



The long-term effects of voting for autocracy: Evidence from Russia

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ABSTRACT

Do different Russian generations differ in their propensity to vote? Drawing on evidence from Soviet and post-Soviet elections, we consider how early-life electoral experiences influence voters' life-long voting propensity. The empirical analysis relies on a harmonized dataset of survey data covering all national elections between 1991 and 2018. We estimate differences in turnout propensity across generations using several forms of age-period-cohort analysis including hierarchical age-period-cohort analysis and semi-parametric generalized additive models. Findings suggest that generations voting for the first time in elections taking place between 1946–1966 have a higher propensity to vote than others. Complementing quantitative evidence with extensive description, we propose that state-led mobilization efforts under Communism and the opportunity to vote in regularly held elections may account for these effects. Our research has implications for research on the consequences of authoritarian elections and their impact on long-term voter behaviour.

1. Introduction

On July 27th, 2019 police in Moscow detained more than 1000 demonstrators at a rally against the exclusion of opposition candidates from the election of the Moscow City legislature, scheduled for September 8th 2019. Observers were quick to draw the link between protests and turnout. According to Denis Volkov, a sociologist from the Levada Centre, Russia's most reputable public opinion firm, protests could dampen turnout, especially among the young. Yet, as Volkov also observed, 'the older generations, on which the authorities are counting to vote out of habit [...] will come to the polls nonetheless'. The Russian government, he continued, 'will orient itself towards them'.

Volkov's comments echo influential literature in political sociology which sees voting as a habit.¹ This body of research suggests that most citizens, like Russia's older generations, are habitual voters or nonvoters (e.g. [Plutzer, 2002](#)). The habit of either voting or not voting, acquired in the early stages of one's adult life, within the first set of elections individuals experience, predicts subsequent turnout decisions. This body of research has developed against the backdrop of advanced democracies or democratizing states (e.g. [Franklin, 2004](#); [Vowles et al., 2017](#)). While recent studies have begun to look at the role of state mobilization in shaping turnout in non-democracies, ([Saikkonen, 2017](#); [Frye et al., 2019b](#)), relatively little remains known about authoritarian elections' long-term effects. The legacies of authoritarian elections on turnout in elections, which like Russia's, remain authoritarian to this

date, remain underexplored. At the same time, institutional theories of voting, challenge 'habitual voting' theories altogether. These suggest that voting habits may be forgotten, or 're-learned', especially in the context of rapid social and political transformations. According to [Demartini \(1985, 823\)](#), "generational differences in attitudes should decline overtime as they are overwhelmed by the common lessons of contemporary experience".

In this work, we explore whether Russian generations born from 1910 onwards differ in their propensity to vote in post-Soviet elections. The analysis draws on harmonized survey data including over 40,000 respondents covering all post-Soviet elections between 1991 and 2018. The case selection offers variation in generations' political socialization and in the character of the first set of 'formative' elections individuals participated in; Soviet and post-Soviet electoral races ranged from uncompetitive and compulsory under the USSR, to more competitive in the 1990s, and increasingly authoritarian from 2004 onwards. As such, Russia offers a unique opportunity to study whether participation in unfree and uncompetitive elections can influence turnout later in life. The case selection offers additional advantages. Russian survey firms have a long tradition of conducting survey research of the highest academic standard (e.g. [Frye et al., 2017](#)), establishing Russia as one of the most important sites for the study of public opinion in electoral autocracies. One of the surveys we rely on, the Russian Election Study (RES) ([Colton and Hale, 2014](#)) is the longest running election study

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¹ In line with research in psychology, we view habitual behaviours as involving less conscious reactions to contextual cues (e.g. the presence of an upcoming electoral opportunity) but more conscious deliberation processes about the value of the voting action and how to carry out it out (e.g. [Hagger, 2020](#)).

in an authoritarian setting and the only one covering an extended period of authoritarian consolidation. Understanding the socialization impact of past electoral experiences on turnout under electoral authoritarianism is particularly pertinent as electoral autocracies become increasingly dominant around the world.

The empirical analysis uses harmonized national surveys covering Russian Duma and Presidential elections between 1991 and 2018. To examine the presence of socialization effects of past electoral participation we use a range of age-period-cohort methods: hierarchical age-period-cohort models with cross-classified random effects (HAPC-CCRM), hierarchical age-period-cohort (APC) models with fixed effects for periods, semi-parametric generalized additive models (GAM), and full fixed effect APC models. We also test for theory-driven cohort specifications.

To preview the findings, we show that participation in Soviet elections, despite elections' uncompetitive nature, had a positive effect on Russian citizens' propensity to vote later in life. We find that the cohorts most likely to vote in post-Soviet Russia are those reaching voting age of 18 in the first two decades after the introduction of regular direct national elections for the Supreme Soviet starting in 1946. These cohorts include people born from 1928 to 1948. Those born in 1928 were the first birth-year cohort to experience regular elections in 1946. Those born in 1948 voted for the first time under Brezhnev in 1966. These cohorts are more likely to vote than earlier cohorts which did not experience direct national elections in their young adulthood. They are also more likely to vote than cohorts that came of age under Gorbachev and even those that experienced heightened electoral competition under Yeltsin. Descriptively, the evidence speaks to the importance of regularly-held electoral opportunities in shaping the habit to vote and underscore the importance of communist electoral mobilization between 1946–1966. Having the opportunity to vote during one of the most vigorous periods of communist electoral mobilization (Mote, 1965; Yekelchik, 2014) might have shaped a distinct cohort of Russian voters who continue to vote avidly to this day. Through careful consideration of possible mechanisms and extensive description that relies on primary and secondary evidence, we propose that communist state-led mobilization may be a potential reason explaining differences between generations' voting propensity. Extensive description allows us to engage with a range of factors that may drive variation in electoral participation, such as electoral characteristics, agitation efforts, sanctions for non-voting, and vote-buying.

Our findings speak to research on communist legacies and to ongoing debates regarding the effect of experience of communist elections on participation in elections during the 1990s and 2000s in Eastern-Central Europe and the Baltics. Echoing earlier research on the generational differences in voting in post-communist countries (Linek and Petrušek, 2016), our study demonstrates generational variation in turnout in post-Soviet Russia. Our findings also speak to scholarship on the determinants of turnout in electoral authoritarian settings and to research on the factors that encourage participation in authoritarian elections. Using evidence from Africa and Russia, Letsa (2020) and Reuter (2021) show that moral obligations to vote, such as a sense of civic duty, influence participation in authoritarian elections. Our results contribute to this line of work. They imply that 'habit' may indeed compel voters to participate in non-competitive elections and drive generational differences in turnout. Our findings also have implications for research on authoritarian politics more broadly. They suggest that authoritarian regimes successful at generating 'habitual' voters may need to invest fewer resources trying to get people at the polls (Magaloni, 2006). Electoral autocracies, regimes that combine authoritarian practices with multiparty elections, often rely on high turnout and large victory margins to signal legitimacy and strength.

Finally, we speak to the literature on voter turnout habit formation more generally. Our work joins research on the origins and consequences of habitual voting in democracies (e.g. Dinas (2012), Fowler (2006), Franklin (2004) and extends that agenda to consider how

voting under autocracy influences the propensity to vote in subsequent authoritarian elections. The Soviet Union provides the hardest 'test case' for voter habit formation. It allows us to precisely explore how participation in what can be understood as 'meaningless' elections in a person's formative years affects the propensity to vote later in life.

2. Generational differences in turnout

Why might people of different ages vary in their levels of political participation? As research in political socialization reminds us, social, political, cultural, and institutional factors shape the political participatory patterns of cohorts or generations (e.g. Smets and Neundorff, 2014). People of different generations experience distinct combinations of social, cultural, political, and historical events in their life, which leads to different patterns of political participation (Smets, 2016). Underpinning research on early life socialization is the idea of political learning that emphasizes the primacy of what people learn early in life in shaping life-long attitudes, beliefs, and participatory decisions (e.g. Krosnick and Alwin, 1989). For this body of research, political attitudes and habits of political participation are learnt early in life (e.g. Prior, 2019; Neundorff et al., 2013). As new experiences are interpreted in light of lessons learned early in life, past behaviour predicts present behaviour (e.g. Plutzer, 2002).

Political sociology research also considers voting as a so-called habit, persistent behaviour, consuetude, or custom. The expectation is that, if one votes once, one is more likely to vote again (e.g. Coppock and Green (2016), Fujiwara et al. (2016)). The positive effect of previous turnout on subsequent electoral participation is well-documented empirically (Smets and Van Ham, 2013). However, the link between early life experiences of voting and the propensity to vote later in life is less well-established. Despite extensive theoretical insights regarding the impact of early life socialization on voting in later life (Aldrich et al., 2011; Franklin, 2004), empirical and methodological challenges persist (Jessen et al., 2021). Several studies use causal research designs to show how past eligibility to vote among young voters boosts turnout in the subsequent election (Dinas, 2012; Holbein and Rangel, 2020; Bhatti et al., 2016), however few look at the long-term effects of early electoral participation (e.g. Coppock and Green, 2016).

The literatures on political socialization and voter turnout habit formation suggest that two key elements are needed for newly eligible voters to develop a habit of voting. Firstly, voters need to be motivated to take up the first opportunity to vote (Smets and Neundorff, 2014). In this vein, any factor or effort that encourages young voters to get to the polling station could contribute to voter turnout habit formation (Vowles et al., 2017). Secondly, for socialization contexts to have a meaningful effect on habitual voting, they need to be sustained over a long period (Aldrich et al., 2011). For example, with regards to elections, the source of turnout motivation needs to be sustained over time so that new voters will take up the opportunity to vote several times. If a motivating factor is present only for one election, it will affect only the newly eligible cohorts that are still in their formative years at the time of this election. Compulsory voting has been proposed as one such motivator (Franklin, 2004), although recent research suggests compulsion to vote may not boost turnout long-term once it is removed (Dunaiski, 2021; Gaebler et al., 2020) emphasizing the importance of intrinsic motivation for persistent voting. In established democracies voting in first two to three elections has been found to make a difference for voting later in life (Smets and Neundorff, 2014). The electoral conditions newly eligible voters face in those first two or three elections in their formative, or impressionable years, have been shown to have a strong and lasting effect on their propensity to vote later in life (e.g. Sears and Levy, 2003). Additional factors may facilitate the reproduction of 'learnt' voting behaviour. The initial act of voting, for example, can set in motion reinforcing mechanisms such as increasing positive attitudes towards voting (Plutzer, 2002), lowering information barriers to voting, or enabling access to social and

political networks that reinforce political mobilization (Coppock and Green, 2016).² Taken together these studies suggest that the behaviour of newly eligible voters in their first few elections may have long-term implications. Differences in electoral characteristics, or indeed, in voters' broader socialization context, may also lead to aggregate differences in generations' turnout propensity later in life.

These arguments have not gone undisputed. According to another body of research, the persistence of attitudes and habits may have been overestimated, as attitudes can be updated later in life (Kinder and Sears, 1985, 724). Research suggests that even though early 'impressionable years' strongly shape life-long attitudes and behaviour, the relative balance of persistence and updating can vary (Alwin and Krosnick, 1991). It is possible that certain attitudes or behaviours change over the course of one's life (Sears and Brown, 2013). For example, as voters accumulate experience of democracy, they might learn to distinguish between first and second order elections favouring participation in the former (Pacek et al., 2009). The life-long openness or learning perspective also emphasizes the importance of changes in political context and the influence of major events in encourage voters to learn, (re)learn, or forget the habit to vote.

Insights reviewed here stem from the study of democratic, or democratizing elections. Turnout and its long-term socialization effects have rarely been the subject of scholarly debate in the study of electoral autocracies. Participation in authoritarian elections is often seen as meaningless – a result of workplace mobilization (Frye et al., 2014), vote-buying (e.g. Blaydes, 2006), intimidation, or coercion (e.g. Roeder, 1989).

Yet, we may expect that participation in elections – even if these are uncompetitive – may influence voting habits later on in life. To begin with, the decision to participate or abstain from authoritarian elections is inherently a political one. Karklins (1986), for example, illustrated that voter abstention in Soviet elections was a meaningful expression of dissent by voters who did not wish to legitimize the regime by turning out to vote. The goal most directly challenged by non-voters in authoritarian elections, according to Linz (1978) was the demonstration of unanimity. While illiberal regimes want to have every single voter "accept a truth about the value of which there can be no doubt" (Linz, 1978, p.48), voters who deliberately choose to abstain demonstrated defiance.³ Existing research also recognizes that variation in levels of electoral choice (Landry et al., 2010) and variation in perceptions of electoral fairness influence participation in authoritarian elections (e.g. Simpson, 2012) and Birch (2010). Therefore in so far as engagement with authoritarian elections has political significance for citizens, variation in character of these elections – the level of competition appears to affect voters' propensities to vote later in life (Neundorff and Northmore-Ball, 2021) – reinforced by regime-led mobilization efforts, are likely to shape citizens' attitudes to elections and propensities to participate in elections later on in life.⁴

² While some of the factors considered, such as the reduction in voting costs or growing familiarity with the process of travelling to and from the polls are rational or instrumental in nature, others like the sense of duty to participate in politics are more normative in nature (Blais and Daoust, 2020).

³ Zhong and Chen (2002), Croke et al. (2016) also suggest that abstention could be interpreted as a meaningful expression of dissent in electoral autocracies.

⁴ We do not assume that for habitual voting to develop, citizens need to see some form of perceived equivalence between ritualist and competitive elections. However, while voters socialized during ritualist elections may continue to take up the opportunity to vote in the context of democratizing and more competitive elections, voters socialized in the context of competitive elections may not necessarily take up opportunities to vote when elections lose their competitive nature. This is for example, the case in several contemporary backsliding democracies. Investigating the second pattern constitutes a fruitful avenue for future research.

3. The Russian experience

Returning to our research question: should we expect to see generational differences in turnout in Russia? On the one hand, it is possible that variation in electoral competition over the past century may have impacted different generations' voting propensity.

Indeed, Soviet and post-Soviet voters experienced dramatic political change and great variation in electoral competition. Firstly, the oldest voters, those who reached voting age before 1946, did not have any direct national elections to participate in as young adults. The change from indirect to direct national elections, brought in by the ratification of the 1936 Constitution under Stalin, was only implemented in the 1946 Supreme Soviet election (Carson, 1956). Although since 1946 voters experienced regular national elections, until the electoral reforms of 1988, the number of candidates in elections never exceeded the number of seats available. Candidates were nominated by the Communist Party of the Soviet Union (CPSU), or by party-controlled organizations. In the former Soviet Union, the electoral format remained unchanged until the 1989 elections under Gorbachev (White, 1985). Thus, Soviet elections, amongst the least competitive in the world, were for many years "elections without choice" (Hermet, 1978).

Fig. 1 plots Russia's overall electoral democracy score and indicators of election characteristics from the Varieties of Democracy Dataset (Coppedge et al., 2018). In terms of multiparty competition, until the late 1980s, the USSR received the lowest score possible. In the 1990s, the competitiveness of Russian elections increased, with higher and variable levels of multiparty competition. The freedom and fairness of elections also varied under the USSR, only to increase in the early 1990s. Thus if variation in the electoral context experienced by newly eligible voters has any effect on their propensity to vote later in life, we could expect some variation in turnout across different generations of Russians voters.

On the other hand, we may expect no generational differences in turnout among Russians voting in post-Soviet elections. This may be especially the case if voter turnout was the result of coercion and did not reflect voters' intrinsic motivations. As Kostelka (2017, 5) shows, any inclinations to vote due to coercion can rapidly wear off, especially if non-democratic and democratic elections are fundamentally different experiences. What is more, studies argue that the shock caused by Russia's political transformation in the 1990s was so great that it may have disrupted patterns of behaviour and attitudes developed through early socialization (e.g. Mishler et al., 2016; Mishler and Rose, 2007).⁵ Research on voter turnout in post-communist countries also draws attention to the decline in voter turnout since the founding elections (Kostadinova and Power, 2007; Kostadinova, 2003) and emphasizes learning and adaptation to a new institutional context (Pacek et al., 2009). Empirical analysis specifically focusing on generational differences in turnout in post-communist Eastern Europe finds no differences except for weak effects in Poland (Linek and Petrušek, 2016). In short, in line with this body of research, we may expect no generational differences in turnout in Russia.

4. Design

To examine whether generations of Russian voters differ in their propensities to vote in post-Soviet Duma and Presidential elections taking place between 1991–2018, we harmonize a vast array of available survey data. The data, described in detail in Appendix A, come from the New Russian Barometer Series, the Russian Longitudinal Monitoring Survey, the EurEqual Surveys, the Comparative Study of

⁵ Further emphasizing the importance of the late Gorbachev and early Yeltsin years for attitudes, Pyle (2021) finds that life experiences during this period, marked by heightened hardship and instability, left an enduring impression on Russians' views of democracy and markets.

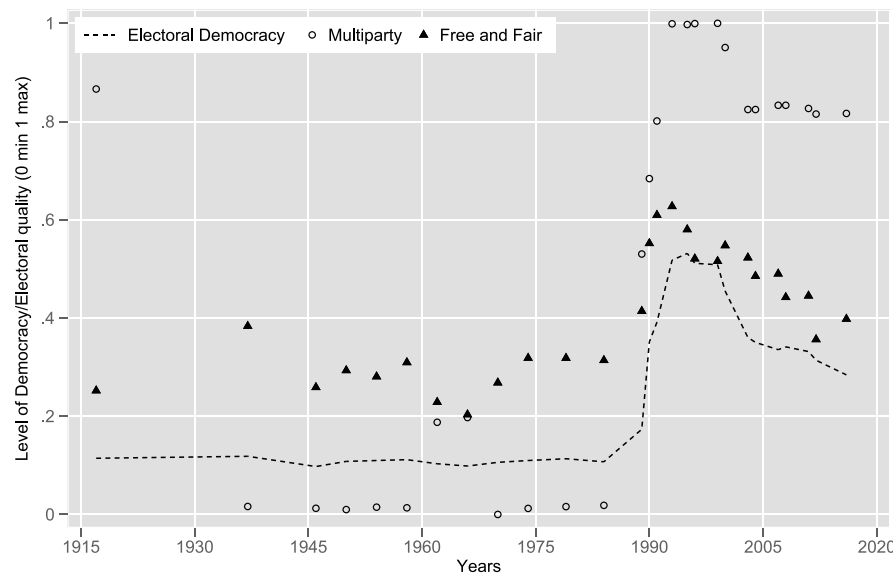


Fig. 1. Variation in the quality of democracy and elections in USSR and post-Soviet Russia. Source: V-Dem (Coppedge et al., 2018).

Note: This Figure shows yearly measures of electoral democracy (dotted line) and election year measures of electoral quality: levels of multiparty competition (circle) and electoral freedom and fairness (triangle). Higher values denote higher levels of democracy and electoral quality.

Electoral Systems, the Russian Election Studies, the International Social Survey Programme, the European Social Survey and various omnibus surveys fielded by the Levada Centre. A total of 44,025 respondents were surveyed as part of the surveys we draw on, which cover all Duma and Presidential elections between 1991 and 2018.

Our outcome of interest is self-reported turnout in the last national election, whether Parliamentary or Presidential, before the survey interview.⁶ It is of course reasonable to ask whether respondents felt free to answer honestly to questions about past turnout and whether social desirability bias may systematically vary by cohorts. While it is possible that early socialization leads to social desirability effects later in life, given the data available, we cannot investigate this question empirically. Nonetheless, studies of social desirability bias in response to turnout questions reach optimistic conclusions about whether Russian citizens are afraid to say whether they voted and do not find that age predicts variation in social desirability bias (e.g. Kalinin, 2016).

In the analysis, we restrict the sample to people who, at the time of the surveys, are aged 28 or older, that is to people who had completed their 'impressionable years' at the time of the survey interview. Thus our outcome is self-reported turnout in the last national election for people age 28 or older. We do this as we are interested in how experiences during people's impressionable years (approximately between the age of becoming eligible to vote and 28 years) affect turnout after this socialization period. While there are no precisely defined age boundaries for the formative period in the life-cycle, research agrees that people are most impressionable up to the age of 30 (Neundorf and Niemi, 2014). The literature on voting habit formation also suggests that it takes about 13 years (approximately three national elections) for people's propensities to vote to stabilize (Franklin, 2004; Smets and Neundorf, 2014). As 'formative' years, we therefore take the period between the voting eligible age of 18 and 28. Any respondents under the age of 28 are excluded from our survey sample.

From a methodological perspective, separating generational and age effects requires addressing the identification problem where each age, period, and cohort element is perfectly identified by the other two. It

is not possible to disentangle the effects of age, period, and cohort in a linear model without some kind of restrictions that break the linear relationship between the three elements.⁷ In the traditional *constrained variable approach* (Mason et al., 1973), collinearity has been broken by categorizing age, period, and cohort, and treating these elements as fixed effects. However, we lack theoretical priors for grouping voters into cohorts in Russia. Cohort categorizations used in previous age-period-cohort analysis for post-communist contexts (see Neundorf (2010) and Linek and Petrúšek (2016)) do not specifically reflect the electoral contexts experienced by cohorts socialized in Soviet and post-Soviet Russia. Therefore, we begin our analysis agnostically.

We start our analysis using APC models with random effects for cohorts and semi-parametric GAM models as both model types allow us to avoid imposing a priori cohort categorizations and to explore cohort patterns. However we also try different specifications of the hierarchical APC models as these can be sensitive to model specifications. The commonly used HAPC-CCRM models can be sensitive to the underlying data as well as the cohort categorizations (Bell and Jones, 2018). Bell and Jones (2018) demonstrate that if linear trends underlie one or both of the cohort and period elements, the HAPC-CCRM will over-ascribe variance to period rather than to cohort effects, and this effect is reinforced if cohorts are specified too finely (e.g. as birth-year cohorts). In substantive terms this means that the model will show minimal cohort differences while showing strong variation across elections. Given prior research on post-communist countries shows an almost monotonic decline in turnout since the collapse of communism (Kostadinova, 2003; Kostadinova and Power, 2007) and that we can discern a possible underlying downward trend over periods (e.g. elections) in our own data (see Fig. 2⁸), HAPC-CCRM results are likely to be unstable and sensitive to slight variations in model specifications such as different cohort categorizations.⁹ Given these issues we proceed cautiously.

⁷ See Appendix A.2 for more detailed discussion of the issues.

⁸ In the Appendix we show the descriptive plot of turnout over both election types (Duma and Presidential) - see Figure A.1. Official turnout data shows a moderate decline in presidential election turnout and a rise and then general stability in the Duma election turnout (See Appendix Table A.12).

⁹ Bell and Jones (2018) noted the application of the HAPC-CCRM by Linek and Petrúšek (2016) to turnout in post-communist Eastern Europe and the

⁶ To reduce concerns about imperfect recall, when respondents are asked about participation in multiple elections, we rely on responses concerning the elections that happened in closer proximity to the timing of the survey interview.

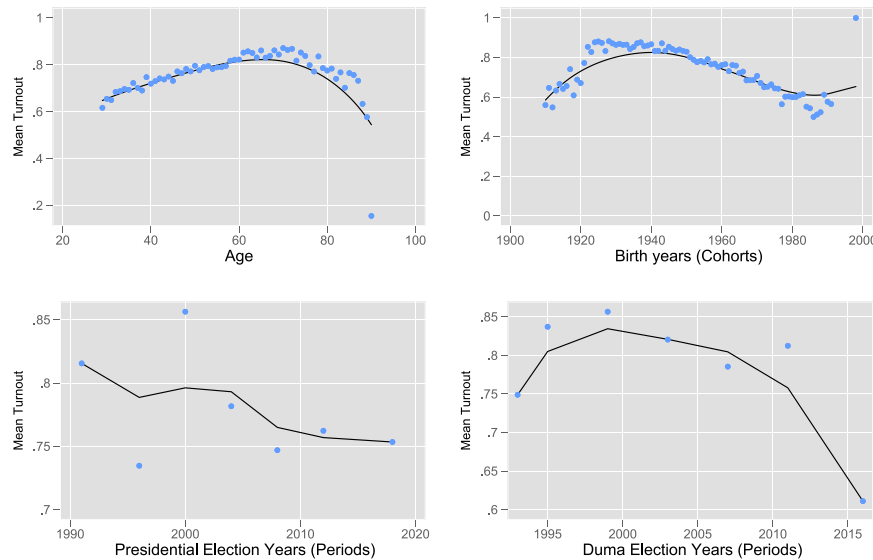


Fig. 2. Descriptive age, period, cohort plots.

Note: Each point denotes the mean turnout by year of age (≥ 28), birth-year (≥ 1910 and ≤ 2002), and by election year respectively by panel. The curves denote local regression curves.

To assess the evidence for generational differences in turnout, we triangulate by comparing several different model specifications to estimate age–period–cohort effects and examine how the results compare across the different estimation approaches. We firstly try different specifications of hierarchical APC models. We check the robustness of the results to changes in the coarseness of cohort categorizations and specification of period effects as fixed and random, while treating cohorts as random effects. This model allows us to simultaneously look for evidence of generational/cohort differences in propensities to vote while accounting for election contexts that affect people of all generations simultaneously. Such “shocks” can include the first election boost (Kostadinova 2003). Period effects can also capture the effects of any other electoral characteristics, such as differences in electoral character between the Yeltsin and Putin periods, that may boost or depress respondents’ reported turnout relative to the average across all period or elections in this case. The model also allows us to account for the well-established non-linear relationship between age and turnout (Smets and Van Ham, 2013) that reflects the ‘start-up’ process as the young learn to vote (Neundorf and Smets, 2015) and mature (Smets, 2012) followed by a ‘slow-down’ process as people age and lose social connections (Bhatti and Hansen, 2012).¹⁰ As we are mainly interested in generational differences, we present here an hierarchical age–period–cohort logit¹¹ model with random effects for

cohorts but fixed effects for periods:¹²

$$\log \left(\frac{\pi_{ic}}{1 - \pi_{ic}} \right) = \alpha_{0c} + \beta_1 \text{Age} + \beta_2 \text{Age}^2 + \beta_3 \text{Educ} + \beta_4 \text{Female} + \lambda_m \text{Election}_m + \delta_j \text{Survey}_j \quad (1)$$

In Model 1 we control for age, age squared, gender, and education,¹³ and we include election dummies for Duma and Presidential elections. Here λ_m signifies the coefficients for election year dummies, which constitute the period fixed effects: $m = \{1993, 1995, 1996, 1999, 2000, 2003, 2004, 2008, 2011, 2012, 2016, 2018\}$ with the 1991 presidential election serving as the reference category. And we include survey fixed effects as $j - 1$ dummy variables. Most importantly, Model 1 includes a random intercept α_{0c} which means that the intercept is allowed to vary by cohort (c) around an overall mean turnout level γ_0 across all cohorts, and v_{0c} designates the cohort specific error term.

$$\alpha_{0c} = \gamma_0 + v_{0c} \quad (2)$$

To observe how the behaviour of the HAPC model depends on the size of the cohort groupings, we replicate the analysis using cohort categorizations of varying coarseness. We start with birth-year cohorts as the most theoretically agnostic, and then we continue grouping the birth-year cohorts into ever larger groups (5-year cohorts, 8 year cohorts, 10 year cohorts).¹⁴

Given the potential weaknesses of the HAPC models, we replicate the analysis by combining semi-parametric generalized additive models (GAM) (Keele, 2008; Yang and Land, 2013, Ch.10) with the age–period–cohort framework (Neundorf, 2010; Grasso, 2014). Just like with an HAPC model with random effects for birth-years, we can also avoid imposing cohort categorizations; the GAM is suggested as a robustness test for cohort categorizations (Grasso, 2014). The GAM allows us to test for non-linearity of the cohort effects, and it does so non-parametrically through a smoothing function for the independent variable which measures birth-year cohorts.

implications of the HAPC-CCRM tendency to favour period effects which has strong implications for the latter authors’ findings. Bell and Jones also discuss the importance of relying on theoretically driven cohort categorizations in order to adjudicate between the often quite varied results from HAPC-CCRM, depending on categorization choices.

¹⁰ The expected upside down u-shaped relationship between age and turnout is visible in the top left panel of Fig. 2 and we further explore this relationship descriptively by cohort and discuss in A.1 where we can see cohort differences in the age trajectories. We see the ‘younger’ cohorts born between 1928 and 1948 has generally higher turnout than the older cohort pre-1928 cohort, and seems more immune to the ageing related turnout decline (Bhatti and Hansen, 2012).

¹¹ We use logit as we have a binary outcome variable, but in the Appendix we show the linear replication.

¹² Fixed effects for elections capture character of each of the post-soviet elections. In the robustness checks we also try cross-classified random effects for both cohort and periods (elections) (HAPC-CCRM) (Yang and Land, 2013).

¹³ Three levels: primary, secondary, and tertiary.

¹⁴ See Appendix for further details of cohort groupings. In the robustness checks repeat this analysis trying the HAPC-CCRM (e.g. random period effects) while varying the coarseness of the cohorts.

As with the HAPC models, we can control for age so the cohort effects are shown net of life-cycle/age effects. However, the GAM does not allow one to escape the multi-collinearity issue inherent to APC analyses: because we specify birth-year cohorts as a continuous variable, we have to categorize age. The resulting single country model for Russia is as follows:

$$\log\left(\frac{\pi}{1-\pi}\right) = \alpha + S(\text{Birthyear}) + \gamma_a \text{AgeCateg}_a + \beta_1 \text{Educ} + \beta_2 \text{Female} + \lambda_m \text{Election}_m + \delta_j \text{Survey}_j \quad (3)$$

where γ_a represents the coefficients for the age category dummies $a = \{28-39, 40-49, 50-59, 60-69, 70+\}$ with first category as the reference. Here λ_m signifies the coefficients for election year dummies, which constitute the period effects, and $m = \{1993, 1995, 1996, 1999, 2000, 2003, 2004, 2008, 2011, 2012, 2016, 2018\}$ with the 1991 presidential election serving as the reference category. We estimate the logistic GAM model using the R *mgcv* package using the *gam* command. The smoothing function $S(\cdot)$ is based on fitting penalized automatic splines so the number of ‘knots’ is set by the data (Keele, 2008) which is the most agnostic option. Such automatic fitting allows the model to be fitted without any pre-conceived assumptions about the form of the smoothing function, which is the best approach given we have no clear expectations on cohort differences.

Finally, once we propose theory-driven cohorts categorizations, we again test several model specifications. We run an HAPC with cohort random effects and try both period fixed and random effects. Finally, we try the ‘traditional’ *constrained variable approach* (Mason et al., 1973; Bell, 2020) where we treat all three categorizations of cohort, period, and age as fixed effects, using both logit and linear probability models. By testing whether the cohort patterns hold across various model types with various specifications we can be more confident about the findings.

5. Results

We begin by examining cohort differences in turnout for both Presidential and Duma elections from 1991 to 2018. We restrict the sample to people aged 28 and over which means that people have completed their ‘impressionable years’ – having a full 10 years of voting experience since becoming eligible to vote at age 18. In Fig. 3 the cohort random intercepts shown as log-odds with 95% confidence intervals are best interpreted as (random)¹⁵ intercepts for each birth-year cohort, all distributed around a grand overall mean level of turnout. The horizontal line designates the average turnout for the sample. A lack of cohort differences would reveal a pattern where the estimated cohort effects are all along the red dotted line and do not deviate from it. However we see some cohorts have turnout above or below the average. The vertical red line marks the 1928 cohort which was the first cohort to experience regular Soviet direct elections throughout all impressionable years. The 1928 cohort turned 18 in 1946 which was the first of the regular Soviet direct elections under the 1936 Stalin Constitution.

From a purely methodological point there could still be an issue with how fine-grained our cohort codings are. Of course the most agnostic approach is to use birth year cohorts as one does not have to make any theoretical decisions on cohort coding. As discussed earlier, HAPC-CCRM models ascribe more variance to period random effects than cohort effects. Here we used a model with fixed effects for periods

(elections).¹⁶ But we check if the size of cohort groupings has any impact.

Fig. 3 shows how, keeping all else in the model the same, if we simply readjust cohort groupings increasingly large intervals (5 year, 8 year, and 10 year), increasing amounts of variation is assigned to cohorts. The confidence intervals on the cohorts shrink as the model shifts the assignment of variance from with-in cohorts to between cohorts. However, encouragingly the pattern in the non-linear variation around the mean level of turnout remains consistent showing a lower than average turnout among cohorts that were socialized before the 1946 Supreme Soviet election, a peak in turnout among cohorts that in the first half of the Soviet period with direct elections (these include approximately cohorts born in 1928 who were first eligible in 1946 and up to about the 1948 cohort first eligible to vote in the 1966 election),¹⁷ and then a gradual fall moving through the Yeltsin up to the Putin period.

In Fig. 4 we replicate the analysis using a logistic GAM with a smoothing function to estimate the birth-year cohorts differences.¹⁸ These results provide additional evidence of the positive socializing effects of the communist elections. We can see that people born between roughly 1925 and 1960 are on average more likely like to vote than those born before and after. People born in 1925 would have become eligible to vote in the 1946 Supreme Soviet elections. The 1946 elections where the first elections to be held after the gap in elections during the second World War, and it was the second election to the Supreme Soviet of the USSR held under the Constitution of 1936, which introduced direct elections, and most importantly it was the first regular direct election. From 1946 onwards elections to the Supreme Soviet were held at regular pre-designated intervals.¹⁹ The positive socialization effect of communist elections seems to have strengthened gradually and then stabilized at the level of the 1930 birth-year cohort. The 1930 birth-year cohort would have first been eligible to vote the 1950 Supreme Soviet election. Then from about the 1945 cohort (first eligible to vote in the 1966 election) we see a gradual decline. Overall these results confirm the findings obtained using the HAPC models. As robustness checks, we try other specifications of the HAPC model including HAPC-CCRM, and also we check whether the estimates depend on whether we analyse turnout in Presidential or Duma elections. The results hold throughout (See Appendices 2 and 3).

In conclusion, the evidence suggests the presence of inter-cohort differences in turnout in post-Soviet Russia.

6. Underlying mechanisms

We now turn to considering the possible mechanisms that may underlie the observed generational differences in turnout. To do so, we draw on an in-depth review of qualitative and quantitative sources that include but are not limited to newspaper archives (e.g. *Pravda* newspaper publications), secondary literature, and survey evidence that provide information on election characteristics across the Soviet and post-Soviet periods. Drawing on evidence from the Varieties of Democracy project, we also consider variation in electoral characteristics such as the extent to which electoral choice was available and the extent of electoral competitiveness. For some of the measures (e.g. agitation/ get-out-the-vote (GOTV) campaigning and sanctions for non-voting), we draw on a massive archive of semi-structured interviews with hundreds of war-time refugees from the Soviet Union

¹⁵ For clarification, “random” simply means that the estimated intercepts are assumed to be randomly distributed. The random effects are predicted using empirical Bayes estimation (Skrondal and Rabe-Hesketh, 2009; Hesketh and Skrondal, 2021) The posterior distribution of the random intercepts is estimated based on the prior distribution for the random effects, which incorporates the estimated variance from the logistic model, as well as the likelihood that considers the observed data and estimated parameters.

¹⁶ See Appendix A.2 for replication with random period effects. The patterns in cohort variation remain the same.

¹⁷ The designation of this group cohorts is rough definition as preceding and subsequent cohorts will overlap in terms of their experiences during their impressionable years.

¹⁸ For the parametric estimates see Table A.9.

¹⁹ Prior to the 1936 constitutional reforms, elections were indirect held through a delegate system (Fainsod 1965).

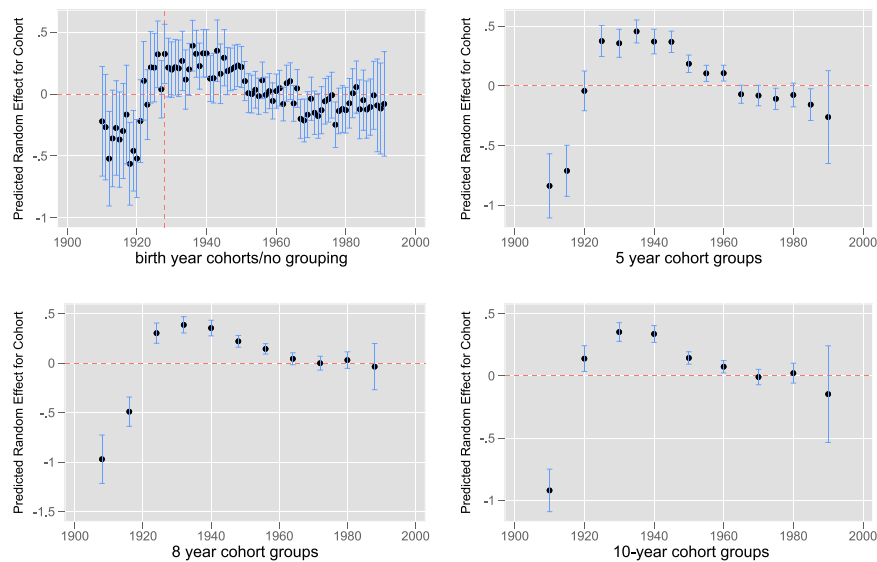


Fig. 3. Electoral cohort random effects for turnout in Duma and Presidential Elections from 1991–2018 using different size cohort groupings.

Note: Empirical Bayes modal predictions of cohort random effects using model parameters from hierarchical logit model with period (election year) fixed effects. Cohort random effects expressed as log-odds. 95% confidence intervals based on standard errors/deviations with posterior at mode. Birth-years cohorts start from 1910. Individual level controls: age, age squared, gender and education. Sample restricted to people age 28 plus. Controls included for survey effects. Vertical dotted line in top left panel marks the 1928 birth-year cohort.



Fig. 4. Smoothed birth-year cohort effects (Turnout in Presidential and Duma elections between 1991 and 2018).

Note: Smoothed cohort effects estimated using semi-parametric logit generalized additive model. Expressed on the log-odds scale. With election sequence fixed effects. Birth years cohorts start from 1910. Individual level controls: gender and education. Sample restricted to people age 28 plus. Controls included for survey effects.

conducted by researchers at Harvard University in the late 1940s–early 1950s. The Harvard Project on the Soviet Social System, which asked respondents about their experiences of living under the early years of the USSR, provides insights that enable us to corroborate information about electoral mobilization campaigns in the USSR and the sanctions facing individuals for non-participating in elections.²⁰

We focus on two sets of factors in particular; contextual and environmental cues that were sustained over time and which affected a large proportion of the population. Through a careful review of all available evidence, we propose that the opportunity to vote in regular

national election and communist electoral mobilization may explain variation in cohorts' voting propensity.²¹

6.1. Opportunity: Regular elections

Russian voters who came of age before 1946 experienced no or very few direct national elections. What is more, electoral races lacked regularity during this period. Direct regular national elections were only introduced from 1946 after the end of the WW2. Stalin's 1936 Constitution came in to force allowing for one direct election in 1937, however during the war, elections were suspended. Before this change, elections were officially held but through an indirect system of delegation through Soviets (Zhuravlev and Fortunatov, 2022b). Nominally all Soviet citizens over the age of 18 had the right to vote although with various exceptions but in practice less than 30% participated in the process of meetings for choosing delegates for candidates (Zhuravlev and Fortunatov, 2022b).

Figs. 3 to 4 suggest that cohorts that experienced all or most of their impressionable years before the 1946 Supreme Soviet election, that is those born before 1928, seem much less likely to vote. Those born in 1925 reached voting age in 1944, two years before the 1946 Supreme Soviet election. In short, cohorts born before 1928 did not have the opportunity to vote in direct regular national elections throughout their entire impressionable years. In so far as having the opportunity to vote early in life matters, these cohorts would be less likely to form 'habit' of voting.

6.2. Factors encouraging the young to vote

We consider three broad groups of factors motivating turnout: institutional (relating to electoral competition), regime-driven efforts (vote-buying, coercion, electoral mobilization), and factors linked to broader social mobilization surrounding elections.

6.2.1. Electoral competition

A key factor that could have encouraged newly eligible voters to take up the opportunity to vote, even in an authoritarian context, is

²⁰ All sources used and which election period they correspond to are detailed in Appendix 5.

²¹ Additional information on each factor is discussed in the Appendix 5.

the meaningfulness of elections as related to electoral competition. Research on authoritarian elections in China for example, shows that increased competition, such as a higher number of candidates selected through tightly controlled process, could increase participation in elections (Landry et al., 2010).

As shown in Fig. 1 in the Soviet and Russian context, electoral competition peaked under Yeltsin. Until 1989, only one pre-designated candidate would compete per seat. Under Putin, the level of multiparty competition declined, as the party ‘cartel’ consolidated (White, 2012). Changes in the number of ballot choices would be apparent to the vast majority of voters – even to those unable to otherwise determine the true levels of electoral competition. If the meaningfulness of elections understood as levels of manifest competition (e.g. number of candidates or parties on ballot) is important, we would expect Yeltsin-era cohorts to have the higher propensity to vote relative to both the later Putin-era cohorts and earlier Soviet cohorts. However, the estimated generational differences do not reflect this pattern.

The literature on turnout in post-communist elections suggests that ‘founding elections euphoria’ around the first few democratizing elections might have boosted turnout (e.g. Kostadinova and Power, 2007). According to Kostelka (2017), the strongest boost in turnout occurred in places where the opposition replaced the incumbent regime. In the case of the elite-driven top-down transition like that of Russia, a founding elections boost is unlikely. Looking at the estimated generation differences we do not see any boost among the cohorts that become eligible to vote in the early 1990s (the first cohort to become eligible to vote in the 1991 presidential election would be the 1975 birth-year cohort).

6.2.2. Vote-buying

Another factor that could boost take up of electoral opportunities is vote-buying. Accounts of Soviet elections do not appear to mention vote-buying in narrow sense where some goods are exchanged for individual votes (Stokes, 2007), unless one considers buffets selling food during food shortages (Yekelchik, 2014; Zhuravlev and Fortunatov, 2022a) as qualifying. Archival documents suggest that in the post-war elections voters would engage only in anonymous indirect bargaining by writing requests for solutions for local problems on ballots, however by the Khrushchev era, voters started engaging in bargaining in person with agitators.²²

Some limited evidence of the use of vote-buying has been noted in post-Soviet Russia: when asked about the 2000 Presidential election, for example, 1% of respondents reported first hand-knowledge of electoral irregularities and 5% of them had heard stories about irregularities from friends and family (Rose and Munro, 2002, 131,178). Reuter (2021) overall concludes that in Putin’s Russia only a fraction of voters reported receiving a vote-buying offer (e.g. 3.9% in 2016). The accounts of limited vote-buying accord with the view that vote-buying is primarily used to catch ‘marginal’ votes (Stokes, 2007). Based on these accounts we would expect direct vote-buying offers to have a limited impact on generational socialization.

6.2.3. Electoral mobilization

Electoral mobilization, broadly understood as concerted efforts on the part of a regime, political parties, or other political actors to drive voters to the polls in order to boost turnout, can consist of several tactics used in concert which fall into two broad categories: negative and positive inducements. Negative inducements may include violence against voters or threats of sanctions. In addition to vote buying, positive inducements may include leafleting, door-to-door canvassing, social events and phone-calls (Green and Gerber, 2019). Unlike legislated compulsory voting that mainly operates through a threat of sanctions (Birch, 2016), GOTV campaigns are about motivating voters to go to the polls. Green and Gerber (2019, p.34) for example, find

that the most effective GOTV tactic is an in-person request that people attend the polls, which treats the contact with a voter like a ‘invitation to a social event’ and appeals to civic duty. Green and Gerber (2019) note the key obstacle to using face-to-face appeals is bringing a ‘door-to-door campaign to scale.’ It is precisely in overcoming the scaling obstacle that autocracies like the Soviet Union could excel.

Soviet GOTV-style tactics peaked in intensity during the Stalinist and Khrushchev periods and then very gradually declined.²³ Unpaid volunteer agitators helped the Soviet authorities overcome the problem of ‘scaling-up’ faced by political actors in democratic settings. Each agitator would be responsible for about 20 voters contacted at workplaces, schools, and places of residence. On election day, voters were expected to vote as early as possible as agitators were not allowed to go home until all the voters on their list had cast a ballot. As the day progressed voters would receive multiple visits until they voted. Ballot boxes would be brought to ill voters or voters who refused to go to polling stations. This system was in place until about the 1974 Supreme Soviet election under Brezhnev. After the 1974 election, sources such as surveys interviews of emigres²⁴ suggest only a small minority of voters that did not vote reported any action being taken against them – the 3%²⁵ that did report action being taken said that either their boss or electoral official ‘checked up on them.’ Indeed, according to Priestland (2002, p.123) while the Soviet regime under Brezhnev continued to emphasize the importance of citizen participation in local party meetings and elections, “this was very different from the mobilization of the earlier period”. What is more, according to estimates, the rate of non-participation in Soviet elections after 1974 was considerably greater than in preceding elections. Electoral avoidance also increased from 1.31 in 1962 to 4.16 in 1984 (Roeder, 1989, p. 472–5).

Accounts of the 1989 Supreme Soviet election mention intense media coverage of the electoral campaigns but make no mention of agitation efforts (Kotkin, 1991). GOTV-style campaigns under Yeltsin were limited and moderately resurged under Putin (Treisman, 1996, 1998). A competitive political environment during the 1990s, however, would have meant these efforts were tied to boosting turnout for a specific candidate or party rather than for the regime. After 1999, at most 5%–12% of survey respondents report any telephone or face-to-face contact from political campaign workers.²⁶

The ‘positive’ inducement effects of GOTV-style personal contacting can be reinforced through threats of sanctions. Under Stalin and Khrushchev, fears of sanctions for non-voting were prevalent. Emigres interviewed in the 1950s as part of the Harvard Refugee Project, expressed fears of imprisonment for not casting a ballot or even spoiling a ballot. Voters under Khrushchev feared a ‘black mark’ for not voting (Mote, 1965). From the Brezhnev period onwards, threats of sanctions subsided. In the Yeltsin period there is no evidence of voters being sanctioned for non-voting. Under Putin, voter coercion and intimidation appear more prevalent in monotowns where employers have a lot of leverage over voters (Frye et al., 2019a). Yet, survey reports of voter intimidation through explicit threats remain low. For example, 2.6% of Russians reported being threatened by someone with ‘negative consequences’ for failure to vote in 2016 (Reuter, 2021). In the early 2010s, up to 7% of survey respondents reported being given the impression that there might negative consequences for not voting (Frye et al., 2019a, 4). The 2016 Russian Election Study estimates that 10%–20% of voters were asked by employers to vote (Reuter, 2021).

The effectiveness of electoral mobilization tactics may also depend on whether voters had a way of avoiding voting in person. In the Stalinist period voters were expected to vote in person. Under Khrushchev

²³ See Appendix Table A.11 and Section B.1 for further details.

²⁴ Most of the evidence used by Western historic sources on this subject is from Soviet Interview Project (SIP) (Millar et al., 1992) relying on a sample of Soviet emigres who left the USSR between 1972–1985.

²⁵ SIP General Codebook, p. 266, (Millar et al., 1992)

²⁶ Russian Election Studies 1999–2016. For details see Appendix Section B.1.

²² See Appendix Section B.4.

Table 1
Electoral generations in Russia.

Cohort		Birth years	Age 18	1st regular election
1	Pre-1946	Before 1928	By 1946	–
2	Stalinist	1928 up to 1935	By 1953	1946, 1950
2	Post-totalitarian/reformist	1936 up to 1944	By 1962	1954, 1958, 1962
2	Post-Stalinist hardline	1945 up to 1952	By 1970	1966, 1970
3	Post-totalitarian/reformist	1953 up to 1970	By 1988	1974, 1973, 1984, 1989
4	Democratizing	1971 up to 1981	By 1999	1991–1999
5	Consolidated electoral authoritarian	1982 to present	–	2000 on wards

obtaining a certificate of absence was allowed only in limited instances with permission from employers or places of study (Zaslavsky and Brym, 1978). Thus the path of least resistance for voters was to cast a ballot. From Brezhnev onwards, voting requests for absentee ballots and illegal proxy voting became increasingly common (Roeder, 1989). Various estimates for elections from 1974 onwards suggest that 30%–40% of voters avoided voting in person by requesting absentee ballots and then not using them. Illegal proxy voting where a family member, neighbour, university hall of residence director would collect passports and vote on the behalf of others was also prevalent from Brezhnev onwards (Friedgut, 1979; Karklins, 1986). Official reports of this practice are limited, as even discussing proxy voting was prohibited (Karklins, 1986; Taagepera, 1984). Most sources documenting proxy voting rely on emigre interviews, yet anecdotal evidence in post-1989 media coverage suggest the practice may have been prevalent.²⁷ In the Yeltsin and Putin periods, voting was officially voluntary.

Altogether, communist electoral mobilization coupled with opportunities to avoid voting may explain variation in different cohorts' voting propensity. The peak in the propensity to vote among cohorts that reached voting age between 1946 and 1966, followed by a decline that accelerates from cohorts that first voted in 1970, coincide with intensified electoral mobilization efforts under Stalin and Khrushchev. From the late Brezhnev period onwards, the effects of electoral mobilization were undermined by the use of illegal proxy voting and absentee ballots. From the 1966–1970 Supreme Soviet elections onwards, an increasing proportion of newly eligible voters could escape ever having to enter a voting booth.²⁸ Although we see some evidence of a resurgence in electoral mobilization under Putin these efforts have not reached a scale comparable to the voter mobilization efforts of the Stalinist and Khrushchev periods.

To bring together the insights from the previous discussion, we propose theoretically driven cohort groupings shown in Table 1. Looking at the estimated cohort random effects and predicted probabilities of voting by cohort in Fig. 5, we can see that overall, having the opportunity to vote is crucial: the cohorts that came of age before regular direct national elections were introduced are less likely to vote than all subsequent cohorts.²⁹ These cohorts have a 74% predicted probability of voting well below the overall average of 77%. Voters who became eligible in the elections between 1946 and 1966 in what Pop-Eleches et al. (2017) call 'Stalinist', 'Reformist', and 'post-totalitarian phases' are the most likely to vote later in life with an 84% predicted probability of voting. In contrast, cohorts which became eligible to vote during the Brezhnev post-totalitarian and reformist phases or later on under Gorbachev and after the Soviet collapse, all have similar propensities to vote later in life despite experiencing different levels of electoral competition – just above or below the overall average of 77%. Even more tellingly, the contrast between the second and third cohort groupings suggests, that despite both cohorts experiencing elections 'without choice' in their impressionable years, the second cohort that

experienced the full force of communist electoral mobilization and had few means of escaping the polling booth is far more likely to vote later in life.³⁰

7. Conclusion

We began by asking whether generations of post-Soviet Russian voters vary in their propensity to vote. To address this question, we used age–period–cohort models to analyse harmonized survey data covering all national elections between 1991 and 2018. In contrast to expectations generated by institutional perspectives that suggest generational differences might disappear as voters re-learn and re-socialize in times of dramatic political transformations, findings suggest that Russian voters indeed differ in their propensities to vote. Russian citizens who experienced their formative years in the period starting from first regular direct election to the Supreme Soviet in 1946 and ending with the 1966 election under Brezhnev are on average more likely to vote in post-1989 elections than all the cohorts that began voting after the collapse of communism as well as the cohort that came of age before the 1946 election. In line with existing research on communist legacies (Pop-Eleches et al., 2017), our findings imply that the later Soviet period called the 'post-totalitarian and 'reformist' had less of a mobilizing effect on citizens.

Our findings contribute to several fields of study: research on the long-term consequences of Soviet elections; political sociology literature on the formation of voter habits; and comparative politics scholarship on authoritarian elections. Echoing earlier research on the generational differences in voting in post-communist countries (Linek and Petrúšek, 2016), our study demonstrates generational variation in turnout in post-Soviet Russia.

Our findings also have implications for our understanding of 'habitual voting.' Evidence implies that the actual act of voting may play an integral part for developing a habit of voting, even when elections remain unfree and unfair. Indeed, the Soviet elections were truly "elections without choice": only the CPSU was allowed to compete and only one candidate was nominated for each seat throughout the entire Soviet period until the 1989 elections under Gorbachev. In short, the character of authoritarian not just democratic elections may leave an 'imprint' on the behaviour of future generations of voters.

Finally, for studies of authoritarian elections and politics, our work suggests that 'habit' may compel voters to participate in non-competitive elections and drive generational differences in turnout. Findings imply that authoritarian regimes successful at generating 'habitual' voters may need to invest fewer resources trying to get people at the polls. Groups that have already developed the 'habit' to vote, such as the older generations in Russia, reduce the regime's costs of mobilizing voters and in doing so bolster regime stability. Generational replacement could render this task all the more challenging.

We conclude by encouraging future research to look more closely at the socializing effects of the diverse characteristics of authoritarian

²⁷ See Appendix B.3 for details.

²⁸ See Appendix B for further details.

²⁹ In Appendix Figure A.14 we show predicted turnout by education level to provide a benchmark for comparison. Moving up a level in education (primary, secondary, tertiary) increases the probability of voting by about 4%–5%.

³⁰ See Appendix Table A.11 for a more detailed summary of how the combinations/levels of the underlying mechanisms reviewed in the previous section correspond to each of the cohort categorizations proposed here and in Table 1.

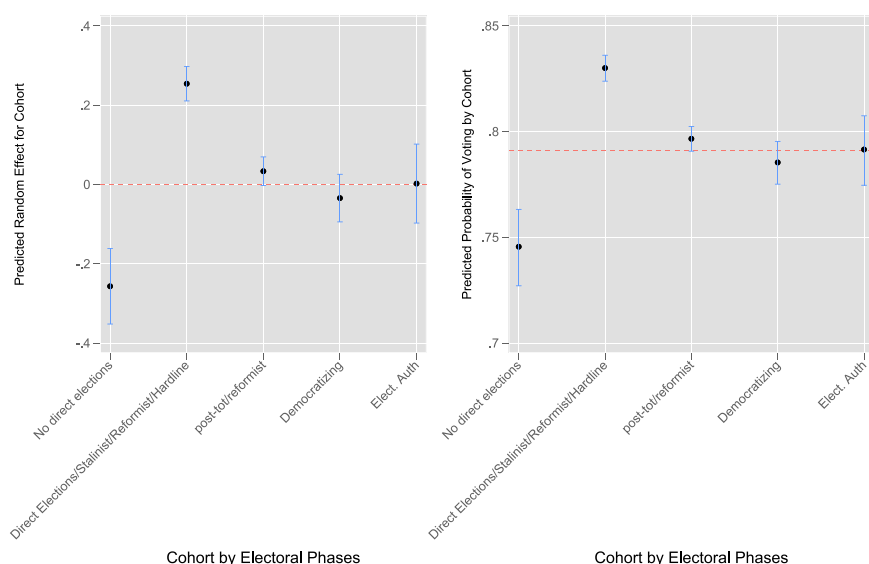


Fig. 5. Estimates of 'Theory-driven' cohort random effects.

Note: The left panel shows Empirical Bayes Modal predictions of cohort random effects on the log-odds scale following a hierarchical logit model with period/election fixed effects. The right panel shows the predicted probabilities of voting by cohort calculated based on the EBM predictions shown left panel. The outcome is self-reported turnout in both Presidential and Duma elections. The dotted line in the right panel is the predicted probability of voting holding all variables at the mean. Birth years cohorts start from 1910. Individual level controls: age, age squared, gender and education. Sample restricted to people age 28 plus. Controls included for survey effects.

elections. As elections are key moment at which ordinary citizens come into contact with regimes, exploring how authoritarian regimes use them to deliberately 'school' voters as citizens (Carson, 1956, 12) constitutes a very fruitful avenue for future work.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Northmore-Ball, Ksenia; Tertytchnaya, Katerina (2023), "Replication data. Northmore-Ball, Ksenia and Katerina Tertytchnaya (2023) "The long-term effects of voting for autocracy: Evidence from Russia" Electoral Studies.", Mendeley Data, V1, doi: [10.17632/fv7wf7gjp.1](https://doi.org/10.17632/fv7wf7gjp.1).

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Appendix A. Supplementary data

Supplementary material related to this article can be found online at <https://doi.org/10.1016/j.electstud.2023.102618>.

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