

# Reevaluating the Middle-Class Protest Paradigm: A Case-Control Study of Democratic Protest Coalitions in Russia

BRYN ROSENFELD *University of Southern California*

**A** large literature expects rising middle classes to promote democracy. However, few studies provide direct evidence on this group in nondemocratic settings. This article focuses on politically important differentiation within the middle classes, arguing that middle-class growth in state-dependent sectors weakens potential coalitions in support of democratization. I test this argument using surveys conducted at mass demonstrations in Russia and detailed population data. I also present a new approach to studying protest based on case-control methods from epidemiology. The results reveal that state-sector professionals were significantly less likely to mobilize against electoral fraud, even after controlling for ideology. If this group had participated at the same rate as middle-class professionals from the private sector, I estimate that another 90,000 protesters would have taken to the streets. I trace these patterns of participation to the interaction of individual resources and selective incentives. These findings have implications for authoritarian stability and democratic transitions.

**W**hy and under what conditions is the middle class likely to support democratization? Since Lipset (1959), scholars have argued that economic development changes the class structure of society, improving the chances for democratization and democratic stability (Dahl 1971; Huntington 1991; Welzel and Inglehart 2008). As in Moore's (1966) famous formulation, "No bourgeoisie, no democracy," a vast literature in political science casts rising middle classes as a force for democratization.<sup>1</sup> Thus Acemoglu and Robinson (2006, 39) assert that "almost all revolutionary movements were led by middle class actors," while Huntington (1991, 67) argues that, "In virtually every country [of the third wave] the most active supporters of democratization came from the urban middle class." Urban civic protests and revolutions, in particular, have been seen as a middle-class phenomenon, belonging "to the repertoire of the educated, the informed, the connected, and the relatively well-off" (Welzel 2013, 217).

Yet the classical view that a growing middle class will confront old networks of patronage and privilege assumes that the middle class is not itself bound by

those relations. This view ignores the reality in many contemporary autocracies, where the middle class is principally the product of opportunities within the state bureaucracy and state-owned enterprises. In contrast to the middle class of classical theory, I contend that this state-dependent middle class may actually stymie support for political change.<sup>2</sup> This argument implies that a middle class incubated in the public sector of an authoritarian state will be less favorable toward democracy than expected by either values-based or redistributive theories.

The Russian case typifies the type of middle class that develops under autocratic state institutions and extensive state economic engagement. The majority of new entrants to Russia's middle class over recent years are professionals paid out of the state budget and civil servants (Russian Academy of Sciences 2014; Maleva and Ovcharova 2009; Avraamova 2008). The proportion of state workers in Russia's middle class is approximately one half to two-thirds, while the overall share employed in the public sector is about four-in-ten (Russian Academy of Sciences 2014, 30). In this regard, Russia is not unique. Pervasive state patronage and bloated public sectors are a feature of politics in the Middle East, Africa, Latin America, and other former Soviet states (e.g., Hertog 2013; Diamond 1987; Weyland 1996; Gervasoni 2010; Oliveros 2016; Darden 2008). These conditions are widespread in resource states, but they are also present in post-socialist countries both with (e.g., Azerbaijan) and without oil (e.g., Belarus). More work is needed to understand the effect of middle-class state dependence on mobilizational potential.

In this article, I investigate the most consequential action that individuals can undertake to influence democratization: protest. The wave of demonstrations beginning in late 2011 after Russia's parliamentary election offers an ideal opportunity in which to consider the constituencies and coalitions that are likely to challenge illiberal regimes. Further, since preferences

Bryn Rosenfeld is Assistant Professor, Department of Political Science, University of Southern California, 3518 Trousdale Parkway, Von Kleinsmid Center (VKC), Los Angeles, CA 90089. (brosenfe@usc.edu).

I wish to thank Mark Beissinger, Chris Achen, Ben Ansell, Graeme Blair, Ray Duch, Grigo Pop-Eleches, Scott Gehlbach, Kosuke Imai, Tomila Lankina, Kevin Mazur, Tom Remington, Luis Schiumerini, Henry Thompson, Mark Urnov, the Journal's editor, and four anonymous reviewers for helpful feedback at various stages of this project, and my son Ezra who arrived as I was working on revisions and slept quietly as I finished them. Previous versions of this article were presented at the University of Southern California, Nuffield College, Princeton University, the 2014 Annual Meeting of the American Political Science Association, and the 2015 Annual Meeting of the Midwest Political Science Association. I am grateful to the Levada Center and the Foundation for Public Opinion (FOM) for generously sharing their data.

Received: June 30, 2016; revised: February 19, 2017; accepted: July 14, 2017. First published online: September 11, 2017.

<sup>1</sup> On the democratizing role of the middle classes, see also Ekiert (2010), Ansell and Samuels (2014), and Fukuyama (2014).

<sup>2</sup> On the importance of economic autonomy for democratization, see McMann (2006). Bellin (2000) makes a related argument about contingent democrats, focusing on industrialists and labor.

cannot be inferred directly from protest behavior, I also analyze the democratic commitments of middle-class protest participants. As recent protests around the world demonstrate, better understanding citizen preferences under autocracy is critically important for grasping the sources of popular pressure for political change (Teorell 2010; Ulfelder 2005). Yet existing scholarship, including canonical works, offers virtually no concrete micro-level evidence on the preferences and actions of the middle class vis-a-vis democratization.<sup>3</sup> Protests afford a uniquely tractable and politically salient opportunity for filling this gap.

With that aim, I leverage detailed data on protest participants and a novel empirical strategy. This approach is widely applicable to the study of contentious collective action across a variety of settings. More specifically, I employ choice-based sampling methods, which allow me to combine protest survey data with representative data on the population from which protesters were recruited. The case-control method I present—a variation on designs commonly used in epidemiological studies of rare disease but ignored to date in political science research—allows me to estimate the population prevalence of protest for groups with given characteristics. This approach improves on a range of studies that lack individual data on protesters, rely on reported rather than actual participation, are unable to compare protesters to nonparticipants, or are prevented by their small sample size from reaching reliable conclusions about protest subgroups. An additional advantage is that I need not, and do not, assume that all protesters were democrats or that participation in opposition demonstrations had uniform ideological content for all who turned out.

To preview the results, I find that the prospects for mobilized democratic transition hinge considerably on the middle classes' degree of state dependence. First, I show that the fastest growing segments of Russia's middle class, professionals employed in the public sector, were significantly less likely than the private-sector middle class to mobilize. Controlling for a variety of other factors including ideology, I estimate that state dependence reduced the likelihood of protest by more than 25% among the middle class and 50% among the non-middle class. Further, I find that state employees who did protest were less likely to do so as part of the pro-democracy coalition. State-sector protesters were less likely to use the politicized language of rights and freedoms than their private-sector counterparts. They were also more likely to value stable development and standard of living over political liberty and regime change. For state-dependent middle-class groups, protest was not about democratic transformation, but securing a better deal from the regime. I trace these patterns of participation to the interaction of individual resources and state selective incentives.

These findings highlight the importance for regime survival of co-optation that takes place in public sec-

tor workplaces, beyond formal political institutions like parties, parliaments, and elections. Whereas most studies focus on co-optation of either elites or the poor (e.g., Gandhi and Przeworski 2007; Magaloni 2006; Medina and Stokes 2007; Calvo and Murillo 2004), capitalists or labor (Bellin 2000), this study shows the significance of co-opting the middle class in terms of protest capacity when autocratic regimes are challenged. Its findings also hold broader lessons for our understanding of the middle class and democratization. The fact that middle-class state employees protested in smaller numbers, and that those who did were less likely to do so under the banner of democracy, implies that how middle-class growth is achieved affects bottom-up processes of democratization, through both attitudes and actions. Finally, these findings reveal that ignoring key sources of preference heterogeneity within the middle classes obscures an important micro-level mechanism behind development without democratization.

## THE MIDDLE CLASS AND MOBILIZED CONTENTION

The existing literature suggests a pivotal role for the middle class in mass protests against illiberal regimes. Indeed, middle-class groups have been credited with supplying crucial support for the popular mobilizations that precipitated the overthrow of Suchinda in Thailand, the fall of Chun Doo-hwan in South Korea, and the removal of Marcos in the Philippines. Yet the middle classes' role in pro-democracy movements has varied across time and space (e.g., Rueschemeyer, Stephens, and Stephens 1992; Koo 1991; Jones 1998; Shin 1999), and no clear consensus has emerged to explain this variation.<sup>4</sup> Conceptual, theoretical, and empirical issues have all impeded progress on this agenda.

First, the term “middle class” carries many meanings. For some, middle class is a normative category embodying the democratic values and participatory ethic that this study aims to explain. For others, the middle class is defined by its place in the income distribution (e.g., Boix 2003; Acemoglu and Robinson 2006). For the purposes of this study, I define the middle class as university-educated white-collar strata.<sup>5</sup>

<sup>4</sup> Beyond these cases of democratic revolution, this article's argument also sheds light on instances of civic protest, for example, in Latin America, where neither the Kirchner loyalist middle class in Argentina nor the loyalist middle class of the Workers' Party (PT) in Brazil lent their support to recent antigovernment demonstrations against abuse of power and official corruption.

<sup>5</sup> There are both empirical and conceptual reasons to prefer such a measure. First, individual income is both widely misreported and prone to survey nonresponse, especially in developing countries with large informal economies. Since these problems are almost certainly nonrandom and related to outcomes of interest, an income-based definition of class would bias results. Second, current income is a weak indicator of lifetime wealth and expected variation in returns on that wealth in the future, especially in a developing economy. Occupation and education arguably better proxy for what economists call “permanent income” than measures of current income or consumption. Although income is not directly measured in these surveys, the occupations represented among the middle class generally have incomes above the median. As such, redistributive theories would expect this group to act like elites and oppose democratization.

<sup>3</sup> Exceptions include studies by Tsai (2005), Chen (2013), and Gontmakher and Ross (2015), though these studies do not directly examine the formation of pro-democracy protest coalitions.

In keeping with neo-Weberian approaches, I focus on educational and occupational resources and qualifications, those which the literature has long identified with more democratic values and greater mobilizational potential (Lipset 1959; Dahl 1971). Following these arguments and recent theories of democratization (e.g., Ansell and Samuels 2014), I employ a sociological, rather than exclusively income-based, definition of the middle class. Although society also includes elites, we may assume, especially in a country as highly stratified as Russia, that they are not captured in surveys.

Second, few studies have had at their disposal extensive empirical evidence on the demographic characteristics and political preferences of participants in popular uprisings against authoritarian regimes. Without such evidence, the existing literature tends to homogenize the middle class—finding either that it stood with the state or against it (Huntington 1991; Acemoglu and Robinson 2006). It also tends to oversimplify middle-class actors' pro-democratic orientation. In short, the literature on democratization has not paid sufficient attention to the fact that autocracies can co-opt citizens by providing them economic opportunities and avenues of upward mobility in the public sector, potentially undermining the link between the middle class and democratization.

We, thus, urgently need to distinguish between middle classes that are and are not state-dependent. I address this gap using unusually detailed individual-level data to examine how state-led development undermines potential middle-class coalitions in support of democratization. I also consider why these splits in the middle class arise. The explanation I develop, drawing on the patronage literature, focuses on regimes' use of selective incentives to extract support from employees in state-dependent sectors.<sup>6</sup>

## Theory & Hypotheses

Authoritarian regimes face two fundamental challenges: maintaining elite unity and deterring mobilization from below (Svolik 2012). This study focuses on the latter task and on how authoritarian regimes maintain social order through the management of economic self-interest. The argument, succinctly stated, is that regimes use public-sector employment to neutralize potential middle-class opposition by offering perks to encourage loyalty or denying benefits to those who participate in pro-democracy demonstrations.

Scholars have long argued that autocrats provide targeted rents to cultivate political loyalty and employ negative sanctioning to stem dissent. Public-sector jobs are themselves a benefit; but they also provide access to networks, information, and resources that can be leveraged for private gain. I argue that public-sector jobs, in addition to the privileges and side-payments that go with them, may be linked to the continuation in office not only of a particular party or patron, as

emphasized by existing studies of patronage, but also a political regime.<sup>7</sup>

From the regime's perspective, public-sector jobs offer an ideal setting for securing the loyalty of politically pivotal constituencies. As Kitschelt and Wilkinson (2007, 8) observe, selective incentives are most effective when "organizational devices and social networks of supervision" provide the basis for repeated interactions and make it easier to monitor defection. In state agencies, enterprises, schools, and hospitals, these conditions are already present, allowing the regime to efficiently confer privileges or withdraw benefits from those who organize or participate in popular insurrections.

In general, this argument suggests more middle than non-middle class participation in anti-regime mobilization, since, all else equal, buying off the middle class is more expensive. However, it also implies that the state will be most effective at demobilizing opposition and countermobilizing support among social groups that depend on it for employment, status, and life chances. If the argument is correct, we would expect to find evidence consistent with the following propositions.

**Middle-class mobilization will exhibit significant sectoral differentiation, with state-sector workers less likely to participate in anti-regime demonstrations.**

The first hypothesis implies that a state's ability to co-opt the middle class will constrain the size of anti-regime protest by limiting participation by the state-dependent middle class.

Three factors potentially account for this hypothesized pattern of protest participation: positive and negative inducements, grievances, and differences in social capital. I briefly discuss each in turn together with several additional observable implications. First, fear of being fired is perhaps the most straightforward explanation for state employees' lower protest participation. The desire to avoid retaliation should be especially acute where exit options are limited. At the same time, if public-sector careers provide excludable economic and social protections along with access to networks, information, and resources that can be used to generate additional rents, we would expect these perks and privileges to encourage loyalty whether or not their beneficiaries are directly threatened with negative sanctions. If such carrots matter, and not only sticks, then public-sector employees should perceive themselves as more secure and less vulnerable than their private-sector counterparts. Second and relatedly, these public-sector privileges may simultaneously foster resentment among those who are excluded from special treatment. Insofar as grievances motivate protest (Gurr 1970), private-sector workers may be more likely to demonstrate. A third possibility is that private-sector professionals compensate for their exclusion from

<sup>6</sup> As Hicken's (2011, 304) review notes, the size of the public-sector is the most commonly used proxy for clientelism.

<sup>7</sup> According to Olson's (1965, 51) classic definition, selective incentives include both positive and negative inducements that are by their nature excludable. I use selective incentives to refer to both carrots and sticks wielded by the regime.



state-sponsored privileges through dense networks of friends and acquaintances. These networks could reflect differences in social capital that would increase private-sector workers' propensity to be recruited as protest participants.

I next turn from participation to protesters' goals and motivations. If public-sector workers see future benefits as tied to regime continuity, I expect that they will be not only less likely to participate but also more likely to favor the status-quo and reject the risky prospect of democratization. Accordingly, I anticipate that this group will be less likely to join pro-democracy coalitions of non-system regime opponents than others who are more insulated from government incentives. This yields the following proposition:

**Protest coalitions will exhibit significant sectoral differentiation, with state sector workers less likely to join democratic forces.**

In sum, the second hypothesis implies that a state's ability to co-opt the middle class will also constrain the size of any pro-democracy coalition. Testing this proposition requires additional information about protesters' political orientations.

Besides being less likely to self-identify as democrats, if the argument I have laid out is correct and protesters in state-dependent sectors do indeed have weaker democratic commitments, two additional patterns should be evident. First, they should be less likely to advocate regime transition and more likely to support the regime's so-called "pocket" or "loyal" opposition (i.e., parties that collude openly with the regime). Second, they should be less likely than their private-sector counterparts to use the politicized language of rights and freedoms, which might endanger their benefit streams, and more likely to value stable development and economic well-being.

This argument builds on and contributes to the literature on co-optation in autocracies by looking beyond the role of formal political institutions—regime parties, legislatures, and elections—in co-opting elite actors (Gerschewski 2013; Svobik 2012; Brownlee 2007; Gandhi and Przeworski 2007; Magaloni 2006). While co-optation of the mass public has been examined primarily through the lens of electoral patronage—targeted benefits to individual, usually poor voters, by the ruling party and their brokers in the context of elections—the present article differs from these other studies in terms of both actors and settings. First, I focus on potential opposition from a different set of societal actors: the middle class, a group that has often been neglected in accounts of authoritarian resilience. Second, my account points to the importance of public-sector enterprises and organizations for co-opting potential opposition. State employment remains a central institution promoting authoritarian stability and a way of life for a substantial share of the middle class across many nondemocracies.

This argument also advances the existing literature on clientelism in at least two ways. First, while most studies of clientelism emphasize how state patronage

produces incentives to support candidates and parties at election time, I show how these same strategies help to induce political loyalty at other times, specifically periods of protest when regimes are most vulnerable. Second, faced with an overall budget constraint, studies of patronage typically expect patrons to specialize in low-wage employment (e.g., Medina and Stokes 2007; Calvo and Murillo 2004). In part, this notion of efficiency in the allocation of patronage is a consequence of the literature's focus on elections, and patronage as a tool to win them. While each voter (each potential client) casts a vote, which is equal to and substitutable for any other, studies of patronage have largely overlooked the fact that regimes press middle-class clients to engage in more sophisticated activities—like campaigning, organizing rallies, and serving on electoral commissions—that are worth many votes (Rundlett and Svobik 2016; Sharafutdinova 2011; Greene 2010).

Moreover, the incentives facing a regime differ if the goal is not only to win elections, but to deter potential opponents from taking to the streets. Public displays of defiance entail great risk for authoritarian incumbents (Lee and Zhang 2013; Bunce and Wolchik 2011; Robertson 2011). Demobilizing a large segment of the urban middle class during anti-regime protests contributes to authoritarian resilience. This makes it worth the autocrat's while to strategically target patronage to individuals with greater endowments, rather than specialize in relatively cheaper, low-skill clients.

Finally, examining both attitudes and actions is important for one very simple reason. Popular uprisings have often resulted not in democracy but elite rotation. While groups with distinct political preferences may partner to pressure the current government, such divisions spell trouble for the formation of a lasting and coherent pro-democracy coalition. Distinguishing democratic attitudes from oppositional action thus deepens our understanding of the prospects for stable democratic transition.

## Protest and the Russian Middle Class

Buoyed by global commodity prices, between 2000 and 2007, the Russian economy grew at a rate unprecedented in the post-Soviet period. Real wages increased 2.5 times, while the Russian economy added 3.3 million jobs. Over the same period, state careers became one of the clearest pathways to the middle class. Starting in 2001, the already small share of income from entrepreneurial activities in the Russian economy began to shrink (Ovcharova 2012, 30). Meanwhile, the fastest-growing segments of Russia's middle class became state officials, regional civil servants, so-called "siloviki" (law enforcement, military, and intelligence), as well as public-sector managers and professionals (see Russian Academy of Sciences 2014; Remington 2011; Avraamova 2008; Tikhonova 2008; and the review in Gontmakher and Ross 2015).<sup>8</sup>

<sup>8</sup> Among those employed in Russia's state sector are civil servants, the Procuracy, military, police, others involved in internal and exter-

There are several reasons to believe that coalition formation among a middle-class group with such heterogeneous interests is unlikely. In addition to their formal wages, employees in Russia's public-sector are more likely than their private-sector counterparts to enjoy certain benefits: a formal labor contract, paid vacation and medical leave, medical insurance, transportation benefits, housing benefits, and other subsidies (Remington et al. 2012; Russian Academy of Sciences 2014). While those outside the public-sector are vulnerable to economic volatility and corruption, bureaucrats and professionals paid out of the state budget are insulated from economic risk and benefit from informal rents. Tikhonova (2008, 25) puts it starkly in terms of the inherent conflict of interest between bribe-takers and their victims. Besides having distinct economic and political interests, Russia's public and private-sector middle classes are subject to different mobilizational pressures. Frye, Reuter, and Szakonyi (2014, 196), for example, find that Russia's state-owned enterprises, government ministries, and public-sector unions are easy targets for the ruling party to mobilize citizens in support of the regime (see also, Hale 2007).

The present article adds to recent work on mobilization in Russia, clarifying how patterns of collective action are shaped by extensive state economic engagement. Shevtsova (2012, 23) questions "how far the Russian middle class wants to go in changing the system...[given that] a sizable swath of [it] lives off its role as a service provider to the state bureaucracy or big state run corporations." I tie these incentives to protest behavior, formulating them as testable hypotheses, and situating them in comparative theoretical perspective. Lankina and Voznaya (2015) find that regions with a high share of state employees experienced fewer protests with fewer overall participants. The present article offers a micro-level mechanism to explain this aggregate association and individual evidence that the political behavior of state employees indeed drives this correlation. This study's emphasis on the demobilization of potential regime opponents also complements Koesel and Bunce's (2012) observation that widening anti-regime protests resulted in Kremlin attempts to co-opt and fragment the opposition, including sponsoring pro-regime counter-demonstrations, and Smyth, Sobolev, and Soboleva's (2013a, 2013b) finding that the public-sector middle class played an important organizing role in these rallies. While the latter two studies use protest surveys to examine participants, the present article takes an innovative approach to comparing protesters and the population.

Finally, Chaisty and Whitefield (2013) show that few Russians who supported the protests embraced democracy—underscoring that the movement's ideological platform was vague and its character not exclusively democratic. There was plenty of room to protest without wanting full-fledged democracy. Nondemocratic alternatives like the communists and nationalists were an established part of Russia's political land-

scape. Given protesters' heterogeneous motivations, we need to disaggregate the "mass" in mass mobilization, moving beyond the study of protest events to examine individual-level participation in democratic coalitions.

## DATA & EMPIRICAL STRATEGY

A major challenge of studying protest at the individual level is access to suitable data. A review by Walgrave and Verhulst (2011) finds that only a handful of studies involved surveys of protesters before the mid-1990s. Though common now in Western Europe,<sup>9</sup> protest surveys remain relatively rare elsewhere (for exceptions, see Volkov 2012; Smyth, Sobolev, and Soboleva 2013b; Onuch 2014). Yet alone, even high-quality protest surveys can tell us little about the causes or correlates of protest participation because they lack information about nonparticipants. Without a baseline of nonparticipants, it is impossible to reliably assess how protesters differ from the population. To address this problem, most studies use existing, usually nationally representative, surveys of public opinion that ask about past protest participation (Welzel 2013, 223). Because these studies capture both protesters and nonparticipants, they allow researchers to better identify the causal mechanisms underlying activism.

However, for the study of protest, these surveys also have drawbacks. First, the number of sampled demonstrators is typically small. This results in low statistical power and difficulty detecting effects, especially among protest subgroups. Second, representative surveys rarely ask about participation in specific protest events. Instead, most survey-based research on social movements to date relies on broad measures of participation (e.g., at "peaceful demonstrations"), ignoring the particulars of movements' activities. These studies thus lack direct evidence on protesters' motivations and recruitment. Third, even when nationally representative surveys do ask about participation in a particular event, they do so after the fact. This means that most individual-level studies of protest rely on measures of reported behavior, which are subject to cognitive biases and respondent recall. Especially for revolutionary uprisings and other historic events, reported participation may be biased by social pressure to have taken part, or to hide one's participation in a movement that failed. Fourth, relative to protest participation, nationally representative surveys provide only post-hoc measures of other covariates, potentially introducing post-treatment bias.

The research design in this article offers a new approach to these challenges. To address the inferential problems just discussed, I employ both a random sample of protesters and a random sample of the population from which protesters were recruited. I begin by comparing these two samples descriptively. Then, for the main results, I use a multivariate modeling strategy first proposed by Lancaster and Imbens (1996) to estimate the probability of protest as a function of

nal security, and professionals paid out of the government budget, including medical professionals and teachers ("budzhnitsniki").

<sup>9</sup> See, e.g., Walgrave and Verhulst (2011) and van Stekelenburg, Walgrave, Klandermans, and Verhulst (2012).

individual-level characteristics. This design is a variant of the standard case-control research design used in individual-level rare events studies in epidemiology. It has the advantages of scale, specificity, and verifiability that are lacking in existing methods for studying protest. By selecting on the dependent variable, the protest sample ensures an adequate supply of protest cases. Protest participation is observed at a specific protest event, with the interviewer, in effect, verifying the respondent's participation. At the same time, the population sample supplies the necessary baseline.

The survey data I use in my analysis were collected at protest events in Moscow between December 2011 and January 2013, following parliamentary and presidential elections. These data arguably provide the most complete individual-level record of a mobilizational cycle outside the established democracies. A respected independent polling organization, the Levada Center used international best-practices in protest survey methodology to ensure a representative sample. Stationary protests in Russia are generally cordoned off by special forces and riot police, creating a defined perimeter for the protest event. During the post-election demonstrations, police established entry points and required protesters to pass through metal detectors. Interviewers took advantage of these procedures to randomly sample protesters at a fixed skip interval. When this was not possible, for example, at moving demonstrations and marches, interviewers moved systematically through the columns of participants, selecting every  $n$ -th respondent at an interval set by fieldwork supervisors.<sup>10</sup> In this way, interviewers worked their way from one end of the crowd to the other. Because protesters generally assembled by ideology, political party, or identity, this procedure ensured that all groups were represented.

To complement the protest data, I identified an unusual source of population data that facilitates detailed comparison. With a total sample size of 33,997 respondents, the Foundation for Public Opinion's (FOM) GeoRating surveys are both nationally and regionally representative of Russia's population. A minimum of 500 interviews are conducted in each region, including both the city of Moscow and Moscow oblast. The surveys were conducted face to face in respondents' homes.

The main explanatory variables in the analysis are middle class and state employment. I measure the former in terms of human and social capital, coding those with both higher education and a nonmanual, white-collar occupation as middle class.<sup>11</sup> "State" is an indicator for employment in any part of the public-sector.<sup>12</sup> In

Russia, this includes civil servants, bureaucrats, educators, medical professionals, and other so-called budget employees (*budzhethniki*). The same definition of each of these two variables is applied to both the protest and population data. Having outlined the empirical strategy, the next section analyzes the data descriptively. A more detailed explanation of the case-control research design and estimation strategy precedes the main results.

## DESCRIPTIVE ANALYSIS

### The Protesters

**Table 1** summarizes the protest surveys. A quick examination of the data suggests that participants were overwhelmingly college-educated managers and professionals. This is particularly true among the first movers, participants in the earlier protests. Besides professionals and small business owners, students, retirees, and housewives made up the next largest contingent.

In terms of political views, a plurality (29–38%) in each survey identified as democrats, while an absolute majority called themselves "democrats" or "liberals." While the terms "democrat" and "liberal" are at times used interchangeably, the "liberal" camp in Russia encompasses a range of ideologies from conservative pro-market, even libertarian, to "left of center," along with a range of political views. Although some Russian liberals advocate democracy, not all do. Indeed, the Putin administration's pursuit of liberal economic policies has ensured that there is also a sizable group of progovernment or "system" liberals (Shevtsova 2012, 29). In the main analysis, I examine these groups separately, though I show in the Appendix that my findings are unaffected by this choice. Another important pattern to emerge in **Table 1** is that communists, socialists, and nationalists comprised a substantial minority at each protest (from approximately 25–40%). Though often framed as a "pro-democracy" movement, this label obscures participants' significant ideological diversity (Volkov 2012).

Lastly, for two protests in September 2012 and January 2013, survey questions distinguish between managers and professionals of the public and private-sectors.<sup>13</sup> These results show a striking participatory gap. In January 2013, protesters were more than two and a half times as likely to be employed in the private-sector as by the state. I next turn to a more informative comparison of protesters and the population.

<sup>10</sup> For details on this and all subsequent surveys, see section A.1 of the Supplementary Appendix.

<sup>11</sup> The occupational criteria include professionals, office workers, business owners, and entrepreneurs. I also include university students among the middle class, though the results are unaffected by this choice. The resulting middle-class measure is binary.

<sup>12</sup> A limitation of the question asked is that it does not differentiate among different categories of public employment. I, thus, use the terms "public-sector worker" and "state employee" interchangeably to refer to those employed directly by the state and those paid out of

the government budget, such as teachers and doctors. The reference category is everyone else: private-sector employees, pensioners, the unemployed, students, and housewives.

<sup>13</sup> The first two waves did not make this distinction. It is thus possible that these findings better characterize "protest stalwarts" than protesters as a whole. In the absence of more complete data, I cannot rule out the possibility that participation among state employees was higher for the earlier protests, when a larger number of people participated.

**TABLE 1. Descriptive Statistics for Protest Surveys**

	wave 1 December 2011 %	wave 2 February 2012 %	wave 3 September 2012 %	wave 4 January 2013 %
<i>Education</i>				
Higher	69.8	69.4	58.6	71.7
Unfinished higher	12.9	11.7	13.5	10.5
Secondary/vocational	16.7	18.1	26.5	17.2
Incomplete secondary	0.6	0.8	1.4	0.6
<i>Occupation</i>				
Professional/office worker	54.0	43.7	37.3	40.0
Manager	16.5	14.3	11.8	12.6
Entrepreneur/business owner	7.7	8.0	6.6	5.5
Student	12.3	10.9	14.5	8.3
Blue-collar worker	8.0	7.4	9.7	3.7
Housewife	1.6	1.9	2.6	4.0
Other	3.3	13.9	17.5	25.8
<i>Sector of employment</i>				
State	-	-	17.0	15.4
<i>Ideology</i>				
Democrats	37.8	31.4	28.9	37.2
Liberals	31.2	27.5	23.1	25.2
Communists	12.6	18.2	17.1	7.4
Socialists/social-democrats	9.5	10.4	9.9	8.9
Nationalists	6.1	12.7	11.7	7.4
<i>Participation</i>				
Past protest participant	63.1	79.8	-	94.8
N (Total N = 3, 265)	791	1344	805	325

Note: This table describes key variables from four protest surveys conducted in Moscow between December 2011 and January 2013 by the Levada Center, an independent sociological research organization. Proportions may not sum to 1 due to rounding.

## Protesters and the Population

Figure 1 compares the demographic composition of the protesters with that of Moscow's population.<sup>14</sup> Estimates of the share of protesters who were middle class (overall and, separately, for the state and private-sector) are plotted on the y-axis as a function of the share of middle class in the population from which protesters were recruited (x-axis). The 45° line through the plot denotes proportional representation. Points above the line thus indicate groups that were overrepresented among the protesters. Because both data sources are surveys, there is uncertainty in both x and y values. This uncertainty is captured by the horizontal and vertical 95% confidence bars.

Several patterns emerge clearly from this plot. First, the middle class was vastly overrepresented among the protesters relative to its share of the population. The magnitude of this overrepresentation (or percentage point differential) is indicated by each point's vertical distance from the 45° line through the plot. Whereas close to 60% of all protest participants were middle class, the size of Moscow's middle class (based on iden-

tical criteria) is just 30%. These were clearly protests of the "want-mores" rather than protests of the "have-nots."<sup>15</sup> At the same time, however, Figure 1 highlights just how sharply Russia's middle class is divided by sector of employment and how consequential this cleavage is for political behavior. Whereas the private-sector middle class was vastly overrepresented among the protesters, an individual from the public-sector middle class was about as likely to participate as had she been drawn randomly from Moscow's population.<sup>16</sup> Though purely descriptive, these figures raise questions about the conventional view that middle-class growth necessarily contributes to greater societal mobilization.

## CASE-CONTROL SAMPLING WITH CONTAMINATED CONTROLS

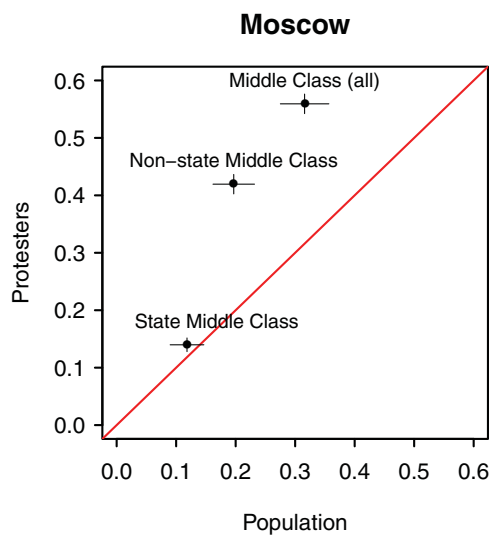
The principal limitation of the preceding analysis is that it ignores potential confounders. Russia's state

<sup>14</sup> Appendix section A.2 presents additional descriptive plots of the data. These figures provide further evidence on the protests' socio-demographic composition and show that patterns in the pooled data are similar across individual survey waves.

<sup>15</sup> Following Kerbo's (1982) typology, these demonstrations more closely resembled a movement of affluence than a movement of crisis.

<sup>16</sup> Appendix Figure A2 shows that state employees were significantly underrepresented among the protesters as a share of the population. These differences are so large that they are very unlikely to be artifacts either of underreporting or survey nonparticipation by state employees.



**FIGURE 1. Demographic Comparison of Protesters and the Population**

Note: The vertical position of each plotted point gives the share of protesters within a given group, while the horizontal position gives that group's share of Moscow's population. The 45° line indicates proportional representation. The vertical (horizontal) bars are 95% confidence intervals based on the sample size of the pooled protest (population) data. Data sources: The Levada Center and FOM.

employees are, on average, older and predominately female. Only a multivariate strategy can address the extent to which state workers' low rates of protest participation are explained by such factors as gender and age. Another limitation is that the preceding analysis tells us nothing about the prevalence of protest. Ideally, we want to know the probability of protest among particular groups and the population as a whole in addition to the increase (decrease) in the relative risk of protest for individuals with different covariate profiles. The case-control approach I detail next allows us to estimate these quantities.

The method I use is a variant of case-control (Keogh and Cox 2014) or choice-based sampling, as it is known in the econometrics literature. For rare outcomes, like protest, choice-based sampling saves significant data collection resources (King and Zeng 2001). The standard case-control design involves sampling observations (randomly or collecting all those available) for which the choice/behavior is observed (i.e., where the outcome,  $Y$ , is equal to 1, known as "the cases") as well as a random sample of the population for which the choice/behavior is not observed (i.e.,  $Y = 0$ , "the controls"). Under this basic design, the outcome is measured for *all observations* and selection depends on  $Y$ . The probability of the outcome can then be estimated easily as a function of covariates using, for example, the procedure described in King and Zeng (2001).<sup>17</sup>

<sup>17</sup> As a robustness check, Appendix Table A7 gives an alternative set of results for a range of protest prevalence estimates using the prior-correction model for rare events in King and Zeng (2001).

In practice, however, representative random samples seldom include measures of rare events. When such a population sample—that is, one consisting of an unknown mixture of cases and controls—is paired with a random sample of "cases" (with  $Y = 1$ ), the design becomes one of "contaminated controls" (Lancaster and Imbens 1996, 146). The modified case-control design with contaminated controls consists of two independent random samples, one sample selected entirely on the dependent variable, the other drawn from the whole population, with only the covariates observed.

If the prevalence of the outcome of interest is known (i.e., the marginal probability of  $Y = 1$  in the population), then the problem is simplified. However, because the population prevalence of many outcomes of interest remain unknown, this approach is often impractical. One solution is to estimate prevalence endogenously as first proposed by Lancaster and Imbens (1996). The model and estimation strategy are described in detail in Appendix section A.3.

The stacked dataset used in the analysis comprises the random sample of protesters plus a random sample of the population in Moscow and the Moscow region. Since protest is only observed in Moscow and protest participants came primarily from Moscow and the surrounding area, these data provide a very clean test of the hypotheses. The model regresses protest on categorical covariates for middle class, state employment, their interaction, political ideology (democrat, communist, or nationalist), and male gender, as well as continuous covariates for age and age squared.

## EMPIRICAL RESULTS

Table 2 reports coefficient estimates and 95% Bayesian credibility intervals from the case-control model predicting protest participation.<sup>18</sup> Because the model is nonlinear and includes a multiplicative interaction of the key independent variables, I forgo a discussion of the coefficients on the explanatory variables in Table 2 and, instead, present the key quantities of interest graphically. The estimate of  $\pi$  in the last line of Table 2 (10% with a 95% CI of [6.4, 14.7]) is a sensible estimate of the fraction of Moscow's population engaged in protest, given the city's size and estimates from other sources, though its 95% confidence interval (CI) lies on the upper end of conceivable participation.<sup>19</sup>

Figure 2 compares the probability of protest participation for several groups in terms of relative risk: the fractional increase in the probability of protest given

<sup>18</sup> Appendix Table A3 reports additional results from a second model in which the population sample is drawn from across Russia. Problems of misclassification are obviously greater in this design, since protest is not observed outside of Moscow. I, therefore, focus on the first set of results in the main text.

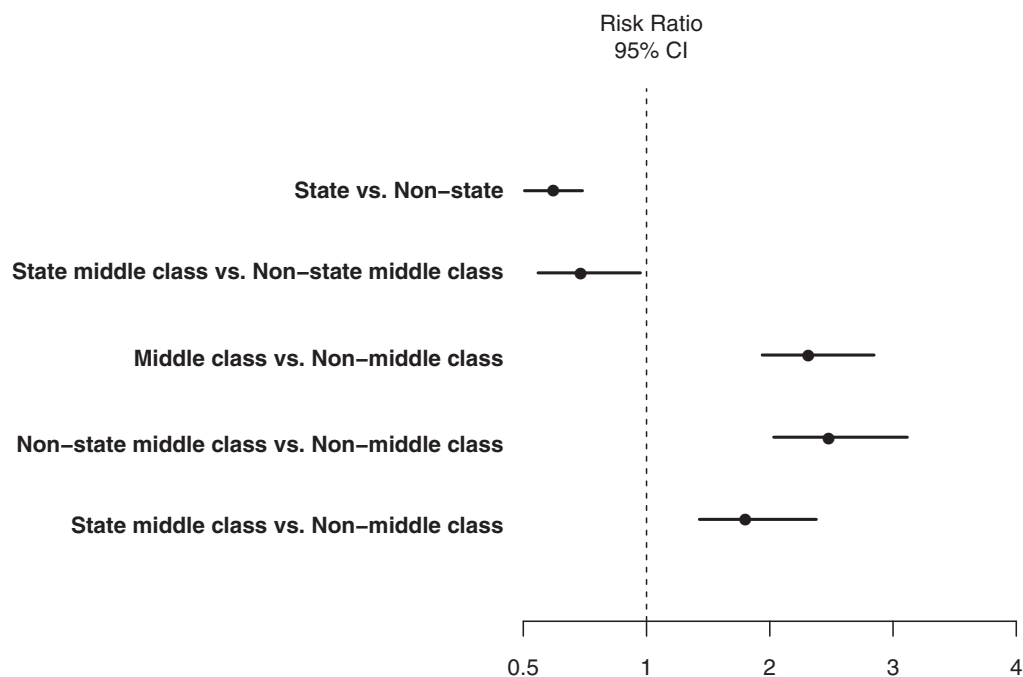
<sup>19</sup> Robustness checks in which  $\pi$  is given reasonable bounds based on all available information are discussed in Appendix section A.6. The basic strategy is to take organizer reports of protest size as the upper bound for calculating the population prevalence of protest and police (Russian MVD) reports of protest size as the lower bound. These bounds can then be used to determine the conceivable range of parameter estimates. The results reported below remain substantively the same whether  $\pi$  is estimated endogenously or bounded between 0.3% and 6% of Moscow's population.



**TABLE 2. Multivariate Model Predicting Protest Participation Using a Case-Control with Contaminated Controls Research Design**

	<i>Dependent variable: protest participation</i>	
	Moscow	
	Estimate (median)	CI [2.5%, 97.5%]
Middle class	1.21	[0.91, 1.55]
State employment	− 1.40	[− 1.92, − 0.90]
State x Middle class	0.92	[0.29, 1.58]
Male	0.60	[0.36, 0.84]
Age	− 0.06	[− 0.48, 0.34]
Age <sup>2</sup>	− 0.02	[− 0.06, 0.03]
Democrats	9.16	[3.89, 23.62]
Communists	1.71	[1.30, 2.16]
Nationalists	1.09	[0.64, 1.60]
Constant	− 2.83	[− 3.84, − 1.87]
$\pi$	0.102	[0.064, 0.147]

*Note:* The table reports point estimates for the model parameters and 95% Bayesian credibility intervals. Data source: The Levada Center and the FOM

**FIGURE 2. Relative Risk of Protest Participation**

*Note:* This figure compares the fractional increase in the risk of protest participation for each group relative to the given baseline. The results are based on a case control with contaminated controls design, which combines a random sample of protesters with a random sample of the population of Moscow and Moscow region. Like the preceding results, these findings indicate that state workers, in general, and the state middle class, in particular, were less likely than their private-sector counterparts to protest. Horizontal bars indicate 95% confidence intervals. Data sources: The Levada Center and the FOM.

chosen values of the explanatory variables relative to the probability of protest given some baseline values of those same variables (King and Zeng 2001, 141). Intuitively, relative risk is greater (less) than one when the probability of protest is higher (lower) for the first group than it is for the second. The median estimate of predicted relative risk is reported together with its 95% confidence interval.<sup>20</sup>

First, I find that state workers were only about half as likely as private-sector workers to join the protests, even after accounting for the confounding effects of age, gender, and ideology. Second, I find that the strong positive relationship between being middle class and protest participation is attenuated substantially by employment in a state-dependent sector. Specially, I find that the state middle class was only about 75% as likely as the non-state middle class to take to the streets, holding constant class status along with the other controls.<sup>21</sup> These results thus indicate that very little of the apparent impact of state employment on the likelihood of protest participation can be attributed to generation, gender, or differences in political ideology.<sup>22</sup>

What do these results tell us about how middle-class growth is likely to affect protest potential? The last two bars in Figure 2 show that while state employment does not entirely vitiate the boost in protest participation associated with a growing middle class, it does dramatically diminish it.<sup>23</sup> This implies that mobilization rates will be lower, and anti-regime protests less likely to obtain a critical mass, when a sizable segment of the middle class is state dependent. Accounting for cleavages within the middle class thus helps crucially to explain why threats to regime stability in Russia have not been more significant and protests more successful.

According to the preceding analysis, had the state middle class participated at the same rate as the private-sector middle class, up to 90,000 additional protesters would have taken to the streets. Moreover, had state workers protested at the same rate as others, the number of protesters would have grown by up to 200,000.<sup>24</sup> These findings point to an underappreciated aspect of mobilizational potential in developing nondemocracies: not only is it important whether the middle classes are growing, it matters, too, whether that mobility is supplied by the state.

Finally, although the attitudinal controls in Table 2 confirm a key role for democrats, they also reveal that possessing clear political views—whether democratic

or not—increased the probability of protest.<sup>25</sup> Contrary to the pro-democracy frame ascribed by Western journalists, these protests attracted participants from across the ideological spectrum. Middle-class communists and nationalists, like democrats, were systematically more likely to take part than both their working class counterparts and those who did not subscribe to any particular ideology. This underscores the fact that a growing middle class may increase social mobilization behind political demands that both are, and are not, compatible with democracy. Understanding the sources of *democratic* protest potential requires closer examination of protest participants' ideology. First, however, I briefly explore the mechanisms by which state-dependent development shapes mobilizational potential.

### Selective Incentives, Grievances, and Social Capital

Incentives, grievances, and differences in social capital all potentially help to explain the variation in middle-class protest participation found in the preceding analysis. Though descriptive in nature, the evidence in this section suggests two tentative conclusions: first, that both fear of being fired and positive inducements demobilize the state middle class, and, second, that the grievances engendered among those excluded from special treatment contribute to mobilizing the private-sector.<sup>26</sup>

First, the most straightforward explanation for state workers' low protest participation is that they fear being fired from their jobs. Reports that state employers threatened dismissal to mobilize workers in support of the regime circulated widely at the time of these demonstrations. How likely is it that fear of being fired could account for overall sectoral differences in patterns of contention? If state workers are comparatively less confident in their ability to find alternative employment, we would expect them to be less likely than private-sector workers to join anti-regime demonstrations. While the protest surveys did not measure perceived alternatives, we can get some sense of them from other data sources. According to a series of surveys conducted in 2009 at the height of the financial crisis and shown in Table 3, roughly half of all state employees expressed concern about finding alternative employment if dismissed. Given limited alternatives, these data suggest that state workers would indeed be more concerned about retaliation.

Besides negative sanctions like threats of dismissal, could patterns of participation have been influenced by

<sup>20</sup> I average over the empirical distribution of all other covariates in the population sample, using the observed-value approach in Hanmer and Kalkan (2013). This approach ensures that the estimates obtained are of average effects in the population and are not due to differences in the distribution of the other covariates.

<sup>21</sup> Given that ideology likely captures some of the effect of being state employed, these are conservative estimates.

<sup>22</sup> Appendix section A.7 shows that these findings are not due to differences in the age composition of the two middle classes or their maturing politically during different periods.

<sup>23</sup> See also Appendix Table A2.

<sup>24</sup> These estimates are based on the entire mobilization cycle. For calculations, see Appendix section A.10.

<sup>25</sup> The large positive coefficient on democrats in Table 2 implies that if more state employees were democrats, protest numbers would have been higher. However, state-sector democrats were still less likely to mobilize than private-sector democrats who were better insulated from government pressure.

<sup>26</sup> An alternative is that these patterns of protest participation could be due to selection—that is, to the self-sorting of individuals into different career paths on the basis of preexisting political differences. Appendix section A.9 tests this alternative and demonstrates that selection is unlikely to account for these results.

**TABLE 3. Public-Sector Employees Cite Fewer Alternatives**

	February 2009 <i>% of each group who believe they would be unable to find alternative employment</i>	April 2009	May 2009
Public-sector workers	45	44	48
Private-sector workers	39	38	40

*Note:* This table displays the share of respondents who think it is unlikely they would find employment, in response to the question, "In the event you are dismissed, do you think it will or will not be possible, given your qualifications and experience, to find employment in your field in the coming 2–3 months?"

Source: FOM nationally representative surveys, N = 2,000 in each wave

**TABLE 4. Stability of Public-Sector Employment**

	June 2009 <i>% of each group saying dismissal due to layoffs very unlikely</i>	September 2009	October 2009
Public-sector workers	59	64	72
Private-sector workers	50	51	55

*Note:* This table displays responses to the question "What do you think, how likely is it that you will be dismissed in the coming 2–3 months due to layoffs?"

Source: FOM nationally representative surveys, N = 2,000 in each wave.

systematic sectoral differences in formal and informal benefits? A variety of evidence suggests that positive inducements were also salient. Given Russia's large gray economy, a formal labor contract, being paid on the books, vacation, and medical leave are far from universal practices. While these benefits are widespread in public employment, just 30% of workers at newly established private entities receive these same protections. Even among Russian professionals, fully a quarter lack these basic social benefits and sources of job stability (Russian Academy of Sciences 2014, 49–50).

The same series of surveys captures public-sector employees' greater sense of job security.<sup>27</sup> Surveyed three times during 2009 as the crisis progressed, Table 4 shows that public-sector workers were as much as 17 percentage points more likely than private-sector workers to think it unlikely that they would be laid off, even under conditions of profound economic uncertainty. Whereas nearly three-quarters of public-sector workers felt their jobs were safe, only about half of private-sector workers felt the same about theirs.<sup>28</sup> Public-sector job security thus plausibly also encouraged regime loyalty and lower protest participation among the state middle class.

Beyond these formal benefits, public-sector careers frequently provide access to networks, information, and resources that can be used for private enrichment. While such opportunities to earn informal rents also bind public-sector workers to the regime,

these privileges and side-payments simultaneously produce private-sector grievances. Specifically, the private-sector middle class was more concerned about official corruption (42% vs. 35%) and less likely to believe the courts would protect its interests (49% vs. 57%).<sup>29</sup> These grievances thus reinforce the rift between the two middle classes. Insofar as grievances motivate protest (Gurr 1970) and the desire for protection from a predatory state drives demands for democratic transition, these differences plausibly help to explain why the private-sector middle class was more likely to demonstrate, while the state middle class was reticent.

A final possibility is that private-sector professionals compensate for their exclusion from state-sponsored privileges through dense networks of friends and acquaintances. These networks could in turn reflect differences in social capital that increase the likelihood of private-sector protest participation. Turning to evidence from the protest survey, I find little support for this mechanism. While 10.1% of the state middle class reported that friends or acquaintances brought them to the protest, 5.9% of the private-sector middle class said the same (a difference that is statistically insignificant, but leans against the hypothesis). Clearly these data do not support causal claims. However, they do suggest that both negative and positive selective incentives

<sup>27</sup> See FOM publications *Dominant* No. 23 (06-11-2009), No. 38 (09-24-2009), and No. 41 (10-15-2009).

<sup>28</sup> Note that the question concerns layoffs in the context of an economic downturn, not dismissal for political reasons.

<sup>29</sup> By contrast, measures of consumption offer no evidence that the private-sector middle class protested due to objective economic deprivation. Both the protest survey and the survey of the middle class described in Appendix A.1 show that the average level of consumption of the state and private-sector middle classes is very similar. This evidence also leans against the notion that the state middle class's lower propensity to protest could be due to its possessing fewer resources.



could explain variation in middle-class mobilization—by demobilizing the state middle class and contributing to grievances among private-sector professionals excluded from special privileges.

### The Democratic Protest Coalition

I next disaggregate participant ideology in order to test the second hypothesis regarding sectoral differentiation in the democratic protest coalition. As Robertson (2011, 13) observes, “Not all protesters demonstrating under (or even against) authoritarian rule are democrats pushing for liberal revolutions.” Like other post-election protest movements, the demonstrations in Moscow attracted groups from across the political spectrum under a vague ideological platform and agenda. This diversity was clearly visible in images of the crowds, with activists of different political parties, movements, and identity groups congregating and marching together. While organizers united in opposition to electoral fraud, far from all participants were democrats.

Again, our expectation is that protest coalitions will exhibit significant sectoral differentiation, with the state middle class less likely to identify as democrats. I test this proposition using responses to the survey item: “Which of these groups represent ideas that are closest to your own?” The dependent variable is “democrats” and takes a value of either 0 or 1.<sup>30</sup> The main explanatory variables are, again, middle class and state employment, as well as their interaction.<sup>31</sup> The same basic controls are included and, as a robustness check, I also add a common proxy for income based on household consumption to the analysis.<sup>32</sup> Consumption is coded as a categorical variable with six levels from low (1) to high (6). Including this measure ensures that observed differences between the state and private-sector middle classes are not confounded by a sectoral wage gap. I use logistic regression with heteroskedastic-robust standard errors, clustered by survey wave.<sup>33</sup>

Figure 3 shows that the effects of both state employment and middle-class status are substantively large

and in the hypothesized direction.<sup>34</sup> Whereas a middle-class protester working in the private-sector had about a 39% chance of identifying with the democrats, a middle-class protester from the public-sector had only about a 30% chance. This difference is significant at the  $\alpha = 0.05$  level. Moreover, a middle-class protester from the public-sector was no more likely than a working class protester to identify as a democrat ( $p > 0.20$ ). Thus, the classic result on the left side of the plot obscures significant causal heterogeneity. While these findings suggest that changes in the class structure of society and growth of the middle-class shape political preferences and democratic coalitions, they imply that the state’s role in these processes is also critical. Even those state employees who did protest were significantly less likely to join the pro-democracy coalition than would be expected given their other characteristics and class position.

**Values, Incentives, and the Formation of Pro-democracy Coalitions.** Though united by common opposition to electoral fraud, the groups protesting were not equally threatening to regime stability. While the democratic forces consisted overwhelmingly of regime opponents (or what in Russia is called the “non-systemic opposition”), the communists are an official opposition party with parliamentary representation. Although they do occasionally challenge the party of power, they more often act in concert with the regime. Thus, identifying with the Communist Party represents an acceptable level of dissent within the system, one that does not threaten regime stability. Indeed, I find that middle-class state employees were more likely to identify with the communists than predicted by their other characteristics and class position.

These differences in political orientation were also evident in respondents’ motivations for protest attendance. While private-sector employees were more likely to have the goal of forcing Putin’s resignation and regime change (33% vs. 26%,  $\chi^2(1) = 3.44$ ,  $n = 1,130$ ,  $p = 0.06$ ), public-sector workers were more likely to have economic motivations (30% vs. 22%,  $\chi^2(1) = 6.34$ ,  $n = 1,130$ ,  $p = 0.01$ ). Both of these relationships hold after controlling for level of consumption and class. Compared to others, state-sector protesters were more motivated by economic and less by ideological grievances.<sup>35</sup> This implies that the public-sector middle class primarily sought a better bargain with the regime. It also suggests that Russia’s leaders could ensure their loyalty more easily through economic inducements, which is exactly what they did. Following the protests, the Kremlin raised wages across many categories of public-sector employment (especially for professionals of the budget sector) and instituted more robust measures to monitor regions’

<sup>30</sup> Again, liberals are not included in the main analysis to minimize possible confounding by “system liberals”—those who prefer liberal policies in the economic sphere, but see them as compatible with nondemocratic rule. As a robustness check, I repeat the analysis in Appendix Table A13 using a combined dependent variable. The results are qualitatively similar, though the effect of state employment is slightly diminished.

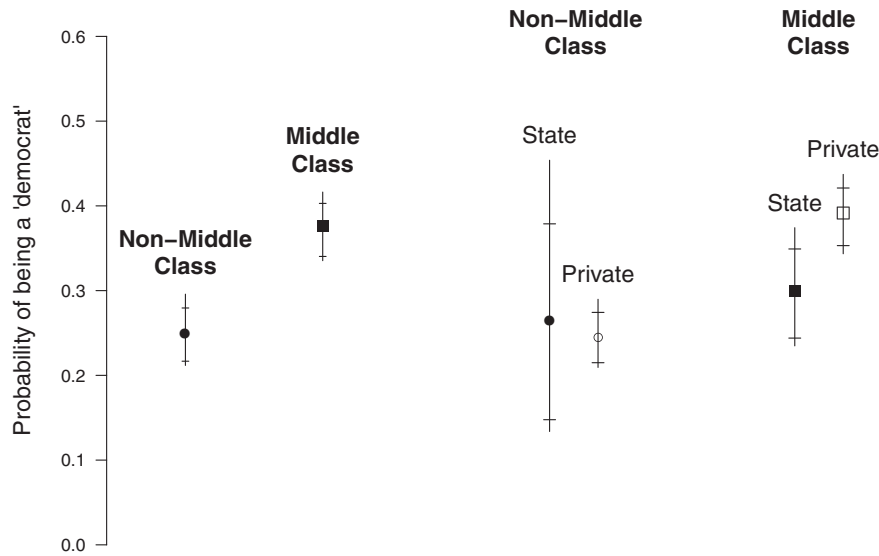
<sup>31</sup> Appendix section A.8 confirms that all of the educational and occupational categories that make up the middle class affect the probability of democracy support given protest participation similarly, justifying their joint analysis.

<sup>32</sup> See Appendix section A.1.1 for the exact wording of this and all subsequent items.

<sup>33</sup> The regression results, for both the pooled data and individual surveys, are reported in Appendix Table A12. The results are substantively similar with and without the control for household consumption. I also reran the analysis in Table A12, without the state employment variable, on all four waves of survey data. These additional results in Appendix Table A14 highlight that middle class and sector of employment have important interactive effects, which models that include only class status or occupational and educational criteria fail to capture.

<sup>34</sup> The results displayed are from the model in column (3) of Appendix Table A12.

<sup>35</sup> Indeed, only about a third of the state middle class mentioned changing the policies of those in power and beginning reforms as the reason for their participation (contrast 44% of the private-sector middle class). Nearly as many mentioned the desire for a higher standard of living.

**FIGURE 3. The Democratic Protest Coalition by Class and Sector**

*Note:* This figure shows the predicted probability of identifying as a democrat. The sample is all protesters. State middle-class protesters were significantly less likely ( $p < .05$ ) to identify as democrats than the private-sector middle class and no more likely to identify as democrats than the working class.

compliance with the directives on public-sector wages issued by the federal center.

Finally, these differences were also apparent in the degree of radicalism protesters from the state and private-sectors believed necessary to resolve Russia's most pressing problems. While radical protesters were a minority in both sectors, private-sector workers were significantly more likely than public-sector workers to support solving Russia's problems through radical acts of protest with the goal of regime change (14% vs. 8%,  $\chi^2(1) = 4.64, n = 1,130, p = 0.03$ ). In sum, these findings suggest that many public-sector employees joined the protests because they believed the state had failed to uphold its commitments. At the same time, they were less likely than private-sector protesters to frame their grievances in the politicized language of rights and repression and less likely to support radical opposition and regime change. By redoubling its efforts to support the state middle class, following the protests, the Kremlin clearly sought to renew its contract with those most invested in regime stability.

## CONCLUSION

Popular challenges and urban insurrections against authoritarian regimes are increasingly important for contemporary democratization (e.g., Ulfelder 2005; Bunce and Wolchik 2011; Beissinger, Jamal, and Mazur 2015). Yet a lack of detailed data has impeded our understanding of the constituencies involved in anti-regime protest. This leaves important questions unanswered, especially concerning the post-election demonstrations that have proved so effective at dislodging authoritarian incumbents (Tucker 2007; Magaloni 2010).

Drawing on choice-based sampling methods, I take a novel empirical approach to the individual-level study of protest and apply it to the case of Russia's recent mobilizational cycle. This approach broadens the tools available to scholars for studying the microfoundations and mechanisms of protest. It can be used across a variety of research contexts, wherever surveys of both protesters and the population from which they are recruited can be conducted.

With the benefit of these new tools, this article nuances the notion that Russia's middle class mobilized for democracy. Within the middle class, I found striking participatory gaps. In fact, mobilization occurred at very different rates among public and private-sector employees with similar occupational and educational profiles. While the opposition movement drew support from the private-sector middle class, the public-sector middle class—the fastest growing segment of Russia's middle class—was more likely to stay home and less likely to identify as democrats.

One implication is that cognitive mobilization (e.g., Welzel and Inglehart 2008; Inglehart 1990) is not uniformly the consequence of rising affluence, education, and occupational specialization, but depends, in part, on selective incentives like other forms of mobilization. In particular, these findings suggest that, under autocracy, both the value placed on democracy and the will and resources to intervene effectively in politics vary with an individual's relationship to the state. This is especially true of the middle class, the group both modernization and values-based theories expect to be most active in gaining and maintaining democracy.

Other implications follow for the literature on patronage. As these results demonstrate, state patronage

can provide powerful incentives for political loyalty, even among the middle class for whom these incentives are usually assumed to matter less (Medina and Stokes 2007; Calvo and Murillo 2004). The analysis further shows that by demobilizing a large segment of the urban middle class during anti-regime protests, patronizing the middle class contributes to authoritarian regime resilience. Based on my analysis, I estimate that if the state middle class had participated at the same rate as the private-sector middle class, up to 90,000 additional protesters would have taken to the streets. What is more, had state workers protested at the same rate as everyone else, the ranks of protesters would have risen by up to 200,000.

As theories of critical mass and informational cascades remind us, decisions to participate in risky collective action are interdependent and hinge on beliefs about how many others are likely to join. This implies that public-sector workers' low rates of participation likely also discouraged others and helped to prevent the protests from achieving a critical mass (Marwell and Oliver 1993; Lohmann 1994; Kuran 1995). Thus, both directly and in terms of their spillover effect, state employees' poor turnout and comparatively weaker support for the pro-democracy coalition helped reinforce regime stability. While sheer numbers are effective at destabilizing autocrats, weak democratic coalitions make democratic transition, not to mention consolidation, a more uncertain proposition.

As described at the outset, the mobilizational cycle around Russia's 2011–2012 parliamentary and presidential elections featured a series of protests by the opposition as well as counter-mobilization by the state. This article's framework suggests several reasons why the regime could efficiently mobilize its public-sector middle class. First, public-sector workers were more vulnerable to selective incentives. Second, they were more invested in the continuation of the regime and required less ideological mobilization. While the Kremlin could cheaply purchase the rally attendance of low-skill, low-wage workers, to organize a credible alternative to the opposition, it required the support of the public-sector middle class. Smyth, Sobolev, and Soboleva's (2013a, 31) study of these pro-regime rallies finds that participants were better educated, more affluent, and more likely to work in the public-sector than nonparticipants—while rally stalwarts were more likely than casual participants to hold supervisory roles at state jobs. Rally stalwarts were also more likely to report that their material wellbeing increased since 2000, in keeping with the strategy I have described of enlarging the state-sector middle class and cultivating its loyalty through targeted benefits. Alongside this, selective incentives like transport and housing, promises of days off, and threats of dismissal helped to persuade state workers to attend.

So why are these incentives apparently so effective in the Russian case and how far is the argument likely to travel? Beyond Russia, the argument's scope rests on two basic conditions: illiberal state institutions and extensive state economic engagement. In particular, three institutional factors are conducive to a high de-

gree of dependence among public-sector professionals: (1) the absence of merit-based recruitment; (2) lack of employment protections; and (3) tolerance of official corruption (i.e., the ability to earn informal rents by exploiting one's professional position).<sup>36</sup> While these conditions are widespread in other autocratic settings, in cases where alternative institutional configurations characterize the state sector, the middle class may be more politically independent.

Additionally, the power of selective incentives varies with the opportunity costs of forgoing state benefits.<sup>37</sup> These costs are determined not only by individual endowments, but also by available alternatives. When workers have few exit options and many excludable benefits, they will be least likely to join opposition protests. The fact that Russia's public-sector is extensive in certain industries (like health and education) means that outside options for professionals in those fields are limited. Similarly, the overall size of the public-sector matters as does the generosity of available benefits.<sup>38</sup> For instance, public-sector employment is more extensive in Belarus and Azerbaijan than in either Ukraine or Georgia.<sup>39</sup> Consistent with this article's argument, challenges to the regime have been less successful in the former cases than in the latter. In terms of policy, this suggests that both state retrenchment and shifts in development strategy, which favor the creation of a more economically autonomous middle class, are likely to undermine regime stability. Where the middle class remains divided, as it does in Russia, we are likely to see periodic but underpowered opposition protests continue.

In closing, this article's findings imply that the state middle class may constitute an important swing group in the social coalition supporting nondemocratic regimes. Where government jobs fail to provide employment security, decent salaries, and superior benefits, especially in comparison with private-sector alternatives, the result is a gradual hollowing out of regime influence. This was the case in Tunisia and Egypt where government employees joined anti-regime protests, resulting in demonstrations that were

<sup>36</sup> These factors are virtually universal in the post-Soviet cases. Even where dismissal on the basis of political opinion is illegal (e.g., Russia and Azerbaijan), these formal protections are ignored in practice.

<sup>37</sup> And, indeed, selective incentives may be less important relative to other forms of leverage, such as workplace-based socialization and indoctrination, when a regime is longstanding and ideological. By contrast, in more circumstantial and temporary regimes, working for the state poses less of a problem in terms of signaling loyalty to the opposition should it win democratizing elections.

<sup>38</sup> As the resource curse literature notes, nontax revenues help to sustain high public spending and bloated public-sectors, inhibiting the formation of an autonomous workforce. This article dovetails nicely with that perspective and provides clear micro-level evidence of how resource states' large public-sectors limit middle-class protest potential. Importantly, however, while the mechanism that this article highlights is often present in rentier states, it is by no means limited to states with oil. While Azerbaijan has oil, Belarus does not. Both have large public-sectors and less successful protest movements than other post-Soviet neighbors.

<sup>39</sup> According to the European Bank for Reconstruction and Development, the private-sector's share in employment is 10–15% higher in the former cases than in the latter.



truly mass (Beissinger, Jamal, and Mazur 2015). Particularly among the Egyptian middle class, the loss of subsidies as the state retreated and increasing reliance of state workers on second salaries in the private-sector led to the breakdown of selective incentives. While survey answers are relatively costless to give, protest participation is not. This article's findings show how state-led development weakens the middle-classes' commitment to democracy, with behavioral consequences for how democracy is contested in the street.

## SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit <https://doi.org/10.1017/S000305541700034X>.

Replication materials can be found on Dataverse at <https://doi.org/10.7910/DVN/5UMCKK>.

## REFERENCES

- Acemoglu, Daron, and James A. Robinson. 2006. *Economic Origins of Dictatorship and Democracy*. New York: Cambridge University Press.
- Ansell, Ben W., and David J. Samuels. 2014. *Inequality and Democratization: An Elite-Competition Approach*. New York: Cambridge University Press.
- Avraamova, E. M. 2008. "Srednii' klass epokhi Putina." *Obshchestvennye nauki i sovremennost'* 1: 28–36.
- Beissinger, Mark, Amaney Jamal, and Kevin Mazur. 2015. "Explaining Divergent Revolutionary Coalitions: Regime Strategies and the Structuring of Participation in the Tunisian and Egyptian Revolutions." *Comparative Politics* 48 (1): 1–24.
- Bellin, Eva R. 2000. "Contingent Democrats: Industrialists, Labor, and Democratization in Late-Developing Countries." *World Politics* 52 (2): 175–205.
- Boix, Carlos. 2003. *Democracy and Redistribution*. New York: Cambridge University Press.
- Brownlee, Jason. 2007. *Authoritarianism in an Age of Democratization*. New York: Cambridge University Press.
- Bunce, Valerie J. and Sharon L. Wolchik. 2011. *Defeating Authoritarian Leaders in Postcommunist Countries*. New York: Cambridge University Press.
- Calvo, Ernesto, and Maria Victoria Murillo. 2004. "Who Delivers? Partisan Clients in the Argentine Electoral Market." *American Journal of Political Science* 48 (4): 742–57.
- Chaisty, Paul, and Stephen Whitefield. 2013. "Forward to Democracy or Back to Authoritarianism? The Attitudinal Bases of Mass Support for the Russian Election Protests of 2011–2012." *Post-Soviet Affairs* 29 (5): 387–403.
- Chen, Jie. 2013. *A Middle Class without Democracy: Economic Growth and the Prospects for Democratization in China*. New York: Oxford University Press.
- Dahl, Robert A. 1971. *Polyarchy: Participation and Opposition*. New Haven: Yale University Press.
- Darden, Keith. 2008. "The Integrity of Corrupt States: Graft as an Informal State Institution." *Politics and Society* 36 (1): 35–60.
- Diamond, Larry. 1987. "Class Formation in the Swollen African State." *Journal of Modern African Studies* 25 (4): 567–96.
- Ekiert, Grzegorz. 2010. "The End of Communism in Central and Eastern Europe: The Last Middle-Class Revolution?" In *Political Power and Social Theory*, Volume 21, ed. Julian Go. Emerald Group Publishing Limited, 99–123.
- 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): 195–228.
- Fukuyama, Francis. 2014. *Political Order and Political Decay: From the Industrial Revolution to the Globalization of Democracy*. New York: Farrar, Straus, and Giroux.
- Gandhi, Jennifer, and Adam Przeworski. 2007. "Authoritarian Institutions and the Survival of Autocrats." *Comparative Political Studies* 40 (11): 1279–301.
- Gerschewski, Johannes. 2013. "The Three Pillars of Stability: Legitimation, Repression and Co-optation in Autocratic Regimes." *Democratization* 20 (1): 13–38.
- Gervasoni, Carlos. 2010. "A Rentier Theory of Subnational Regimes: Fiscal Federalism, Democracy, and Authoritarianism in the Argentine Provinces." *World Politics* 62 (2): 302–40.
- Gontmakher, Yevgeny, and Cameron Ross. 2015. "The Middle Class and Democratization in Russia." *Europe-Asia Studies* 67 (2): 269–84.
- Greene, Kenneth F. 2010. "The Political Economy of Authoritarian Single-Party Dominance." *Comparative Political Studies* 43 (7): 807–34.
- Gurr, Ted Robert. 1970. *Why Men Rebel*. Princeton: Princeton University Press.
- Hale, Henry E. 2007. "Correlates of Clientelism: Political Economy, Politicized Ethnicity, and Post-Communist Transition." In *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*, eds. Herbert Kitschelt and Steven I. Wilkinson. Cambridge: Cambridge University Press, 227–50.
- Hanmer, Michael J., and Kerem O. Kalkan. 2013. "Behind the Curve: Clarifying the Best Approach to Calculating Predicted Probabilities and Marginal Effects from Limited Dependent Variable Models." *American Journal of Political Science* 57 (1): 263–77.
- Hertog, Steffen. 2013. "State and Private-Sector in the GCC after the Arab Uprisings." *Journal of Arabian Studies* 3 (2): 174–95.
- Hicken, Allen. 2011. "Clientelism." *Annual Review of Political Science* 14: 289–310.
- Huntington, Samuel P. 1991. *The Third Wave: Democratization in the Late Twentieth Century*. Norman, OK: University of Oklahoma Press.
- Inglehart, Ronald. 1990. *Culture Shift in Advanced Industrial Society*. Princeton, NJ: Princeton University Press.
- Jones, David M. 1998. "Democratization, Civil Society, and Illiberal Middle Class Culture in Pacific Asia." *Comparative Politics* 30 (2): 147–69.
- Keogh, Ruth H., and D. R. Cox. 2014. *Case-control Studies*. Cambridge: Cambridge University Press.
- Kerbo, Harold R. 1982. "Movements of 'Crisis' and Movements of 'Affluence': A Critique of Deprivation and Resource Mobilization Theories." *Journal of Conflict Resolution* 26 (4): 645–63.
- King, Gary, and Langche Zeng. 2001. "Logistic Regression in Rare Events Data." *Political Analysis* 9(2): 137–63.
- Kitschelt, Herbert, and Steven I. Wilkinson, eds. 2007. *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*. Cambridge: Cambridge University Press.
- Koesel, Karrie, and Valerie Bunce. 2012. "Putin, Popular Protests, and Political Trajectories in Russia: A Comparative Perspective." *Post-Soviet Affairs* 28 (4): 403–23.
- Koo, Hagen. 1991. "Middle Classes, Democratization, and Class Formation: The Case of South Korea." *Theory and Society* 20 (4): 485–509.
- Kuran, Timur. 1995. *Private Truths, Public Lies: The Social Consequences of Preference Falsification*. Cambridge, MA: Harvard University Press.
- Lancaster, Tony, and Guido Imbens. 1996. "Case-control Studies with Contaminated Controls." *Journal of Econometrics* 71: 145–60.
- Lankina, Tomila, and Alisa Voznaya. 2015. "New Data on Protest Trends in Russia's Regions." *Europe-Asia Studies* 67 (2): 327–42.
- Lee, Ching Kwan, and Yonghong Zhang. 2013. "The Power of Instability: Unraveling the Microfoundations of Bargained Authoritarianism in China." *American Journal of Sociology* 118 (6): 1475–508.
- Lipset, Seymour Martin. 1959. "Some Social Requisites of Democracy: Economic Development and Political Legitimacy." *American Political Science Review* 53 (1): 69–105.
- Lohmann, Suzanne. 1994. "The Dynamics of Informational Cascades: The Monday Demonstrations in Leipzig, East Germany, 1989–91." *World Politics* 47 (1): 42–101.

- Magaloni, Beatriz. 2006. *Voting for Autocracy: Hegemonic Party Survival and its Demise in Mexico*. New York: Cambridge University Press.
- Magaloni, Beatriz. 2010. "The Game of Electoral Fraud and the Ousting of Authoritarian Rule." *American Journal of Political Science* 54 (3): 751–65.
- Maleva, Tat'iana, and Lilia Ovcharova. 2009. "Sotsial'naia modernizatsia i srednij klass." *Naselenie i Obshchestvo* 381–2.
- Marwell, Gerald, and Pamela Oliver. 1993. *The Critical Mass in Collective Action: A Micro-Social Theory*. Cambridge: Cambridge University Press.
- McMann, Kelly M. 2006. *Economic Autonomy and Democracy: Russia and Kyrgyzstan*. New York: Cambridge University Press.
- Medina, Luis Fernando, and Susan C. Stokes. 2007. "Monopoly and Monitoring: An Approach to Political Clientelism." In *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*, eds. Herbert Kitschelt and Steven I. Wilkinson. New York: Cambridge University Press, 68–83.
- Moore, Barrington. 1966. *Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World*. Boston: Beacon Press.
- Oliveros, Virginia. 2016. "Making it Personal: Clientelism, Favors, and the Personalization of Public Administration in Argentina." *Comparative Politics* 48 (3): 373–91.
- Olson, Mancur. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- Onuch, Olga A. 2014. "Who Were the Protesters?" *Journal of Democracy* 25 (3): 44–51.
- Ovcharova, Lilia. 2012. "Russia's Middle Class: At the Center or on the Periphery of Russian Politics." In *Russia: Insights from a Changing Country*, ed. Sabine Fisher. Paris: EUISS, 28–35.
- Remington, Thomas. 2011. "The Russian Middle Class as Policy Objective." *Post-Soviet Affairs* 27 (2): 97–120.
- Remington, Thomas, Irina Soboleva, Andrey Sobolev, and Mark Urnov. 2012. "The Middle Class in Four Russian Regions: Government Policies and Behavioral Strategies." <https://www.hse.ru/pubs/share/direct/document/53695111>. The Higher School of Economics, Moscow.
- Robertson, Graeme B. 2011. *The Politics of Protest in Hybrid Regimes: Managing Dissent in Post-Communist Russia*. New York: Cambridge University Press.
- Rueschemeyer, Dietrich, Evelyne Huber Stephens, and John D. Stephens. 1992. *Capitalist Development and Democracy*. Cambridge: Polity Press.
- Rundlett, Ashlea, and Milan W. Svoblik. 2016. "Deliver the Vote! Micromotives and Macrobehavior in Electoral Fraud." *American Political Science Review* 110 (1): 180–97.
- Russian Academy of Sciences, Institute of Sociology. 2014. "Srednij klass v sovremennoj Rossii: 10 let spustia." <http://www.isras.ru/files/File/Doklad/Analit.doc.Sredny.klass/full.pdf>.
- Sharafutdinova, Gulnaz. 2011. *Political Consequences of Crony Capitalism Inside Russia*. Notre Dame, IN: University of Notre Dame Press.
- Shevtsova, Lilia. 2012. "Implosion, Atrophy, or Revolution?" *Journal of Democracy* 23 (3): 19–32.
- Shin, Eui Hang. 1999. "Social Change, Political Elections, and the Middle Class in Korea." *East Asia* 17(3): 28–60.
- Smyth, Regina, A. S. Sobolev, and I. V. Soboleva. 2013a. "Patterns of Discontent: Identifying the Participant Core in Russian Post-Election Protest." [http://www.ucrs.uu.se/digitalAssets/254/254668\\_3discontentconfsmythpatternsofdiscontent.pdf](http://www.ucrs.uu.se/digitalAssets/254/254668_3discontentconfsmythpatternsofdiscontent.pdf).
- Smyth, Regina, A. S. Sobolev, and I. V. Soboleva. 2013b. "A Well-Organized Play: Symbolic Politics and the Effect of the Pro-Putin Rallies." *Problems of Post-Communism* 60 (2): 24–39.
- Svoblik, Milan W. 2012. *The Politics of Authoritarian Rule*. Cambridge: Cambridge University Press.
- Teorell, Jan. 2010. *Determinates of Democratization*. New York: Cambridge University Press.
- Tikhonova, N. E. 2008. "Srednij klass v sotsiologicheskom izmerenii." In *Srednij klass: problemy formirovaniia i perspektivy rosta*. Moscow: Institute Sovremenogo Razvitiia, 23–26.
- Tsai, Kellee S. 2005. "Capitalists without a Class: Political Diversity among Private Entrepreneurs in China." *Comparative Political Studies* 38 (9): 1130–58.
- Tucker, Joshua A. 2007. "Enough! Electoral Fraud, Collective Action Problems, and Post-Communist Colored Revolutions." *Perspectives on Politics* 5 (3): 535–51.
- Ulfelder, Jay. 2005. "Contentious Collective Action and the Breakdown of Authoritarian Regimes." *International Political Science Review* 26 (3): 311–34.
- van Stekelenburg, Jacquelin, Stefaan Walgrave, Bert Klandermans, and Joris Verhulst. 2012. "Contextualizing Contestation: Framework, Design, and Data." *Mobilization* 17 (3): 249–62.
- Volkov, Denis. 2012. "The Protesters and The Public." *Journal of Democracy* 23 (3): 55–62.
- Walgrave, Stefaan, and Joris Verhulst. 2011. "Selection and Response Bias in Protest Surveys." *Mobilization* 16 (2): 203–22.
- Welzel, Christian. 2013. *Freedom Rising: Human Empowerment and the Quest for Emancipation*. Cambridge: Cambridge University Press.
- Welzel, Christian, and Ronald Inglehart. 2008. "The Role of Ordinary People in Democratization." *Journal of Democracy* 19 (1): 126–40.
- Weyland, Kurt. 1996. *Democracy without Equity: Failures of Reform in Brazil*. Pittsburgh: University of Pittsburgh Press.