

Electoral closeness and voter turnout in presidential elections¹

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Abstract

The closeness of electoral races has long been argued to increase voter turnout. Several studies have confirmed this proposition by using double-ballot contests as a measure of “actual” closeness between candidates or parties; yet, research has so far been limited to legislative elections and single country-studies. In this paper, we present the first cross-national study on the effects of electoral closeness on voter turnout in popular presidential elections. Given their importance and homogeneity in electoral systems used, they provide a fertile testing ground for the closeness hypothesis. We develop a modified model of voter turnout, highlighting the role of media attention in amplifying the effects of closeness, and the effects of variations in presidential power and the presence of viable third candidates. We test our propositions on an original data set of all popular presidential elections in 16 European democracies, 1965-2020. Overall, we find that the first-round margin of closeness between leading candidates is associated with a significant increase in turnout; however, incumbents as frontrunners, presidential powers, and non-concurrent legislative elections prove equally important predictors. We furthermore compare our findings with estimations based on pre-electoral polls. Our results offer new perspectives on voter turnout in semi-presidential democracies and contribute to scholarship on the political and institutional determinants of electoral behaviour.

Keywords: calculus of voting; closeness; Europe; presidential elections; turnout

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Introduction

The closeness of electoral contests has long been argued to be one of the key drivers of turnout in contemporary democracies. Based on rational choice theory and the calculus of voting (Riker and Ordeshook 1968), scholars contend that voters should more likely cast their ballots when they believe their vote to be decisive for the outcome of the election. While empirical support for the closeness hypothesis has overall been mixed (see Geys 2006; Smets and van Ham 2013; Cancela and Geys 2016), studies focussing on double-ballot majority elections (Fauvelle-Aymar and François 2006; Indridason 2008; Simonovits 2012; de Paola and Scoppa 2014) have generally found a significant effect of closeness. Run-off elections in double-ballot systems arguably provide the most suitable testing ground as the results of the first round serve as a realistic approximation of voter perceptions and measure of ‘actual closeness’ between candidates (Fauvelle-Aymar and François 2006, 474). In contrast, ex-post measures – such as the difference between first and second-placed party – are plagued by problems of validity (Cox 1988).

Presidential run-off elections offer a number of practical and methodological advantages over legislative elections in the study of closeness and turnout – surprisingly, scholars have hitherto failed to exploit this fact. Most prominently, popular presidential elections are always ‘the only (or at least the most important) game in town’. In contrast to other types of elections, they are not overshadowed by potentially counter-indicative dynamics at the national level (cf. Morgenstern and Swindle 2005), and tend to dominate public attention even where office-holders are not the sole chief executive (Elgie and Fauvelle-Aymar 2012). Furthermore, the vast majority of popular presidential elections around the world are now held using some form of majority run-

off system (Borman and Golder 2013). Hence, elections in different countries can more easily be compared and integrated into cross-sectional designs – much in contrast to studies of turnout in legislative constituency run-offs – while increasing variation in the importance of the elected office and other variables of interest. Although scholars of turnout in presidential elections have capitalised on the latter, they generally focussed only on turnout in the first round of presidential elections (Fornos, Power and Garand 2004; Stockemer 2013; Carreras 2018) or failed to analyse *differences* in turnout between both rounds (Magalhães and Fortes 2008; Dettrey and Schwindt-Bayer 2009). Hence, an definitive answer to the question of whether the closeness hypothesis holds under the uniquely suitable conditions offered by these contests presidential run-offs is still missing.

This paper presents the first cross-national study about the effects of electoral closeness on voter turnout in presidential run-off elections. We argue that presidential elections offer a uniquely rich information environment for voters. In this context, the ‘direct’ effect of closeness, i.e. an increase in one’s perceived likelihood of becoming the pivotal voter, is amplified through a number of ‘indirect’ effects such as intensified campaigning that increase turnout through several mutually reinforcing mechanisms. These increase voter engagement with the election, candidates and issues, while concurrently lowering information costs. Using an original data set of 92 presidential elections in 16 European democracies, 1965-2020, we test our propositions and find that closeness in the first round is significantly associated with increased turnout in the run-off. Thereby, closeness plays an even greater role than has previously been found for double-ballot legislative elections. Presenting the first comparison of the effect of ‘actual closeness’ with opinion polls conducted in the run-up to the second round, we

also find that voters' decision to participate in the run-off is just as much influenced by actual results as by publicised survey data. Further qualitative analysis of significant outliers suggests that ideological polarisation between frontrunners as well as strategic endorsements by remaining candidates can considerably affect second-round turnout. Overall, these findings contribute to a growing number of cross-country comparative studies on the relationship between competitiveness and voter turnout, and provides multiple avenues for future research.

Closeness and turnout in run-off elections

Given its theoretical relevance for the calculus of voting (Riker and Ordeshook 1968), electoral closeness is one of the most-researched macro-level determinants of voter turnout.² Yet, it also remains one of the most controversial predictors as a growing number of meta-analyses report ambiguous empirical findings and – at best – a moderate effect (e.g. Geys 2006; Smets and van Ham 2013; Cancela and Geys 2016). One of the largest methodological problems highlighted in this regard is the convention of measuring closeness based on the actual election results. Such ex-post measurements introduce an endogeneity problem as the margin of victory is naturally also influenced by the turnout (for a comprehensive discussion see Cox 1988). While some studies have sought to address this issue by including the results of primary elections into their analyses (Hanks and Grofman 1998), scholars have only relatively recently turned to analysing the impact of closeness on turnout in two-round electoral systems as a

² Considering the wealth of research on the topic, it would be beyond the scope of this paper to provide a comprehensive overview (for this, see e.g. Blais 2006; Geys 2006; Smets and van Ham 2013; Cancela and Geys 2016). Instead, we focus our attention on the emerging literature on closeness and turnout in two-round elections.

solution. In two-round electoral systems, the endogeneity problem is avoided as the measurement of the first-round margin is unrelated to the second-round turnout. Furthermore, first-round results provide both voters and elites with important information about the probable distribution of voter preferences, enabling them to consider closeness accurately in the first place. Information on such ‘actual’ (Fauvelle-Aymar and François 2006, 474) or ‘revealed’ closeness (Arnold 2018, 625) is missing from other electoral systems, making double-ballot elections methodologically more suitable for testing the closeness hypothesis. In fact, closeness can also reasonably be assumed to be more important in run-offs than in first- or single-round contests.³

Tests of the closeness hypotheses using double-ballot elections have so far largely focussed on legislative and local elections. Fauvelle-Aymar and François (2006) and Indridason (2008) use the French double-ballot system as a ‘a natural experiment to study the effects of competitiveness on voter turnout’ (Indridason 2008, 699). Both develop their theoretical models based on Riker and Ordeshook (1968) and test it on data from the 1997 (Fauvelle-Aymar and François 2006) or the 1997 and 2002 elections (Indridason 2008), respectively. Focussing on the absolute turnout in the second round, Fauvelle-Aymar and François (2006) find an increase of 1.4 percentage points when the vote margin between the top two candidates decreases by 10 percentage points. Indridason (2008) estimates a non-linear closeness-effect using the difference between voter turnout in the first and second round as his dependent variable. Hereby, an increase in the margin from 0 to 10 percentage points decreases the voter turnout difference by 0.8 percentage points; the impact of closeness is however more

³ This notion is supported by Eichhorn und Linhart (2020) who show – albeit using ex-post measurements – that voters are mobilised by small margins of victory in plurality and majority electoral systems, while there is no association in mixed and proportional systems.

pronounced in less competitive districts. Simonovits' (2012) study of the 2002 and 2006 parliamentary elections in Hungary finds an even stronger effect, indicating a 2.0 percentage point decrease in turnout when the frontrunner margin widens by 10 points.

The above studies lend strong support to the closeness hypothesis and its specific applicability to run-off elections. Unfortunately, their empirical results are not directly applicable to presidential run-offs. In France, all candidates with a minimum vote share of 12.5% advance to the second round, so that the margin between frontrunner and runner-up is a less suitable indicator of competitiveness where there are more than two candidates. Although seats are distributed at district-level, Indridason (2008, 705) shows that turnout is also shaped by the closeness of the national race. This not only dilutes the effect of local electoral competitiveness, but also generally complicates an accurate assessment of the impact of closeness on turnout. Simonovits' (2012) circumvents the French problem of multiparty competition as only the two frontrunners advance to the run-off. Unfortunately, the complexity of Hungary's mixed electoral system is even more likely to distort the potential effects of competitiveness as votes for unsuccessful candidates are still relevant for compensational seats on a higher tier.

More recent studies of electoral turnout in two-round mayoral elections in Germany (Garmann 2014; Arnold 2018) and Italy (de Paolo and Scoppa 2014) provide a closer approximation of direct presidential elections. Using time-series data spanning several decades, all three studies find a significant effect of first-round closeness for second-round turnout. Notably, the effect is stable across countries, time, turnout levels, sets of covariates, and different variable operationalisations. Most interestingly, demonstrates that the impact of closeness is independent from municipal size (Arnold 2018, 640), suggesting that voters' perceptions of being pivotal are more important than the actual

(mathematical) probability. We should generally expect to see similar effects in presidential run-off elections. Nevertheless, the aforementioned studies likewise come with important caveats. For instance, in Bavaria (Germany), as little as 10% of mayoral elections are decided in a run-off, with winning candidates – especially incumbents – usually receiving with absolute majority of votes right away (Arnold 2018). In Italy, second round votes also determine the distribution of seats in municipal councils, hence providing additional incentives for participation for voters even when the frontrunner already boasts a decisive lead. Overall, this only serves to highlight the unique suitability of presidential run-off elections in analysing the effect of closeness on turnout.

Surprisingly, studies of turnout in presidential elections have not yet capitalised on the opportunity to measure electoral closeness by the frontrunner margin of the first round. Instead, scholars have focussed on turnout in the first round only (Fornos, Power and Garand 2004; Stockemer 2013; Carreras 2018) or considered first and second rounds together (Magalhães and Fortes 2008; Dettrey and Schwindt-Bayer 2009), relying on ex-post measures of closeness and competitiveness in their analyses. This is a striking omission for several reasons. Not only is the vast majority of popular presidential elections held using two-ballot run-off systems (Bormann and Golder 2013: 367), but roughly three quarters of races are only decided in the run-off (see below). Whereas the scarce use of run-off elections in other contexts has resulted in a prevalence of single-country studies, presidential elections offer an opportunity for a broader cross-country comparison. Thereby, the fact that only two candidates advance to the run-off should also favour a stronger effect than in second rounds with multiple candidates. Finally, presidential elections are also seen by the public and political actors as first-order

elections – especially, but not only, when presidents are more powerful (Tavits 2009; Elgie and Fauvelle-Aymar 2012). This means that they are free from the interrelationship between local races and national trends that characterise legislative and mayoral elections, and which has made it difficult to estimate the exact effect of closeness on turnout. In the next section, we formulate a simple theoretical model of closeness and voter turnout in presidential run-off elections that builds on these factors and proposes a number of interrelated causal mechanisms.

A model of electoral closeness and voter turnout in presidential run-off elections

Our aim in this section is to construct a parsimonious theoretical model of voter turnout that considers the specific context of presidential run-off elections. In line with previous scholarship, our general expectations are based on the calculus of voting (Riker and Ordeshook 1968) so that we concentrate our considerations largely on the vote margin. Following Indridason (2008), our arguments focus specifically on *differences in turnout* between the first and the second round of voting, rather than absolute levels in the second round. This implies that our model does not include general determinants of voter turnout (e.g. socio-economic and institutional factors) that affect the first and second round equally.

Closeness exerts both direct and indirect effects on voter turnout (Fauvelle-Aymar and François 2006, 469). A direct effect exists where voters believe that their vote will be decisive in determining the outcome of the election because of the close (expected) vote margin between the leading candidates. Hence, close vote margins should be associated

with higher turnout, while large margins should have the opposite effect. However, as the actual likelihood of affecting the outcome is infinitesimally small, theoretical models relying only on the direct effect of closeness have repeatedly been criticised (see e.g. Mulligan and Hunter 2003; Simonovits 2012). Even if we account for the fact that voters tend to overestimate their influence (Blais 2000, 81), the direct effect of closeness is unlikely to be the only driving force behind increased turnout. Rather, it is inextricably linked to a set of indirect effects that – through several concurrent and mutually reinforcing mechanisms – drive turnout and that play out particularly strongly in presidential elections.

Presidential elections tend to be the centre of media reporting for months before they take place and present a unique information environment for voters. There is only ever a handful of viable presidential candidates whose positions and profiles receive extensive media attention, meaning voters are generally more likely to be informed about their choices.⁴ Run-off elections narrow available options even further and reduce the information costs required for making an informed decision (cf. Fauvelle-Aymar and François 2006, 471). Voters that were unsure about the viability of candidates among a fragmented candidate field are now faced with the simple option of voting for either one of two candidates; at the same time, the run-off should increase the subjective perception of one's vote being important. Competition and conflict also present pertinent 'news factors' that the media use to direct their reporting (Shoemaker and Reese 2014). As candidates generally receive media attention relative to their prospective vote share (Hoppman, de Vreese and Albæk 2011), voters are more likely to

⁴ In contrast, voters in parliamentary elections are likely aware of the competing parties and their national leadership, but do not possess the same information about candidates and their respective chances at the level of single member districts.

identify close races and participate accordingly. Candidates and their campaigns will likewise be motivated by closer margins and invest greater resources to mobilise their supporters (Cox and Munger 1989; Erikson and Palfrey 2000). At the same time, voters should be more receptive to mobilisation efforts when there is a credible chance that their preferred candidate could win or lose the election, respectively. Overall, these compounding factors also increase voters' cognitive engagement with the election, who are generally more likely to seek out additional information about the candidates and issues at stake when reminded that the race is close (Kam and Utych 2011). This is important because better informed voters are more likely to cast their vote (Lassen 2005). Hence, our first hypothesis reads:

H1: The closer the vote margin between frontrunner and runner-up in the first round, the higher the turnout in the run-off compared to the first round.

Naturally, closeness in run-off election may not only be inferred from the frontrunner margin. Opinion polls have become almost ubiquitous of media reporting on presidential election campaigns and can further increase voter engagement when they indicate a close race. By pointing out that “every vote counts”, media outlets may even be able to mobilise those voters that would have otherwise abstained.⁵ Nevertheless, polls may also yield contradictory results or suggest larger margins, especially when electoral preferences are more volatile, and lead media reporting, campaigning and voter decision-making down the wrong path. Notably, opinion polls are not always conducted for presidential run-offs and even where they are, information about results

⁵ See for example reporting on the run-off in the Polish presidential election 2020, where polls indicated a virtually tied race (Bieńczyk 2020; Rogojasz 2020). Eventually, turnout increased by almost 4 percentage points and the frontrunner, incumbent Andrzej Duda, only won by a 2% margin (compared to 13% in the first round).

of the first round may still be judged as more reliable and remain more widely available than polls (cf. Fauvelle-Aymar and François 2006, 473). Therefore, the strong association between opinion polls and voter expectations about election outcomes that is well-documented for national-level elections (e.g. Levine 2007) may not necessarily translate to two-round systems. Hence, H1 should generally apply *mutatis mutandis* to closeness as measured through pre-electoral opinion polls. Given the lack of scholarship on the subject, we nevertheless remain agnostic as to whether these provide a better estimate than the first round vote margin.

The closeness between the frontrunner and the runner-up is not the only vote margin that decides about turnout in the run-off. Before the second round, the two remaining candidates vie for the support of those voters who previously cast their ballot for other candidates as well as those who did not vote in the first round. Following from the logic of H1 above, we should expect two equally strong candidates to attract even some of those voters that previously abstained. However, the existence of a viable third candidate in the first round, who only narrowly missed the run-off, severely restricts the remaining candidates' ability to mobilise first-round voters beyond their immediate support base. Supporters of such a narrowly defeated candidate, whose legitimate hope of reaching the second round has not been fulfilled, may be difficult to motivate (Garmann 2014: 264). While a large share of votes received by non-viable first round candidates will likely increase uncertainty over the outcome of the run-off, this is unlikely to be sufficient to mitigate the effects of a strong third contender.

Consequently, our second hypothesis states:

H2: The closer the vote margin between runner-up and third-placed candidate in the first round, the lower the turnout in the run-off compared to the first round.

The participation of the incumbent has been shown to influence strategic candidate entry in presidential elections as opposition parties are more likely to coordinate a joint campaign to defeat this ‘automatic frontrunner’ (Cox 1997; Jones 1999; 2004). While incumbent presence may thus already have an indirect effect on first-round turnout by reducing the candidate offering or (falsely) suggesting to voters that the race is already decided, it exerts a different effect in the second round. Incumbent presidents are usually re-elected; however, the majority still has to enter a run-off to do so (Köker 2020). While the chance that an incumbent may be unseated also presents a news value and facilitates voter decision-making, it is likely not sufficient to set in motion all the mechanisms outlined above. Rather, it should primarily be incumbents as frontrunners that lead to an increase in second-round turnout compared to the first round. Just as in the first round, unseating the incumbent serves as a focal point for the opposition and increases cross-party coordination, resulting in greater investment in voter mobilisation on both sides. Given that incumbents have an established track record, voters are also less likely to be indifferent towards them (Jones 2004, 81) and receptive to such efforts. Incumbents that only place second in the first round signal to voters and elites alike that they no longer have a majority behind them. Hence, their mobilising power is also likely to be limited. Furthermore, whereas parties whose candidates failed to enter the run-off would benefit from a concerted opposition effort to unseat an incumbent (Jones 1999, 176), they will be significantly less inclined to help a competitor to cross the finish line. In sum, while incumbent presence in the run-off – even as the runner-up –

should have an effect on media attention and voter engagement, its net-effect on turnout should overall be comparable to the ‘novelty factor’ of competition between two newcomers. Hence, we should only expect an increase in turnout when the frontrunner is the incumbent. From this follows:

H3: An incumbent as frontrunner increases voter turnout in the run-off compared to the first round.

Direct presidential elections are generally first-order elections and have been linked to lower turnout in legislative contests (Tavits 2009; Elgie and Fauvelle-Aymar 2012). Nevertheless, the latter has been shown to be conditional on the degree of power vested in the presidential office (Elgie and Fauvelle-Aymar 2012; see also Magalhães and Fortes 2008). Presidents’ constitutional power should also influence turnout in presidential elections – given a greater ‘size of the prize’ elites should invest greater resources in voter mobilisation, while citizens are more likely to participate in an election when the electoral outcomes have greater discernible policy implications (Carreras 2018, 547; see also Dettrey and Schwindt-Bayer 2009, 1324). While these studies have produced mixed empirical results, they failed to separate first and second-round turnout in their statistical models.⁶ It is in fact likely that presidential power exerts distinct effects on turnout in first and second-round elections. A greater ‘size of the prize’ makes the presidency a more attractive target. Especially in majority run-off elections, where the first round effectively produces two winners and failed candidates can still benefit from offering their endorsement to the two frontrunners (Jones 2004,

⁶ Furthermore, Dettrey and Schwindt-Bayer (2009) consider presidential power as a categorical variable (weak, moderate, strong) and find only a weak effect of strong powers ($p < 0.10$). Carreras (2018) on the other hand finds a stronger association ($p < 0.05$) by using a standardised measure of presidential power, which is however based on 28 extant indices that cover a much greater range of powers than merely presidents’ legislative powers as specified in his hypothesis.

79), greater presidential power may lead to an increasingly confusing candidate field. Voters, uncertain about the viability of their preferred candidates, may therefore be more indifferent towards the outcome or strategically wait for the second round to cast their vote for one of two clearly identifiable alternatives. At the same time, presidential power is likely to feature more prominently in media reporting before a run-off when the two top contenders can spell out their policy agenda more clearly. As a consequence, presidential power is likely to be of greater relevance to voter decision-making and have a greater mobilising effect than in the first round. Therefore, we hypothesise:

H4: The greater presidents' constitutional power, the higher the turnout in the run-off compared to the first round.

Finally, concurrent presidential and legislative elections have been argued to increase voter turnout due to reduced costs of voting and an increased policy salience of the vote (Dettrey and Schwindt-Bayer 2009; 1322; see also Fornos, Power and Garand 2004, 920). Studies focussing on first-round or single-round elections have generally found a robust statistical effect of concurrent elections (Fornos, Power and Garand 2004; see also Cancela and Geys 2016) whereas such an effect is absent when models include both first and second round results (Dettrey and Schwindt-Bayer 2009). However, given that concurrent legislative elections are almost universally timed to coincide with the *first* round of presidential elections (and vice versa) this should neither be surprising nor call the effect of concurrent elections into question. Rather, it highlights how concurrent legislative elections may explain differences in turnout between the first and second round of presidential elections. Where legislative elections coincide with the first round of presidential elections, turnout in both contests should be higher for the reasons

outlined above. However, turnout in presidential run-offs that follow concurrent elections is likely to be lower than in the first round – as voter mobilisation now only focusses on the presidential election, the publicly perceived significance of the vote will be lower and voters whose participation was largely driven by legislative elections during the first round are unlikely to return to the ballot box for the run-off. Therefore, we expect the following:

H5: Concurrent legislative elections in the first round are associated with a lower turnout in the run-off compared to the first round.

The following section outlines our empirical approach and the data we use to test these hypotheses.

Data, methods and variables

Our analysis relies on an original data set of 92 presidential elections (including 68 run-offs) run-offs in 16 European democracies (Table 1). The countries present a relatively homogenous set of cases in terms of regime types and electoral systems used. All countries are semi-presidential, i.e. there is a popularly elected president serving for a fixed term opposite a prime minister and cabinet who are collectively responsible to the legislature (Elgie 1999, 13). Although presidents' power and position may vary in practice, they always possess at least some power and their position as head of state guarantees a comparatively high degree of public awareness of the election (cf. Köker 2017, 249). Furthermore, all countries in the data set employ a two-round run-off system where candidates require a majority of votes in the first round to win; otherwise

the two frontrunners face off in a second round.⁷ Finally, voter registration in all countries is automatic at the age of 18 and none of the elections included were held under compulsory voting.⁸ Hence, the case selection holds a number of factors constant, while allowing for maximum variation in variables relating to the elections themselves.⁹

Table 1 Summary of elections included

Country	Presidential election years	Total	Run-offs
Austria	'10, '16 [†]	2	1
Bulgaria	'92, '96, '01, '06, '11, '16 [†]	6	5
Croatia	'92, '97, '00 [†] , '05, '09 [†] , '14 [†] , '19 [†]	7	5
Czech Republic	'13 [†] , '18 [†]	2	2
Finland	'94, '00, '06 [†] , '12 [†] , '18	5	4
France	'65 [†] , '69 [†] , '74 [†] , '81 [†] , '88 [†] , '95 [†] , '02 [†] , '07 [†] , '12 [†] , '17 [†]	10	10
Lithuania	'93, '97, '02, '04, '09, '14, '19	7	5
North Macedonia	'99*, '03, '09 [†] , '14, '19 [†]	5	3
Moldova	'96, '16 [†] , '21 [†]	3	3
Poland	'90, '95, '00, '05 [†] , '10 [†] , '15 [†] , '20 [†]	7	6
Portugal	'76, '80, '86, '91, '96, '06, '11, '16	8	1
Romania	'90, '92, '96, '00, '04, '09 [†] , '14 [†] , '19 [†]	8	7
Serbia	'08 [†] , '12, '17	3	2
Slovakia	'99, '04, '09, '14 [†] , '19 [†]	5	5
Slovenia	'90, '92, '97, '02, '07 [†] , '12 [†] , '17 [†]	7	5
Ukraine	'91, '94, '99, '04*, '10 [†] , '14, '19 [†]	7	4
Total		92	68

Notes: Underlined years are run-off elections, whereby repeat elections due to lack of turnout (Bulgaria '06 and North Macedonia '14) are not considered as run-offs; * not considered due to major irregularities or voter fraud; † data on national polls available.

For each election, we recorded the exact number of votes cast for each candidate as well as invalid votes and eligible voters based on official election reports.¹⁰ For run-off elections, we also collected data on national opinion polls that were conducted and

⁷ Romania and North Macedonia technically require an absolute majority of registered voters in the first round. Nevertheless, in all the elections considered in this study run-offs would also have been held without such a requirement.

⁸ Austria abolished compulsory voting at the federal level in 1982, yet it was still present in state-level legislation until 2007. Hence, we only consider elections held after this date.

⁹ Although this relative homogeneity of institutional structures is advantageous, it also means that some factors cannot be included as predictors into our models. For instance, the time between round ranges from 7 to 28 days. Yet, as 54 out of 68 run-offs in our data set took place after two weeks, the only suitable option for analysis would be to construct a highly heterogeneous "other" category.

¹⁰ Bulgaria (2016) and Ukraine (1994, 1999, and 2004) included an 'against all' option on the ballot. We recorded these separately but treat them as invalid votes in our calculations.

published between the first and second round of elections – where more than one poll was available, we chose the one closest to the second round. Unfortunately, such data was only available for a subset of 39 elections in 14 countries as either historical data could not be located or countries generally do not conduct opinion polls between rounds (e.g. Lithuania).

Variable operationalisation

Our dependent variable is the difference in turnout between the first round and the second round. Using turnout difference has the distinct advantage of providing a clear-cut indication of how much of the *change in turnout* between rounds can be explained by electoral closeness (cf. Indridason 2008, 704). We calculate it by subtracting the turnout of the second round from that of the first round, whereby turnout is defined as the number of total votes cast divided by the number of eligible voters.

Our main independent variable is the difference in the share of valid votes obtained by the frontrunner and the second-placed candidate. Following Fauvelle-Aymar and François (2006) and Indridason (2008), we calculate the frontrunner margin (m_f) as follows, whereby v_i is the total number of valid votes obtained by the i -th candidate:

$$m_f = \frac{(v_1 - v_2)}{\sum v_i}$$

Analogously, we calculate the vote margin between the runner-up and the third-placed candidate (*runner-up margin* – m_r) as follows:

$$m_r = \frac{(v_2 - v_3)}{\sum v_i}$$

For opinion polls held between the first and second round of voting, we estimate the poll margin (m_p). Here, v_i denotes the number of respondents declaring their intention

to vote for candidate i . To ensure comparability, undecided respondents and those not planning to vote are not considered.

$$m_p = \frac{(vi_1 - vi_2)}{\sum vi_i}$$

The frontrunner status of the incumbent and concurrent legislative elections are included in the models as dummies. Notably, we only code those elections as concurrent that take place on the same day as the first round (this is in contrast to the frequent practice of merely using an election year dummy; see Stoll 2015). We proxy presidential power and the importance of the presidential office by using Shugart and Carey's (1992) index of presidents' legislative and non-legislative powers which can range from 0-40. Scores for individual countries and constitutions were obtained from their book as well as from chapters in Elgie and Moestrup (2008). We coded the remaining countries and constitutions based on countries' respective constitutions and consulted country experts in case of uncertainties. Given that only few presidencies reach high scores, we equalize differences between values by entering the index into the model in the form of its natural logarithm.

In addition to the above variables, which are all connected to specific hypotheses, we also control for low voter turnout in round one. To do so, we specify a dummy variable indicating whether voter turnout in the first round was 50%. It is reasonable to assume that a high share of first round's voters in these elections – constituting a little more than a fifth of our cases – are probably habitual voters (see e.g. Milbrath 1965; Plutzer 2002). Hence, a further turnout decline in the second round is unlikely.¹¹

¹¹ Another option would be to control for the “normal” turnout level for presidential elections by using the mean turnout in the first round over all elections in a given country. As shown for mayoral elections, turnout in the previous election can be a significant predictor (Arnold 2018: 636). Nevertheless, this

Compared to models of turnout developed for single-ballot elections, we focus on relatively few predictors. This is necessary because of the (naturally) limited number of observations in our data set but is also substantially warranted. Our estimation strategy eliminates the need for considering a set of established *general* determinants of turnout. In examining the change in turnout between ballots, we regard turnout in round one to be exogenous to our models. Hence, we do not need to take those variables into account that determine turnout in first and second round alike. Such variables include institutional factors (e.g. voter registration rules) and characteristics of the electorate (e.g. number of people eligible to vote, socio-structural composition of electorate) that do not change between rounds. However, where the effect of such determinants does vary – see e.g. the hypothesized different effect of presidential in round one and two – they are still included in our models.

Descriptive statistics

Table 2 provides summary statistics for all variables used in our models. Voter turnout in both rounds have similar means, yet the difference between rounds still exhibits sufficient variation. In about one third of cases each, turnout respectively fell by at least 1.5 percentage points between round one and two or increased by at least 3.5 point.¹² The frontrunner margin as our most prominent predictor likewise varies considerably; while the two leading candidates are less than 5 % apart in about one third of the elections, the margin is greater than 15 percentage points about one in four elections. Incumbents were present in 47% of the elections considered here, yet only entered the

variable proves statistically independent from turnout change between ballots in our models – this holds true irrespective of country-clustering of standard errors.

¹² This is roughly comparable to that of the double-ballot legislative elections analysed in the studies reviewed above; yet, it stands in stark contrast to mayoral elections where first rounds tend to have significantly higher turnout rates accompanied by a sharper decline in the second round.

run-off as frontrunners in 29% of cases. Notably, there are only three countries in our sample that held concurrent presidential and legislative elections (Romania, Serbia, Slovenia). Nevertheless, they differ with regard to all other characteristics allowing for a reasonably robust estimation. Descriptive statistics do not deviate significantly for our subsample of elections for which we were able to acquire opinion poll data (see Table 1); however, we do not have survey results for any of the concurrent elections. Furthermore, given that several Ukrainian elections – featuring the most powerful presidency in our data set – are not part of the subset, the standard deviation for our presidential power variable is noticeably reduced (-0.11).

Table 2 Descriptive Statistics for variables used in models m1 to m5

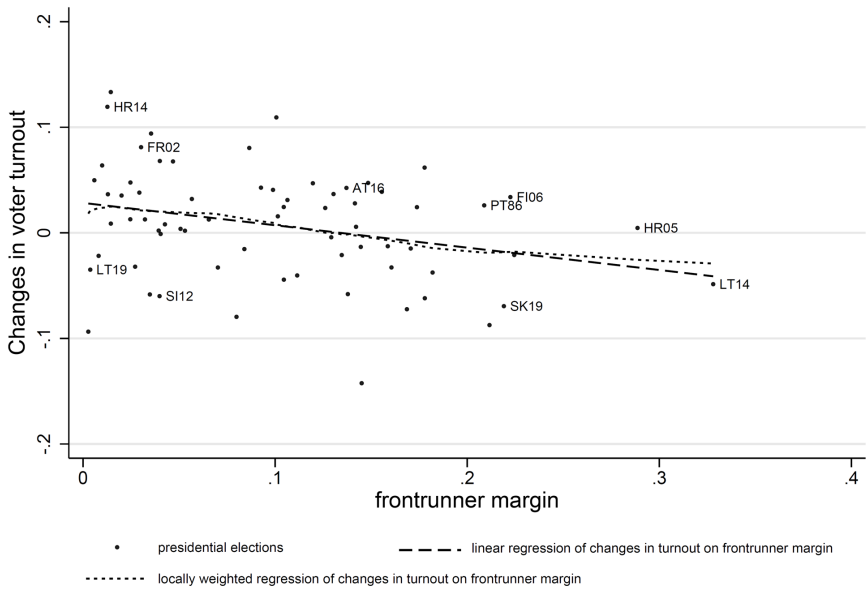
Variable	Obs.	Mean	Std. Dev.	Min.	Max.
turnout first round	68	0.623	0.126	0.417	0.847
turnout second round	68	0.630	0.128	0.418	0.873
turnout difference between first and second round	68	0.007	0.053	-0.142	0.133
frontrunner margin	68	0.100	0.074	0.003	0.328
poll margin	39	0.147	0.150	0.000	0.600
runner-up margin	68	0.117	0.089	0.002	0.331
first round won by incumbent (y/n)	68	0.294	0.459	0	1
presidential power	68	1.527	0.482	0.693	2.565
concurrent election (y/n)	68	0.088	0.286	0	1

Results

The scatter plot in Figure 1 provides a first assessment of the relationship between our two most important variables, the frontrunner margin and the change in turnout between rounds. As expected, a smaller frontrunner margin is generally associated with an increase in turnout in the run-off compared to round one, with Pearson's r indicating a moderate negative correlation (-0.3). Using a lowess curve, we test for the possibility of a non-linear relationship, yet it does not differ substantially from a linear prediction. Differences are most pronounced in the area of highest uncertainty, i.e. when the

frontrunner margin exceeds 25%. This is however only the case for Croatia 2005 and Lithuania 2014.¹³

Figure 1 Association of frontrunner margin and changes in voter turnout



Note: Elections referred to in the text are labelled (e.g. discussed important outliers).

In line with other research that analyses the effect of closeness in double-ballot elections, we estimate a number of linear models using different subsets of covariates and elections. Our first model (m1) includes all variables related to our hypotheses (H1-H5). The poll margin is added in models 3 (m3) and 4 (m4), which given more limited data availability reduces N from 68 to 39. To allow for a more adequate assessment of differences in effects, model 2 (m2) is likewise confined to the reduced sample size. Here, significant differences would be cause for caution in interpreting the coefficient of poll based frontrunner margin. Our comparison of closeness-effects based on first-round results and opinion polls is complemented by m4, which excludes France 2002 as an

¹³ In addition to this, in our multivariate models, transformations of the frontrunner margin allowing for non-linear effect patterns consistently worsen the model fit.

influential case discussed in further detail below. As mentioned above, no polling data was available for concurrent elections, so that the corresponding variable is dropped from models 2-4. Finally, we control for country-specific effects in all models by clustering standard errors by country.

Table 3 Effect of electoral closeness on turnout variation between first and second round

	m1	m2	m3	m4
frontrunner margin	-0.209** (0.059)	-0.238* (0.108)	-0.232+ (0.117)	-0.166 (0.116)
poll margin			-0.034 (0.051)	-0.088+ (0.043)
runner-up margin	0.131* (0.048)	0.153 (0.093)	0.134 (0.095)	0.144 (0.090)
first round won by incumbent (y/n)	0.030** (0.010)	0.037* (0.014)	0.037* (0.015)	0.026+ (0.013)
presidential power	0.026* (0.012)	0.054** (0.016)	0.055** (0.016)	0.057** (0.015)
concurrent election (y/n)	-0.069*** (0.012)			
turnout first round < 50%	0.028+ (0.014)	0.015 (0.020)	0.016 (0.020)	0.019 (0.020)
constant	-0.037+ (0.020)	-0.076* (0.029)	-0.072* (0.029)	-0.074* (0.029)
McFadden R ²	0.4631	0.4870	0.4946	0.5217
N	68	39	39	38

OLS-Regression with country-clustered standard errors; Standard errors in parentheses;

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Overall, the regression models largely confirm our hypotheses and have strong explanatory power despite containing only a limited set of covariates. For the full model, McFadden's R^2 is 0.47 and the model fit improves even further for the election subset used in models 2-4. Most prominently, our key hypothesis that close races increase turnout in the run-off compared to the first round receives strong support. In m1, for every increase in the frontrunner margin by 10 percentage points, turnout in the run-off decreases by 2.1 points. This clearly exceeds the average effect of about 1.5 percentage points reported for legislative and mayoral elections, lending credit to our assertion that closeness should matter more in presidential elections than in other contests. The finding persists across different model configurations, except for m4

where the coefficient for the frontrunner margin decreases considerably and fails to reach an accepted level of statistical significance with a p-value slightly above 0.1. Conversely, the poll margin has a statistically significant effect. The difference between the two models hinges on the inclusion of the French 2002 elections – yet why is it such an influential case?

The 2002 election is highly unusual as our two indicators of closeness – the ‘actual’ frontrunner margin and the poll margin – are diametrically opposed. Incumbent Jacques Chirac emerged from the first round as the frontrunner; yet, he was only 3 percentage points ahead of far-right leader Jean-Marie Le Pen who had surprisingly beaten out Prime Minister Lionel Jospin in the race for second place. First round results hence indicated a close race, but Chirac subsequently enjoyed a lead of over 60% in the polls. Mobilised by the desire to prevent a president Le Pen, voter turnout nevertheless increased by 8 points, which is in stark contrast to our poll-based predictions about turnout change. We should however be cautious to interpret this as evidence that, being confronted with conflicting information, voters based their decision to participate in the run-off on the ostensibly more reliable first-round results. Chirac and other mainstream parties framed the election as a “a sort of referendum in favor of the democracy” (Fauvelle-Aymar and François 2006, 471) so that voters considered it their civic duty to turn out even though they correctly predicted a landslide victory for Chirac. Regardless of whether we include this case, electoral closeness increases voter turnout and both, first round results and polls, contribute independently to the prediction of turnout change therefore confirming H1.

The models also largely confirm our remaining hypotheses. The coefficient estimates for the runner-up margin show the expected sign in all models, yet only reaches

statistical significance in m1. This indicates that while the presence of a strong third-placed candidate may hinder mobilisation, it is still less important than the frontrunner margin in determining voter turnout. The finding for incumbents as frontrunners is much clearer; as expected, the variable is significantly associated with an increased turnout from the first to the second round in all models. In our baseline model, a leading incumbent increases turnout by 3 percentage points. Notably, there is no statistically significant increase in turnout when we merely compare elections where incumbents entered the run-off to those where the incumbent did not run or fail to enter the run-off.¹⁴

Our models also lend support to our hypothesis that greater presidential power should be associated with an increase in turnout between rounds. The effect is thereby strongest in our subsample of elections with available poll results. Nevertheless, as several Ukrainian elections are missing from the sample, the lower standard deviation of the variable also needs to be considered. Finally, our hypothesis expecting concurrent legislative elections in the first round to have a negative impact on turnout in the run-off is confirmed. Concurrent elections roughly decrease turnout by 7 percentage points between ballots. As mentioned above, the 9 concurrent elections included in our data set only took place in 3 different countries which typically requires a cautious interpretation. However, due to the straightforward theoretical argument underlying this effect, as well as the vast prior empirical research documenting similar results, it seems unlikely that these effects are only statistical artefacts.

¹⁴ The latter only happened twice – in Slovakia 2004 and Ukraine 2010.

Discussion

Our models already show relatively high levels of explained variance and provide strong support for our core hypothesis in particular. Nevertheless, there are some important outliers when comparing the model predictions to actual values. Table 4 lists the four largest outliers emerging from the comparison of actual and predicted values of the dependent variable, i.e. elections not only displaying a high absolute deviation but also exhibiting the wrong sign. Notably, the cases show a great variation in the frontrunner margin, our main independent variable, including extreme as well as intermediate examples (see also descriptive statistics in Table 2). A further qualitative analysis suggests a number of common factors that could serve as the basis for further investigation. The two elections in the upper part of the table were characterised by hitherto unmatched levels of ideological polarisation.

Table 4 Important outliers based on predicted values (m1)

Country	Year	1st round margin	Turnout difference 1st vs. 2nd round		
			<i>Actual</i>	<i>Predicted</i>	<i>Difference</i>
<i>Increase vs predicted decrease</i>					
Austria	2016	13.71	4.251	-1.966	6.217
Finland	2006	22.25	3.385	-1.682	5.067
<i>Decrease vs predicted increase</i>					
Slovenia	2012	3.98	-5.996	3.510	9.506
Lithuania	2019	0.38	-3.491	2.479	5.969

Notes: Elections where predicted values based on m1 show the wrong sign and the greatest deviation from actual values.

In Austria, neither of the two major parties saw their candidates advance to the run-off for the first time since WW2. Instead, Norbert Hofer of the far-right Freedom Party (FPÖ) emerged as the clear frontrunner and faced the former Green party leader Alexander Van der Bellen in the run-off. Hofer's lead was particularly controversial as the inclusion of Hofer's FPÖ in the government from 1999-2006 had led to an

international outcry and informal sanctions. Hence, the election primarily became a competition between supporters of national-conservative and liberal-cosmopolitan values, resulting in increased mobilisation and turnout (cf. Bode and Köker 2021). The Finnish election of 2006 likewise showed profound divisions, yet also strong patterns of cross-party coordination. Incumbent Tarja Halonen was supported by her own Social Democrats and the Left Alliance Party and was the frontrunner with 46.3% of the vote and a comfortable lead. However, as runner-up Sauli Niinistö emerged as the strongest contender among the centre-right, he received the endorsement of four out of six unsuccessful candidates and their parties in the run-off. Niinistö eventually failed to unseat Halonen, yet the polarisation between the two camps as well as Halonen's mobilisation of female voters was seen as a major contributor to increased turnout (Sundberg 2007). While similar patterns can be found among the more well-predicted cases (e.g. the 2002 and 2017 election in France, where cross-party alliances formed to prevent a victory of the Front National), they stand out in the cases above as additional drivers of turnout that are not adequately captured by our other variables.

The two elections at the bottom of the table highlight further dynamics that are not captured by the predictors included in our model. In particular, the third-placed candidates in both the 2012 Slovenian and the 2019 Lithuanian elections notably refrained from endorsing either of the two remaining candidates. Nevertheless, pre-electoral endorsements for each candidate and their programmatic profiles still provided voters with sufficient information on candidates' mobilizing potential, leading to a turnout decrease in the second round. In Slovenia, the candidacy of incumbent Danilo Türk (independent) was supported by a range of left-wing and liberal parties. His challenger, former Prime Minister Borut Pahor (Social Democrats), was however

endorsed by both his own party and the right-wing Civic List, and could therefore count on a broader electorate. As he had also been openly supported by the leader of the Slovenian Democratic Party, that had nominated the third-placed candidate Milan Zver, Pahor's eventual victory was easily foreseeable (Hafner-Fink et al. 2014). Similarly, in the Lithuanian election of 2019, centrist runner-up Gitanas Nausėda (independent) presented a broader programmatic profile than frontrunner Ingrida Šimonytė who had been nominated by the conservative Homeland Union. Furthermore, after Prime Minister Saulius Skvernelis surprisingly placed third and missed the run-off, he promised to resign once a new president was inaugurated. This presented voters with a new set of factors to consider. As Šimonytė had been nominated by the largest opposition party, Skvernelis' supporters were unlikely to vote for her – Nausėda's election campaign could thus more credibly reach out to voters across the political spectrum and diffused much of the polarisation that would have come from a second round between Skvernelis and Šimonytė (government and opposition, respectively) (Jastramskis 2020).

The discussion of outliers primarily suggests that turnout increases where two distinct electoral blocks emerge. This includes clear endorsements within the electoral camps, as well as pronounced policy and ideological differences between them. Our observation is in line with research on legislative elections where well established that the availability of a wide variety of policy-platforms motivates voters to turnout (Moral 2017).

Constituting another valuable finding, some characteristics of the discussed election campaigns seem to interfere with the effect of electoral closeness on turnout change. Having a limited data set and confining ourselves to parsimonious models, we have not tested for potential mediators. Unfortunately, we share this omission with the pertinent

research literature (for an exception see the dependency of the closeness-effect on weather as analysed by Arnold 2018). In particular, the time between first round and run-off – varying between one and four weeks – might be such a mediator. When several weeks have passed, the frontrunner margin could provide a less accurate proxy for electoral closeness in the run-off and lose its relevance for voter turnout. Unfortunately, our data does not provide sufficient variance in this regard, so that this suggestion should be tested in future studies.

Conclusion

This paper has provided strong evidence that closeness matters for voter turnout in presidential run-off elections – a close race between frontrunner and runner-up as indicated by first-round results is significantly associated with increased turnout in the run-off. Notably, the effect size is greater than has been observed in double-ballot legislative election and hence corroborates our argument that closeness should matter more in presidential run-offs than in other electoral contests. Furthermore, our measure of ‘actual’ closeness performs just as well if not better than opinion polls, although – admittedly – further analyses of individual-level data would be necessary to arrive at a better understanding of the underlying dynamics. Our other hypotheses are also largely supported as a larger margin between runner-up and third-placed candidate, greater presidential power and incumbents as frontrunners increase turnout from the first to the second round; conversely, concurrent elections in the first round have a dampening effect on turnout in the run-off.

The results of this paper have important consequences for the study of turnout in presidential elections in Europe and beyond. The two-round ballot has become the

system of choice for countries introducing or amending direct presidential election rules (cf. Bormann and Golder 2013). At the same political fragmentation and polarisation are increasing worldwide (cf. Chaisty, Cheeseman and Power 2018) so that incumbents can no longer count on being re-elected without a serious challenge, and run-offs are increasingly necessary to choose a winner. Unfortunately, research on the closeness hypothesis has so far almost exclusively focussed on established Western democracies (Linhart/Eichhorn 2020: 4). Comparative research on competition and turnout in presidential elections has already relied on a much broader data basis so that including even more cases than the 16 West and East European democracies appears to be a suitable option for future studies. Given the results of our analysis, Indridason's (2008) argument that *actual* closeness between candidates "should routinely be included as an independent variable in studies of [legislative] voter turnout and that the failure to do so risks omitted variable bias" (Indridason 2008, 700; insertion by the authors) likewise applies to presidential elections.

Finally, the qualitative discussion of our most prominent outliers carries important implications for further studies as well. In particular, strategic endorsements from unsuccessful first-round candidates and inter-party coordination appear to matter considerably for the mobilisation potential of frontrunner and runner-up. Furthermore, ideological polarisation between candidates appears to drive second round turnout in general. Including the latter into the predictive models however presents a challenge – in contrast to parties at legislative elections, presidential candidates do not always produce detailed manifestos. Nevertheless, here our study provides an interesting starting point for future studies of closeness and turnout in legislative elections. As candidate positions can be validly inferred from party programmes, it would be possible

to not only include dummies for extremist candidate participation (cf. Indridason 2008) but also much more nuanced measures of ideological polarisation in future studies of closeness and electoral turnout.

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