

Katerina Tertychnaya\*  
Tomila Lankina\*\*

## **Electoral Protests and Political Attitudes under Electoral Authoritarianism**

### **Abstract**

Do opposition protests affect citizens' attitudes in electoral autocracies? While existing research expects that as protests unfold in illiberal regimes support for the protesters will increase, there are only a few empirical tests of this hypothesis. Combining an original author-assembled protest event dataset with two nationally representative public opinion surveys that were in the field during the 2011-12 electoral protests in Russia, we examine whether and how protests affect political attitudes. We find that in the early weeks of the protest wave, opposition rallies generated support for the demands of the protest movement. Nevertheless, evidence also suggests that the effects of protests on attitudes are not uniform. The coverage of protests in national media, and the use of regime-led repression against protesters dampen support for the protest movement and its demands. Our findings make an original contribution to scholarship on authoritarian vulnerability and resilience to street discontent.

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\*Katerina Tertychnaya (k.tertychnaya@ucl.ac.uk) is Lecturer in Comparative Politics, Department of Political Science, University College London, London, WC1H 9QU.

\*\*Tomila Lankina is Professor of International Relations at the London School of Economics and Political Science, London, WC2A 2AE.

Do opposition protests affect citizens' attitudes towards authoritarian regimes? This question is of paramount importance to the ongoing debates about the implications of mass mobilization for authoritarian regime stability and resilience (DeNardo 1985; Lohmann 1994; Magaloni 2010; Robertson 2013). Influential theories of authoritarian politics emphasize that mass unrest represents one of the key threats that sitting illiberal incumbents must negotiate in their decision making. Through strikes and protests, the public may impose substantial costs upon governments, triggering elite defections, and sometimes even ousting the leadership or overthrowing the regime (Hollyer, Rosendorff, and Vreeland 2015; Magaloni 2006; Svobik 2012). Yet to date, political scientists know surprisingly little about how mass demonstrations shape political attitudes under electoral authoritarianism.

This neglect is puzzling, as activists' ability to motivate others to take to the streets is a key factor contributing to revolutionary success (Kuran 1991; Lohmann 1994). Political opposition leaders, their followers and other activists taking part in rallies seek to expand public support for their demands, as much as they seek to target the regime with specific messages—both strategies are inter-related (Gamson 2004; Giugni 1998; Tarrow 2011). The significance of mass demonstrations for the trajectories of non-democracies around the world invites two sets of questions in particular. *First*, how do such protests affect support for the demands of the protesters? Do unfolding protests leave citizens indifferent; or do they elicit greater support for the protest movement, and demands advanced in it? *Second*, are the effects of protests on public opinion independent of regime interventions? To what extent do media coverage and repression shape how people respond to opposition protests?

We highlight two mechanisms through which anti-regime protests could influence public opinion. First, in a controlled media environment, protests could have information revelation effects, generating awareness about issues that may not feature prominently in the national media, perhaps even altering public opinion on these issues. Revealing regime abuses

and malpractices in previous elections, protesters could even generate sympathy among bystanders, the spectators of these events. Second, protests may not only reveal information otherwise not available or distorted in state media, but they could also expose citizens to the state's repressive apparatus—as when for instance protesters witness or hear about citizens from their town being caught up in a skirmish with the police during a rally.

The 2011-2012 electoral protests in Russia provide us with an opportunity to analyse the implications of protests for public opinion under electoral authoritarianism. In the aftermath of the 2011 State Duma (parliamentary) elections, tens of thousands of citizens took to the streets across Russia's eleven time zones. In these rallies, which took place in many of Russia's regional capitals and other large urban centres simultaneously with rallies in the two largest cities of Moscow and St Petersburg,<sup>1</sup> citizens targeted the federal authorities and made allegations that the regime perpetrated electoral fraud (Greene 2013; Robertson 2013; Gerber and Chapman 2017). The rallies have been widely referred to as electoral protests in that protesters coalesced around the issue of fraud perpetrated in the parliamentary elections and condemned it as a mechanism for the regime to stay in power. For our analysis, we have assembled an original Protest-Event Dataset with data on sub-national rallies and instances of repression of protest events that took place during the 2011-2012 protest wave. We analyse these data along with data from two nationally representative public opinion surveys that were in the field during that time. A survey led by Stephen White in January 2012, and the Russian Election Study (RES) in the field in April/ May 2012 (Colton et al. 2014; White 2014), allow us to connect protest events in a particular region with the political attitudes of those surveyed

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<sup>1</sup>At the time of the protest events, there were eighty-three regions in Russia. Regions are administrative units, which are equivalent to states in America. Moscow and St Petersburg are two of Russia's eighty-three regions, and the only two cities with federal status.

within that region. We are not aware of other studies that would link protest event data covering the entire country with public opinion data from many of Russia's regions.

We find that in the early weeks of the protest movement, protests encouraged support for the broader anti-regime agenda of the opposition. Simultaneously, however, we find that the effect of protests on support for the protest movement is not uniform across the population, but rather contingent on respondents' news consumption patterns. Protests dampen, rather than encourage support for the opposition among respondents who are frequently exposed to news in state-controlled media. Similarly, we show that respondents who reside in regions where opposition protests were subject to some form of regime-led repression are less likely to share the protesters' demands. Our work joins several studies in revisiting the importance of electoral protests under autocracy (Little, Tucker, and Lagatta 2015; Rundlett and Svolik 2016; Skovoroda and Lankina 2016). It also extends the research agenda to consider whether—in addition to online and offline political communications (Beissinger 2013; Onuch 2015; Reuter and Szakonyi 2015)—protest events could help people under autocracy find out about regime abuses and encourage citizens to share the protesters' demands.

Our paper is structured as follows. In the next section, we outline a theoretical framework that connects anti-regime protests and regime strategies to public opinion on national politics. We then discuss our methods and empirical results. Because some underlying preferences or grievances could be driving the frequency and size of protests, as well as political attitudes, we begin our analysis by showing that the effects of protest on public opinion are robust to the use of an instrumental variables (IV) approach. Leveraging evidence from the first months of the protest wave, we exploit variation in regional weather conditions as an exogenous source of variation in protest frequency and size and proceed with the analysis of protest effects on attitudes during the protest wave. We conclude by discussing our contribution to the broader theorizing into the implications of unrest for the stability of electoral autocracies.

## **Protests and Attitudes under Electoral Authoritarianism**

Protests have received considerable attention in the literature on electoral authoritarian regimes—that is, those regimes that allow regular elections, but manipulate the races to ensure significant advantages—and usually victory—for national leaders. Much of existing research has approached the topic of electoral protests from the vantage point of the political regime itself. Thus, scholars have explored the implications of protests for regime splits and disagreements, and for change in policy and political institutions that the political leaders effect to accommodate protesters' demands (Bunce and Wolchik 2011; Magaloni 2010). The literature on the spread of revolutionary uprisings also points to the importance of anti-regime protests for encouraging larger numbers of citizens to take to the streets (Kuran 1995; Lohmann 1994). A key assumption underlying the literature on revolutionary uprisings is that opposition protests can sway public opinion, and even increase the likelihood that bystanders would take part in anti-regime protests themselves. The size of unrest, that is, the number of events and of people who take to the streets (Kuran 1991, 1995), is among key factors hypothesized to shape bystanders' propensity to join protests. To the best of our knowledge, however, there are very few studies that empirically explore protest effects on public opinion in autocracies. While in a recent study Frye and Borisova (2016) explore how electoral protests influence trust in government, we know little about whether ongoing protests rally support for the demands of the opposition. Yet, for passive observers to participate actively in ongoing anti-regime demonstrations, they must first come to learn about, and support the demands, of the protest movement. These dynamics are at the heart of theories of revolutionary uprisings, and thus of paramount importance for theories of democratization.

Given the significance of popular unrest for shaping regime trajectories under autocracy, what do we know from existing theorizing about the mechanisms linking protest events to political attitudes and behavior? Generally, existing literature proposes that protests

could have important information revelation effects. As Suzanne Lohmann reminds us, anti-regime protests could reveal the “malign nature” of the regime on the one hand, and its lack of popular support, on the other (Lohmann 1994, 53). Electoral protest events could spread awareness of fraud, and encourage greater anti-regime mobilization (Beissinger 2007; Reuter and Szakonyi 2015; Tucker 2007). As several influential studies demonstrate, the information about electoral abuses that protests help disseminate, creates “large and outraged” communities of robbed voters (Bunce and Wolchik 2011, 272), generates “focal points” for discontent (Tucker 2007), and encourages support for protesters more broadly (Chaisty and Whitefield 2013).

The composition of the protest movement—that is, whether protesters are comprised of large numbers of ordinary people content with pursuing moderate strategies or of a handful of extremists bent on actions that most people would not feel comfortable condoning and supporting—is another factor found to condition the effect of protests on public opinion. When citizens can identify with activists, bystanders find it easier to relate to the causes advanced during the protests, and eventually join in (Lohmann 1994). Similarly, shared ethnic, religious or regional identities and networks, what Mark Beissinger refers to as “symbolic capital,” may also influence whether one identifies with the demands of the protesters and with the injustices articulated in the anti-regime protest narrative (Beissinger 2013). Based on these arguments, the starting point for our analysis would be the hypothesis that as electoral protests increase awareness of discontent, support for the protest movement also increases.

That protests under autocracy will increase support for the demands of the protesters, however, is by no means guaranteed. To begin with, in non-democracies protests may be targets of sophisticated media manipulation strategies, or regime-led repression aimed at discouraging citizens from sympathizing with those engaged in protest. Moreover, to prevent information regarding rallies from becoming publicly known, and bystanders from taking to

the streets, dictators can use censorship, and increase controls over online and offline media (Chen and Xu 2015; Guriev and Treisman 2015). If national and regional media choose to ignore protests, and social media platforms are under state control, there are very few ways—other than eye-witness experience and conversations with friends and family—through which the public could find out about the national protest movement and its demands. Yet, even when information about the protest events becomes publicly known, it is unclear whether and to what extent protests will sway public opinion. As Frye and Borisova (2016, 8) remind us for example, even when protesters make electoral falsifications their rallying cry, citizens who have seen fraud in past elections, and have adjusted their attitudes to expect falsifications at times of elections, might not update their attitudes in response to protest events. Thus, an alternative hypothesis could contend that far from eliciting support for the protest movement and demands advanced in it, unfolding protests could leave citizens indifferent.

To test whether and how street rallies affect public support for protesters, we leverage variation in the timing and location of electoral protests in Russia. Theoretically, we believe that we may observe a regional effect of protest events for a variety of reasons. First, existing research shows that citizens are particularly alert to events of national significance—in our case, electoral protests—if these events could be also anchored in occurrences within their sub-national unit. Similarly, issues of national importance are processed with reference to how they are experienced within one’s social context (Ansolabehere, Meredith, and Snowberg 2014; Segura and Gartner, 2013, 2014). Finally, in what is especially pertinent for authoritarian contexts, not only do dispersed protests increase the likelihood that citizens would personally observe a protest—whether during their daily commute to work, or when taking one’s children to a park during a weekend—but also that networks of friends and family would help diffuse and process information about protest events occurring nearby (Branton et al. 2015; Wallace, Zepeda-Millán, and Jones-Correa 2014; Beissinger 2013; Onuch 2015).

### *Protests and regime responses*

In an extension of our main research question, we also explore to what extent media manipulation and repression shape how bystanders respond to protest events. Electoral authoritarian regimes possess a stronger propaganda advantage than do democracies, and autocrats far more readily engage their repressive apparatuses against anti-regime protesters than do democratically accountable governments. Thus, taking regime strategies into account could provide us with a more rounded understanding of the effects of protests on attitudes.

We have already highlighted that in a controlled media environment, protesters can increase awareness of nationally-prominent mobilizations and perhaps generate public sympathy for their demands. Yet, the media in non-democratic states do not simply crowd out information on protest. Recent literature on media practices in authoritarian states suggests that leaders often resort to manipulation of political news (Chen and Xu 2015; Guriev and Treisman 2015; Lankina and Watanabe 2017). By encouraging the media to reproduce fabricated allegations against protesters or to ensure disproportionate coverage of pro-regime counter-mobilizations, authoritarian regimes aim to distort citizens' incentives of joining protests and to preclude the demands of the opposition from becoming publicly known. Given that media consumption powerfully affects public opinion in democracies and non-democracies (De Boef and Kellstedt 2004; Reuter and Szakonyi 2015), and that citizens often tend to regard controlled authoritarian state media as trustworthy, we would expect exposure to the regime's rhetoric on protest via the mass media to condition the effects of protest on public opinion (see also Chong and Druckman 2007). Thus, we anticipate that the effect of protests on support for the protest movement may not be uniform across the population, but rather contingent on individuals' news consumption patterns.

As noted above, authoritarian regimes also far more readily engage their repressive apparatus against anti-regime protesters than do democratically accountable governments. This implies that citizens may not only hear about protests, but may also witness, or hear about police brutality or other forms of protest repression in their community or region. Extending the logic of the study that found that war casualties from one's county dampen support for the national war effort (Gartner and Segura 2000), one might expect citizens to condemn repression and violence, and, by extension, lend their support for the cause of the protesters who are victims of such repression, particularly if it occurs in one's own locality. Nevertheless, there is considerable disagreement on this issue in recent theorizing into repression in autocracies. Several studies of regime responses to street unrest have suggested that repression can be a double-edged sword for governments (Gehlbach, Sonin, and Svobik 2015; Wintrobe 1998). Some researchers have indicated that although repression against the protest movement may weaken the opposition, it can also signal to the electorate that the regime is crumbling under pressure, attempting as it does to hide electoral manipulations (Schedler 2002). Others have conjectured that as the threat, or the actual occurrence, of political violence becomes more salient, risk-averse citizens may well shy away from supporting protesters perceived to be engaging in violent post-electoral battles (Magaloni 2006, 2010). Protest events can powerfully convey the threat posed by rallies. By heightening spectators' anxiety (Branton et al. 2015) and conveying the image of a country gradually regressing towards chaos, clashes between the regime and its opponents have the potential to undermine public support for the demands of the protest movement. These alternative sets of outcomes warrant the testing of hypotheses that are sensitive to both these possibilities: the use of regime-led repression against protesters may dampen, or conversely increase support for the protest movements and its demands.

## **Background and Empirical Strategy**

To test whether opposition protests can influence political attitudes in electoral autocracies, we leverage evidence from the 2011-2012 electoral protest wave in Russia. By most accounts, in the time frame covered in the study, Russia represents an example of an electoral authoritarian regime (Frye and Borisova 2016; Reuter and Szakonyi 2015; Robertson 2011). In the winter of 2011-2012, in response to electoral manipulations in the December 2011 parliamentary elections, tens of thousands of citizens attended protest demonstrations in Moscow and other Russian cities. Demonstrations continued after Vladimir Putin's victory in the first round of the March 2012 presidential elections, although at a smaller scale. Protests taking place during this period featured a clear target of blame: across the country protesters accused the federal regime of abuses and called for political change. In the early winter and spring months of 2012, the slogan "Russia without Putin" was echoed across eleven time zones.

The extent of cross-regional mobilization during this period was unprecedented. We estimate that approximately 77 percent of Russia's regions, i.e. 62 federal subjects featured protests between December 2011 and May 2012. Even regions hitherto known for delivering a pro-Kremlin result in elections and traditionally featuring low levels of political openness experienced street activism.<sup>2</sup> Political activists made electoral irregularities their central rallying cry. While attributing blame vis-a-vis the national regime, local political activists reportedly named and shamed concrete individuals—often at local territorial levels of authority—involved in electoral falsifications. During street rallies, citizens and activists used loudspeakers to broadcast information about electoral irregularities; protests also featured tents in which residents of particular towns could sign up to become election monitors, thereby increasing the visibility and impact of electoral falsifications (Lankina and Skovoroda 2017).

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<sup>2</sup> As we show in Section 3B of the Appendix, the correlation between various indicators of regional democracy, electoral protests, and repression during this period is relatively weak.

Figure 1, which presents how protest events were distributed across Russia, shades administrative regions witnessing a higher frequency of protest events in darker color.

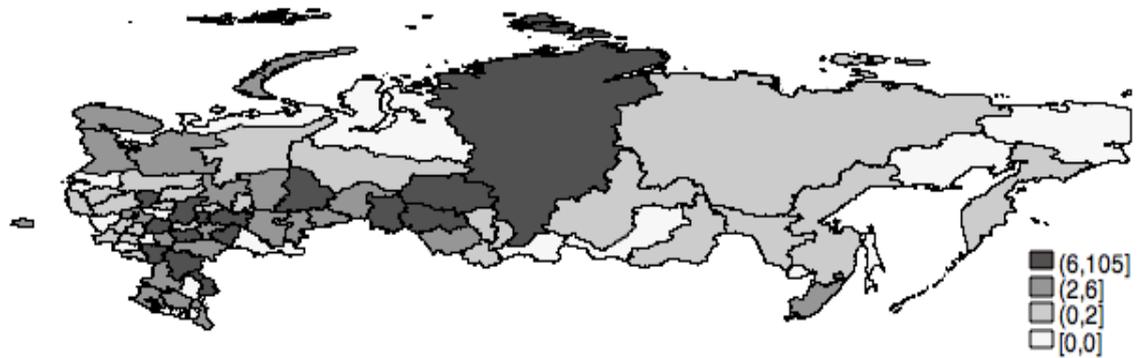


Figure 1. **Variation in the election-related protests: December 2011-May 2012**

During this time, citizens saw authorities move violently against protesters in eighteen regions, including Moscow and St Petersburg. Respondents from thirteen of these regions are included in our survey sample. We estimate that in the spring months (March – May 2012) almost one in three political protests taking place across Russia were subjected to some sort of disruption, whether by the Special Purpose Police Units (OMON), or pro-government groups such as *Nashi*. Using state-controlled media to inject pro-regime bias into reporting of protests was another of Kremlin’s strategies during this period. While state-controlled media did not shy away from reportage of the protest events (Lankina and Watanabe 2017), state-controlled news sources extensively covered violent protests, or those leading to the arrest of protest participants and underestimated the size of protests. Kremlin-controlled outlets also largely muted the demands that Russia’s top leadership should be held accountable for electoral misconduct (Koesel and Bunce 2012; Smyth and Oates 2015).

To analyse the effects of street rallies on public support for the protesters’ demands we draw on two types of data. First, we compile a dataset that records the timing and location of protests that took place over the course of the 2011-2012 electoral protest cycle in Russia. Next,

we merge this Protest-Event Dataset with two nationally representative public opinion surveys that were in the field between January and May 2012. Interviews for a survey led by Stephen White in January 2012, and the Russian Election Study (RES) that was in the field from April to May 2012 (Colton et al. 2014; White 2014), were conducted face-to-face across forty of Russia's regions. The two surveys include information on the date of every respondent's interview as well as their place of residence. Survey items also capture respondents' attitudes towards key political issues, as well as knowledge of the unfolding protest events.<sup>3</sup>

Our 2011-2012 Protest-Event Dataset, assembled from the liberal *namarsh.ru* website, covers anti-regime, political protest events that took place across Russia during the electoral protest wave between 4 December 2011 and 31 May 2012. For each protest event, the dataset identifies the date, location and number of participants.<sup>4</sup> Protest events that take place on the same date but are organised in different regions, or even in different squares in the same region or city, and led by different groups are coded as separate entries. To address the possible issue of systematic misreporting of events, beyond *namarsh.ru*, we consult primarily the website of the left-leaning Institute of Collective Action (IKD) (for a similar approach, see Robertson 2013). Events reported by the institute of collective action, and related to the protest movement are also added to the dataset.

In the sections that follow, we hope to investigate whether public support for the protesters and their demands varies as a function of regional unrest. The dependent variable is a four-point indicator of support for the protesters. Respondents are asked whether they share

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<sup>3</sup> Survey questions are provided in Section 1A of the Appendix.

<sup>4</sup> When it comes to the reported number of protesters, we use the mean number of protesters across two or three sources. Beyond *namarsh.ru* and the Institute of Collective Action (IKD) website, we look for secondary reports on rally attendance from *kasparov.ru*, regional websites reporting on protest events and other online news sources. A detailed discussion of the indicators that come from the Protest-Event Dataset is provided in Section 1B in the Appendix.

the demands of the protesters, and we recode responses so that higher values indicate greater agreement with, or support for the demands of the protesters. Due to challenges of estimating count models with an instrument in the first step of the analysis, models presented below report estimates from two-stage least squares estimations and OLS models instead. Yet, results do not change if we recode the outcome variable into a dummy, or treat it as a count instead.<sup>5</sup> The main independent variable, *regional protests*, is a count of the number of protests that took place in respondents' regions between 4 December 2011 (the day of the State Duma election), and up to the day of their interview. This item ranges from 0 to 19 events when we only consider respondents interviewed as part of the January survey, and from 0 to 88 events when we consider respondents interviewed across the January and April/May surveys. The protest variable varies across regions and over time within regions, as respondents from the same region are interviewed over multiple days. Another variable captures the average size of protest events. The average regional protesters item is estimated by adding up the number of rally participants up to a respondent's interview, and then dividing that number by the total number of protest events. This item, which is available for the early weeks of the protest movement, ranges from 0 to approximately 11,500 protest participants. To reduce the variability of the protest indicators, and deal with the issue of the effect of outliers, the analysis uses the natural log of both items. A binary indicator of protests, finally, takes the value of zero for respondents in areas with no protests prior to the day of their interview, and one for respondents in areas with any number of protests.

In extensions of our main research question, we investigate whether the effect of protest on attitudes is contingent on the coverage of the events in state-controlled media outlets. We also examine whether the use of police-led repression against protesters influences support for

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<sup>5</sup> We present results from probit and ordered logistic models in Tables 2A2, 2C1, 2D3 and 2E1 in the Appendix.

the protest movement. To test whether the framing of protest-related news in state-controlled media outlets moderates the effect of protests on attitudes, we operationalize exposure to the coverage of protests with respondents' reported news-watching patterns. The news watching variable captures whether and how often individuals watch political news on television. We code this indicator as 1 if respondents frequently watch political news on TV and as 0 if they hardly ever, or never do so,<sup>6</sup> and interact this proxy of TV news consumption with the protest variables. To examine whether the use of regime-led repression against protesters influences public opinion, we code whether from December 4<sup>th</sup>, and up to the day of a respondent's interview, repression was used against protesters. Our repression indicator captures active attempts to disrupt and disperse a protest and to arrest activists.

All models include the key protest variables and a battery of controls that allow us to design well-specified models and help isolate the effects of protests on the outcome variables. The models include standard demographic controls, such as education, gender, age, ethnicity and employment status. This is a binary indicator which takes the value of one if the respondent is employed and zero otherwise. A dummy variable that captures whether respondents reside in an urban or rural center is introduced to account for variation in political attitudes attributable to the effects of urbanization, and to account for the fact that most protest events took place in large urban centers. Moreover, we follow existing research (see, for example: Frye and Borisova 2016; Reuter and Szakonyi 2015; Robertson 2015) and control for a proxy of

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<sup>6</sup> While this item does not specifically enquire about news watching in state-controlled media, the overwhelming majority of respondents in our sample obtained news from state-controlled media. Specifically, 93 and 85 percent of those respondents who claimed to watch political news in the January survey led by Stephen White and the Russian Election Studies, respectively, reported watching news on Russia's Kremlin-controlled Channel 1. The leading state-controlled TV channels have maximum regional and audience penetration, for instance, with 100 percent for Russia 1 and Channel 1 and 99.9 percent for NTV.

respondents' political orientations, or partisanship. In the context of the 2011-12 protests, political orientations have been found to affect how citizens gather and process information about electoral fraud and the protests. The item we use records whether in the 2011 Duma election, which took place prior to the onset of the protests, respondents voted for the pro-Kremlin United Russia (UR) party. We also introduce a variable that captures evaluations of households' financial situation, as existing literature points to the connections between economic hardship and political unrest during the 2011-12 protest cycle (Chaisty and Whitefield 2012, 2013). This variable is coded such that higher values denote a deterioration in household finances, or pocketbook conditions. To distinguish protest participants from bystanders, the models also control for respondents' prior participation in protest events.

We run models using region and survey fixed and random effects. When we use random effects models, we also control for regional democratic performance.<sup>7</sup> Using regional media independence for the period 2006-2010 as a proxy, we address concerns that more democratic regions could have a larger pool of activists, and more favorable attitudes towards protesters. The media independence variable captures the independence of newspaper and TV outlets from federal and regional control. This item, which is unfortunately limited to traditional news outlets like newspapers and does not capture online media, comes from the Petrov and Titkov index of regional democracy in Russia. It ranges on a scale from 1 to 5; regions with a more competitive media environment have higher values on the index. Regional fixed effects models reduce omitted variable bias and help us to ascertain whether protest effects could be attributed to variation in the frequency and size of protest events within regions.<sup>8</sup>

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<sup>7</sup> Section 1C of the Appendix provides a detailed discussion of the democracy indicators.

<sup>8</sup> Because it does not vary within a region, the media independence indicator would drop out of a regional fixed-effects specification.

## **Results: Anti-regime protests and support for the demands of the protesters**

### *Evidence from the first weeks of the protest movement*

The empirical analysis ascertains whether in the context of the 2011-12 protest cycle support for the demands of the protesters changed as a function of local unrest. To test this hypothesis, we first draw on evidence from the early weeks of the protest wave and the 2012 January survey. The protest indicator in Model 1 is a logarithmically transformed measure of protest frequency, while the protest indicator in Model 2 is a logarithmically transformed indicator of average protest attendance. Model 1 suggests that holding all other covariates at their empirical means, a ten percent increase in regional protests increases support for the demands of the protesters by approximately .02. Model 2 suggests that a ten percent increase in the average number of protesters results in approximately .01 increase in support for the protesters' demands. Substantively, the effect of protests on attitudes appears small. Yet it is important that we do find an effect of protest events on attitudes towards the protest movement. As Frye and Borisova (2016, p. 8) note, having experienced electoral fraud, as well as rallies condemning regime abuses in the past, citizens may have adjusted their attitudes to expect fraud, and would be less likely to update their views in response to protest events. Finally, Model 1 in Table 2A1, in the Appendix replicates the analysis using a binary protest indicator. We find that support for the protesters is notably higher among respondents interviewed after protests took place in their region [2.9 (95% CI: 2.87, 3.00)] than among those interviewed prior to any regional rallies [2.6, (95% CI: 3.4, 2.7)].<sup>9</sup>

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<sup>9</sup> In line with these findings, Table 3A1 of the Appendix shows that in regions with protests, local unrest also bolsters awareness of fraud in the 2011 election and increases awareness of the national protest movement. Perceptions of fraud are also greater among respondents who are aware of the protest events, as opposed to those respondents who are not.

Turning to the controls, only a handful of significant variables emerged. Supporters of the pro-Kremlin UR party are less likely to share the protesters' demands than the rest of the electorate. Those who participated in any type of demonstration in the past; those who report a deterioration in their household conditions; and older respondents, perhaps also due to pocketbook concerns, are more likely to support the broad demands advanced by the protest movement in its early weeks (see also Chaisty & Whitefield 2012). Regional media independence is negatively associated with support for the protesters. This may reflect the increasing significance of state media in shaping coverage in independent news outlets, particularly during the period of the protests (Lankina and Watanabe 2017).<sup>10</sup>

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<sup>10</sup> In Table 2A1 in the Appendix we show that findings remain consistent when we use alternative specifications of the protest variables, also restricting the sample to the “treated” group, i.e. respondents interviewed after protests took place in their region. Results do not change when we consider alternative specifications of the protests item (Table 2A1); alternative specifications of the outcome variables; cluster standard errors by districts or settlements (Table 2A2); or drop Moscow and St Petersburg from the analysis (Table 2A3).

**Table 1: The effect of protests on attitudes: Evidence from the first weeks of protest**

	(1) Events	(2) Protesters
Protest item (log)	0.197*** (0.036)	0.062*** (0.012)
Watches news	0.122 (0.175)	0.111 (0.169)
Protested before	0.516*** (0.123)	0.475*** (0.123)
Education	0.020 (0.045)	0.022 (0.045)
Male	0.075 (0.060)	0.075 (0.060)
Age	0.003* (0.002)	0.003* (0.002)
Russian	0.046 (0.094)	0.031 (0.093)
Urban	-0.041 (0.071)	-0.012 (0.070)
UR voter	-0.797*** (0.072)	-0.793*** (0.073)
Pocketbook worse	0.079* (0.045)	0.080* (0.045)
Employed	-0.048 (0.068)	-0.045 (0.068)
Media independence	-0.085** (0.041)	-0.112*** (0.043)
Constant	2.638*** (0.285)	2.627*** (0.281)
Observations	850	850
R squared	0.194	0.197

*Notes:* Robust standard errors in parentheses, \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

*Source:* Protest-Event Dataset and 2012 January survey.

A potential objection to the conclusions that we derive from the statistical analysis, however, is that a region's culture of activism or political traditions are likely to be correlated with the number and size of regional protests and with broader political attitudes. In more politically liberal regions, one might argue, voters would be predisposed to support the demands made at anti-regime rallies. To address these concerns early on, and using evidence from the first few weeks of the protest wave alone, we instrument the frequency and size of protest events by exploiting variation in weather conditions across regional capitals (see also: Collins and Margo 2007; Madestam et al. 2013; Sobolev 2013). As an instrument, we use

“weather shocks”, or the deviation of the average regional temperature during the first weeks of the protest wave from the long-term average temperature for the months of December and January. The instrument, just like the protest items we employ, varies across regions and over time, that is, it is sensitive to the timing of survey respondents’ interview. To construct it, we ask how much colder, or warmer the weather from the 4 December 2011 election and up to the day of a respondent’s interview in January 2012, was from the long-term December and January average temperature in a region. Taking variation in the timing of respondents’ interview is important, as respondents in the same region were often interviewed weeks apart—in Tomsk for example, while some survey respondents were interviewed on 9 January others were interviewed on 22 January.

The instrument we use assumes that the number of protests and protesters is influenced by two factors: (i) (the deviation of) the temperature on the days with protests from the long-term average; and (ii) the deviation of the temperature from the long-term average on days without protests. For example, if there is only one protest taking place in Tomsk in December 2011 and January 2012, this could well be because of two types of temperature deviations: one on the day that the protest did happen, and the other one on days without protests, during which the weather could have been much colder than average. Moreover, we think of the number and size of protests as an outcome that is determined by protest organizers on the one hand, and protest participants on the other. We assume that when the weather forecast predicts colder than average temperature for a region, protest organizers will be less likely to stage protests. If protests have been scheduled to take place weeks in advance, unusually cold weather may also prevent multiple, usually smaller, rallies and spontaneous protests staged in support of the big protest in the regional capital, from taking place. As such, colder than average weather could reduce the number of protests that would take place in a region on any given day. We also assume that colder than average weather affects rally attendance, as it makes participation less

pleasant, and that “weather shocks” influence attitudes toward the protest movement only through the frequency of protests and size of protesters (see also Collins and Margo 2007; Madestam et al. 2013; Sobolev 2013).<sup>11</sup>

Table 2 below presents the results. As in Table 1, the analysis controls for regional media independence, a commonly-used proxy of political openness at the sub-national level. While it is less likely that places that experienced colder or warmer than average weather will also systematically share certain political characteristics, or share pro-democratic attitudes, the introduction of proxies for democracy helps alleviate these concerns. Reported coefficients come from two-stage least squares estimations. The first-stage results reported at the bottom section of Models 1 and 2 in Table 2 suggest that temperature deviations from the long-term average have sufficient explanatory power to serve as an instrument for the two protest indicators. Warmer than average temperatures increase the number of rallies taking place across regions, and the number of protest participants. The F statistics for Models 1 and 2 are also well above the 10-point mark suggested by Staiger and Stock (1997). The second-stage results further indicate that regional protests increase support for the demands of the opposition. The instrumented protest items in Models 1 and 2 are positively signed and statistically significant at the 0.05 level. As we show in Table 2B3 in the Appendix, these results remain consistent when we recode the outcome variable into a dummy and employ probit models with endogenous regressors instead.

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<sup>11</sup> We provide a detailed discussion of the instrument in Section 2B of the Appendix.

Table 2: Evidence from the first weeks of protest wave: IV results

	(1) Events	(2) Protesters
<b>Second stage: protest effects on attitudes</b>		
Protest item (log)	0.319** (0.133)	0.113** (0.047)
Watches news	0.146 (0.167)	0.134 (0.150)
Protested before	0.502*** (0.126)	0.424*** (0.134)
Media independence	-0.139** (0.071)	-0.207** (0.096)
Controls	✓	✓
Constant	2.679*** (0.280)	2.673*** (0.274)
<b>First stage: Instrumenting protests</b>		
Temperature deviations	0.122*** (0.014)	0.346*** (0.032)
Controls	✓	✓
<b>Model statistics</b>		
Observations	850	850
F-test of excluded instruments	71.4	115.6
Cragg-Donald F statistic	66.20	46.12

*Notes:* Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Models control for respondents' education, gender, age, ethnicity, settlement status, partisanship, pocketbook assessments and employment. Full results are presented in Table 2B1 (second stage) and 2B2 (first-stage) in the Appendix. *Source:* Protest-Event Dataset and 2012 January survey.

Together, the findings suggest that in the early weeks of the protest wave, support for the protesters and their demands rose as protest frequency and size increased. These results are consistent with earlier work by Madestam et al. (2013), and of Frye and Borisova (2016), in that they show that protests influence the attitudes of bystanders. To summarise, the evidence presented here suggests that in addition to online and offline political communications (Beissinger 2013; Onuch 2015; Reuter and Szakonyi 2015), unfolding opposition protests could elicit support for anti-regime protests and their demands, even in electoral autocracies.

#### *Regional Protests and Regime Strategies: Evidence from the Protest Wave*

We now turn to examining protest effects on attitudes towards the protesters between December 2011 and May 2012, that is, during the duration of the electoral protest wave. As an

extension of our baseline hypothesis that protests influence public opinion, the analysis also helps establish whether the effects of protests are conditional on news exposure, and whether the use of regime-led repression dampens support for the protest movement and its demands.

Because the analysis now relies on the combination of the January and April-May surveys, and we have a larger number of observations within regional clusters, the models presented in Table 3 introduce regional as well as survey fixed effects. Models 1.1 and 1.2 study the direct effect of protests on support for the demands of the protesters. The protest item employed in Models 1.1 and 2.1 is a logarithmically transformed indicator of protest events. The protest item in Models 2.1 and 2.2 is a binary indicator of protests that takes the value of 1 for respondents in regions with any protest event, and 0 for respondents without any protests prior to their interview. Models 1.1 and 1.2 use the full sample of respondents. We drop respondents who live in Moscow and St Petersburg from the sample in Models 2.1 and 2.2 respectively. This results in the loss of approximately 270 observations (roughly fifteen percent of the sample).

Table 3: **Protests and support for the demands of the protesters**

	Full sample		Without Moscow & St Petersburg	
	(1.1)	(1.2)	(2.1)	(2.2)
Log protest events	-0.149*		-0.063	
	(0.085)		(0.093)	
Protest dummy (0-1)		0.105		0.048
		(0.172)		(0.175)
Watches news	0.026	0.020	0.152	0.150
	(0.088)	(0.089)	(0.099)	(0.099)
Protested past	0.329***	0.330***	0.241***	0.242***
	(0.077)	(0.077)	(0.085)	(0.085)
Education	0.016	0.013	0.018	0.017
	(0.027)	(0.027)	(0.029)	(0.029)
Male	0.009	0.008	0.031	0.030
	(0.039)	(0.039)	(0.042)	(0.042)
Age	-0.001	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)
Russian	0.043	0.048	0.050	0.052
	(0.074)	(0.074)	(0.079)	(0.079)
Urban	0.010	0.004	0.015	0.012
	(0.054)	(0.054)	(0.054)	(0.054)
UR voter	-0.688***	-0.688***	-0.664***	-0.665***
	(0.043)	(0.043)	(0.046)	(0.046)
Pocketbook worsen	0.105***	0.103***	0.138***	0.138***
	(0.030)	(0.030)	(0.032)	(0.032)
Employed	0.046	0.047	0.024	0.024
	(0.044)	(0.044)	(0.048)	(0.048)
Survey fixed effects	-0.458***	-0.603***	-0.478***	-0.531***
	(0.099)	(0.057)	(0.102)	(0.069)
Region fixed effects	✓	✓	✓	✓
Constant	3.320***	2.760***	3.169***	3.112***
	(0.304)	(0.245)	(0.339)	(0.375)
Observations	1,980	1,980	1,711	1,711
R-squared	0.279	0.278	0.274	0.274

Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: 2012 January survey, 2012 RES and author Protest-Event Dataset.

The protest coefficient only reaches statistical levels of significance in Model 1.1. This negatively signed coefficient suggests that across the protest wave, the growing protest wave dampened rather than bolstered support for the protest movement. Just like in Model 1.1, the protest coefficient is negatively signed in Model 2.1, which drops Moscow and St Petersburg from the sample. Yet in Model 2.1 the protest item fails to reach statistical levels of

significance. The binary protest indicator in Models 1.2 and 2.2 is positively signed. This suggests that support for the protesters was higher in regions with, as opposed to regions without any protest events, yet the comparison between the two groups is statistically insignificant. This is consistent when we consider the full sample of respondents as we do in Model 1.2, or drop respondents in Moscow and St Petersburg in Model 2.2.<sup>12</sup> Altogether, Table 3 provides no support for the hypothesis that protests increased support for the protest movement across the protest wave.

Protest participation, deteriorating pocketbook conditions and support for the ruling regime party, United Russia, are also—in what is consistent with evidence presented in Table 1 and 2—associated with support for the protesters.<sup>13</sup> The statistically significant and negatively signed coefficient of the survey fixed effects, consistently reported across all models in Table 3, suggests that support for the demands of the protesters was higher in the winter months, yet it fluctuated over the protest wave. This is in line with evidence presented in Tables 1 and 2, suggesting that in the first weeks of the protest wave, protests were associated with greater support for the opposition. Russia’s widely respected public opinion survey agency, the Levada Centre, also documents that by the spring months, protesters enjoyed lower support among the public than they did in the early winter (Levada 2012). The evidence that support for the demands of the protesters declined across the protest wave is also in line with existing

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<sup>12</sup> As we show in Tables 2C1 and 2C2 in the Appendix, the coefficients on the protest items remain consistent when we use alternative specifications of the outcome and protest variables; cluster standard errors by regions; or run analysis that omits the survey and region fixed effects.

<sup>13</sup> In section 3C of the Appendix, we draw on evidence from the two cross-sectional surveys presented here, as well as from the panel component of the 2008-2012 Russian Election Study to show that the effect of protests on support for the protest movement is contingent on partisanship, proxied here with vote for the ruling regime party. United Russia supporters were less supportive of the demands of the opposition and became more hostile towards the protest movement as protests increased.

scholarship that highlights that protest is cyclical, activism dwindles over time, and that the momentum generated by protesters in the earlier part of the protest wave declines over time (Tarrow 2011). Yet, it is also possible that the coverage of the protest movement in state-controlled media and the use of repression against protesters, which intensified in the spring months, also conditioned the effects of protest on public opinion. Exploring whether regime responses to protests influenced public opinion during the protest wave is the task we turn to next.

### *Media Effects*

The models presented in Table 4 interact the binary indicator for news exposure with the protest indicators. The interaction terms help us assess whether protest effects on support for the demands of the opposition are uniform, or rather conditioned by respondents' news consumption patterns. Models 1.1 and 2.1 use a logarithmically transformed protest indicator, while Models 1.2 and 2.2 use a binary indicator of protests. And as in Table 3, Models 1.1 and 1.2 consider the full sample of respondents, while Models 2.1 and 2.2 drop respondents in Moscow and St Petersburg from the analysis. In all four models, the interaction terms are negatively signed. Yet, they only reach statistical levels of significance in Models 1.1 and 1.2, which consider the full set of respondents. Excluding Moscow and St Petersburg from the analysis results in a loss of approximately fifteen percent of respondents, and inevitably increases the size of the standard errors.

The interaction term in Model 1.1 suggests that growing unrest dampens support for the protesters among respondents who often watch news on TV. For this group of respondents, predicted support for the protesters drops from 2.7 to just below 2.49 (-.24, 90% CI: -.43, -.04) as we move from zero to the mean of the logarithmically transformed protest indicator, and to 2.3 (-.40, 90% CI: -.75, -.06) when we move one standard deviation above the mean of the log

protest item. The impact of growing unrest on support for the protesters is positive, but statistically insignificant among respondents who do not or hardly ever watch news.

A positive and statistically significant association between protests and support for the protest movement among respondents who do not watch political news is reported in Model 1.2. Moving from no protest events to any protests for example, increases support for the movement for this group of respondents by more than half a point (.6, 90% CI: .08, .1.1). By contrast, a similar increase in unrest does not increase support for the demands of the protesters among respondents who often watch news. Moreover, while the interaction terms in Models 2.1 and 2.2, which exclude Moscow and St Petersburg fail to reach statistical levels of significance, they are negatively signed. Just like Model 1.2, Model 2.2 for example suggests that as we move from zero to any protests, support for the protesters among respondents who do not watch political news increases by .4 points (90% CI: -.09, .9], shifting from 2.01 to 2.4. Yet, this change in support for the demands of the protesters is statistically insignificant.<sup>14</sup>

As Barabas and Jerit (2009, p. 74) note, “the greatest strength of observational research on media effects is that it examines whether people have been influenced by real-world treatments.” Yet, observational studies also suffer from shortcomings that need to be acknowledged. Individuals with pre-formed opinions about the demands of the protesters could “self-select” in terms of how often they will be watching political news across a range of TV outlets; and citizens who watch political news on TV more often may be also more likely to

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<sup>14</sup> We present robustness checks and alternative model specifications in Tables 2D2-3 of the Appendix. As we show in Models 7.1 and 7.2, Table 2D3, the interaction terms are significant and negatively signed when instead of dropping Moscow and St Petersburg from regional random effects models, we introduce a control for these two regions instead. Figures 2D2-4 in the Appendix also present the marginal effect of news watching, conditional on values of protest. Results suggest that respondents who watch news on TV become less supportive of the protest movement as the frequency of protests increases.

disagree with the opposition’s demands. The positively signed coefficients of the news watching item reported consistently in Table 4, run counter to these concerns. Respondents who watch news are in the absence of regional protests, more likely to agree with protesters’ demands than those who do not watch political news. Results are also robust to the inclusion of controls for respondents’ partisanship, proxied with vote cast in the 2011 Duma election.

**Table 4: Protest effects conditional on news watching**

	Full sample		Without M& SP	
	(1.1) Log protest events	(1.2) Protest before (0-1)	(2.1) Log protest events	(2.2) Protest before (0-1)
Protest item	0.041 (0.111)	0.573* (0.302)	0.105 (0.148)	0.412 (0.305)
News watching	0.377** (0.165)	0.410* (0.249)	0.365* (0.202)	0.428* (0.247)
Protest X News interaction	-0.207*** (0.076)	-0.501* (0.264)	-0.183 (0.126)	-0.389 (0.265)
Controls	✓	✓	✓	✓
Survey fixed effects	✓	✓	✓	✓
Region fixed effects	✓	✓	✓	✓
Constant	2.997*** (0.335)	2.383*** (0.332)	2.643*** (0.267)	2.467*** (0.338)
Observations	1,980	1,980	1,711	1,711
R-squared	0.282	0.280	0.275	0.275

*Notes:* Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Full results are presented in Table 2D1 in the Appendix. Models control for respondents’ education, gender, age, ethnicity, settlement status, partisanship, pocketbook assessments and employment. *Source:* 2012 January survey, 2012 RES and author Protest-Event Dataset.

Section 2D of the Appendix, presents several additional tests to probe the robustness of these results. First, Tables 2D5 to 2C8, show that news watching does not predict more conservative, or pro-regime attitudes. Second, we use coarsened exact matching to reduce imbalance between respondents who watch and do not watch news, and replicate the analysis presented in Table 4. The results remain consistent (see Tables 2D9 and 2D10 in the Appendix). To conclude, while limited in their observational nature, our data provide some support for the

argument that the effect of protests on support for the demands of the opposition is not uniform across the population, but rather contingent on news exposure. Consistent with Chong and Druckman (2007) and Druckman and Chong (2013), the findings suggest that when the regime and the protest movement offer alternative interpretations of an issue, the state's narrative on protests may well dampen demonstrators' ability to win the support of the wider citizenry.

### ***Repression Effects***

We now examine whether in places with protests, violent clashes between police and protesters and other instances of repression influenced political attitudes. We record whether violence was used during any of the regional rallies that occurred up to the day of a respondent's interview. The main independent variable, which replaces the variable of count of regional protest events, is coded 1 if violence had been used against regional protesters anytime up to a respondent's interview and 0 if respondents only witnessed peaceful, that is, uninterrupted protest events within their region. In Novosibirsk, for example 68 percent of respondents in our sample were interviewed in January, prior to the occurrence of one violent event and 32 percent in the spring months, after police violence was used against protesters on 17 February 2012. As in our sample repression does not vary within a survey, models presented below omit the survey fixed effects. As previously, Model 1 relies on the full sample of respondents, while Model 2 drops Moscow and St Petersburg from the sample.<sup>15</sup>

The repression indicator in Models 1 and 2, Table 5 is negatively signed and statistically significant. This suggests that the use of regime-led repression could compromise protesters' ability to influence perceptions in a manner consistent with their demands. Using predicted probabilities from Model 1, we see that support for the demands of the opposition is larger

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<sup>15</sup> In Table 5 we do not control for protest frequency: it correlates highly with repression (Pearson's  $r = .4$ ). When we run the same models with the protest event item, the results do not change (Table 2E1, Appendix, where we also interact the protest and repression indicators).

among respondents who only experienced peaceful events [2.8 (95%CI: 2.7, 2.9)] than among respondents in areas with violent protests [2.0, 95%CI: 1.8, 2.2)]. This difference in support for the protesters, almost of a one-point magnitude is notable, considering that the dependent variable is measured on a 4-point scale. Similar results are reported in Model 2. When we drop Moscow and St Petersburg from the sample, support for the protesters is approximately around 2.7 (95% CI: 2.6, 2.8) among respondents in areas with peaceful events and below average, at 1.9 points (95% CI: 1.7-2.1) among respondents in areas with violent protests.

Table 5: **Repression effects**

	Full sample	Without Moscow and St Petersburg
	(1)	(2)
Repression used	-0.800*** (0.145)	-0.801*** (0.144)
Watches news	-0.103 (0.092)	0.043 (0.097)
Protested past	0.269*** (0.083)	0.168* (0.092)
Education	0.008 (0.030)	0.020 (0.032)
Male	0.035 (0.043)	0.065 (0.046)
Age	-0.001 (0.001)	-0.001 (0.002)
Russia	0.037 (0.080)	0.029 (0.085)
Urban	0.043 (0.060)	0.056 (0.061)
UR voter	-0.703*** (0.047)	-0.677*** (0.050)
Pocketbook worsen	0.145*** (0.033)	0.200*** (0.034)
Employed	0.048 (0.049)	0.012 (0.052)
Region fixed effects	✓	✓
Constant	3.354*** (0.233)	1.644*** (0.245)
Observations	1,648	1,379
R-squared	0.259	0.278

Notes: Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Source: 2012 January survey, 2012 RES survey and Author Protest-Event Dataset.

One potential objection to our interpretation of the findings is that since protest size traditionally predicts the use of repression against protesters, the repression dummy may merely proxy for a larger pool of anti-regime activists in a region. The inclusion of regional fixed effects helps us account for differences between regions. The analysis presented in Section 3B of the Appendix also suggests that the use of violence against protesters did not necessarily correlate with regional democracy. Finally, the empirical results run counter to such concerns. Had the repression dummy been a proxy for pro-democratic sentiment, it would be positively and not negatively associated with support for the demands of the opposition.<sup>16</sup>

Overall, the results suggest that regime responses to protests, here in the form of protest repression, compromised regional protesters' ability to generate support for their demands. These results are in line with existing evidence from the 2011-2012 electoral protests, which indicates that Russians, while broadly supportive of street action, had been particularly critical of unsanctioned—and possibly more likely to be violently interrupted—protests (Smyth, Sobolev, and Soboleva 2012, 33). Empirical evidence provided here is also consistent with studies demonstrating that risk-averse citizens may well shy away from violent protests that endanger political order and stability in the country (Magaloni 2006, 2010). Whether citizens favour order and stability in the streets over the demand for accountability is an important question with significant consequences for our understanding of how bystanders, or the spectators of protests, make sense of unfolding unrest.

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<sup>16</sup> Results do not change when we use alternative specifications of the outcome variable, or cluster standard errors by regions (Table 2E1, Appendix). Table 2E2 of the Appendix, where we interact the repression and vote indicators, suggests that support for protest in areas with violence was lower for both respondents who voted for United Russia, and those who did not.

## Conclusions

Influential studies of how protests spread in autocracies propose that activists who take to the streets first will embolden others to do the same. The assumption underlying theories of defections is straightforward: protests can influence public opinion, increase awareness of regime abuses and galvanize support for the protesters and their demands. Yet, there are few empirical tests of this assumption. Leveraging evidence from survey data and an author Protest-Event Dataset, this paper provides one of the first empirical tests of the hypothesis that protests influence attitudes under autocracy. Moreover, the analysis leads to important insights as to the factors that may compromise protesters' ability to sustain support for their demands and speaks to a larger literature on the factors that condition the success and failure of electoral protests.

Overall, we find that in the early weeks of the protest movement in particular, street rallies may generally encourage a sense of shared grievances among bystanders, whether by generating support for the broader anti-regime agenda of the protesters or by increasing perceptions of electoral falsifications in preceding elections. This evidence is in line with earlier work (Madestam et al. 2013; Frye and Borisova 2016) demonstrating that protests may influence political attitudes. We also refine extant scholarship in that we find that in addition to online and offline political communications (Beissinger 2013; Onuch 2015; Reuter and Szakonyi 2015), protest events taking place nearby could influence attitudes towards the protesters and their key demands. Beyond documenting and qualifying these significant effects, the analysis points to a more nuanced relationship between protest events and public opinion. Specifically, we suggest that the effect of protests on attitudes is not uniform across the population, but rather contingent on the coverage of the protest events in state-controlled media. Exposure to the regime's media coverage of protest events does have the intended effect of public opinion turning away from support for the protesters and their demands. Leveraging author-assembled data on protest repression, we also show that the use of state violence against

protesters may dampen reported support for the protesters. When the protest movement is associated with violence and disruption, achieving the empowering effects that activists aim to produce is challenging.

Just as this analysis brings attention to new dimensions of protest activity under electoral authoritarianism and provides empirical evidence of relevance to ongoing debates in the comparative democratization literature, it also raises questions that we may not answer fully here. Although we offer a broad picture of how protests affect the population as a whole, a wealth of individual-level attributes, such as personality traits and generational status could well moderate how people respond to protests. Studies of protest effects on public opinion would greatly benefit from a systematic exploration of the transmission of information within social networks (Pattie and Johnston 2000). Furthermore, analysis of how the repression of protesters is framed online and offline would help us better understand why clashes between police and protesters may dampen support for the movement in some instances, but lead to sympathise with it in others (Aytaç, Shiumerini, and Stokes 2017).

Despite these limitations, the original data collected for this paper allow us to provide one of the first empirical tests of the hypothesis that protests shape attitudes in electoral autocracies, and to make an original contribution to scholarship on authoritarian vulnerability and resilience to street discontent. Although some research into electoral mobilizations is sensitive to the variation in protest activity across the national territory (Onuch 2015) we are not aware of other studies featuring the systematic sub-national electoral protest and survey data employed here. Our findings suggest that in seeking to understand the outcomes of attempted revolutions scholars ought to pay greater attention to protest effects on public opinion, as well as the nuances of the interaction between the regime and its opponents.

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