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and satisfaction with democracy  
around the world 1995-2024

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# The development of the winner-loser gap: Institutional decline, polarization, and satisfaction with democracy around the world 1995-2024

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## **Abstract**

That election winners and losers perceive democracy differently is one of the most consistent findings in political science. The size of this ‘gap’ is generally considered to be dependent on a myriad of institutional or contextual factors related to national institutions or the characteristics of elections. However, global developments such as the increase in partisan polarization and democratic backsliding necessitate a longitudinal perspective in how perceptions of democracy are developing. Using the most comprehensive collection of survey data on satisfaction with democracy (SWD) and electoral behavior to date, this article examines the development of the winner-loser gap globally over three decades, encompassing over 1.2 million survey responses from 92 democracies around the world between 1995-2024. Most notably, this paper finds that the winner-loser gap has almost doubled in this time, and that this development is primarily driven by losers becoming increasingly dissatisfied with democracy. Mediation analyses suggest this time trend to be more likely driven by within-country decreases in the quality of democratic institutions rather than increases in polarization. These findings have important implications for the development of democracy worldwide, especially in contexts where democratic institutions are under threat.

# Introduction

One of the most well-established findings in political science is that winners and losers of elections perceive democracy differently (Singh and Mayne, 2023). At the same time, recent research on democratic attitudes reports that people around the world are becoming increasingly dissatisfied with the way democracy works (e.g., Foa et al., 2020; Wike and Fetterolf, 2018). More than ever before, we are witnessing electorates vote for populist and authoritarian leaders that attempt to challenge established democratic norms and institutions – in large part at the behest (or at least with the acquiescence) of voters (Nord et al., 2026; Wunsch, 2025). At the same time, voters in many democracies are increasingly adopting an ‘us versus them’ attitude to justify anti-democratic transgressions to become or remain “winners” (Gidron, Adams, and Horne, 2020). Implicit in the global decrease in satisfaction with democracy (SWD), the decline of democratic institutions, and the increased prominence of affective polarization is a hitherto unanswered question that this article addresses: is the winner-loser gap growing?

Satisfaction with the way democracy works in one’s country – as the survey item is prototypically formulated – is generally regarded as a measure of political support that relates to a specific assessment of regime effectiveness rather than the perceived legitimacy of democracy in the abstract (Linde and Ekman, 2003; Norris, 1999). This is important in as much as it differentiates SWD from support for democracy – which pertains more to a personal congruence with core democratic principles – as well as more precise assessments of government performance. That is not to say the survey item has not been shown to illicit more normative or emotional reactions (e.g., Canache, Mondak, and Seligson, 2001; Aarts and Thomassen, 2008). However, the scholarly consensus generally regards SWD as an indicator of system-level political contentedness (Anderson et al., 2005; Singh and Mayne, 2023).

The theoretical link between winning/losing and political (dis)content is well-established. On the one hand, election winners can expect more *utility* from political outcomes when their party is in government due to ideological alignment or the provision of targeted goods, while the opposite is the case for losers (Anderson and

Guillory, 1997). At the same time, electoral victory or defeat can have an *emotional* impact on citizens and their satisfaction with democracy in the relative short term by triggering positive emotions in winners, and negative emotions in losers (Anderson et al., 2005). Additionally, election losers (winners) may also update their legitimacy perceptions of the state in order to maintain *cognitive consistency* in relation to their vote choice (Anderson et al., 2005). Taken together, Singh (2023) refers to these mechanisms as the 'policy' and 'psychoemotional' components of the winner-loser gap. Regarding which side is driving this gap in perceptions, most literature has focused primarily on theorizing why losers are less satisfied rather than why winners are more satisfied, yet a few recent studies have also considered the role of winners' perceptions (e.g., Nadeau, Daoust, and Dassonneville, 2023).

The winner-loser gap is important to understand because it has considerable consequences for democracy and political engagement. Support for democracy is essential for regime endurance (Lipset, 1959; Claassen, 2020). On both sides of the coin, losers' consent and winners' restraint are key factors for the legitimacy and survival of democracy (Anderson et al., 2005; Esaiasson, 2011; Levitsky and Ziblatt, 2019; Werner, Bertson, and Marien, 2025). When SWD decreases, individuals are more likely to support populist and radical right parties, which can actively challenge democratic institutions (Arzheimer, 2009; Lubbers, Gijsberts, and Scheepers, 2002). SWD can also have considerable implications for political engagement, electoral turnout, and vote choice (Dassonneville, Blais, and Dejaeghere, 2015; Ezrow and Xezonakis, 2016).

A considerable vein of research regarding the winner-loser gap and SWD has considered the moderating effects of a wide range of institutional and contextual factors. Essentially, this research considers the conditions under which the gap is wider, and when it is narrower. Institutional country-level factors found to condition the size of the winner-loser gap include democratic or government quality (Dahlberg and Linde, 2017; Nadeau, Daoust, and Dassonneville, 2023), electoral rules (Anderson and Guillory, 1997; Martini and Quaranta, 2019), legislative power (Wang, 2021), and the use of compulsory voting (Singh, 2023). A second strand of research considers the moderating effect of the electoral context, including aspects such as the

integrity of the process (Fortin-Rittberger, Harfst, and Dingler, 2017), the margin of victory (Howell and Justwan, 2013), or an individual’s political attitudes and preferences (Curini, Jou, and Memoli, 2012; Delgado, 2016), such as affective polarization (Ridge, 2022; Janssen, 2024). While this research illuminates our understanding of the winner-loser gap and how it varies from country to country, the vast majority of this research concerns a relatively small pool of country contexts and spans relatively short periods of time. In addition to the bulk of work focusing on Europe and North America, the winner-loser gap has also been identified in Africa, Asia, and Latin America (Conroy-Krutz and Kerr, 2015; Farrer and Zingher, 2019).

What stands out from this literature is the omission of a longitudinal perspective of the winner-loser gap that considers and integrates global and/or regional socio-political developments. Some research has investigated the gap within electoral cycles, and found that it is persistent several years after the election (Loveless, 2021; Nemčok and Wass, 2021). Other work has considered longer-term developments in SWD, but not with regard to the winners and losers specifically (e.g., Ezrow and Xezonakis, 2016). Reconciling this research with global democratic decline and increases in partisan and affective polarization suggests a changing nature (or size) of the winner-loser gap. It is precisely this suggestion that this article investigates.

This article contributes to this field by establishing the development of the winner-loser gap in SWD over the last three decades around the globe. Based on over 1.2 million survey responses in 92 democracies from international public opinion projects and regional barometers, it finds evidence that, on average, the gap between winners and losers in their levels of satisfaction with democracy has doubled since the mid-1990s. The growth in the gap is robust and linear, and is driven primarily by election losers becoming decreasingly satisfied with the way democracy works. Mediation analyses reveal that a significant proportion of the growth in the winner-loser gap can be attributed to the within-country decline of democratic institutions, but an equivalent impact is not found for increasing levels of polarization.

This article contributes to recent work on the development of democratic attitudes, which has shown that while regime support among the public still matters for the survival of democracy (Claassen, 2020), it is in many cases under threat (Foa

et al., 2020; Wike, 2025). This study contributes to this debate by showing that the observed decline in democratic satisfaction is mainly driven by losers becoming increasingly dissatisfied with the way democracy works, and that this is due to the erosion of democratic institutions. In doing so, this study addresses several knowledge gaps: First, this study represents the most comprehensive test to date of the development of SWD among winners and losers in terms of temporal and geographic scope, extending beyond the oft-studied European and North American contexts. In doing so, it addresses issues of external validity with respect to the global democratic population. Theoretically, this article builds upon well-established theories of the winner-loser gap, integrating a temporal dimension to argue how institutional change can directly impact how people perceive the utility of elections and democratic regimes.

## **Theorizing the growth of the winner-loser gap**

The differential impact of winning and losing an election on SWD has been attributed to expectations regarding subsequent policy production (utility) and psychoemotional responses to victory/defeat (e.g., Anderson et al., 2005; Singh, 2023). In this section, I argue that, based on these two components, an increase of the winner-loser gap has two plausible explanations: (a) the policy utility of winning vis-à-vis losing is becoming more stark, or (b) the psychoemotional responses of individuals are becoming stronger. Below, I theorize how each of these mechanisms could mediate the over-time development of the winner-loser gap.

### **The policy gap**

The policy component of the winner-loser gap is represented by the policy-related utility that supporters of winning parties gain relative to losers. In other words, beyond winning the electoral contest itself, supporters of winning parties continue to win throughout the electoral term that follows through the enactment of policies that they ideologically prefer and/or benefit from. The same is equally the case for those on the losing side of elections, who are more likely disadvantaged in policy

implementation, thereby reducing the utility they gain from the election. This experience (or at least perception thereof) is claimed to drive political attitudes in general, and satisfaction with democracy in particular (Anderson et al., 2005).

The degree to which utility is unequally distributed in favor of winners is in large part determined by the institutional context. In democracies, certain political institutions operate as ‘guardrails’, effectively insulating the democratic minority (supporters of losing parties) from the tyranny of majority rule and the disproportional utility loss that may result. For example, among the most robust moderators of the winner-loser gap are the design of electoral institutions (e.g., Anderson and Guillory, 1997; Farrer and Zingher, 2019; Martini and Quaranta, 2019). Proportional electoral systems and other consensus-incentivizing constitutional features limit the difference in policy gains [losses] for winners [losers] by incentivizing coalition-building across the political center and restricting the severity of policy swings from one government to the next. Similarly, the winner-loser gap also tends to be smaller when there is a more even distribution of power between executive and legislative branches of government (Wang, 2021).

The impact of democracy on the policy utility mechanism goes beyond the mere choice between various constitutional features, however. At a more fundamental level, strong democratic institutions inherently protect minority rights and uphold the rule of law despite their majoritarian nature. Through judicial independence, elected governments are constrained from exercising unchecked power, ensuring that laws and policies align with constitutional democratic principles. When democratic institutions are strong, civil liberties are entrenched, such as the freedom of expression and association, and the protection of human rights (Dahl, 1971). Empirically, higher quality democracies also tend to have higher quality – and impartial – policy output (Dahlberg and Linde, 2016). From the perspective of the utility distribution from elections, democratic institutional guardrails above and beyond elections ensure that winners do not literally get to take all.

What makes these fundamental democratic institutions important in this context is that they are not static within states. More to the point, a weakening of democratic institutions has been evident in many countries and regions around the

world in recent decades (Lührmann and Lindberg, 2019; Nord et al., 2026). Increasingly, incumbent political leaders are attempting to undermine constitutional checks and balances and strip away civil liberties. This attempted 'executive aggrandizement' (Bermeo, 2016) can have considerable consequences for the distribution of policy utility from those who support and oppose governing parties. As democratic institutional guardrails are stripped away, the democratic minority becomes less insulated from the will of the majority, thereby reducing the utility of elections for losers and increasing it for winners. Thus, the gap in democratic satisfaction between winners and losers could be increasing due to the decline of democratic institutions.

## **The psycho-emotional gap**

The second mechanism through which the democratic attitudes of winners and losers differ is the psycho-emotional response to the election result. Put simply, an individual's favored party coming out on the winning side of the election triggers positive emotions such as euphoria, while individuals are more likely to feel negative emotions such as disillusionment when their favored party loses (Anderson et al., 2005; Stewart, Senior, and Bucy, 2020). These emotions are then argued to be transmitted to political support.<sup>1</sup>

Emotional responses to election outcomes are claimed to be particularly acute among stronger partisans, as well as more affectively polarized individuals (Janssen, 2024). Affectively polarized citizens are defined by their greater emotional attachment to the in-group (i.e., co-partisans) and their greater hostility toward the out-group (opponents). As a result of their greater emotional attachment with the in-group party, affectively polarized individuals equate the electoral fate of the party with a personal experience, thereby increasing the intensity of the emotional response (Huddy, Mason, and Aarøe, 2015; Ward and Tavits, 2019). At the same

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<sup>1</sup>Singh, Fournier, and Roy (2026) find little evidence that the emotions triggered by non-political contests affect SWD, and instead posit that the psycho-emotional mechanism is more likely to apply strictly in the political domain.

time, the winner-loser gap is also driven by negative partisanship aimed toward the out-group, as affectively polarized individuals take greater joy from the electoral defeat of the out-group, and may experience more resentment toward a victorious rival (Ridge, 2022; Janssen, 2024). Affective polarization may also undermine the "reservoir of goodwill" that citizens use to accept decisions that go against their own self-interest (Tomic et al., 2026). Given the empirical support behind the attenuating impact of affective polarization on the winner-loser gap, it follows that as affective polarization increases, so too should the winner-loser gap.

In their seminal study of the prevalence of affective polarization around the world, Gidron, Adams, and Horne (2020) concluded that while the trend is not uniform around the world, the development of the phenomenon extends well beyond the commonly cited case of the US (see also Phillips, 2022; Garzia, Ferreira da Silva, and Maye, 2023). Among the explanations for the rise in affective polarization in many contexts is the increasing tendency of voters to use partisan identity as a social identity rather than simply a policy preference (Iyengar et al., 2019). Others attribute the rise of affective polarization to the fragmentation of the media landscape, and particularly the rise of social media, as individuals are more frequently exposed with inflammatory interactions with political outgroups (Bail et al., 2018; Brundidge and Garrett, 2024). As such, the growth of the winner-loser gap in regime support could be explained by individual-level attitudinal change. In the aggregate, the increase of affective polarization could be responsible for the growth of the winner-loser gap as emotional responses to election outcomes become more intense, thereby resulting in election winners being ever more satisfied with democracy, and election losers less.

## Data and approach

To investigate the longitudinal dynamics of the winner-loser gap on a global scale, data were collected from a wide range of cross-national surveys and regional barometers. Importantly, surveys were deemed eligible if they were conducted in democ-

racies at the time of data collection,<sup>2</sup> and contained questions about both (a) satisfaction with democracy and (b) electoral behaviour. Information was also collected on survey respondents' age, gender, and level of education.<sup>3</sup> The assembled data sources consist of the Comparative Study of Electoral Systems (CSES) rounds 1-6, European Social Survey (ESS) rounds 1-11, World Value Survey (WVS) round 7, Afrobarometer rounds 3-10, Asiabarometer rounds 2-6, Latinobarometro 1995-2023, and the Latin American Public Opinion Project (LAPOP) 2006-2023. Excluding respondents with missing data for any of these variables, the final sample consists of 1.24 million survey responses across 92 democracies between 1995-2024.

Importantly, in only one data source included (CSES) do elections immediately precede survey fieldwork dates. Most data therefore are not related to the timing of the election and thus may occur any time during the electoral cycle. In all cases besides the CSES the timing of data collection is therefore effectively as-if random, notwithstanding fieldwork dates tend not to overlap with elections. This is important in as much as aggregate results that pool across sources reduce the influence of short-term post-election dynamics - where emotions are higher and the winner-loser gap may be particularly stark (van der Meer and Steenvoorden, 2018).<sup>4</sup>

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<sup>2</sup>Democracies are defined as such in this study if they are coded as an electoral democracy or liberal democracy using V-Dem's *v2x\_regime* variable (Coppedge et al., 2024).

<sup>3</sup>For summary statistics, see Appendix A.

<sup>4</sup>One threat to this assumption is that less accessible areas of a country – which may also have generally lower levels of SWD – are likely to be surveyed at later periods of fieldwork.

<sup>5</sup>Main analyses are also replicated in Appendix C.3, removing each source one at a time and results are consistent.

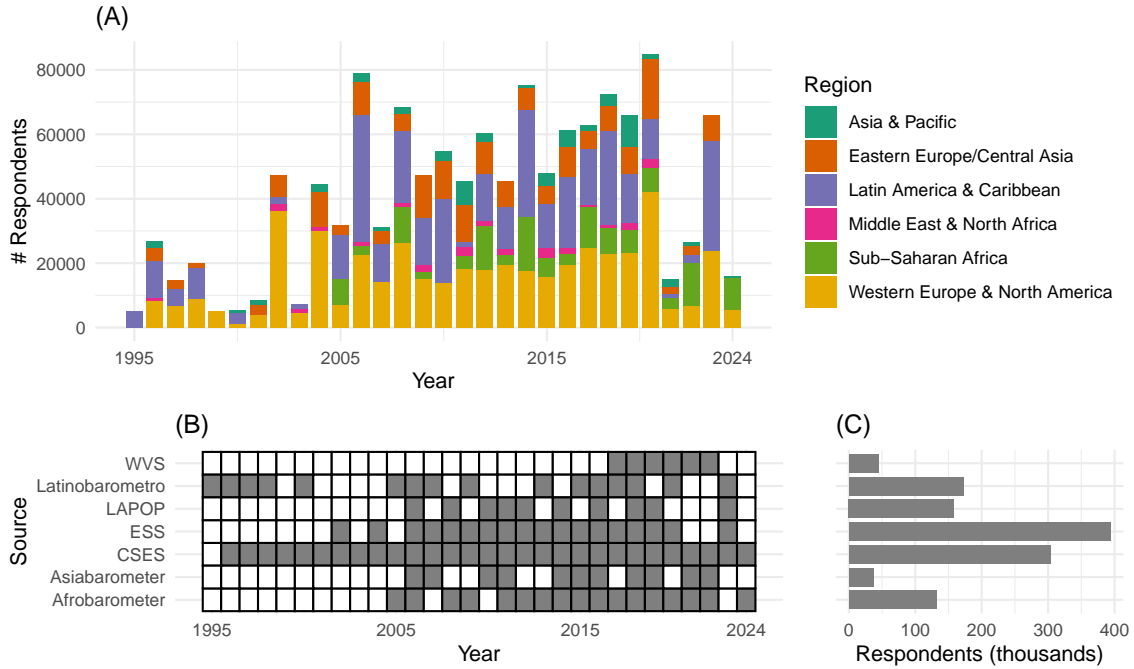


Figure 1: Sample composition

*Notes:* Sample composition across politico-geographic regions and sources. Panel A illustrates the geographic and temporal breadth of the data using a yearly stacked bar plot. Panels B and C on the second row show the temporal composition of the sample by source. A grid plot demonstrates the source-years in which data is included in the sample (grey grid boxes). The number of survey responses from each source is demonstrated by the affixed horizontal bar plot.

In all surveys, SWD is measured using a very similar survey item which asks respondents the degree to which they are satisfied or dissatisfied with the way democracy works in their country. Most sources also use the same four-point symmetrical response scale (i.e., very satisfied, fairly satisfied, not very satisfied, not at all satisfied). In two sources (ESS and WVS) this is not the case, and these surveys use 10-point scales. To make different survey items comparable across sources, SWD is normalized using min-max factor scaling ( $SWD_{norm} = \frac{SWD - \min(SWD)}{\max(SWD) - \min(SWD)}$ ) which produces a value ranging from 0-1, with higher values indicating greater satisfaction. Following (Foa et al., 2020), a binary variable is also constructed which recodes responses into "satisfied" and "dissatisfied" groups. This variable is utilized in robustness tests (see Appendix C.8) and results remain consistent with this alternate measure.

Electoral winners and losers are determined by matching their reported vote

choice with electoral results.<sup>6</sup> Winners are coded as such if they reported voting for a candidate or party that contributed to forming a government after the election.<sup>7</sup> While 'winning' may be a contested concept when electoral stakes are more diffused – such as in multi-party systems where coalitions are formed by inter-party bargaining after the election – Stiers, Daoust, and Blais (2018) show that government participation is the strongest determinant of perceptions of having won or lost.

## Estimation strategy

The association between winning/losing an election and SWD over time is investigated with a two-step estimation strategy informed by Jusko and Shively (2005), which aims to account for confounding variables at different levels of the data structure.<sup>8</sup> In the first step, I estimate the following baseline regression for each year  $t$ :

$$SWD_{ict} = \alpha_t + \beta_t \cdot \text{Winner}_{ict} + \boldsymbol{\gamma}_t^\top \mathbf{X}_{ict} + \mu_c + \varepsilon_{ict} \quad (1)$$

where  $SWD_{ict}$  is a normalized measure of individual-level satisfaction with democracy,  $\text{Winner}_{ict}$  is whether a survey respondent supports a party that won the pre-

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<sup>6</sup>In some surveys this question is retrospective (referring to the previous election), while in others it is prospective (voting intention for the next election). Where available, this variable is based on the retrospective measure, as voters may switch between winning and losing sides between elections. In Appendix C.7, the main results are replicated with each of these variations separately and results are consistent. Given that this variation is related to data source survey methodology, Appendix C.3 uses a jackknife analysis to remove one source at a time and results are consistent.

<sup>7</sup>In the case of a country having several types of election (e.g., executive and legislative), the 'winner' is based on the distribution of executive power in a given system. In presidential systems, those who voted for the party/coalition of the president in the previous presidential election are considered winners. In parliamentary systems, winners are considered to be those who voted for one of the governing coalition parties in the legislative elections.

<sup>8</sup>In Appendix C.1 I employ an alternative strategy using a mixed effects multi-level model (Franzese, 2005). Results are consistent to this alternative estimation.

vious election,  $\mathbf{X}_{ict}$  is a vector of individual-level controls (specifically, age, gender, and education level), and  $\mu_c$  is the country fixed effect. The regression is run separately for each year, meaning that the coefficient  $\beta_t$  is the year-specific effect of interest (the winner-loser gap). All models cluster standard errors by country.

Subsequently, I test the temporal development of the association by regressing  $\beta_t$  on time in a precision-weighted linear model as below:

$$\hat{\beta}_t = \delta_0 + \delta_1 \cdot \text{Year}_t + u_t, \quad \text{with weights } w_t = \frac{1}{\text{SE}(\hat{\beta}_t)^2} \quad (2)$$

$\hat{\beta}_t$  is the regression coefficient from step 1 for a given year ( $t$ ), and weights ( $w_t$ ) are calculated as a function of the standard error (or precision) of the year-specific effect of being a winner. This precision-weighting procedure in the second stage effectively accounts for heteroskedasticity between years by bounding the interpretation of temporal trends to the precision of yearly estimates, which may be subject to variation in the number of observations, or the inclusion or exclusion of specific countries or sources, for example.

## Results

### The development of the winner-loser gap

Figure 2 illustrates the results of the main analysis. In the left-hand panel (A), the normalized measure of SWD is estimated as a function of an individual having voted for a winning vis-à-vis losing party – the reference group – in the previous election (as in equation 1). Results are shown in the form of a coefficient plot with points representing the estimated year-specific effect ( $\beta_t$ ) and vertical lines the upper and lower confidence intervals. The precision-weighted linear regression model (equation 2) is represented by the temporal trend line, with confidence intervals illustrated by shaded areas. To contextualize relative effects, Panel B plots the yearly mean (normalized) SWD level for winners, losers, and abstainers.<sup>9</sup>

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<sup>9</sup>Seeking to determine whether winners or losers are more responsible for the size of the winner-loser gap, previous approaches have measured winning/losing as a three-level factor variable, com-

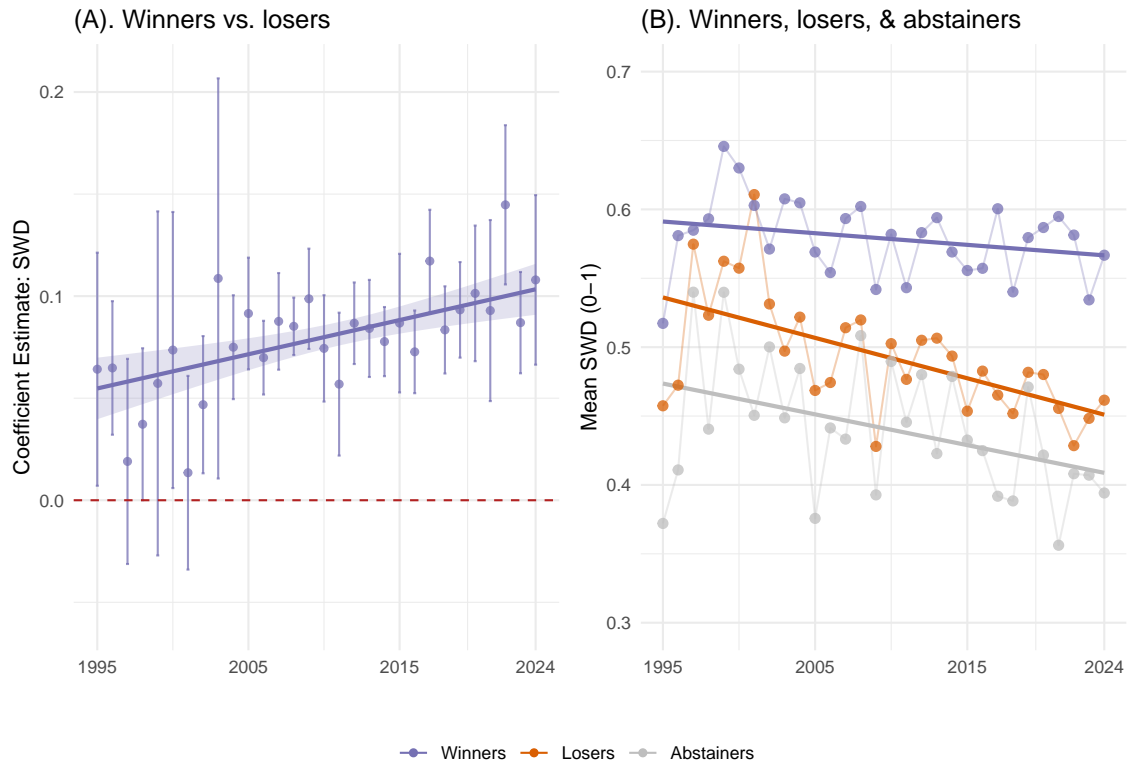


Figure 2: The winner-loser 'gap' over time

*Note:* The plots show the effect of election outcome on SWD over time. In Panel A, the points represent the coefficient  $\beta_t \cdot \text{Winner}_{ict}$  from equation 1 for each year. Error bars indicate 95% confidence intervals. The horizontal dashed red line (0) represents election losers (reference group). Trend lines and shaded areas (95% confidence intervals) represent the estimated precision-weighted linear model estimating the effect of time detailed in equation 2. Numerical results for step 1 & step 2 models are available in Appendix B. For context, Panel B plots the yearly mean level SWD for winners (purple), losers (orange), and abstainers (grey) respectively. Illustrative trend lines for each group are calculated with a simple bivariate linear model regressing mean SWD on year.

Results indicate a considerable increase in the winner-loser gap over the past three decades. Specifically, the coefficient estimate that indicates the difference between winners and losers (Panel A in Figure 2) has almost doubled in this time, growing from a 5.5 percentage point gap to a 10.3 percentage point gap. The trend lines in Panel B indicate relative stability in the level of democratic satisfaction paring the respective effects of winning and losing relative to abstainers (e.g., Nadeau, Daoust, and Dassonneville, 2023). However, this approach can be problematic in this context as it assumes a constant level of SWD for abstainers across all years. Thus, if abstainers have a negative (or positive) time trend – as Panel B demonstrates – interpretations of the development of the effect of winning/losing can be biased. Results using this approach are presented in Appendix C.2.

for election winners, yet there is a clear decline in the case of election losers (and abstainers) over this period, relative to the same groups earlier in the sample. This suggests that – on average – the driving force behind growth of the winner-loser gap is the increased dissatisfaction of losers rather than an increased level of satisfaction for winners. Moreover, Panel B also gives some indication that the democratic satisfaction of election losers is becoming increasingly indistinguishable from those who abstain from voting all together.

### **The growth of winner-loser gap: A global trend?**

To what extent can we conclude from the results presented Figure 2 that the growth of the winner-loser gap is a global trend among democracies? In order to do so, there are assumptions made by the two-step approach that need to be addressed.

First, any conclusion drawn about democracies in general from this approach assumes that the countries included are a representative sample of the global population of democracies, and consequently that the individuals sampled within those countries are representative of democratic citizens at large. This is problematic in this case because some countries are easier to survey than others – due to having higher infrastructural development or internet access, for example. More to the problem, these factors are not necessarily correlated with population levels, meaning that smaller and/or more economically developed states may be over-sampled relative to larger, poorer, democracies where more democratic citizens live. Relatedly, it may not only be the case that certain countries are more frequently sampled in cross-country surveys, but also that more respondents are sampled from within those easy-to-survey countries. Thus, overall results may also be driven by a few countries whose citizens comprise a disproportionately large share of the pooled sample relative to their population.

One way of problematizing these assumptions is by introducing alternative weighting approaches to the second step of the main analysis (equation 2). If the composition of the sample is biased by the over-inclusion of certain democracies that do not represent the global democratic population at large, the extent of this bias is important to estimate. As such, I re-estimate the time trend using weights based on

(1) the *observed* population (i.e., the countries included in the sample) and (2) the *global* democratic population. This is achieved by first re-running step 1 of the main analysis by country-year to estimate  $\hat{\beta}_{ct}$ , then compiling the results in a dataset of 893 country-year observations.<sup>10</sup> Subsequently, population-weighted yearly average effects are calculated based on (1) sample and (2) global democratic populations in a given year, respectively. In practice, the global population weighting approach effectively assigns a null effect to the segment of the target population that is not sampled from (i.e., democracies not included in the data). The results of these analyses, as well as the share of the global democratic population represented in each year, are presented in Figure 3.

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<sup>10</sup>Fieldwork dates often overlap multiple years, meaning that some country-year units contain very few respondents. I therefore omit country-years that contain fewer 200 respondents. More conservative variations (500 and 1000) are presented in Appendix C.6. Subsequent analyses also account for this issue by including precision-weights.

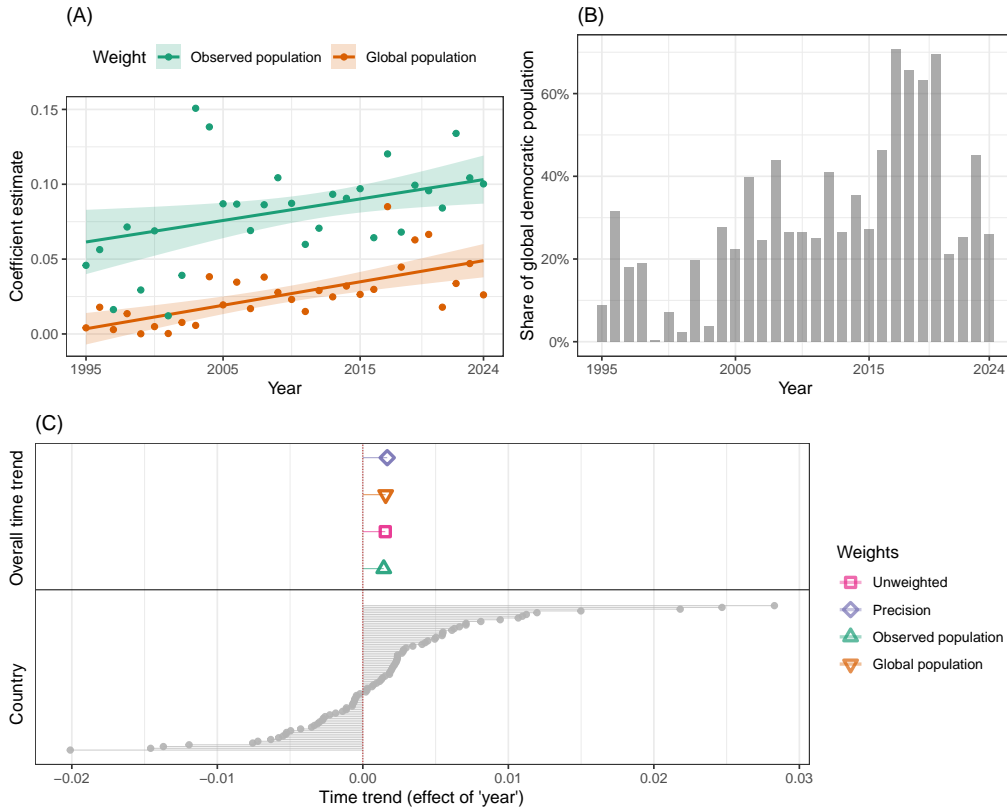


Figure 3: Population weighting

*Notes:* Panel (A) shows year-wise estimates and weighted trend lines for the two alternate population weights, Panel (B) details the share of the global democratic population sampled from in each year of the study, and Panel (C) illustrates the time trend estimated for each country individually, as well as overall time trends based on different weighting approaches. The results of the two step estimation approach for each country individually are illustrated in Appendix D.1.

Results show a notably similar magnitude of time trend in the observed population weighted (0.0014) and global population weighted (0.0016) specifications.<sup>11</sup> These time trends are reflected by the corresponding point estimates plotted in Panel (C), along with the precision-weighted estimate (0.0017) plotted in Panel (A) of Figure 2 (purple), and a raw, unweighted average (0.0015) of country-wise effects (magenta).<sup>12</sup> The results of this analysis show a robust growth of the winner-loser gap around the world in terms of direction and magnitude across different estimation

<sup>11</sup>Numerical results can be found in the Appendix B.

<sup>12</sup>Given that the global population weighting approach assigns 0 effect to unobserved nations, it is at first glance a surprise that the magnitude of this effect is larger than that of the observed population approach. However, as Panel (B) in Figure 3 shows, far fewer democratic countries are represented in the sample in earlier years compared to the later years. The assigned null effects are

procedures, albeit in the context of considerable heterogeneity between countries.

## **What explains the growth of the winner-loser gap?**

The growth of the winner-loser gap is hypothesised to be driven by changes in its two primary components: (a) policy utility for winners vis-à-vis losers and (b) the intensity of emotional responses to election results. Above, I argued that the decline of democratic institutions in a state means the erosion of institutional guardrails that insulate the democratic minority from severe policy utility loss after electoral loss. Similarly, increased affective polarization in society can heighten emotional responses to election results for winners and losers. The observed growth of the winner-loser gap in SWD is expected to operate through these processes. To directly test these propositions, this section uses a mediation analysis.

In its simplest form, mediation analysis assesses the degree to which the effect of an input variable  $T$  on output variable  $Y$  occurs via a mediation variable  $M$  (see Baron and Kenny, 1986). The benefit of mediation analysis in this context is that it is able to determine the proportion of changes in the magnitude of the winner-loser gap that is explained by the co-variation of the proposed mediation variables ( $M$ ): democratic institutional quality and levels of polarization.

The quality of democratic institutions is measured using V-Dem's electoral democracy index (`v2x_polyarchy`) (Coppedge et al., 2024). This index, based on Dahl's classic conception of polyarchy, is comprised of several institutional components that reduce the policy cost of electoral defeat, such as the freedom of association and expression, the extent of suffrage, and the quality of electoral institutions (Dahl, 1971). The measurement of affective polarization is significantly less straightforward in this context, however. In contrast to democratic institutions, affective polarization is an individual-level phenomenon which is typically measured by a combination of positive feelings towards in-group parties and negative feelings toward out-group parties therefore concentrated more in the earlier years of the sample, which can have the effect of pulling yearly estimates down to a greater extent in the earlier period of the sample, thereby resulting in a steeper slope.

(e.g., Gidron, Adams, and Horne, 2020; Wagner, 2021). As these variables are not measured in the vast majority of sources used in this analysis – as well as the fact that the mediation analysis calls for a country-level measure – I rely on V-Dem’s political polarization variable (*v2cacamps*), which measures the extent to which society is polarized into ”antagonistic, political camps” (Coppedge et al., 2024).<sup>13</sup> While this is not a direct measure of affective polarization, the item refers specifically to the ”extent to which political differences affect social relationships beyond political discussions”, thereby comprising an affective element.

In order to assess mediation effects at the country level, I maintain the country-wise data structure from the previous section and estimate the winner-loser gap for each country-year  $\hat{\beta}_{ct}$  using the baseline precision-weighting approach from equation 2. Following Imai et al. (2011), the Average Causal Mediation Effect (ACME) of each mediating variable is obtained by estimating two initial models. The first, a mediator model, is specified as:

$$M_{ct} = \alpha + \delta_1 \cdot \text{Year}_{ct} + \lambda_c + \varepsilon_{ct} \quad (3)$$

where  $M_{ct}$  is the mediating variable in a given country-year,  $\delta_1$  is the time trend of the mediator, and  $\lambda_c$  is the country fixed effect. Subsequently, the outcome model is specified as:

$$\hat{\beta}_{ct} = \alpha + \gamma_1 \cdot M_{ct} + \gamma_2 \cdot \text{Year}_{ct} + \lambda_c + u_{ct} \quad (4)$$

where  $\hat{\beta}_{ct}$  is the winner-loser gap in a given country-year,  $\gamma_1$  is the effect of the moderator, and  $\gamma_2$  is the direct effect (ADE) of time holding the moderator constant. The inclusion of country fixed-effects means that this approach considers *within-country* changes in democracy or polarization. The ACME is calculated by

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<sup>13</sup>Individual-level affective polarization measures are typically based on the spread of like-dislike questions of multiple political parties. Using the CSES-derived data (where these measures are available), Appendix C.9 replicates the polarization mediation analysis using the more canonical affective polarization measure used in the literature. Results are consistent across these two measures.

multiplying  $\delta_1$  from equation 3 with  $\gamma_1$  from equation 4.

Table 1: Causal mediation analysis

Statistic	Mediator	
	Polyarchy	Polarization
ACME	0.00045*** (0.00026, 0.00065)	0.00027 (-0.00022, 0.00077)
ADE	0.00120*** (0.00061, 0.00181)	0.00136*** (0.00048, 0.00214)
Total Effect	0.00165*** (0.00109, 0.00224)	0.00163*** (0.00102, 0.00224)
Prop. Mediated	0.27*** (0.15, 0.47)	0.17 (-0.14, 0.57)

*Note:* The table reports results of a causal mediation analysis. The outcome is the coefficient for the winner-loser gap in satisfaction with democracy estimated for each country-year. The treatment is year. Analyses are displayed for two mediators: democracy level (polyarchy) and political polarization. Analysis is based on 892 country-year observations. Results are calculated using the ‘mediation’ package in R (Tingley et al., 2025). All models use robust standard errors, clustered by country, estimated with a parametric bootstrap with 1000 intervals. Significance levels: +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

The results of the causal mediation analysis for democracy and polarization are presented in Table 1. The mediation effect is represented by the ACME in the first row. All effects are presented with 95% confidence intervals. Results indicate differential mediation statuses for democratic institutions and polarization. Table 1 indicates a clear and statistically significant mediating role of democratic institutions in the development of the winner-loser gap. Specifically, the results indicate that more than a quarter (27%) of the growth of the winner-loser gap ( $\frac{ACME}{Total\ effect}$ ) can be attributed to democratic institutional decline.<sup>14</sup>

In contrast, this analysis produces little evidence to suggest that development of the winner-loser gap is due to within-country changes in polarization. This is

<sup>14</sup>The outcome model (equation 4) for democracy indicates a substantial negative effect of the democracy index on the size of the winner-loser gap ( $\gamma_2 = -0.36$ ,  $t = 5.7$ ). Full numerical results for the mediator and outcome models can be found in Appendix B.

despite results from the mediator model showing a clear increase in polarization within countries over the time period in question ( $\delta_1 = 0.05$ ,  $t = 21.4$ ). This result is surprising given how previous work has established a strong link between affective polarization and the winner-loser gap (e.g., Janssen, 2024).

There are several possible interpretations of this null finding. First, affective polarization is an individual-level phenomenon, typically measured using assessments of an individual's attitude toward their own and opposition parties. Here, affective polarization is measured on the country-level, which inevitably misses much of the nuance afforded by individual-level analysis. Second, studies associating affective polarization with the winner-loser gap tend to rely exclusively on single-country post-election surveys or cross-national CSES data (also collected post-election). CSES is the exception in this regard, and the majority of data in this study were collected largely independent of election cycles. As such, findings relating affective polarization to the magnitude of the winner-loser gap may be driven by heightened emotional states after elections (Kim et al., 2025; Lawall, Michalaki, and Tsakiris, 2026). Finally, the null effect of polarization found here may also be due to differences in sample composition and cross-country heterogeneity.<sup>15</sup>

## Between-country heterogeneity

So far, results have established a robust growth of the distance between election winners and losers in their levels of satisfaction with democracy over the past three decades. Additional tests have indicated that this development is part of a wider global trend, is not an artifact of data coverage, and that part of this development can be attributed to a pattern of within-country democratic decline around the world. In doing so, however, it has also established a significant degree of heterogeneity across countries, not only in terms of the magnitude of this time trend, but

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<sup>15</sup>Limiting the sample to CSES, in Appendix C.9 I create an individual-level measure of affective polarization based on the spread of CSES party like-dislike questions (Wagner, 2021) and aggregate to the country-year level. While there is a significant reduction in observations relative to the main mediation analysis (892 down to 201), no mediation effects are found with this alternative measure.

also its direction (see Figure 3).

What explains differences between countries? Insights into this question can be gained by thinking about the nature of the development of the winner-loser gap. A positive time trend (growth) of the gap consists of two constituent groups moving apart from one another: winners and losers. Thus, a growth in the gap can be the product of one or several of (a) winners becoming more satisfied and (b) losers becoming less satisfied. Panel B in Figure 2 suggests that on average, the latter is the driving force of the increased gap in relation to abstainers. However, individual countries are likely to vary in this respect too. Thus, comparing the respective development of democratic satisfaction among winners and losers across countries can give some indication of *why* the gap is growing in some cases and not in others. To do this, Figure 4 plots a simplified time trend for winners against the time trend for losers for each country. The X and Y axes represent the value of country-wise slopes of year on SWD for winners and losers, meaning the center point of the plot represents no temporal change for winners or losers from the year they first enter the data to the last. The diagonal dotted line represents a perfect correlation between the change in SWD for winners and losers, and therefore no gap growth. The shaded area to the left of the diagonal dotted line indicates that the distance between the mean country-wide SWD for winners and losers has increased, and the unshaded area to the right of the line indicates that this gap has decreased.

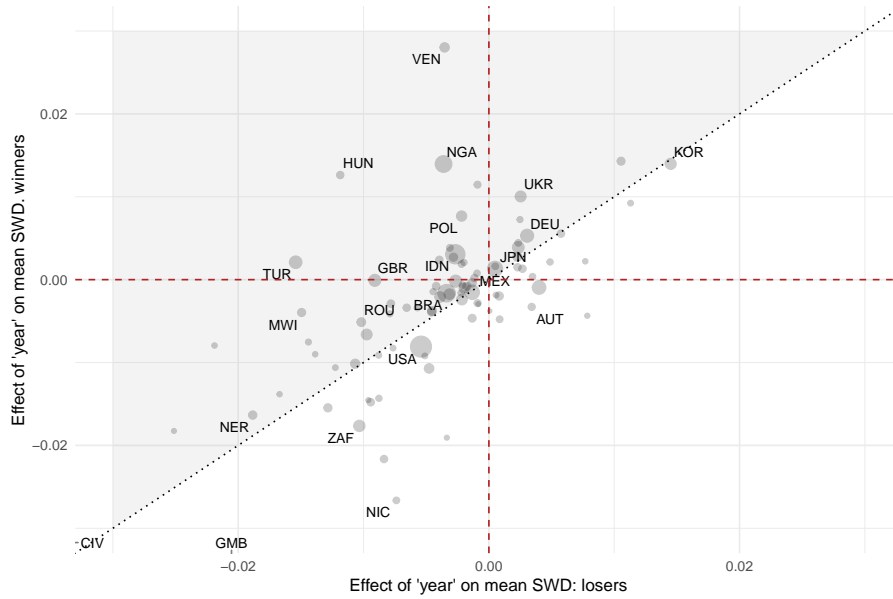


Figure 4: Country scatter plot

*Notes:* This figure plots the value of slopes for the effect of 'year' on country ( $n = 88$ ) mean levels of satisfaction with democracy for winners (Y axis) and losers (X axis) independently. Country slopes for each group are calculated by regressing the mean SWD on year with weights for the number of observations in a given year. The vertical dashed red line represents no change in losers' satisfaction with democracy, and the horizontal dashed red line represents no change for winners. The diagonal dotted line represents a 1:1 correlation between slopes, and as such no change in the relative gap between winners and losers. The shaded triangle represents gap growth, and the unshaded area represents gap reduction. Country point size is relative to population.

Plotting the data in this way permits the differentiation between countries that have similar trajectories regarding the winner-loser gap (proximity to the dotted diagonal line), but for perhaps for different reasons. South Korea and the US, for instance, have similarly small and negative time trends (see Appendix D.1). Figure 4, however, suggests that both Korean winners and losers have been becoming more satisfied with democracy – and to a similar extent – resulting in a stagnant gap between winners and losers. In contrast, both winners and losers of US elections have been becoming increasingly dissatisfied with democracy – albeit winners to a slightly greater extent – resulting in small decrease in the winner-loser gap. Similarly, the winner-loser gap in Poland and the United Kingdom has increased to a similar extent, but for different reasons. In Poland, winners have on average been becoming more satisfied with democracy while losers remain at a similar level. In the UK, however, winners are similarly satisfied with democracy while losers are considerably less satisfied.

That being said, data aggregated to the country-level is undoubtedly noisy (particularly in countries with less temporal coverage) and interpretations of specific countries should be made with caution. Nevertheless, this plot overall reveals three pieces of information about the development of the winner-loser gap around the world: (a) the growth (or stagnation or reduction) of the winner-loser gap has different varieties, (b) these varieties are determined by the respective trajectory of winners and losers and (c) these trajectories are often not (inversely) correlated with one another.

## Conclusion

Much has been written about the winner-loser gap in levels of satisfaction with democracy. Among the many studies that have investigated the moderating effects of institutional and contextual factors, the conclusion remains that winners and losers of elections view democracy differently. This study has developed this line of research by analyzing over 1.2 million survey responses across 93 democracies to establish that the winner-loser gap has – on average – doubled in magnitude since the mid 1990s, and this is primarily due to election losers becoming more dissatisfied with the way democracy works. Mediation analyses established little evidence to suggest that this development is due to heightened emotional responses due to increases in polarization. Rather, a significant proportion of this development is attributed to the deterioration of democratic institutions within countries over this period, which I have argued increases the gap in policy returns between winners and losers.

These findings have implications for several current scholarly debates. First, this study contributes to research on public opinion and democratic attitudes by contextualizing previous studies that have considered SWD (or related public opinion measures) at different points in time. Specifically, the temporal context of studies that investigate democratic attitudes – especially with regard to elections – matters. Although the existence of the winner-loser gap is seemingly consistent in recent decades, its magnitude is not. This is a particularly important takeaway for research

that studies political attitudes at a particular point in time (e.g., experimental studies). Further, this work contributes to the democracy in crisis debate (e.g., Wike and Fetterolf, 2018; Foa et al., 2020; Wuttke, Gavras, and Schoen, 2022) by showing how the spoils of elections matter for assessments of regime support, and how these relationships have developed in different parts of the world. The established mediating role of democratic institutions also contributes to the literature on citizen attitudes and democratic backsliding (e.g., Wunsch, 2025) by showing the impact of democratic decline on the attitudes of winning and losing camps in democracies on an unparalleled temporal and geographic scope. In the same breath, this work also has implications for research considering the relationship between democratic backsliding and affective polarization (Kingzette et al., 2021; Orhan, 2022). The results of this study support those that have questioned the impact of affective polarization on other political behaviour (e.g., Broockman, Kalla, and Westwood, 2023) by finding that while it has been rising around the world over the past 30 years, its effects on citizen attitudes in general and the winner-loser gap in particular are not concrete.

One reality about the data analyzed in this study is important to reinforce here, however: it does not consist of panels within countries that are tracking the same individuals over time. It is thus important to clarify that when interpretations refer to winners or losers *becoming* more or less satisfied over time, it refers to the measurement of a cross section of winners/losers through time. Thus, while it is likely that these groups are broadly stable group in countries such as Turkey, Hungary, or South Africa, these terms actually refer to very different groups of individuals in countries like the US, which have experienced regular incumbent turnover between partisan groups over the past three decades. This reality is arguably starker in countries with higher voter volatility or weaker party system institutionalization, where the composition of winners and losers are more likely to change from one election to another. As such, this implies that – on average – the country trends identified are not likely explained away by an overlap between election outcomes and partisanship that can be identified in certain cases.

Another important issue to bear in mind in the context of this study is that

although the survey item referring to SWD is broadly constant, exactly what this item measures may vary across contexts. As alluded to earlier, SWD is generally conceptualized as a direct appraisal of regime effectiveness, as distinct from support for democracy (Linde and Ekman, 2003; Norris, 1999). Specific interpretations of the question and what "democracy" or "satisfaction" actually represent may however vary across cultural and linguistic contexts, potentially affecting inference (Wunsch, 2025). Nevertheless, in broad strokes the general consistency of the SWD measure is indicative that it taps in to a certain undercurrent of political perceptions and political (dis)content.

Building upon this work, there are several promising directions for future research to take. This study has been able to contextualize many countries in terms of the development of the the winner-loser gap: in most cases, losers are becoming less satisfied with democracy, but this is also true for winners in many cases. What institutional or contextual factors lead to *both* winners and losers becoming more dissatisfied with democracy? These cases are somewhat masked in the findings here, but this trend is no less concerning and worthy of further investigation. Additionally, implicit in this study is a tension that analyzing this data is not able to resolve; how do personal experiences of repeated winning/losing relate to democratic decline? Countrywise analyses presented here indicate the largest gap growths in countries with less incumbent turnover. Longitudinal data could provide one way of differentiating between mechanical and substantive effects of government alternation for the winner-loser gap (see also Otjes, Willumsen, and Ligthart, 2025). Finally, future work could extend the purview of the winner-loser gap to other dimensions of democratic attitudes, such as by contrasting perceptions of procedural and service delivery institutions (e.g., Tomic et al., 2026). More generally, this study lays the foundation for future studies to investigate the potentially changing nature of additional socio-political perceptions between winners and losers.

The trajectory established by this study is undoubtedly a worrying development for democracy. Election losers are becoming increasingly dissatisfied with democratic governance. This has implications first and foremost for democratic legitimacy, which relies heavily on the tacit consent of election losers to accept policy decisions

and electoral results. In the context of recent examples of election losers refusing to acknowledge the authenticity of election results and subsequent political unrest, these findings suggest an increased risk of similar instances in the future.

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The development of the winner-loser gap:  
Institutional decline, polarization, and satisfaction  
with democracy around the world 1995-2024

Supplementary material

# Table of Contents

A	Descriptive statistics . . . . .	A2
B	Numerical results . . . . .	A2
B.1	Individual-level analyses . . . . .	A2
B.2	Country-level analyses. . . . .	A5
C	Robustness tests . . . . .	A8
C.1	Alternative estimation approach: MLM . . . . .	A8
C.2	Abstainer analyses . . . . .	A8
C.3	Removing one source at a time . . . . .	A11
C.4	Sample start/end dates . . . . .	A12
C.5	Electoral autocracy inclusion . . . . .	A13
C.6	Country-year respondent no. cut-offs . . . . .	A13
C.7	Restricted IV. . . . .	A13
C.8	Alternative DV operationalisation. . . . .	A14
C.9	Alternative polarization measure . . . . .	A16
D	Additional data . . . . .	A16
D.1	Country-wise trends. . . . .	A16

## A Descriptive statistics

Table A1: Descriptive Statistics: Survey respondents

Variable	length	mean	sd	min	max
Year	1241512	2012.18	7.07	1995	2024
Age	1241512	44.94	17.58	18	99
Gender	1241512	0.51	0.50	0	1
Education	1241512	0.51	0.29	0	1
Satisfaction with democracy	1241512	0.50	0.29	0	1
Winner (2-level)	933706	1.47	0.50	1	2
Winner (3-level)	1241512	1.15	0.79	0	2

Table A2: Descriptive Statistics: Country-years

Variable	length	mean	sd	min	max
WL Gap in SWD	893	0.08	0.08	-0.18	0.51
Population (millions)	893	30.64	51.37	0.20	340.11
Global dem populaion (billions)	893	3.15	0.55	1.95	3.87
Democracy index (polyarchy)	893	0.77	0.12	0.50	0.92
Polarization (V-Dem)	892	-0.71	1.30	-3.81	3.36
Polarization (CSES)	201	2.34	0.33	1.48	3.16

## B Numerical results

### B.1 Individual-level analyses

Table A3: Yearly results: Winners vs. losers (Part 1)

		DV: SWD															
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
Winner		0.064+	0.065***	0.019	0.037+	0.057	0.074+	0.013	0.047*	0.109+	0.075***	0.091***	0.070***	0.088***	0.085***	0.099***	
		(0.029)	(0.017)	(0.026)	(0.019)	(0.043)	(0.035)	(0.024)	(0.017)	(0.050)	(0.013)	(0.014)	(0.009)	(0.012)	(0.007)	(0.013)	
Female		-0.007	-0.012*	-0.020**	-0.012	-0.028*	-0.026	-0.018**	-0.020***	-0.012	-0.018***	-0.015*	-0.014***	-0.013**	-0.016***	-0.010*	
		(0.011)	(0.005)	(0.005)	(0.008)	(0.001)	(0.027)	(0.003)	(0.004)	(0.008)	(0.003)	(0.006)	(0.003)	(0.004)	(0.003)	(0.004)	
Age		0.000	-0.000	0.000	0.000	-0.000	0.001*	-0.000	0.000	-0.000	0.000	0.000	0.000	0.000	0.000+	-0.000	
		(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Education		-0.057	0.003	0.036*	0.038*	0.033	0.029	0.083+	0.080***	0.014	0.047**	0.008	0.020	0.037**	0.016	0.022+	
		(0.039)	(0.032)	(0.016)	(0.017)	(0.008)	(0.025)	(0.037)	(0.015)	(0.028)	(0.016)	(0.017)	(0.013)	(0.012)	(0.013)	(0.013)	
Source FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Num.Obs.	4306	20848	11954	15401	4252	3720	6570	37065	5872	33126	24074	59644	22389	53824	34026		
R2	0.073	0.190	0.186	0.234	0.062	0.149	0.346	0.115	0.141	0.179	0.164	0.182	0.240	0.158	0.200		
R2 Within	0.014	0.011	0.004	0.006	0.016	0.018	0.011	0.016	0.031	0.027	0.022	0.020	0.030	0.026	0.032		

Note: Numerical estimates of panel A in Figure 1. The table reports OLS estimates for yearly regressions outlined in equation 1. 'Winner' coefficients indicate the difference between winners and losers (reference group). Significance: + p<0.1, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

Table A4: Yearly results: Winners vs. losers (Part 2)

		DV: SWD														
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Winner		0.074*** (0.013)	0.057** (0.018)	0.087*** (0.010)	0.084*** (0.012)	0.078*** (0.009)	0.087*** (0.017)	0.073*** (0.010)	0.117*** (0.013)	0.083*** (0.011)	0.093*** (0.012)	0.101*** (0.017)	0.093** (0.023)	0.145*** (0.020)	0.087*** (0.013)	0.108*** (0.021)
Female		-0.011** (0.004)	-0.013** (0.004)	-0.006* (0.003)	-0.010* (0.005)	-0.009** (0.003)	-0.014*** (0.004)	-0.010** (0.003)	-0.000 (0.004)	-0.013** (0.005)	-0.011** (0.003)	-0.005+ (0.003)	-0.022** (0.006)	-0.019* (0.007)	-0.022*** (0.003)	-0.010* (0.005)
Age		0.000 (0.000)	0.000 (0.000)	0.000+ (0.000)	0.000 (0.000)	0.000* (0.000)	0.001* (0.000)	0.000 (0.000)	0.000 (0.000)	0.000** (0.000)	0.001*** (0.000)	0.001+ (0.000)	0.000 (0.000)	0.001* (0.000)	0.000+ (0.000)	0.001+ (0.001)
Education		0.022 (0.015)	0.034* (0.014)	0.012 (0.016)	0.044** (0.014)	0.034* (0.014)	0.032* (0.013)	0.037* (0.014)	0.027 (0.017)	0.046** (0.017)	0.013 (0.017)	0.051** (0.019)	0.034 (0.035)	0.008 (0.020)	0.038* (0.018)	0.001 (0.026)
Source FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Num.Obs.	41088	34320	47164	33521	57722	57722	32598	42975	46072	55258	48364	64746	12836	22899	44173	12899
R2	0.142	0.127	0.178	0.220	0.139	0.139	0.150	0.139	0.193	0.217	0.160	0.180	0.190	0.178	0.167	0.110
R2 Within	0.024	0.013	0.027	0.026	0.022	0.022	0.023	0.019	0.040	0.023	0.031	0.035	0.024	0.053	0.031	0.034

Note: Numerical estimates of panel A in Figure 1. The table reports OLS estimates for yearly regressions outlined in equation 1. 'Winner' coefficients indicate the difference between winners and losers (reference group). Significance: + p<0.1, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

## B.2 Country-level analyses

Table A5: Meta regression results

	DV: SWD
	Winners vs. losers
Year	0.002*** (0.000)
Intercept	0.079*** (0.003)
Weights	Yes
Num.Obs.	30
R2	0.361

*Note:* The table reports the OLS estimates for the step two meta-regression models described in Equation 2 and illustrated in Panel A of Figure 2. Significance levels: +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table A6: Democratic population weights

	DV: WL Gap	DV: WL Gap
Year	0.001* (0.001)	0.002*** (0.000)
Intercept	0.082*** (0.004)	0.026*** (0.003)
Weights	Dem. pop. (sample)	Dem. pop. (global)
Num.Obs.	30	30
R2	0.189	0.465

*Note:* The table reports numerical OLS estimates presented graphically in Panel A of Figure 3. Significance levels: +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table A7: Mediation models

	Polyarchy		Polarization	
	DV: Polyarchy	DV: WL Gap	DV: Polarization	DV: WL Gap
	Mediator	Outcome	Mediator	Outcome
Year	-0.001*	0.001*	0.048***	0.001*
	(0.000)	(0.001)	(0.007)	(0.001)
Polyarchy		-0.362***		
		(0.109)		
Polarization				0.006
				(0.012)
Intercept	0.527***	0.307***	-1.364***	0.125***
	(0.001)	(0.058)	(0.008)	(0.016)
Country FE	Yes	Yes	Yes	Yes
Num.Obs.	892	892	892	892
R2	0.915	0.336	0.905	0.308

*Note:* The table reports OLS estimates of the mediator and outcome models used to generate Table 1. Significance levels: +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## C Robustness tests

### C.1 Alternative estimation approach: MLM

Table A8: Alternative approach:  
MLM

	DV: SWD
	(1)
Year	-0.005*** (0.001)
Winner	0.049*** (0.008)
Winner X Year	0.002*** (0.000)
Gender	-0.012*** (0.001)
Age	0.000*** (0.000)
Education	0.021*** (0.001)
Intercept	0.460*** (0.017)
Random effects	Country + Year
Fixed effects	Source
Num.Obs.	933706
R2 Marg.	0.034
AIC	184001.6
BIC	184213.1

*Note:* The table reports the results of a linear mixed effects model. Significance levels: +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

### C.2 Abstainer analyses

Table A9: Yearly results: Winners and losers vs. Abstainers (Part 1)

		DV: SWD														
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Winner		0.106** (0.024)	0.089*** (0.012)	0.057** (0.014)	0.089*** (0.010)	0.096 (0.024)	0.109* (0.028)	0.074** (0.011)	0.061*** (0.012)	0.112** (0.021)	0.083*** (0.010)	0.128*** (0.013)	0.082*** (0.007)	0.109*** (0.009)	0.070*** (0.006)	0.119*** (0.011)
Loser		0.047+ (0.020)	0.024* (0.011)	0.038* (0.015)	0.052*** (0.013)	0.038 (0.019)	0.044 (0.024)	0.059* (0.017)	0.015 (0.009)	0.012 (0.024)	0.009 (0.008)	0.038*** (0.009)	0.014* (0.006)	0.022* (0.010)	-0.014* (0.006)	0.022* (0.010)
Female		-0.007 (0.012)	-0.008 (0.005)	-0.019** (0.005)	-0.011 (0.007)	-0.028* (0.001)	-0.011 (0.019)	-0.014+ (0.006)	-0.018*** (0.004)	-0.004 (0.010)	-0.015*** (0.003)	-0.009 (0.006)	-0.010*** (0.003)	-0.008+ (0.004)	-0.013*** (0.003)	-0.004 (0.003)
Age		0.000 (0.001)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.001)	0.001* (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000* (0.000)
Education		-0.044 (0.036)	-0.009 (0.030)	0.045* (0.016)	0.036* (0.016)	0.050* (0.003)	0.025 (0.024)	0.095+ (0.040)	0.081*** (0.014)	0.010 (0.031)	0.044** (0.015)	0.004 (0.017)	0.012 (0.013)	0.032** (0.011)	0.017 (0.014)	0.011 (0.013)
Source FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Num.Obs.	5184	26785	14566	20017	5168	5391	8389	8389	47429	7407	44569	31832	79061	30970	68549	47165
R2	0.088	0.189	0.174	0.232	0.064	0.169	0.348	0.348	0.118	0.136	0.186	0.186	0.178	0.244	0.150	0.190
R2 Within	0.018	0.012	0.008	0.015	0.023	0.024	0.022	0.022	0.017	0.024	0.025	0.028	0.021	0.034	0.024	0.035

Note: Numerical estimates of panel B in Figure 1. The table reports OLS estimates for yearly regressions outlined in equation 1. 'Winner' and 'Loser' coefficients indicate the difference with abstainers (reference group). Significance levels: + p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table A10: Yearly results: Winners and losers vs. Abstainers (Part 2)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Winner	0.066*** (0.009)	0.064*** (0.014)	0.087*** (0.009)	0.105*** (0.013)	0.073*** (0.008)	0.110*** (0.015)	0.095*** (0.008)	0.143*** (0.014)	0.093*** (0.010)	0.083*** (0.012)	0.108*** (0.014)	0.142*** (0.024)	0.160*** (0.018)	0.085*** (0.009)	0.151*** (0.013)
Loser	-0.007 (0.009)	0.008 (0.008)	0.003 (0.009)	0.018* (0.008)	-0.004 (0.007)	0.024** (0.008)	0.024*** (0.006)	0.026** (0.009)	0.010+ (0.006)	-0.007 (0.008)	0.008 (0.007)	0.051* (0.019)	0.018 (0.017)	-0.001 (0.007)	0.043** (0.015)
Female	-0.009* (0.003)	-0.010* (0.004)	-0.004+ (0.003)	-0.008+ (0.004)	-0.007** (0.002)	-0.010** (0.003)	-0.011*** (0.003)	-0.002 (0.003)	-0.013** (0.004)	-0.007* (0.003)	-0.005+ (0.003)	-0.017* (0.006)	-0.016* (0.007)	-0.021*** (0.003)	-0.009 (0.007)
Age	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000* (0.000)	0.000 (0.000)	-0.000 (0.000)	0.001* (0.000)	-0.000+ (0.000)	0.001+ (0.001)
Education	0.022 (0.014)	0.036* (0.015)	0.012 (0.014)	0.043** (0.013)	0.034* (0.015)	0.022 (0.016)	0.025+ (0.013)	0.018 (0.017)	0.035* (0.015)	0.011 (0.016)	0.045* (0.017)	0.035 (0.032)	0.008 (0.019)	0.031+ (0.017)	0.002 (0.017)
Source FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Num.Obs.	54557	45410	60293	45275	75367	47995	61159	62712	72461	65892	84666	15067	26594	65767	15815
R2	0.140	0.133	0.181	0.225	0.136	0.153	0.155	0.205	0.220	0.158	0.196	0.202	0.179	0.172	0.125
R2 Within	0.020	0.013	0.025	0.031	0.021	0.028	0.022	0.041	0.022	0.025	0.033	0.030	0.051	0.026	0.042

*Note:* Numerical estimates of panel B in Figure 1. The table reports OLS estimates for yearly regressions outlined in equation 1. 'Winner' and 'Loser' coefficients indicate the difference with abstainers (reference group). Significance levels: + p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table A11: Three-level results

DV: SWD		
	Winners vs. abstainers	Losers vs. abstainers
Year	0.001+	-0.001
	(0.001)	(0.000)
Intercept	0.090***	0.014***
	(0.004)	(0.003)
Weights	Yes	Yes
Num.Obs.	30	30
R2	0.126	0.077

*Note:* The table reports OLS estimates. Significance levels: +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

### C.3 Removing one source at a time

The two-stage analysis presented in Panel A of Figure 2 and Appendix B could be disproportionately influenced by a single survey source. To account for this, Figure A1 presents the results of the second stage of the main analysis (the effect of year on the size of the WL gap) with one source removed at a time. The source omission applies to both step one (equation 1) and step two (equation 2) analyses. The results show that the overall positive time trend does not seem to be driven by a specific source.

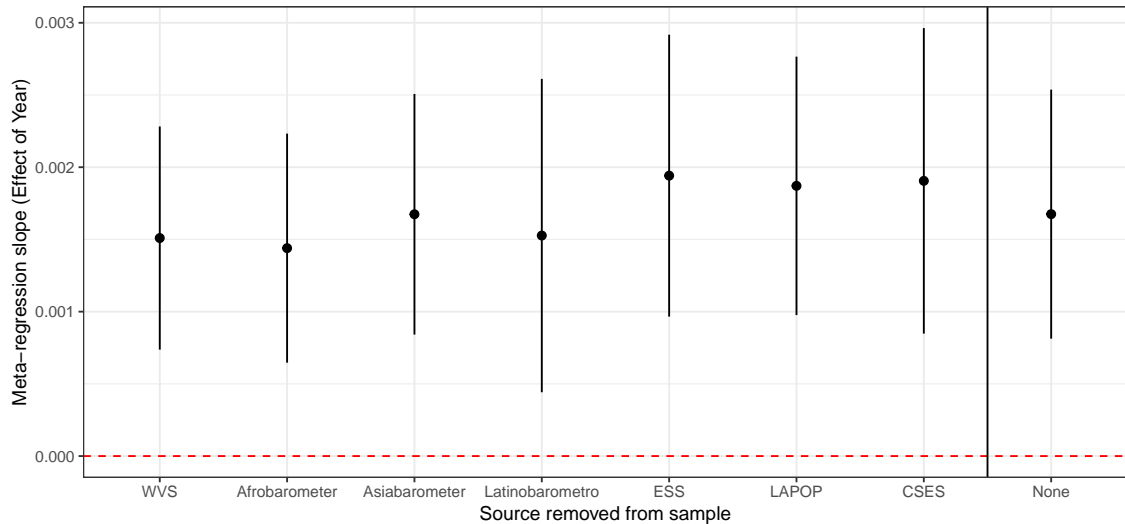


Figure A1: Source jackknife analysis

*Note:* Removing source one by one for equation 2 in main paper. Vertical lines indicate 95% confidence intervals.

## C.4 Sample start/end dates

The two-stage analysis presented in Panel A of Figure 2 and Appendix B could also be the product of arbitrary sample start/end dates. To address this concern, Figure A2 estimates the time trend with progressively smaller samples (years). The top row presents the time trend ending in 2024 but beginning at the value of the x-axis. The bottom row presents the time trend beginning at 1995 but ending at the value of the x-axis. The results show a fairly consistent (significant) positive time trend when samples consist of at least 13-15 observations, at either end of the time period.

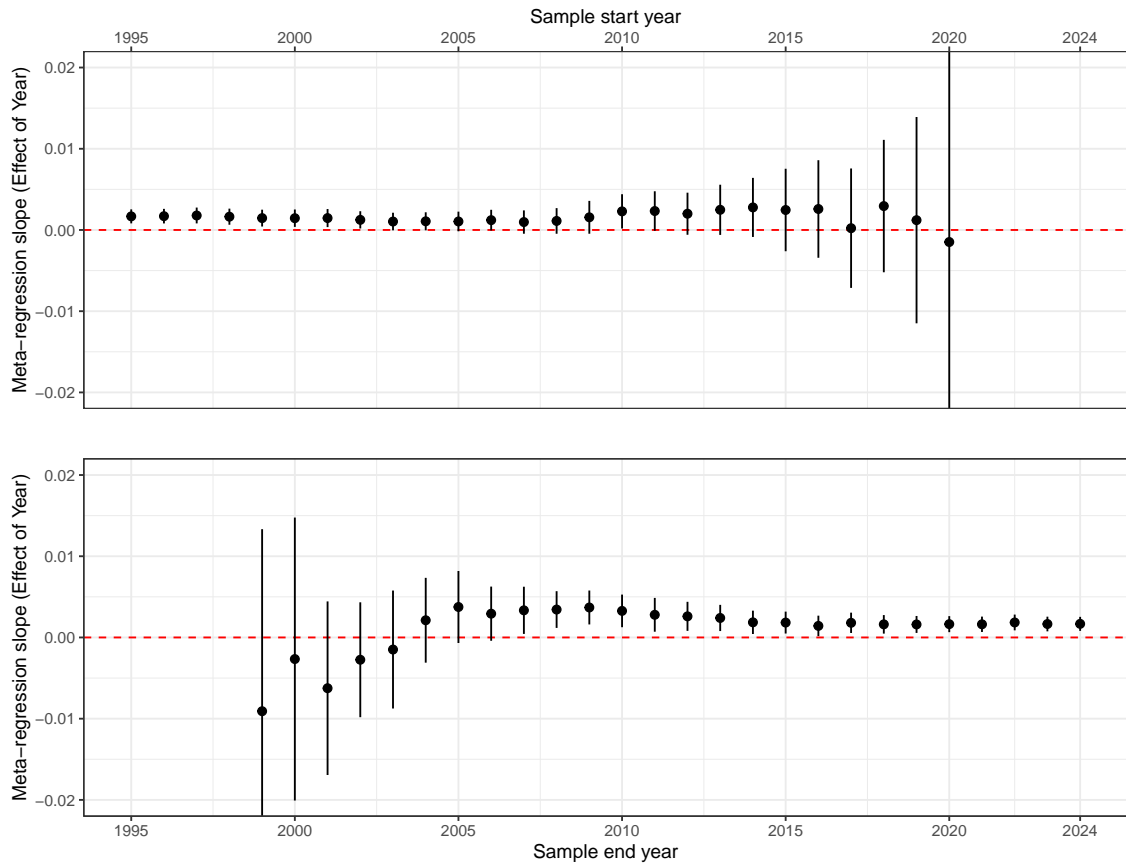
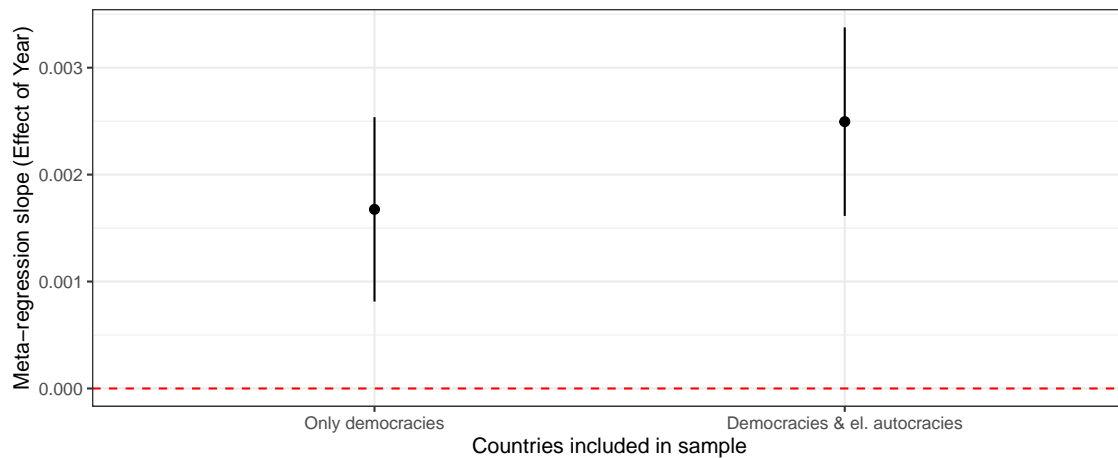


Figure A2: Varying sample start/end date

*Notes:* Replication of main results (stage 2) reported in Appendix B with sample restricted by start year. Results are displayed for analyses with at least 5 observations (years). Vertical lines indicate 95% confidence intervals.

## C.5 Electoral autocracy inclusion



*Notes:* Replication of equation 2 in main paper with sample extended to include electoral autocracies ( $v2x\_regime = 1$ ). Equation 1 yearly WL gap estimates are also based on the same inclusion. The 'democracies only' sample is the baseline estimate from the main paper. Vertical lines indicate 95% confidence intervals.

## C.6 Country-year respondent no. cut-offs

When aggregating survey respondents into country-years for the country-level analyses presented in Figure 3 and Table 1, some country-year values are produced by relatively few observations due to fieldwork falling across a change of calendar year, for example. Particularly noisy country-years are removed in the main analysis by omitting those based on fewer than 200 observations. More conservatively, Table A12 replicates the mediation analysis limiting the country-year sample to those based on more than 500 and 1000 respondents, respectively. All models contain precision-weights as elaborated in 2. The results are consistent with the results presented in Table 1.

## C.7 Restricted IV

Replication of main results (stage 2) reported in Appendix B with sample split by retrospective and prospective voting behaviour measures of winner/loser status. The (stage one) dependent variable is a (min-max) normalised measure of SWD. Coefficients represent OLS estimates of the effect of year on the winner-loser gap. Models contain precision-weights as elaborated in 2.

Table A12: Mediation models (alternative resp no. cut-offs)

	N respondents in country-year >500				N respondents in country-year >1000			
	Polyarchy		Polarization		Polyarchy		Polarization	
	Mediator	Outcome	Mediator	Outcome	Mediator	Outcome	Mediator	Outcome
Year	-0.001**	0.001*	0.048***	0.001*	-0.001*	0.001+	0.049***	0.002**
	(0.000)	(0.001)	(0.007)	(0.001)	(0.001)	(0.001)	(0.009)	(0.001)
Polyarchy		-0.361**				-0.295*		
		(0.112)				(0.130)		
Polarization				0.008				-0.006
				(0.012)				(0.009)
Intercept	0.523***	0.228***	-1.285***	0.050**	0.805***	0.404***	1.358***	0.174***
	(0.001)	(0.059)	(0.014)	(0.016)	(0.002)	(0.105)	(0.027)	(0.013)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Num.Obs.	757	757	757	757	383	383	383	383
R2	0.914	0.369	0.906	0.342	0.922	0.393	0.911	0.376

*Note:* The table reports OLS estimates. The dependent variable in mediator models is polarization. The dependent variable in outcome models is WL gap. Significance levels: +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table A13: Retrospective vs prospective winners: Numerical results

	DV: SWD	
	Retrospective IV	Prospective IV
	Year	0.001*
	(0.000)	(0.001)
Intercept	0.071***	0.101***
	(0.003)	(0.005)
Weights	Yes	Yes
Num.Obs.	29	25
R2	0.144	0.516

*Note:* The table reports OLS estimates. Significance levels: +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## C.8 Alternative DV operationalisation

Replication of main results (stage 2) reported in Appendix B using an alternative (binary) operationalization of SWD. This (stage 1) DV measure aggregates respondents into (a) those who report being satisfied with democracy and (b) those who report being dissatisfied with democracy. Coefficients represent logistic estimates of

the difference between election winners and losers (reference category). The model also contains precision-weights as elaborated in 2.

Table A14: Winners vs. losers: Dichotomous SWD operationalisation

	DV: SWD (0/1)
	(1)
Year	0.012*** (0.003)
Intercept	0.595*** (0.020)
Weights	Yes
Num.Obs.	30
R2	0.398
AIC	-35.5
BIC	-31.3
Log.Lik.	20.746

*Note:* The table reports Logistic estimates. Significance levels: + p <0.1, \* p <0.05, \*\* p <0.01, \*\*\* p <0.001

## C.9 Alternative polarization measure

Replication of the mediation analysis in Table 1 using an individual-level measure of affective polarization based on Wagner (2021) and aggregated to the country-year level. Sample is restricted to only countries covered by the CSES, which includes post-election questions on party affect. All models contain precision-weights as elaborated in 2.

Table A15: Alternate polarization measure: Mediation models

	V-Dem		CSES	
	Mediator	Outcome	Mediator	Outcome
Year	0.048*** (0.007)	0.001* (0.001)	0.007 (0.004)	0.001 (0.001)
Polarization (V-Dem)		0.006 (0.012)		
Polarization (CSES)				0.007 (0.044)
Intercept	-1.364*** (0.008)	0.125*** (0.016)	2.727*** (0.009)	0.018 (0.121)
Country FE	Yes	Yes	Yes	Yes
Num.Obs.	892	892	200	200
R2	0.905	0.308	0.710	0.382

*Note:* The table reports OLS estimates. Significance levels: + p <0.1, \* p <0.05, \*\* p <0.01, \*\*\* p <0.001

## D Additional data

### D.1 Country-wise trends

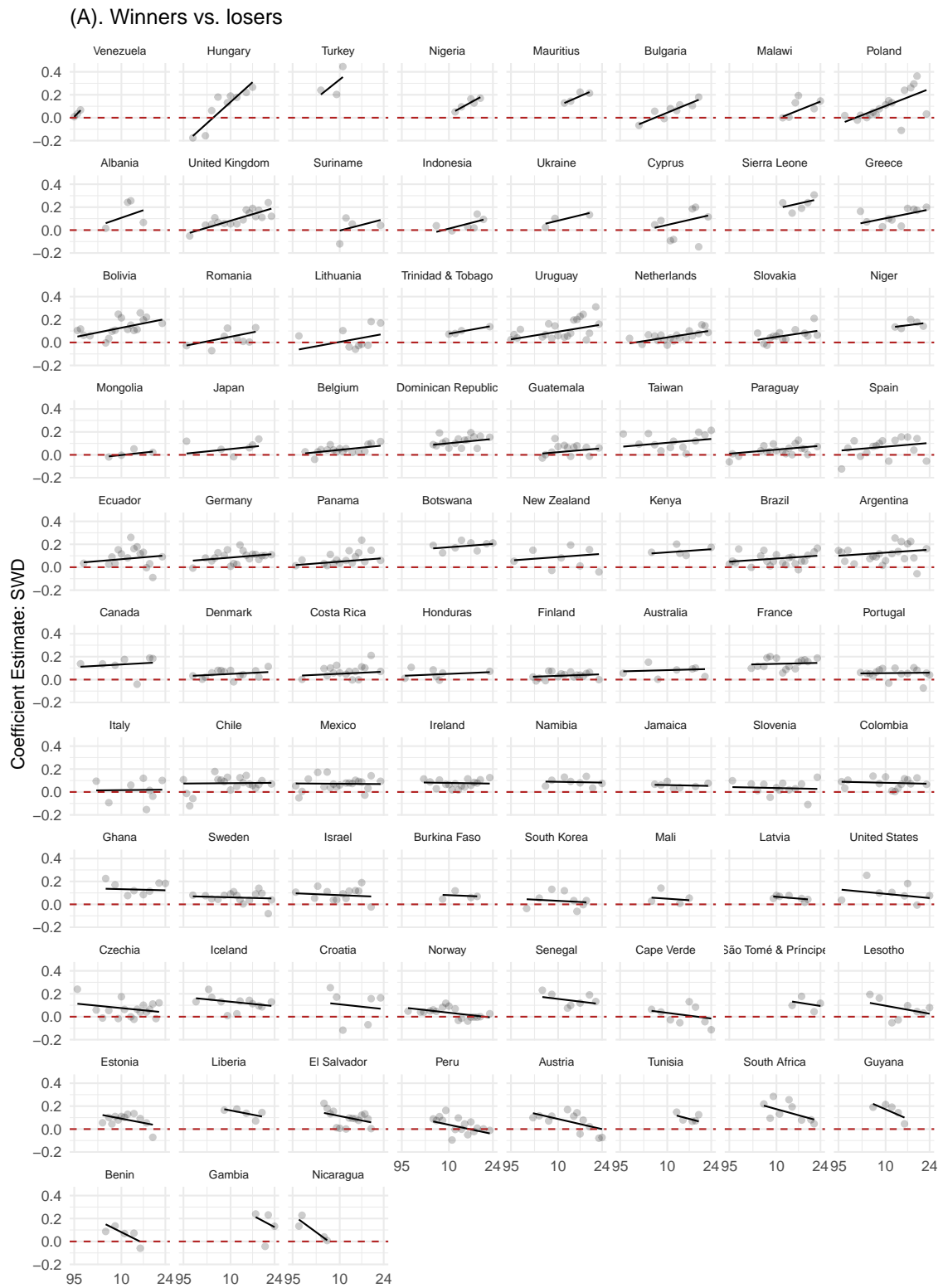


Figure A3: The winner-loser gap over time: Country-wise trends of winners versus losers.

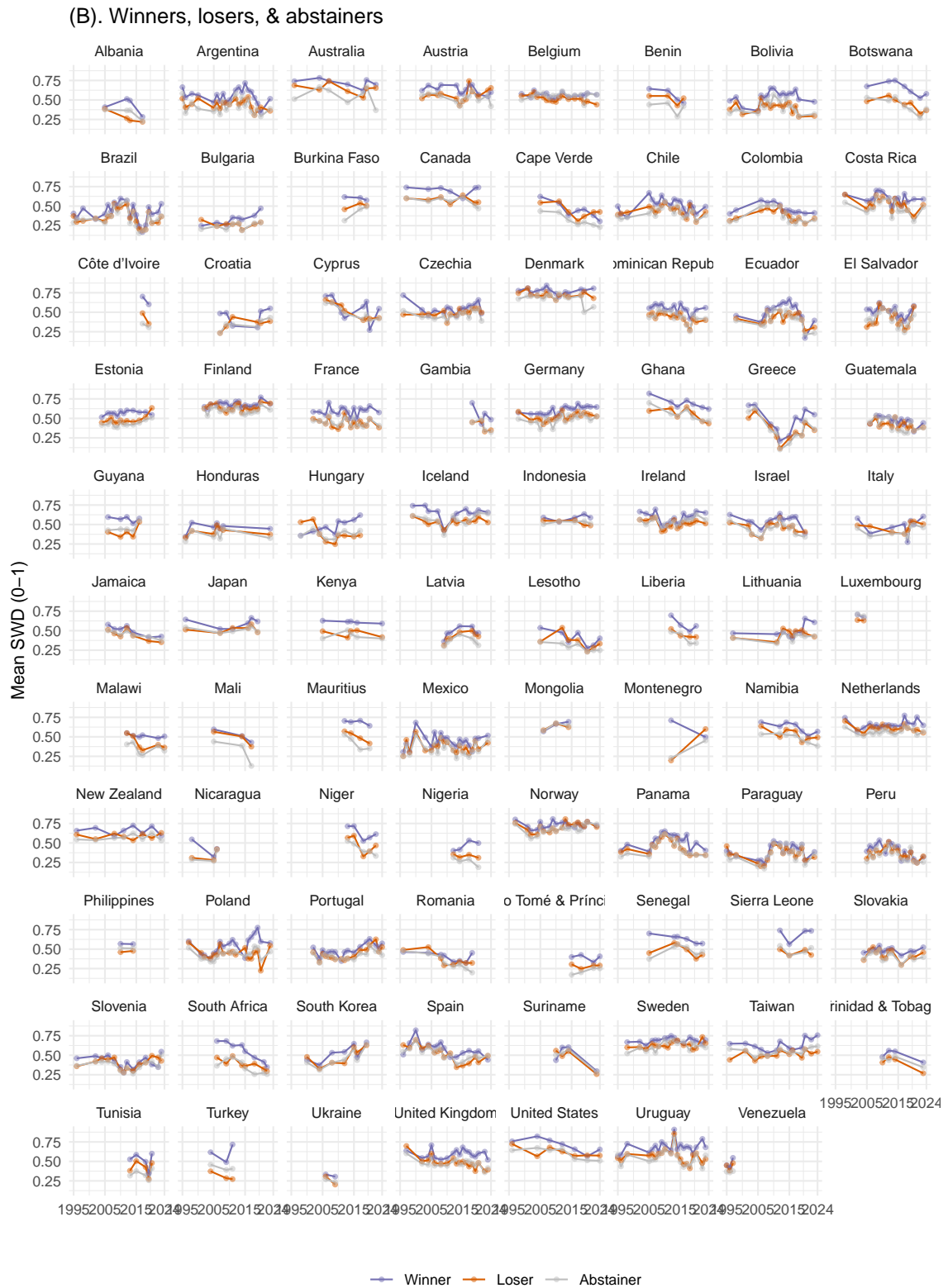


Figure A4: The winner-loser gap over time: 3-level country-wise trends (mean SWD) of winners, losers and abstainers.