to 99 points in the least. National patronage consolidation has increased on average during the time period covered here, as regional power centers and oligarchic clans lost influence relative to the Kremlin. This evolution of the national political system, combined with a diversity of local political environments, provides ample opportunity to study agents' behavior under different conditions. In addition, Russia provides a tough test for the theory. If the principal-agent dynamics proposed here can be detected in Russia, a case where patronage consolidation is relatively high and local constraints are relatively limited in the broader comparative context, principal-agent problems may be even more prevalent in less authoritarian hybrid regimes.

Institutional reforms, organizational investments in the ruling party, strong economic growth, pressure on outside elites, and consistently high approval ratings for Putin himself strengthened the president's position as the country's chief patron. In the 2008 presidential election, the Kremlin successfully performed the transfer of the presidency from Putin to his chosen successor, Medvedev, while Putin took up the role of prime minister. However, as the 2011 Duma and 2012 presidential elections approached, tensions began to appear in the 'tandemocracy'. Commentators began to consider Medvedev and Putin as representatives of 'liberal' and

‘conservative’ factions in the elite (Black 2014). Speculation about which of the two would run for the presidency in 2012 continued until September 2011, when Medvedev urged the United Russia party conference to endorse Putin for that office. This announcement, and its apparent disregard for the public’s role in the matter, exacerbated divisions in the elite, exemplified by the resignation of long-serving finance minister Alexei Kudrin (Butrin et al 2011). In this context, United Russia won only forty-nine percent of the vote and lost more than seventy seats in the Duma—a major setback. In addition, the election prompted widespread allegations of manipulation and large protests in many Russian cities (Buranov et al 2011). Since beginning a third term, Putin has re-established the single-pyramid structure of patronage in Russia, after a modest fracturing during his years away from the presidency (Hale 2014, pp. 267-291).

## **Data and measures**

In order to test the theory, it is necessary to estimate two types of electoral manipulation: easier-to-monitor administrative falsification and harder-to-monitor vote-buying / voter pressure. To do so, I employ the same techniques used by Harvey (2016) to measure vote-buying/ voter-pressure and falsification. I use these methods to estimate the level of both types of electoral manipulation in each of Russia’s subnational regions, per election-year. These models draw on electoral data at the precinct level (more than 90,000 precincts in each election), while second-stage models incorporate control variables at the regional (83 regions) and election-year levels (6). In both sets of models, I include socioeconomic control variables to incorporate local context (Myagkov et al 2009) and reduce the risk of false positives (Deckert 2013).

The digits-based test proposed by Beber and Scacco (2012) is useful for estimating falsification of results by election officials (see also Weidmann and Callen 2012; Sjoberg 2013; Cantú 2014, Skovoroda and Lankina 2017). To estimate one form of manipulation by formal

agents—falsification of results—I conduct chi-square tests for the uniform distribution of trailing digits for the ruling party and the second-place finisher in each region per election-year.<sup>6</sup> In an election without administrative fraud, the trailing digits for each party should be roughly evenly distributed from 0 to 9.<sup>7</sup> I test for deviations from the uniform that are statistically significant at the .05 level for both parties<sup>8</sup>; the binary variable *any fraud* is marked as 1 if either party's results are significantly non-uniform, and 0 otherwise. This variable is used as the dependent variable in a second-stage logit model. This approach measures falsification of results only; it does not measure behaviors like stuffing the ballot box with pre-filled ballots (Sjoberg 2016).

With regard to vote-buying and voter pressure, I use a modified version of the turnout-based measure proposed by Myagkov et al (2009) by comparing the share of votes cast by absentee to the ruling party's absolute vote-share across precincts using a first-stage multilevel model (see also Moser and White 2017).<sup>9</sup> Since absentee ballots are used to facilitate vote-buying, workplace mobilization, and multiple voting (Golos 2011, Frye et al 2014, White 2011), a larger positive correlation between the share of absentee ballots and United Russia's absolute vote-share is more indicative of these kinds of manipulation (especially after controlling for demographic factors that might affect honest use of absentee ballots).<sup>10</sup> The regression

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<sup>6</sup> The second-place party is almost always the Communist Party of the Russian Federation.

<sup>7</sup> Assuming homogenous districts or appropriate statistical controls.

<sup>8</sup> In this approach, about five percent of observations should appear significantly non-uniform purely due to chance; in the dataset approximately nine and twenty percent of regions showed significantly non-uniform distributions for the first-place and second-place parties respectively. This suggests a non-random element to the distributions.

<sup>9</sup> Absolute vote-share refers to a party's number of votes divided by the total number of registered voters.

<sup>10</sup> Manipulation via absentee ballots is common in other post-Soviet countries; see, for example, D'Anieri (2005) and Herron 2010.

coefficient linking absentee voting and ruling-party vote-share is used as the dependent variable in a second-stage feasible generalised least squares (FGLS) regression to account for the fact that the dependent variable is itself a regression estimate (Lewis and Linzer 2005).<sup>11</sup>

***Explanatory variables: local political constraints***

I operationalise local constraints, first, by using a measure of local partisan opposition. I include two additional measures in the appendix: expert ratings of the openness of the local political environment to social and political activity, and a dummy variable recording whether a region is a titular ethnic republic within the Russian Federation. *Local opposition* is constructed by finding United Russia's margin of victory proportional-representation portion of the most recent regional legislative election prior to the national election at hand (that is, the measure is lagged and taken at a lower administrative level). In rare cases where United Russia lost the regional election, its margin of victory is negative. I subtract the margin of victory from one, so that higher values correspond to a larger opposition presence. However, regional legislative election results are not available prior to the 2004 national election. In order to include data from 2004 and 2003, I rely on the margin of victory in gubernatorial elections.<sup>1213</sup>

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<sup>11</sup> In particular, the estimated portion of variance of the DV not due to sampling error is modeled as

$\sum_i \widehat{v}_i^2 - \sum_i \omega_i^2 + \text{tr}((X'X)^{-1}X'GX)/N - k$ , where  $v$  refers to the residuals from the first level regression,  $\omega^2$  refers to the variance of the sampling error, and  $k$  refers to the number of parameters in the model. See Lewis and Linzer (2005) pp. 351-352 for more detail.

<sup>12</sup> Similarly, the results of gubernatorial elections cannot be used for all elections, since Russia abolished gubernatorial elections between 2005 and 2012.

<sup>13</sup> There is a clear difference between the two types of elections that affects the value of competitiveness when measured in this way. The proportional nature of legislative elections allows more parties to be competitive, systematically narrowing the margin of victory in these elections. By contrast, the winner-take-all nature of the election tends to make these elections two-way contests, possibly

It may be objected using margins of victory in one election (regardless of the timing and level) to explain electoral manipulation in another election introduces a problematic level of endogeneity to the analysis. I use the variable for two reasons. First, it captures the ability of opposition parties in the regional legislature to criticise the regional administration, to mobilise supporters, to influence regional election commissions, and to divert patronage resources away from the ruling party—all of which are constraints that make pro-regime manipulation more difficult. Second, the empirical strategy uses local opposition to predict levels of two distinct types of manipulation, not the level of overall manipulation or United Russia's success in national elections. In other words, while it is true that a wide margin of victory in a regional election may be indicative of a high level of manipulation in that election, and thus be uninformative about the overall level of electoral manipulation in a federal election in the same territory, it says nothing about the *type* of manipulation that may have been used—which is the dependent variable of interest. Finally, as robustness checks, I include two non-electoral measures of local constraints in the appendix, discussed above. Both of these variables produce results that are substantively similar to those presented here.

***Explanatory variables: national consolidation***

A variable like patronage consolidation is not easily visible; the concept describes informal networks of responsibility between patrons and clients, and the degree to which patrons must compete among themselves for the service of clients. Measures like GDP, GINI, or the oil

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producing wider margins of victory. To account for this difference, I first center and scale each variable according to its variance before combining them. The distribution of these variables is sufficiently similar that the benefit of being able to make use of the data from the 2003 and 2004 elections in the study outweighs the cost of combining them in this fashion. Histograms for the raw and scaled data are available in the appendix.

price may capture the wealth of the overall patronage system, but not the interaction of competing networks within the system (Hale 2014, p. 33). A measure of the number of presidential loyalists in cabinet positions, for example, would likewise represent only a partial picture; loyalty is difficult to observe, and loyalists may also be stationed in major industries, important governorships, and in the security ministries. Instead, I use the variable *UR governors share*, which indicates the percentage of regional governors formally affiliated with the ruling party, United Russia. This variable captures the gradual consolidation of regional political machines under the influence of the Kremlin during the time period covered, as previously independent politicians joined the party and brought their autonomous political machines into the fold (Reuter 2010, Reuter 2013). While this measure may not be universally applicable, United Russia's importance as a political party is largely tied to the ability of its high-ranking members to channel patronage resources to their clients (Reuter and Remington 2009, Remington 2008, Turovskii 2010). Over time, the measure ranges from .28 in 2003 to .66 in 2012. As a robustness check in the appendix, I also use a measure of centralised executive power from the Polity dataset. To test the implications of the incumbent-popularity model of manipulation, I use the average approval rating of Vladimir Putin in the three months before the election, gathered in representative nationwide polls conducted by the independent Levada Center, a respected Russian polling organization.

### ***Control variables***

Several socioeconomic variables are known to influence the likelihood and severity of electoral manipulation, and are included in all models. In addition, some control variables must be included in order to account for potentially non-manipulative explanations for suspicious patterns in the electoral data. Including these variables is also important since limited within-

region variability during the ten years covered here makes a fixed-effects model less useful. I discuss these variables below. All socioeconomic controls are taken from the Russian Federal State Statistical Service.

Since large populations may be more difficult to control and require more resources to manipulate, I include a measure of the *population size* in each region. The number of *pensioners* per 1,000 residents in a region is included, since many pensioners are directly dependent on the state for their livelihoods and may be easier to pressure into voting for the ruling party (a problem that is particularly acute for residents of homes for the elderly). Additionally, pensioners may be disposed to vote as a group for or against government candidates (Colton and McFaul 2003; Hemment 2009). *Poverty* is well known to affect individuals' susceptibility to vote-buying efforts and other forms of clientelism (Brusco et al 2004; Kitschelt and Wilkinson 2007). Consequently I include a measure of the percentage of the population falling below the official poverty line. A similar logic applies to the unemployed; I include a measure of the official *unemployment* rate for each region. Researchers have found mixed effects for the degree of *urbanization* on electoral manipulation, and so I include a measure of the percentage of a region's population living in cities.

Higher levels of *education* among the population should make vote-buying and similar forms of manipulation more difficult. As a measure of the level of education among the population of a region, I include the number of individuals with higher education (bachelor's degrees and above) per 1,000 residents. Since they owe their employment to the state, *government employees* may be more vulnerable to political pressure than ordinary voters (Kitschelt and Wilkinson 2007). I include a measure of the size of government in each region by adding the number of employees of the regional and local governments, and dividing by 1,000

residents. Finally, I include a dummy variable to control for *presidential elections*, which may produce higher levels of manipulation due to their high stakes for incumbents (Simpser 2013).<sup>14</sup>

To my knowledge, the correlates of ‘honest’ voting by absentee in Russia have not been tested. However, several of these variables are also plausible controls for non-manipulative absentee voting. Use of an absentee certificate allows an individual to vote in person at a precinct other than where they are registered, meaning that a more mobile population is likely to generate more honest absentee ballots. Large urban centers might draw more economic migrants and generally foster more internal movement, as may regions with a more highly educated population, while pensioners may be less likely to find themselves outside their precinct on election day.

## **Results and discussion**

The results of the second-stage models, which use *any fraud* and *absentee coefficient* as dependent variables, are presented in Table 1. These results are supportive of Hypothesis 1 and 2. At low levels of national consolidation, there is no statistically significant difference between low- and high-constraint regions in levels of either falsification or vote-buying / voter pressure. As patronage networks consolidate, the incentive to manipulate is expressed differently based on the degree of local constraints. More falsification is observed in low-constraint regions, while more vote-buying / voter pressure is seen in high-constraint regions. Hypothesis 3, which tests the incumbent-popularity model, is not supported. Models 1 and 4 provide a baseline by using control variables only. The remaining models use *local opposition* as a measure of local

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<sup>14</sup> As an additional robustness check, in the appendix I present results from multilevel, partial-pooling models that help account for unobserved variables within regions, while still taking cross-national variation into account (Gelman and Hill 2007).

constraints, interacted with *UR governors share* or *Putin approval*. The unit of observation in the table is the region-year.

	<i>Dependent variable:</i>					
	<i>Any fraud</i>			<i>Absentee coefficient</i>		
		<i>Logistic</i>			<i>OLS</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
Local opposition		0.570 (0.406)	0.204 (1.075)		-0.062 (0.052)	0.146 (0.137)
UR governors share		1.250 (1.107)			-0.127 (0.140)	
Local opposition:UR governors share		-1.446* (0.694)			0.218* (0.088)	
Putin approval			0.848 (1.507)			0.026 (0.188)
Local opposition:Putin approval			-0.560 (1.398)			-0.116 (0.179)
Presidential	-0.155 (0.231)	-0.118 (0.235)	-0.173 (0.240)	0.157** (0.029)	0.152** (0.029)	0.153** (0.030)
Population (log)	-0.377 (0.208)	-0.535* (0.220)	-0.435* (0.214)	-0.013 (0.027)	-0.008 (0.028)	-0.019 (0.028)
Pensioners (log)	-2.024** (0.749)	-1.867* (0.816)	-1.411 (0.790)	0.430** (0.099)	0.375** (0.103)	0.351** (0.105)
Poverty	0.104 (1.383)	0.537 (1.727)	-0.188 (1.463)	0.211 (0.185)	0.054 (0.227)	0.098 (0.193)
Higher education	0.026 (0.038)	-0.004 (0.043)	0.025 (0.039)	-0.004 (0.005)	-0.001 (0.006)	-0.004 (0.005)
Government employees (log)	-0.846 (0.533)	-1.072 (0.574)	-0.789 (0.543)	0.015 (0.070)	0.014 (0.073)	-0.011 (0.070)
Urban	0.110 (1.027)	0.990 (1.089)	0.445 (1.056)	0.556** (0.136)	0.493** (0.139)	0.533** (0.137)
Unemployment	-0.009 (0.022)	-0.027 (0.026)	-0.005 (0.023)	-0.006* (0.003)	-0.004 (0.003)	-0.006 (0.003)
Constant	14.349** (5.195)	13.890* (5.603)	10.366* (5.735)	-2.633** (0.688)	-2.247** (0.711)	-2.090** (0.757)

Observations	463	451	451	476	464	464
R <sup>2</sup>				0.174	0.209	0.198
Adjusted R <sup>2</sup>				0.159	0.190	0.178
Log Likelihood	-258.905	-245.314	-247.989			
Akaike Inf. Crit.	535.809	514.628	519.978			
<i>Note:</i>						* p<0.05; ** p<0.01

Table 1: Logit and FGLS models of two types of manipulation

Model 2 shows that the interaction of local opposition and consolidation of patronage via United Russia significantly influences the level of administrative fraud observed. To better interpret the interaction effect, Figure 1 depicts changes in the marginal effect of local opposition on falsification as the level of patronage consolidation increases. As the figure shows, local opposition has a negative marginal effect on falsification at higher levels of patronage consolidation, indicating that falsification is more severe in less competitive regions (Hypothesis 1). As predicted, increases in the predictability of post-election patronage drive falsification upward in areas where agents are locally unconstrained, but not in areas where local constraints make such forms of manipulation more likely to be detected and punished. By contrast, Figure 2 shows that there is no significant effect for *local opposition* at any level of *Putin approval*, suggesting that incumbent popularity does not drive falsification.

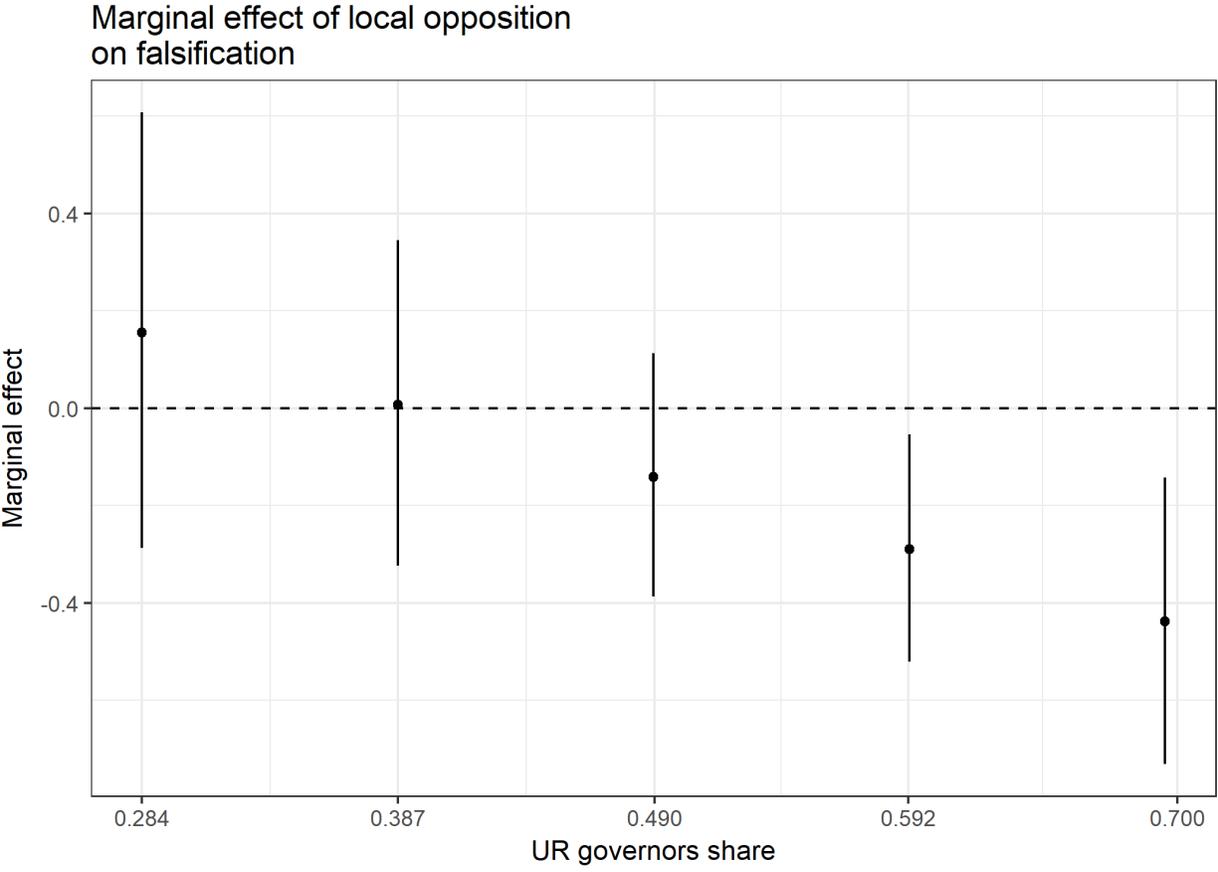


Figure 1: Marginal effect of local opposition on falsification, by UR governors share

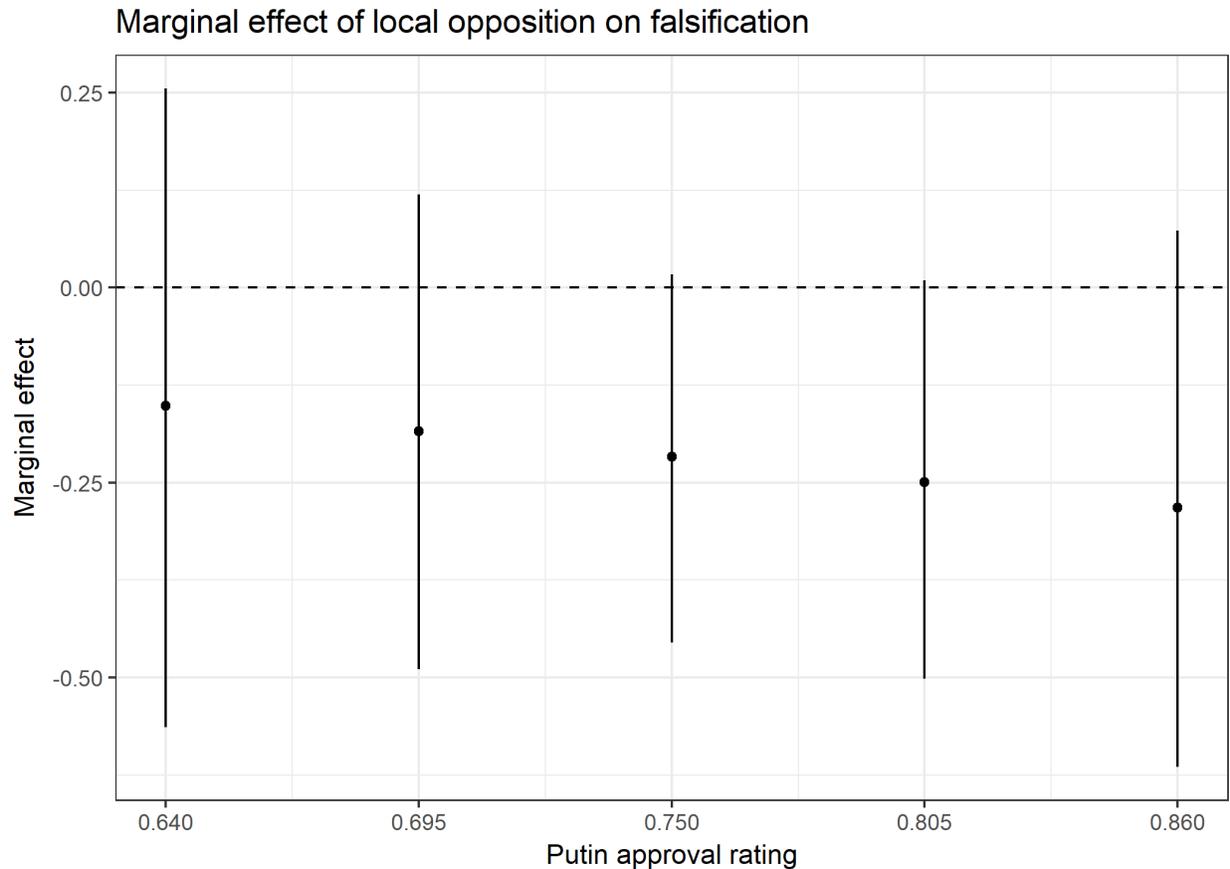


Figure 2: Marginal effect of local opposition on falsification, by Putin approval

Turning to dispersed manipulation, Model 5 shows that *local opposition* and *UR governors* have an interactive effect on vote-buying and voter pressure. Figure 3 presents the marginal effect of local opposition on vote-buying / voter pressure, conditional on *UR governors*. As the figure shows, local opposition has no significant effect when the national patronage system is less consolidated. By contrast, at higher levels of consolidation, the marginal effect of local opposition increases: once the principal's offer of post-election patronage is more secure, agents engage in vote-buying and voter pressure in places where local constraints are high. Figure 4 shows that *local opposition* has a significant positive relationship with vote-buying /

voter pressure, but this effect is not conditional on *Putin approval*. Together with Model 3, the results show that the incumbent-popularity model is not supported.

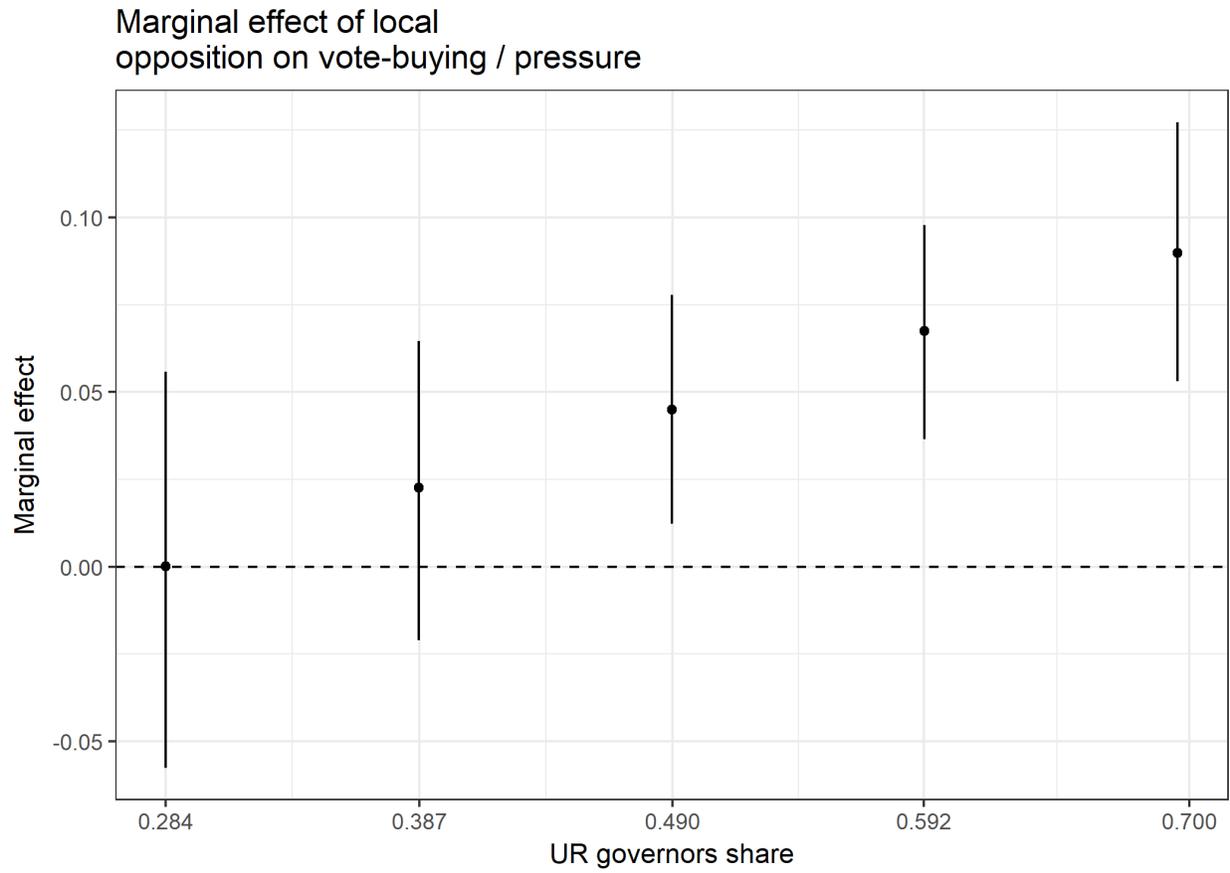


Figure 3: Marginal effect of local opposition on vote-buying / voter pressure, at varying levels of UR governors share

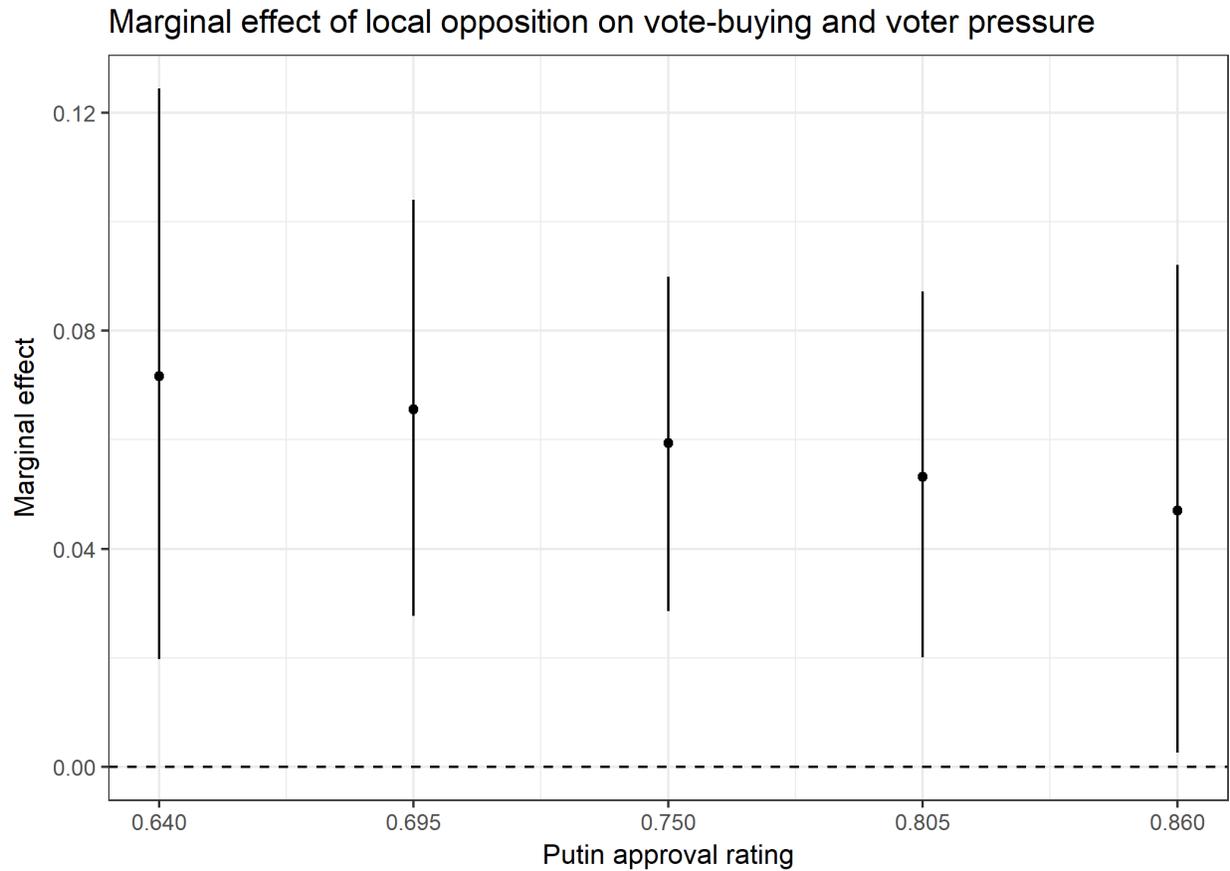


Figure 4: Marginal effect of local opposition on vote-buying / voter pressure, at varying levels of Putin approval

Taken together, these results show that electoral manipulation is affected by the interaction of patronage consolidation and local political conditions, and that different types of manipulation are affected in distinct ways. When patronage networks are more consolidated, administrative fraud increases in areas with low local opposition while remaining low in more contested areas. Conversely, under more consolidated patronage, higher levels of vote-buying and voter pressure efforts are observed in more competitive regions. Neither type of manipulation responds to changes in incumbent popularity in the way that incumbent-popularity model predicts.

These results confirm that principal-agent problems are characteristic of electoral manipulation efforts. However, patronage consolidation and local risks appear to be more relevant than the leader's popularity, with important implications. The incumbent-popularity model holds that unpopular incumbents preside over reduced electoral manipulation as agents defect, but the consolidation-constraint model shows this is not the case. Patronage networks break up when clients no longer expect the network to be a viable source of favor and resources (Hale 2014). In an electoral authoritarian regime, incumbent popularity may be one element of this expectation, but a decline in popularity is neither a necessary nor a sufficient condition for fragmentation of the incumbent's patronage network. Other factors can insulate an incumbent's network from fragmenting even in the face of low approval ratings, including the age of the network, ethnic or community connections (Hale 2014), the availability of repressive tools (Gerschewski 2013), and the absence of a credible rival network. In other words, manipulation can persist even when incumbents are unpopular, so long as they have other resources to draw on in shaping expectations. As a result, low popularity alone will not translate directly into cleaner elections.

Secondly, the incumbent-popularity model obscures the role that local opposition actors and civil society groups can play in shaping patterns of electoral manipulation, even when the incumbent controls consolidated patronage networks. These results show that falsification and mobilizational forms of manipulation are inversely correlated as local constraints increase. Where local actors are able to increase the risk of engaging in manipulation for agents, for example through election monitoring or active opposition parties, dispersed forms of manipulation are more likely than centralised falsification. While these forms of manipulation may have other benefits for incumbents (Harvey 2016), they are nonetheless more expensive and

prone to agency loss than are centralised forms of manipulation. As a result, strategic behavior by civil society groups and parties can drive up the cost of manipulation for incumbents and perhaps reduce the overall level of manipulation. In the Russian case, this underscores the substantive importance of civil-society monitoring groups like Golos (Skovoroda and Lankina 2017) and nationwide anti-corruption protest movements (Kara-Murza 2017) in raising the cost of election management for the ruling party at the local level. In sum, researchers interested in understanding variation in electoral manipulation should look toward patronage networks and local political factors, rather than toward incumbent popularity alone. Likewise, if governments, international actors, or civil society groups are interested in reducing levels of electoral manipulation, breaking up patronage networks and building up local structures that can challenge acts of manipulation are the key tasks; tasks which are in some ways more difficult than challenging the incumbent's popular standing.

Finally, the results suggest important scope conditions for Rundlett and Svulik's (2016) information-based principal-agent model. The model proposed here is most applicable to hybrid regimes and electoral democracies, where local political conditions do vary. The information-based model they propose may be more applicable in fully closed authoritarian regimes that nonetheless hold elections. In such regimes, local agents may be genuinely naïve about the true extent of the incumbent's level of support due to rampant preference falsification, and local constraints may be practically nonexistent with little variation across regions. In such a scenario, the effects posited here will be limited. Consequently, the information-based model may be more predictive in hegemonic-party regimes at a moment of transition; while the present model is more predictive for the bulk of hybrid regimes and new democracies. Lastly, it should be noted

that both approaches are primarily concerned with illegal forms of electoral manipulation that create risks to agents and are less applicable to legalised techniques for biasing elections.

Some evidence for the proposition that the consolidation-constraint model applies cross-nationally can be gleaned from election-observer reports from other former Soviet countries, a useful comparison as a result of shared institutional features and historical experiences. Observer reports from OSCE monitors suggest that problems with counting and tabulation of votes are more severe in those countries that are most patrimonial and have the lowest local constraints, such as Belarus (OSCE 2016), Uzbekistan (OSCE 2017), and Tajikistan (OSCE 2015). Problems with the voting process itself are relatively more common in less consolidated and more locally competitive Ukraine (OSCE 2014).

The results also suggest directions for future research. This project examines ruling-party manipulation in a country where patronage is highly consolidated in comparative context, and where even highly competitive areas are generally controlled by the ruling party. These conditions make electoral manipulation an especially risky prospect for agents of opposition parties. However, in more competitive countries, it is entirely possible that deconsolidation of patronage networks might reduce ruling-party manipulation while increasing manipulation by opposition parties, as agents' cost-benefit analysis swings in favor of the newly empowered opposition. Future research might investigate this possibility.

## **Conclusion**

Electoral manipulation is an important tool for parties and governments in electoral authoritarian regimes and unconsolidated democracies. Effective manipulation can improve candidates' chances of winning the election, send signals about the strength of the organization, and induce other political actors to comply with the interests of the candidate. However, all of

these benefits accrue to the candidate. The candidate's agents, on the other hand, expose themselves to political and legal risks by tampering with the election, even if their political patron wins the election. This asymmetry of preferences gives rise to a principal-agent problem that can result in levels of manipulation that are insufficient to deliver a major victory. The severity of this problem is affected by local risks to agents, the consolidation of patronage around the principal, and the type of electoral manipulation employed. Manipulation is generally low when patronage is less consolidated. As leaders gain more consolidated control over patronage resources, falsification (riskier for agents) rises in local areas where risks are low, while vote-buying and voter pressure (less risky tactics) increase in places where opposition activity and civil society are more prominent.

This theory has several implications for future research on electoral manipulation and democratization. First, it supports a principal-agent model of manipulation, but shows that patronage consolidation, not popularity, drives the appeal of manipulation for agents. Second, it emphasises the role of local political conditions as constraints on manipulation. This implies that understanding the subnational balance of power is essential for predicting electoral manipulation and for analyzing its causes or effects. Third, it demonstrates that electoral manipulation can be better understood if it is treated as a family of distinct tactics—each with its own costs, benefits and susceptibility to local constraints—rather than as a single concept. Lastly, the results highlight the risks incumbents take when engaging in electoral manipulation during close elections in countries where the ruling party is not dominant at the local level. In this setting, administrative fraud is difficult to obtain, and principals are forced to rely more heavily on dispersed tactics. The result is likely to be a partially manipulated election in which tampering is

widespread enough to attract public attention, but not effective enough to secure the kind of dominating victory that keeps opposition groups from pressing their case.

## References

- Argersinger, Peter H. 1985. "New Perspectives on Election Fraud in the Gilded Age." *Political Science Quarterly* 100 (4): 669. doi:10.2307/2151546.
- Asunka, J., Brierley, S., Golden, M., Kramon, E., & Ofosu, G. (2017). Electoral fraud or violence: The effect of observers on party manipulation strategies. *British Journal of Political Science*, 1–23.
- Auyero, Javier. 2007. *Routine Politics and Violence in Argentina: The Gray Zone of State Power*. Cambridge University Press.
- Bader, Max. 2012. "OSCE Electoral Assistance and the Role of Election Commissions." *Security & Human Rights* 23 (1): 19–29. doi:10.1163/187502312800079728.
- Beaulieu, Emily, and Susan D. Hyde. 2008. "In the Shadow of Democracy Promotion: Strategic Manipulation, International Observers, and Election Boycotts." *Comparative Political Studies* 42 (3): 392–415. doi:10.1177/0010414008325571.
- Beber, Bernd, and Alexandra Scacco. 2012. "What the Numbers Say: A Digit-Based Test for Election Fraud." *Political Analysis* 20 (2): 211–234.
- Belokurova, Elena., and Dmitrii Vorob'ev. (2011). Local public participation in contemporary Russia. *Russian Politics & Law*, 49(4), 76–84.
- Birch, Sarah 2007. "Electoral Systems and Electoral Misconduct." *Comparative Political Studies* 40 (12): 1533–1556. doi:10.1177/0010414006292886.
- Birch, Sarah. 2011. *Electoral Malpractice*. Oxford ;New York: Oxford University Press.
- Black, J. L. 2014. *The Russian Presidency of Dmitry Medvedev, 2008-2012: The Next Step Forward or Merely a Time Out?* Routledge.
- Blaydes, Lisa. 2011. *Elections and Distributive Politics in Mubarak's Egypt*. Cambridge University Press.
- Brownlee, Jason. 2007. *Authoritarianism in an Age of Democratization*. Cambridge University Press.
- Brusco, Valeria, Marcelo Nazareno, and Susan Carol Stokes. 2004. "Vote Buying in Argentina." *Latin American Research Review* 39 (2): 66–88.
- Bunce, Valerie J., and Sharon L. Wolchik. 2010. "Defeating Dictators: Electoral Change and Stability in Competitive Authoritarian Regimes." *World Politics* 62 (1): 43–86. doi:10.1353/wp.0.0043.

- Buranov, Ivan, Andrei Kozenko, and Aleksandr Chernykh. 2011. “Центральный Избирательный Участок.” *Kommersant*, July 12.
- Butrin, Dmitry, Irina Granik, Pyotr Ntreda, and Viktor Khamraev. 2011. “Алексей Кудрин Получил Двойную Отставку.” *Kommersant*, September 27.
- Buzin, Andrei, Kevin Brondum, and Graeme Robertson. 2016. “Election Observer Effects: A Field Experiment in the Russian Duma Election of 2011.” *Electoral Studies* 44: 184–191.
- Calingaert, Daniel. 2006. “Election Rigging and How to Fight It.” *Journal of Democracy* 17 (3): 138–51. doi:10.1353/jod.2006.0043.
- Chernykh, Svitlana, and Milan W. Svoblik. 2015. “Third-Party Actors and the Success of Democracy: How Electoral Commissions, Courts, and Observers Shape Incentives for Electoral Manipulation and Post-Election Protests.” *The Journal of Politics* 77 (2).
- Colton, Timothy, and Michael McFaul. 2003. *Popular Choice and Managed Democracy: The Russian Elections of 1999 and 2000*. Washington: Brookings Institution Press.
- Corstange, Daniel. (2017). Clientelism in Competitive and Uncompetitive Elections. *Comparative Political Studies*. <https://doi.org/https://doi.org/10.1177/0010414017695332>
- D’Anieri, P. (2005). The last hurrah: The 2004 Ukrainian presidential elections and the limits of machine politics. *Communist and Post-Communist Studies*, 38(2), 231–249.
- Deckert, Joseph. 2013. “Patterns of Fraud: Tools for Election Forensics.” University of Oregon.
- Díaz Cayeros, Alberto. 2006. *Federalism, Fiscal Authority, and Centralization in Latin America*. Cambridge: Cambridge University Press.
- Domínguez, Jorge I., and James A. McCann. 1998. *Democratizing Mexico: Public Opinion and Electoral Choices*. JHU Press.
- Donno, Daniela. 2013. “Elections and Democratization in Authoritarian Regimes.” *American Journal of Political Science* 57 (3): 703–716. doi:10.1111/ajps.12013.
- Frye, Timothy, Ora John Reuter, and David Szakonyi. 2014. “Political Machines at Work: Voter Mobilization and Electoral Subversion in the Workplace.” *World Politics* 66 (2).
- Gandhi, Jennifer, and Adam Przeworski. 2007. “Authoritarian Institutions and the Survival of Autocrats.” *Comparative Political Studies*.
- Gehlbach, Scott, and Alberto Simpser. 2015. “Electoral Manipulation as Bureaucratic Control.” *American Journal of Political Science* 59 (1): 212–24. doi:10.1111/ajps.12122.

- Gelman, Vladimir. 2010. "The Dynamics of Subnational Authoritarianism." *Russian Politics and Law* 48 (2): 7–26. doi:10.2753/RUP1061-1940480201.
- Gerschewski, Johannes. (2013). The three pillars of stability: legitimation, repression, and co-optation in autocratic regimes. *Democratization*, 20(1), 13–38.
- Golos. 2011. "Analytical Report of the GOLOS Association on the December 4, 2011 elections." <http://archive.golos.org/elections/2011-12-04>.
- Golos. 2015. "Аналитический доклад. Практика привлечения к ответственности членов избирательных комиссий за нарушения избирательного законодательства за период с 2009 по 2015 гг." Golos. <http://www.golosinfo.org/ru/articles/32191>.
- Goodnow, Regina, Robert G. Moser, and Tony Smith. 2014. "Ethnicity and Electoral Manipulation in Russia." *Electoral Studies* 36: 15–27.
- Greene, Kenneth F. 2007. *Why Dominant Parties Lose: Mexico's Democratization in Comparative Perspective*. Cambridge University Press.
- Hale, Henry E. 2006. "Democracy or Autocracy on the March? The Colored Revolutions as Normal Dynamics of Patronal Presidentialism." *Communist and Post-Communist Studies* 39 (3): 305–329. doi:10.1016/j.postcomstud.2006.06.006.
- Hale, Henry E. 2007. "Correlates of Clientelism: Political Economy, Politicized Ethnicity, and Post-Communist Transition." *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*, 227–250.
- Hale, Henry E. 2014. *Patronal Politics*. Cambridge University Press.
- Ham, Carolien van, and Staffan I. Lindberg. 2015. "From Sticks to Carrots: Electoral Manipulation in Africa, 1986-2012." *Government and Opposition* 50 (3): 521–48. doi:<http://dx.doi.org.libproxy.lib.unc.edu/10.1017/gov.2015.6>.
- Harvey, Cole J. 2016. "Changes in the Menu of Manipulation: Electoral Fraud, Ballot Stuffing, and Voter Pressure in the 2011 Russian Election." *Electoral Studies* 41 (March): 105–17. doi:10.1016/j.electstud.2015.11.004.
- Hemment, Julie. 2009. "Soviet-Style Neoliberalism?" *Problems of Post-Communism* 56 (6): 36–50. doi:10.2753/PPC1075-8216560604.
- Herron, E. S. (2010). The effect of passive observation methods on Azerbaijan's 2008 presidential election and 2009 referendum. *Electoral Studies*, 29(3), 417–424.
- Hyde, Susan D. 2011. *The Pseudo-Democrat's Dilemma*. Cornell University Press.

- Kara-Murza, Vladimir V. (2017). "Putin is Not Russia." *Journal of Democracy*. 28 (4): 110-116.
- Kelley, Judith G. 2012. *Monitoring Democracy : When International Election Observation Works, and Why It Often Fails*. Princeton, NJ, USA: Princeton University Press.
- Kitschelt, Herbert, and Steven I. Wilkinson. 2007. *Patrons, Clients and Policies: Patterns of Democratic Accountability and Political Competition*. Cambridge University Press.
- Kovalov, Maksym. 2014. "Electoral Manipulations and Fraud in Parliamentary Elections: The Case of Ukraine." *East European Politics & Societies* 28 (4): 781–807.  
doi:10.1177/0888325414545671.
- Kramon, E. (2016). Electoral Handouts as Information. *World Politics*, 68(3), 454–498.
- Kuo, Didi and Jan Teorell. (2017). Illicit Tactics as Substitutes: Election Fraud, Ballot Reform, and Contested Congressional Elections in the United States, 1860-1930. *Comparative Political Studies*, 50(5), 665–696. <https://doi.org/10.1177/0010414016649481>
- Langston, Joy, and Scott Morgenstern. 2009. "Campaigning in an Electoral Authoritarian Regime: The Case of Mexico." *Comparative Politics* 41 (2): 165–81.
- Lehoucq, Fabrice. 2003. "Electoral Fraud: Causes, Types, and Consequences." *Annual Review of Political Science* 6: 233–56.
- Lehoucq, Fabrice E., and Ivan Molina. 2002. *Stuffing the Ballot Box: Fraud, Electoral Reform, and Democratization in Costa Rica*. Cambridge University Press.
- Levitsky, Steven, and Lucan Way. 2010. *Competitive Authoritarianism: Hybrid Regimes After the Cold War*. Cambridge University Press.
- Lewis, Jeffrey B., and Drew A. Linzer. 2005. "Estimating Regression Models in Which the Dependent Variable Is Based on Estimates." *Political Analysis* 13 (4): 345–64.  
doi:10.1093/pan/mpi026.
- Little, Andrew T. 2012. "Elections, Fraud, and Election Monitoring in the Shadow of Revolution." *Quarterly Journal of Political Science* 7 (3): 249–283.
- Lust-Okar, Ellen. 2006. "Elections under Authoritarianism: Preliminary Lessons from Jordan." *Democratization* 13 (3): 456–471.
- Magaloni, Beatriz. 2010. "The Game of Electoral Fraud and the Ousting of Authoritarian Rule." *American Journal of Political Science* 54 (3): 751–765.
- Magaloni, Beatriz. 2006. *Voting for Autocracy: Hegemonic Party Survival and Its Demise in Mexico*. Cambridge University Press New York.

- Magaloni, Beatriz, and Ruth Kricheli. 2010. "Political Order and One-Party Rule." *Annual Review of Political Science* 13 (1): 123–143.  
doi:10.1146/annurev.polisci.031908.220529.
- Mares, Isabela, and Lauren Young. 2016. "Buying, Expropriating, and Stealing Votes." *Annual Review of Political Science* 19 (1): 267–88. doi:10.1146/annurev-polisci-060514-120923.
- McMann, Kelly M. 2006. *Economic Autonomy and Democracy*. Cambridge University Press.
- Moser, Robert G. and Allison C. White. 2017. "Does electoral fraud spread? The expansion of electoral manipulation in Russia." *Post-Soviet Affairs* 33 (2).
- Moustafa, Tamir, & Ginsburg, Tom. (2008). Introduction: The Functions of Courts in Authoritarian Politics. In *Rule by Law: The Politics of Courts in Authoritarian Regimes*. Cambridge University Press.
- Myagkov, Mikhail, Peter C. Ordeshook, and Dimitri Shakin. 2009. *The Forensics of Election Fraud: Russia and Ukraine*. Cambridge University Press.
- Nichter, Simeon. 2008. "Vote Buying or Turnout Buying? Machine Politics and the Secret Ballot." *American Political Science Review* 102 (1): 19–31.  
doi:10.1017/S0003055408080106.
- OSCE Office of Democratic Institutions and Human Rights. (2014). *Ukraine, Early Parliamentary Elections, 26 October 2014: Final Report*. Warsaw.
- OSCE Office of Democratic Institutions and Human Rights. (2015). *Tajikistan, Parliamentary Elections, 1 March 2015: Final Report*. Warsaw.
- OSCE Office of Democratic Institutions and Human Rights. (2016). *Belarus, Parliamentary Elections, 11 September 2016: Final Report*. Warsaw.
- OSCE Office of Democratic Institutions and Human Rights. (2017). *Uzbekistan, Early Presidential Election, 4 December 2016: Final Report*. Warsaw.
- Petrov, Nikolai, and Aleksei Titkov. 2015. "Рейтинг Демократичности Регионов Московского Центра Карнеги: 10 Лет В Строю." *Carnegie Moscow Center*. Accessed February 27.
- Popova, Maria. 2006. "Watchdogs or Attack Dogs? The Role of the Russian Courts and the Central Election Commission in the Resolution of Electoral Disputes." *Europe-Asia Studies* 58 (3): 391–414. doi:10.1080/09668130600601800.

- Popova, M. (2012). *Politicized Justice in Emerging Democracies: A Study of Courts in Russia and Ukraine*. Cambridge University Press.
- Reuter, Ora John. 2010. "The Politics of Dominant Party Formation: United Russia and Russia's Governors." *Europe-Asia Studies* 62 (2): 293–327. doi:10.1080/09668130903506847.
- Reuter, Ora John (2013). Regional patrons and hegemonic party electoral performance in Russia. *Post-Soviet Affairs*, 29(2), 101–135.
- Reuter, Ora John, and Thomas F. Remington. 2009. "Dominant Party Regimes and the Commitment Problem: The Case of United Russia." *Comparative Political Studies* 42 (4): 501.
- Reuter, Ora John, and Graeme B. Robertson. 2012. "Subnational Appointments in Authoritarian Regimes: Evidence from Russian Gubernatorial Appointments." *The Journal of Politics* 74 (4): 1023–1037. doi:10.1017/S0022381612000631.
- Reuter, Ora John, and Graeme B. Robertson. 2015. "Legislatures, Cooptation, and Social Protest in Contemporary Authoritarian Regimes." *The Journal of Politics* 77 (1): 235–248.
- Rundlett, Ashlea, and Milan W. Svobik. 2016. "Deliver the Vote! Micromotives and Macrobehavior in Electoral Fraud." *American Political Science Review* 110 (1): 180–197. doi:10.1017/S0003055415000635.
- Simpser, Alberto. 2013. *Why Governments and Parties Manipulate Elections: Theory, Practice, and Implications*. Cambridge University Press.
- Simpser, Alberto, and Daniela Donno. 2012. "Can International Election Monitoring Harm Governance?" *The Journal of Politics* 74 (2): 501–513. doi:10.1017/S002238161100168X.
- Sjoberg, Fredrik M. 2013. "Autocratic Adaptation : The Strategic Use of Transparency and the Persistence of Election Fraud." *Electoral Studies*, 1–13. doi:10.1016/j.electstud.2013.08.004.
- Sjoberg, F. M. (2016). Bring the party back in: Institutional design for "smart election fraud." *Electoral Studies*, 44, 307–318.
- Skovoroda, Rodion and Tomila Lankina. (2017) "Fabricating votes for Putin: new tests of fraud and electoral manipulations from Russia." *Post-Soviet Affairs*, 33 (2): 100-123.
- Stokes, Susan C. 2005. "Perverse Accountability: A Formal Model of Machine Politics with Evidence from Argentina." *American Political Science Review* 99 (3): 315–325.

- Stokes, Susan C., Thad Dunning, Marcelo Nazareno, and Valeria Brusco. 2013. *Brokers, Voters, and Clientelism: The Puzzle of Distributive Politics*. Cambridge University Press.
- Tikhonova, Natalya. ЦИК: по итогам выборов возбуждено 32 уголовных дела. Retrieved May 10, 2017, from <https://www.golosinfo.org/ru/articles/119034>
- Turovskii, Rostislav F. 2010. "How Russian Governors Are Appointed." *Russian Politics & Law* 48 (1): 58–79. doi:10.2753/RUP1061-1940480104.
- Wang, Chin-Shou, and Charles Kurzman. 2007. "Dilemmas of Electoral Clientelism: Taiwan, 1993." *International Political Science Review* 28 (2): 225–245.
- White, S. (2011). Elections Russian-Style. *Europe-Asia Studies*, 63(4), 531–556.  
<https://doi.org/10.1080/09668136.2011.566423>
- Zarazaga, Rodrigo, S. J. 2014. "Brokers Beyond Clientelism: A New Perspective Through the Argentine Case." *Latin American Politics and Society* 56 (3): 23–45.
- Ziblatt, Daniel. 2009. "Shaping Democratic Practice and the Causes of Electoral Fraud: The Case of Nineteenth-Century Germany." *American Political Science Review* 103 (1): 1.  
doi:10.1017/S0003055409090042.
- "Федеральная служба государственной статистики." 2016. *Federal State Statistical Service*. Accessed December 12. [http://www.gks.ru/wps/wcm/connect/rosstat\\_main/rosstat/ru/](http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/).