Check for updates

DATA NOTE

REVISED Introducing the Democratic Electoral Systems data, 1919-1945

[version 2; peer review: 3 approved]

Nils-Christian Bormann [1], Lea Kaftan [2]

[1]Department of Philosophy, Politics & Economics, Witten/Herdecke University, Witten, North Rhine-Westphalia, 58455, Germany
[2]GESIS Leibniz Institute for the Social Sciences, Cologne, North Rhine-Westphalia, 50667, Germany

v2 **First published:** 18 Apr 2024, **4**:73
https://doi.org/10.12688/openreseurope.17264.1
Latest published: 06 Sep 2024, **4**:73
https://doi.org/10.12688/openreseurope.17264.2

Abstract

This data note introduces an update to the widely-used Democratic Electoral Systems (DES) data that encompasses the period from 1919 to 1945. The data include 243 legislative lower house and presidential elections in 34 interwar democracies. Information on these elections falls into four categories: first and foremost, DES contains variables that capture the institutional rules that define how elections are organized. Second, the data captures the consequences of electoral rules in the form of summary statistics of electoral outcomes. Third, we include democracy classifications for four major democracy datasets so that users can choose their preferred democracy definition when working with the data. Finally, the DES dataset contains multiple identification variables that allow linking the DES data to a wide variety of other datasets. This update to the DES data is fully compatible with prior releases for the post-war period [1–3].

Plain language summary

We provide information on electoral rules between 1919 and 1945. We focus on parliamentary and presidential elections in democracies. We collect information on these rules in a dataset of 243 elections. Many rules exist. Some describe how many members a parliament has. Others determine where politicians are elected. Again others decide how individual votes a party needs to get a seat. We also describe the consequences of elections, for example, how many parties make it into parliament. There are different ways to think about what democracy is. Our dataset uses four different approaches to determine whether or not a country is a democracy so users can decide which elections to consider democratic. Our data can also be linked to many other data sources.

Keywords

electoral rules, parliamentary elections, presidential elections, democracy, proportional representation, majoritarian systems

Open Peer Review

Approval Status ✓ ✓ ✓

	1	2	3
version 2 (revision) 06 Sep 2024		✓ view	
version 1 18 Apr 2024	✓ view	? view	✓ view

1. **Düzgün Arslantas**, University of Cologne, Koln, Germany
2. **Pedro Riera**, University Carlos III of Madrid, Madrid, Spain
3. **Daniela Pastarmadzhieva**, University of Plovdiv "Paisii Hilendarski", Plovdiv, Bulgaria

Any reports and responses or comments on the article can be found at the end of the article.

This article is included in the Political Science gateway.

This article is included in the Horizon 2020 gateway.

This article is included in the European Research Council (ERC) gateway.

Corresponding author: Nils-Christian Bormann (nils.bormann@uni-wh.de)

Author roles: Bormann NC: Conceptualization, Project Administration, Supervision, Validation, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing; **Kaftan L**: Conceptualization, Data Curation, Project Administration, Supervision, Validation, Writing – Review & Editing

Competing interests: No competing interests were disclosed.

Grant information: This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (Grant agreement No. 950359).
The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Copyright: © 2024 Bormann NC and Kaftan L. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

How to cite this article: Bormann NC and Kaftan L. **Introducing the Democratic Electoral Systems data, 1919-1945 [version 2; peer review: 3 approved]** Open Research Europe 2024, **4**:73 https://doi.org/10.12688/openreseurope.17264.2

First published: 18 Apr 2024, **4**:73 https://doi.org/10.12688/openreseurope.17264.1

REVISED **Amendments from Version 1**

We made two major changes in response to reviewer requests. First, we added a global map that depicts the global distribution of electoral families (majoritarian, proportional, mixed) in the first election in our sample (Figure 4). Second, we collected a new variable that records the constitutionally prescribed inter-election times, so that users now how many elections are typical for a country. Finally, we clarified minor issues throughout the text.

Any further responses from the reviewers can be found at the end of the article

Introduction

We are introducing an update to the widely-used Democratic Electoral Systems (DES) data that encompasses the period from 1919 to 1945. The data include 243 legislative and presidential elections in 34 interwar democracies. Information on these elections falls into four categories: first and foremost, the DES data contains variables that capture the institutional rules that define how elections are organized. Second, the data captures the consequences of electoral rules in the form of summary statistics of electoral outcomes. Third, we include democracy classifications for four major democracy datasets so that users can easily choose their preferred democracy definition when working with the data. Finally, the DES dataset contains multiple identification variables that allow linking the DES data to a wide variety of other datasets.

In addition to a new variable on the constitutionally prescribed length of time between elections, this release of the historical DES data contains all variables of prior releases for the postwar period, and is thus fully compatible with them[1–3]. These DES versions have been used to analyse a broad range of questions in political science, economics, sociology, and related disciplines. Most recently, social scientists employed the data to explore outcomes such as affective polarization[4], voting preferences in general[5], for left and right-wing parties in particular[6], and public participation in policy-making[7]. Prior versions of the data on electoral rules entered analyses of party systems[8], party breakdown[9], foreign direct investment[10], ethnic coalitions[11], the development of legislatures in Africa[12], and elite reactions to far right challengers[13]. All these studies are highly pertinent to studying the future of democracy.[1]

Although this release of the DES data covers a historical period, studies of the tumultuous interwar years might be able to teach us something about the fate of democracies today[14]. Studying electoral choices and reforms during the interwar period can inform debates about contemporary institutional changes. Historical party systems are relevant comparison cases for studies of the effects of party fragmentation today[15,16]. Finally, the DES 1919–1945 release will prove a valuable resource for scholars who study the origins of electoral systems, for example, to explore the diffusion of electoral rules across Europe and the Americas[17].

In the following, we describe how we collected the data, how we ensure data quality, and provide a range of summary statistics that describe the data.

Materials & methods

The DES data assembles and harmonizes previously scattered and analogue sources into one data set[18]. Whenever possible, we rely on primary sources, such as official election returns from statistical or government agencies, and electoral laws. Edited volumes that unite case studies on electoral systems and electoral returns constitute crucial secondary sources[19–22]. We cross-referenced different sources to ensure data validity. When sources disagreed, we provide the information given by a majority of sources or contacted country experts.

Data collection relies on the experiences made in three previous rounds of post-World War II DES releases[1–3] and proceeded in six steps:

1. We defined the sample of elections to be included in the data. All elections must be democratic according to one of four major democracy indices: the dichotomous measure by Boix, Miller & Rosato[23], the dichotomous *Democracy and Dictatorship* (DD) classification[24,25], the ordinal *Polity5* index[26], and the continuous *Varieties of Democracy* (V-Dem) Polyarchy scale[27]. Since the original DD classification only starts in 1946, we classified all elections in the data according to its rules.

2. We trained student research assistants (RAs) on the coding rules of the DES data[1,3]. The training involved a theoretical overview of electoral rules, the introduction of relevant source material, and example classifications of two elections.

3. Each RA classified the same set of ten randomly selected elections. We compared RA classifications to our own classification of these elections, and provided individual performance feedback to each RA.

4. We divided the election sample between RAs according to linguistic expertise. Between ourselves and the RAs, we were able to read source material in Dutch, English, Finnish, French, German, Italian, Serbo-Croatian, Spanish, and Swedish. In total, we spoke the languages used in 26 out of the 34 countries included in the dataset. For the remaining eight countries, we relied on secondary sources or contacted country experts. We encouraged RAs to contact us with questions when they were uncertain how to classify a particular variable or election. When our reading of sources could not provide an answer to unclear cases, we contacted other leading experts on electoral systems and/or particular countries to help us reach a decision.

[1]Overall, the the dataset has been cited 1439 times according to a Google Scholar query on 26 August 2023.

5. We randomly re-sampled about 10% of elections and reclassified them to see if systematic errors occurred, and corrected them where necessary.

6. Specific variables are automatically created. For example, we compute the effective number of electoral parties (`ENEP`) at each election through an algorithm that summarises election results into the overall index. For most elections, we link DES elections to electoral results collected by the authors in a different dataset, the *Actions by Elites and Leaders* (ABEL) data[16]. For all other elections, we collected raw electoral results from the sources described above.

7. In a final step, we ran an automated script across the entire data to check each variable for its consistency with the coding rules, which identifies typos and other data entry mistakes. The script also ensures inter-variable consistency and thereby guarantees that two variable values do not contradict each other. For example, if the variable `legislative_type` indicates the use of proportional representation (PR) in a particular election, we checked that the variables `elecrule` and `tier1_formula` indicate specific PR sub-types but not sub-types of any other electoral family.

The dataset comes with several identification variables that make it interoperational with other scientific and public-use datasets. Most users of the DES data are likely to link it to other country-level datasets. Thus, next to a unique variable that identifies each election (`elec_id`), the dataset provides several country-identifiers, including the country name, the country abbreviation, the Alvarez, Limongi, Cheibug & Przeworski country codes (`aclp_code`)[24] along with the widely-used Correlates of War (COW) country codes (`ccode`)[28] and the Gleditsch & Ward (GW) country IDs (`ccode2`)[29]. Unlike identification systems of country names and different ISO country abbreviations, the COW and GW identification variables accurately trace the historical development of the international system.[2]

Democratic Electoral Systems, 1919–1945

To accommodate different views of democracy, we identify democratic elections according to four different democracy definitions. Each election in the DES 1919–1945 has been classified as democratic by at least one of four datasets. Two inclusive classifications identify almost all 243 elections in the dataset as democratic. Boix, Miller & Rosato's (BMR) Complete Data of Political Regimes and Pzeworski *et al.*'s Democracy and Dictatorship (DD) data. The former consider all but two Spanish parliamentary elections in 1919 and 1920 as democratic[23]. DD neither classifies the two Spanish elections as democratic, nor three elections in San Marino[24].[3] The more complex V-Dem and Polity5 indices categorize 185 and 173 elections respectively as democratic. Users of our data thus have the choice to pick their preferred definition of democracy and the associated sample of elections, or to take an inclusive approach by picking all elections that have been classified as democratic by at least one democracy indicator. In the following, we present descriptive statistics for all election recognized as democratic by at least one of the four democracy indicators.

Our data includes information on 213 legislative, lower-house and 30 presidential elections in 34 democracies between January 1st, 1919 and December 31st, 1945. Figure 1 shows the distribution of regime types across the globe. 26 states featured a parliamentary regime (light grey), two a semi-presidential form of government (black), and four were presidential (dark grey).[4] Geographically, the majority of democratic states were situated in Europe (25), while the rest clustered in Latin America and the Caribbean (5), in North America (2), and in the Pacific (2).[5]

Figure 2 depicts the frequency of legislative and presidential elections per decade.[6] The declining number of elections tracks the breakdown of democracy in many European states. Notably, the steeper decline in legislative compared to presidential elections contrasts with the greater instability of presidential systems in the post-World War II period[30]. This observation raises theoretical questions regarding the stability of presidential versus parliamentary systems, which we would not be able to investigate further without data from the interwar period.

To enable users to compare the frequency of elections between different democracies, we added a new variable that describes the constitutionally prescribed duration in years between legislative and presidential elections. For example, members of the United States' House of Representatives run for office every two years, while parliamentarians in interwar Czechoslovakia only faced voters every six years. We record the

[2]The two slightly differ in how they identify ancestor and successor states. For example, the COW system sees unified Germany after 1990 as a successor to Imperial/Nazi Germany before 1945, whereas GW classify unified Germany as a successor of West Germany.

[3]Both BMR and DD do not consider the Spanish elections as democratic because the unelected Spanish monarch could dismiss governments and revoke laws. The DD rules further dismiss the San Marino elections because the country did not experience an alternation in executive power in the period 1906–1922.

[4]Parliamentary regimes feature no popular presidential elections. In semi-presidential regimes, the president is head of state but not head of the government. In presidential regimes, the president is both, head of state and head of government. Only Ireland changed its democratic regime type from parliamentary to semi-presidential when adopting a new constitution in 1937.

[5]The sample includes elections from Austria, Belgium, Czechoslovakia, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, San Marino, Spain, Sweden, Switzerland, United Kingdom, Yugoslavia, Argentina, Chile, Colombia, Cuba, Uruguay, United States of America, Canada, Australia, and New Zealand.

[6]We omit 14 elections in 1919 from the graph.

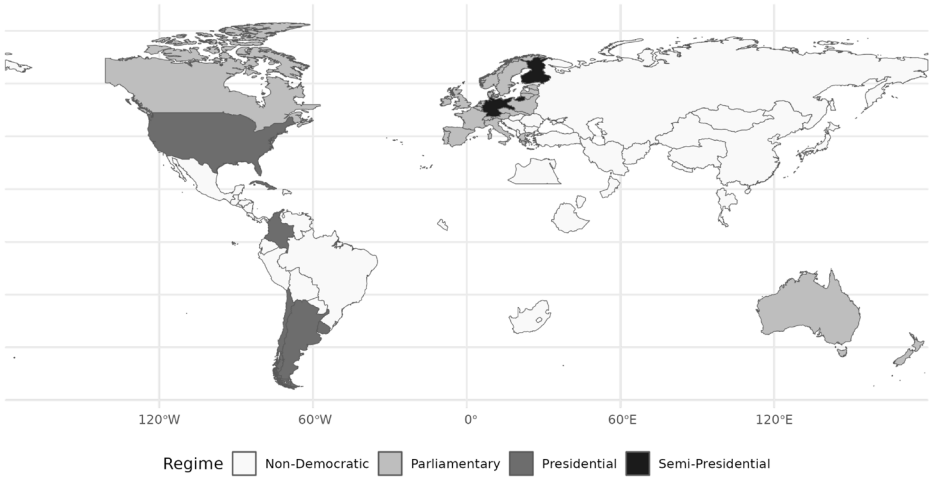


Figure 1. Regime types across the world. First election per country depicted.

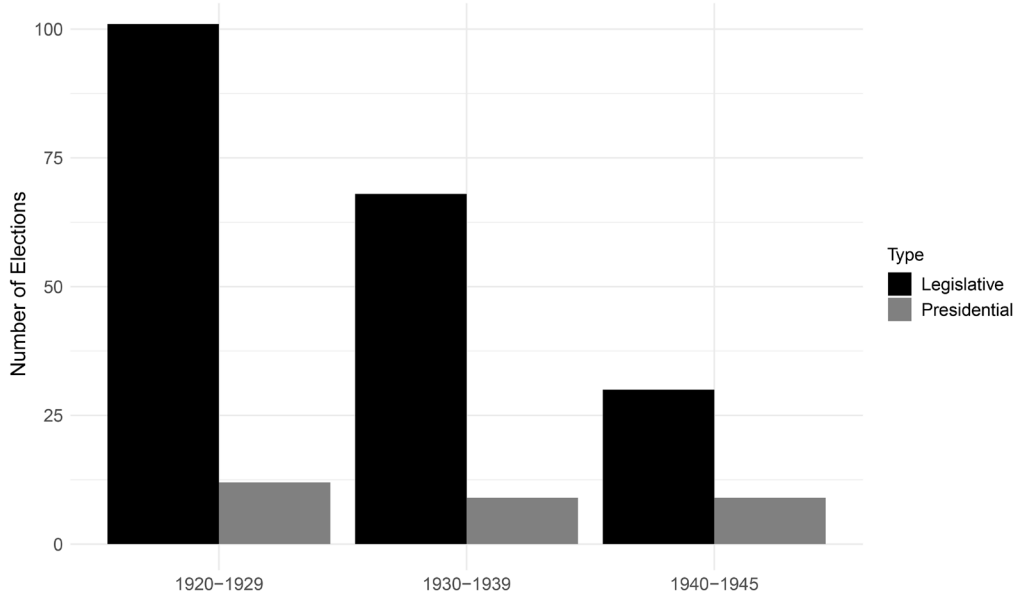


Figure 2. Democratic elections per decade, 1920–1945.

longest electoral cycle in our data for presidential elections in Germany, which took place every seven years. Moreover, we also collected information on the partial renewal of parliament. For example, lower house elections in Argentina take place every two years for 50% of MPs. These on term lengths do not only allow users to compare another characteristic of electoral rules but also facilitate weighting the number of units per country in cross-country quantitative comparisons. We publish them in a separate data sheet to ease merging the interwar data with its post-World War II counterparts.

Legislative elections

Most of the information in the DES data focuses on legislative elections. The included variables provide different classifications of electoral families, electoral rules, their application and combination within or across different levels of aggregation or electoral tiers, the number and average size of districts, and the resulting number of parties at each election. Figure 3 displays the distribution of legislative electoral families per decade. During the interwar period, electoral rules that translate votes proportionally into seats were roughly

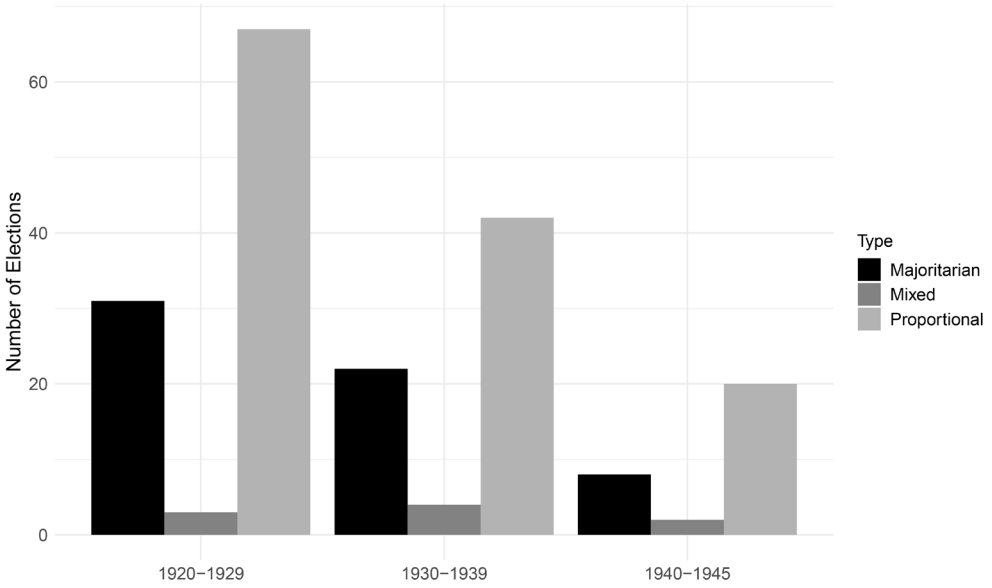


Figure 3. Legislative families per decade, 1920–1945.

twice as common as majoritarian systems which award seats to the candidate(s) with the highest vote total(s) in a district. Combinations of proportional and majoritarian rules, so-called mixed systems, were uncommon during the interwar period, and only used in France and Iceland.

Figure 4 shows that list PR systems were the most popular proportional rule with the D'Hondt divisor as the most common way to allocate votes into seats (49\% of all PR elections). The remaining PR elections employed various quota systems, such as the Hare (17.27\%), Hagenbach-Bischoff (15.83\%), or Droop quota (7.19\%) (see Figure 4). Single-member district pluralities or first-past-the-post elections constituted the preferred choice within the majoritarian electoral family (54.69\%).

Geographically, all Anglo-Saxon states ran their elections under majoritarian rules as Figure 4 shows. Spain, during its first democratic spell in the early 1920s, also operated a first-past-the-post system. The other two majoritarian states, Argentina and Portugal, used the limited vote---an electoral system with multi-member districts, in which voters have fewer votes than there are seats. Besides the majoritarian United Kingdom and France, all other European countries had adopted PR in the early 1920s. Among the PR states, only Ireland departed from the list-PR consensus, and used the Single Transferable Vote (STV) instead. France was the only continental European state that held two of its five elections under mixed electoral rules. The only other mixed electoral system in our sample was employed in Iceland. During the interwar period, the country was part of a union with Denmark and not yet internationally recognized, which is why it is not depicted in Figure 4. Its voters elected four MPs by D'Hondt in the Reijkjavik constituency in addition to 12 seats in six two-member districts and 20 seats in single-member constituencies by plurality. In the 1919 and 1924 elections, France employed a mixed fusion system in multi-member districts. Voters had as many votes as there were seats in a given district (Borda Count) and candidates were elected if they received more votes than there were voters in a given district. Candidates were also part of lists. In a second stage, list votes were distributed by the Hare formula. If turnout in a constituency was lower than 50% or if no list passed the electoral quota a second round was to take place 14 days later in which a relative majority of votes was sufficient.

Two democracies used electoral systems that have not been used by any other state in national elections during the time period covered by any previous DES data release (1946–2020), and thus enter the DES data for the first time. Germany used the *fixed quota* system that distributed one seat for 60,000 votes[31,73–81]. Unlike most quota systems, which fix the number of parliamentary seats and determine the quota after counting the votes, the fixed quota system reverts this relationship. It sets the quota first and then determines the number of parliamentary seats. This practise led to an ever larger parliament as Germany's population and electoral participation grew. The size of the German Reichstag swelled from 459 deputies in 1920 to 647 members after the final election in March 1933. The second unique system, the *cumulative vote*, was employed in Chile until 1921[32]. It is similar in all but one respect to the majoritarian *block vote* system, in which voters have as many votes as there are seats in multi-member districts. However, voters can award more than one vote to a candidate under the cumulative vote.

Next to detailed information on legislative electoral rules, the DES data also provide insight into the consequences of these rules in the form of party system size figures. Figure 5

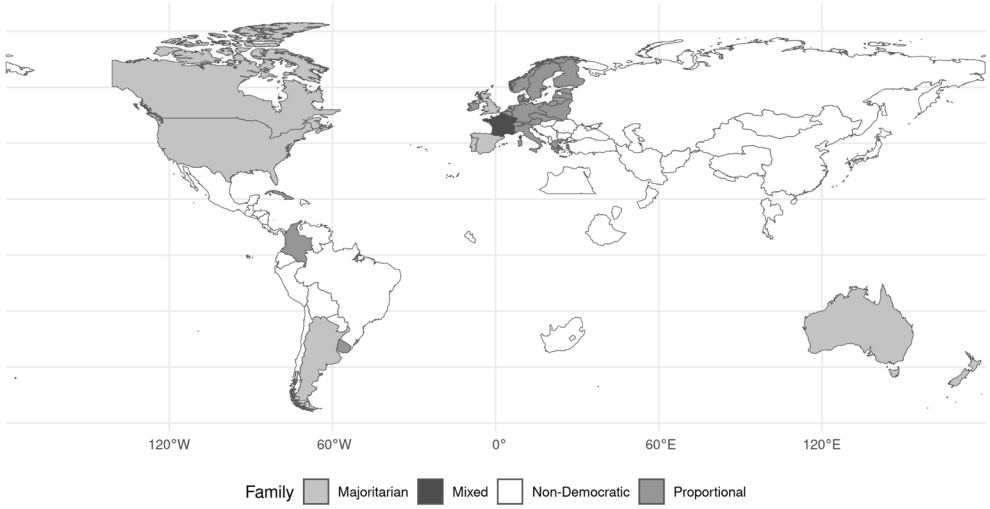


Figure 4. Legislative types across the world. First election per country depicted.

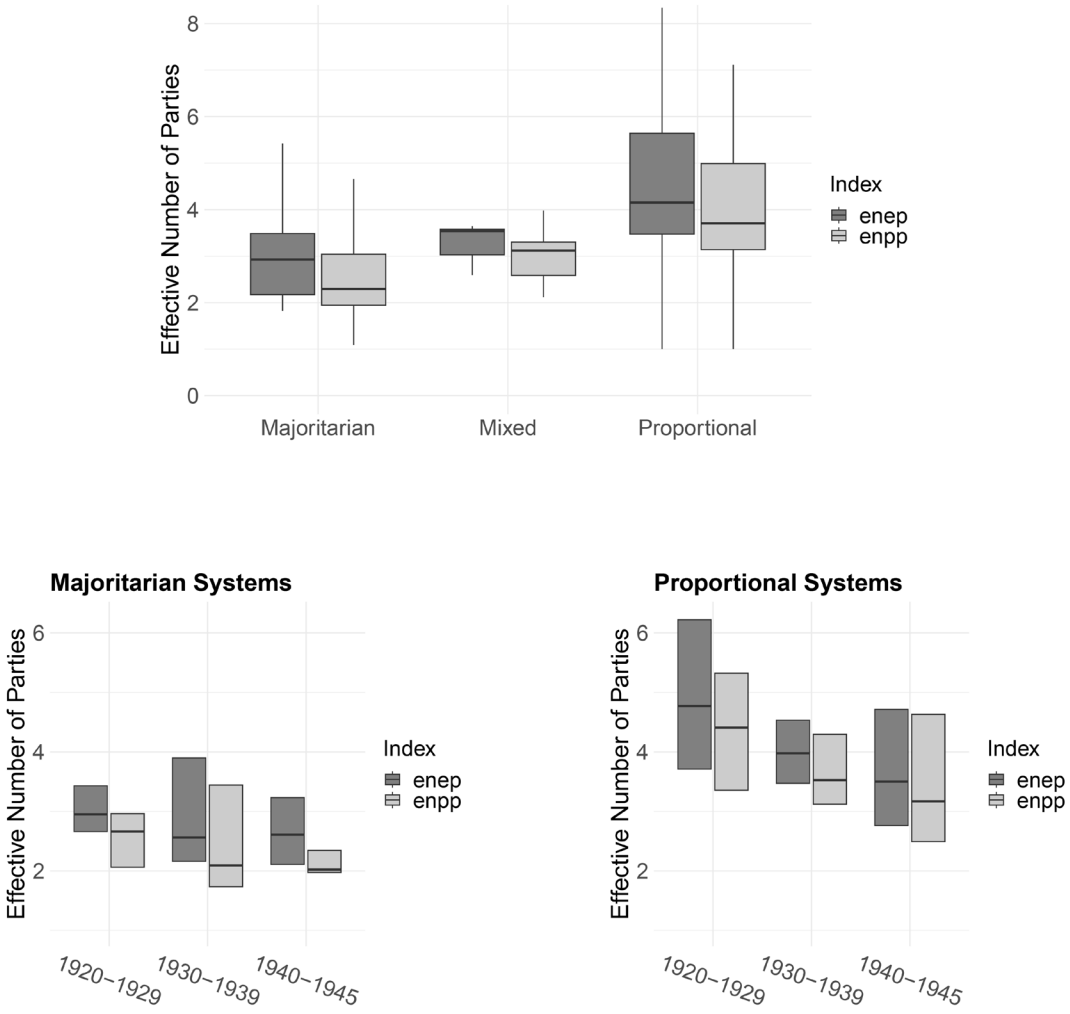


Figure 5. Party system size by electoral system family, 1919–1945.

presents box plots of the effective number of electoral (enep) and parliamentary parties (enpp) across electoral families (top) and within familes over time (bottom).[7] In line with theoretical predictions[33], majoritarian systems are associated with the smallest number of parties while PR systems are most permissive. From 1920 to 1940, the effective number of parties in PR systems decreases more steeply than in majoritarian systems (bottom panels). In part, this may be a selection effect where countries with more parties where more likely to fail. For example, four of the five democracies with the highest (enep) scores failed in the interwar period.[8]

Presidential elections

Presidential elections constitute just over 12% of all elections in the DES, 1919–1945 data. As shown in Figure 1 presidential regimes clustered in the Americas. European democracies were overwhelmingly of parliamentary types with semi-presidential exceptions in Finland, Germany, and Ireland after 1937. This low share contrasts markedly with the post-World War II period, when more than a quarter of all elections were presidential[1,3].

Mirroring the early post-World War II decades, the electoral college was the most common electoral system used in presidential elections during the interwar period, closely followed by plurality elections (see Figure 6). Absolute majority systems and the alternative vote, that was only used in Ireland, were employed in less than 20% of all presidential elections.

Finally, we do not find any notable association between presidential electoral rules and the number of candidates. Whereas plurality systems are associated with a smaller and less variable number of presidential candidates relative to absolute majority systems in the 20th and 21st centuries[3,34,35], we find virtually no differences between electoral rules in the period 1919–1945. This null finding may in part be explained by the small number of elections observed during the period that does not result in sufficient variation. Another factor could be the relatively young age of interwar democracies. Out of ten states that held presidential elections, only the United States had been a democracy for more than a decade before 1919, when our dataset starts recording elections. Candidates and voters might have had too little time to learn about the mechanical and strategic effects of electoral rules. This difference in the associations between different features of electoral systems for periods before and after 1945 is of

[7]The effective number of parties measure summarizes the number of parties after an election by weighting each parties influence by its size. The weights in the electoral parties measure are vote shares, while the weights in the parliamentary party index are seat shares: $1/\sum_i^n s_i^2$, where s captures vote or seat shares and n is the number of parties.

[8]These are Latvia, Estonia, Yugoslavia, and Germany. Czechoslovakia is the fifth country that we classify as having survived until the German occupation began.

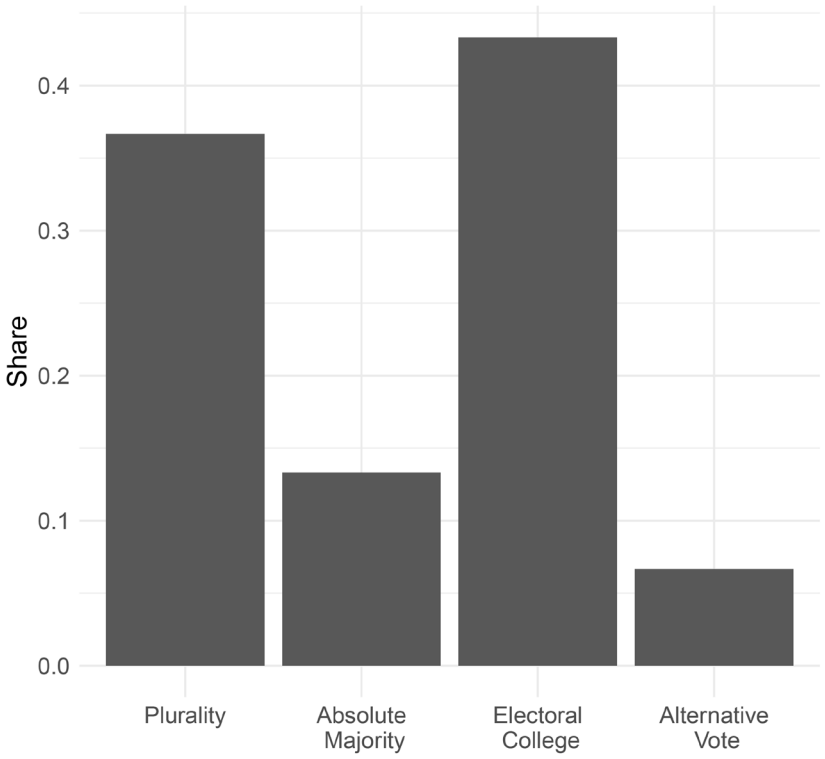


Figure 6. Presidential electoral rules, 1919–1945.

theoretical relevance. We want to encourage researchers to explorer these differences further.

Conclusion

In this data note, we described an update to the Democratic Electoral Systems (DES) data that extends the coverage to the period 1919–1945. Recently, concerns about the quality and survival of contemporary European and other long-established democracies are on the rise. Our new data can help answer questions about the association of parliamentary and presidential institutions as well as party system fragmentation on one hand, and the fate of democracies in another troubled period on the other. The DES 1919–1945 data might also be of use to scholars interested in the origins of electoral rules or long-term institutional legacies.

Data availability

All figures and reported statistics can be replicated with R scripts contained in the dataverse. The authors ran the scripts on R version 4.3.1 ("Beagle Scouts") and used the R packages *colorspace*[36], *cshapes*[37], and *ggplot2*[38].

Underlying data

Harvard Dataverse: Replication Data for: Introducing the Democratic Electoral Systems data, 1919–1945. https://doi.org/10.7910/DVN/FWLXHM[18]

This project contains the following underlying data:

- Electoral rules data: "es-1919-1945-231204.csv"
- Electoral period data: ``es-1919-1945-term-lengths-240826.csv''
- Electoral results data: "es-1919-1945-results-231204.csv"
- Codebook: "es-1919-1945_codebook.pdf"
- Summary file: "readme.txt"

Data are available under the terms of the Creative Commons Zero "No rights reserved" data waiver (CC0 1.0 Public domain dedication).

Replication files

To replicate the figures in this study unpack the zip archive and

- R replication file: "data-es_interwar-master-231204.R"
- R replication file for Figure 1: "des_figure_regimetype.R"
- R replication file for Figure 2: "des_figure_elecdec.R"
- R replication file for Figure 3: "des_figure_elecfamdec.R"
- R replication file for Figure 4: "des_figure_elecfam_map.R"
- R replication file for Figures 5, 5a & 5b: "des_figure_enep_enpp.R"
- R replication file for Figure 6: "des_figure_preselecrule.R"

Acknowledgements

We are grateful to superb research assistance by Esmirna Jimenez Medina, Franziska Knubel, Oliver Köninck, Maximilian Salzer, Lara Werdehausen, and Ana Luisa Ibarra Portillo. Jani Korhonen and Matthew Shugart provided their expertise on specific elections and electoral rules. Matt Golder initiated the DES data project, drafted the coding rules, and gave important feedback.

References

1. Golder M: **Democratic Electoral Systems around the world, 1946–2000.** *Elect Stud.* 2005; **24**(1): 103–121.
Publisher Full Text
2. Bormann NC, Golder M: **Democratic Electoral Systems around the world: 1946–2011.** *Elect Stud.* 2013; **32**(2): 360–9.
Publisher Full Text
3. Bormann NC, Golder M: **Democratic Electoral Systems around the world, 1946-2020.** *Elect Stud.* 2022; **78**(3): 102487.
Publisher Full Text
4. Tichelbaecker T, Gidron N, Horne W, *et al.*: **What do we measure when we measure affective polarization across countries?** *Public Opin Q.* 2023; **87**(3): 803–815.
Publisher Full Text
5. Stegmaier M, Linek L, Marcinkiewicz K: **Heterogeneity in the effects of resources, proximity, and identity on preference voting in PR systems.** *East Eur Polit.* 2024; **40**(2): 239–255.
Publisher Full Text
6. Bol D, Hunter A, Fernandez GA: **The psychological partisan effect of electoral systems: How ideology correlates with strategic voting.** *Party Politics.* 2023; **30**(4).
Publisher Full Text
7. De Francesco F, Tosun J: **The enactment of public participation in rulemaking: A comparative analysis.** *Swiss Polit Sci Rev.* 2023; **29**(1): 21–36.
Publisher Full Text
8. Clark WR, Golder M: **Rehabilitating duverger's theory: testing the mechanical and strategic modifying effects of electoral laws.** *Comp Polit Stud.* 2006; **39**(6): 679–708.
Publisher Full Text
9. Lupu N: **Party brands in crisis: partisanship, brand dilution, and the breakdown of political parties in Latin America.** Cambridge University Press: New York, NY, 2016.
Reference Source
10. Choi S, Furceri D, Yoon C: **Policy uncertainty and foreign direct investment.** *Rev Int Econ.* 2021; **29**(2): 195–227.
Publisher Full Text
11. Bormann NC: **Uncertainty, cleavages, and ethnic coalitions.** *J Polit.* 2019; **81**(2): 471–486.
Publisher Full Text
12. Ochieng' Opalo K: **Legislative development in Africa: politics and postcolonial legacies.** Cambridge University Press: New York, NY, 2019.
Publisher Full Text
13. Spoon JJ, Klüver H: **Responding to far right challengers: does accommodation pay off?** In: *Domestic Contestation of the European Union.* Routledge, 2021; 113–131.
Reference Source
14. Cornell A, Møller J, Skaaning SE: **The real lessons of the interwar years.** *J Democr.* 2017; **28**(3): 14–28.
Publisher Full Text
15. Valentim V, Dinas E: **Does party-system fragmentation affect the quality of democracy?** *Br J Polit Sci.* Forthcoming.

16. Kaftan L, Bormann NC: **Polarization, fragmentation, and democratic deconsolidation in interwar europe.** *Paper Presented at the Annual Meeting of the American Political Science Association.* August 31st to September 3rd. 2023 in Los Angeles, CA, 2023.

17. Boix C: **Setting the rules of the game: the choice of electoral systems in advanced democracies.** *Am Polit Sci Rev.* 1999; **93**(3): 609–624.
Publisher Full Text

18. Bormann NC, Kaftan L: **Replication Data for: Introducing the Democratic Electoral Systems data, 1919–1945.** [Dataset], Harvard Dataverse, v1, 2023.
http://www.doi.org/10.7910/DVN/FWLXHM

19. Mackie TT, Rose R: **The international almanac of electoral history.** Macmillan: Basingstoke, UK, 3rd edition, 1991.

20. Nohlen D: **Elections in the Americas - A Data Handbook Volume 1: North America, Central America, and the Caribbean.** Oxford University Press: Oxford, UK, 2005.
Reference Source

21. Nohlen D: **Elections in the Americas - A Data Handbook Volume 2: South America.** Oxford University Press: Oxford, UK, 2005.
Reference Source

22. Nohlen D, Stöver P: **Elections in Europe.** Nomos: Baden-Baden, DE, 2010.
Publisher Full Text

23. Boix C, Miller M, Rosato S: **A complete Data Set of political regimes, 1800–2007.** *Comp Polit Stud.* 2012; **46**(12): 1523–1554.
Publisher Full Text

24. Przeworski A, Alvarez ME, Cheibub JA, *et al.*: **Democracy and development: political institutions and well-being in the world, 1950–1990.** Cambridge University Press, Cambridge, MA, 2000.
Reference Source

25. Cheibub JA, Gandhi J, Vreeland JR: **Democracy and dictatorship revisited.** *Public Choice.* 2010; **143**(1): 67–101.
Publisher Full Text

26. Marshall MG, Gurr TR: **Polity5 - political regime characteristics and transitions, 1800–2018.** Technical report, Center for Systemic Peace, 2020.
Reference Source

27. Coppedge M, Gerring J, Knutsen CH, *et al.*: **V-dem country-year dataset v13.** *Varieties of Democracy (V-Dem) Project.* 2023.
Publisher Full Text

28. Singer JD, Small M: **Correlates of war project: international and civil war data, 1816–1992.** Inter-University Consortium for Political and Social Research Ann Arbor, Michigan, 1994.
Publisher Full Text

29. Gleditsch KS, Ward MD: **Interstate system membership: A revised list of the independent states since 1816.** *Int Interact.* 1999; **25**: 393–413.

30. Cheibub JA: **Presidentialism, parliamentarism, and democracy.** Cambridge University Press, 2007.
Reference Source

31. Ziegler DJ: **Prelude to democracy: A study of proportional representation and the heritage of weimar Germany, 1871–1920.** *Papers from the University Studies series (The University of Nebraska).* 1958; **67**.
Reference Source

32. Gamboa R, Morales M: **Deciding on the electoral system: chile's adoption of proportional representation in 1925.** *Lat Am Politics Soc.* 2015; **57**(2): 41–66.
Publisher Full Text

33. Duverger M: **Political parties.** Methuen, London, 1963.

34. Cox G: **Making votes count: strategic coordination in the world's electoral systems.** Cambridge University Press, New York, 1997.
Reference Source

35. Golder M: **Presidential coattails and legislative fragmentation.** *Am J Political Sci.* 2006; **50**(1): 34–48.
Publisher Full Text

36. Zeileis A, Fisher JC, Hornik K, *et al.*: **colorspace: A toolbox for manipulating and assessing colors and palettes.** *J Stat Softw.* 2020; **96**(1): 1–49.
Publisher Full Text

37. Schvitz G, Girardin L, Rüegger S, *et al.*: **Mapping the international system, 1886-2019: the cshapes 2.0 dataset.** *J Conflict Resol.* 2022; **66**(1): 144–161.
Publisher Full Text

38. Wickham H: **ggplot2.** *Wiley Interdiscip Rev Comput Stat.* 2011; **3**(2): 180–185.
Publisher Full Text

Open Peer Review

Current Peer Review Status: ✔ ✔ ✔

Version 2

Reviewer Report 25 September 2024

https://doi.org/10.21956/openreseurope.19960.r44003

© **2024 Riera P.** This is an open access peer review report distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

✔ **Pedro Riera**
University Carlos III of Madrid, Madrid, Spain

The authors have properly addressed all my main concerns and the data note can be accepted as it stands. I would like to thank and congratulate the authors on this nice and extremely useful addition to the state of the start. In my view, the dataset will be massively employed by experts in electoral systems all over the world.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Comparative politics, electoral systems, voting behaviour.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 1

Reviewer Report 14 August 2024

https://doi.org/10.21956/openreseurope.18659.r40564

© **2024 Pastarmadzhieva D.** This is an open access peer review report distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

✔ **Daniela Pastarmadzhieva**
[1] University of Plovdiv "Paisii Hilendarski", Plovdiv, Bulgaria
[2] University of Plovdiv "Paisii Hilendarski", Plovdiv, Bulgaria

The article „Introducing the Democratic Electoral Systems data, 1919-1945“, presents the most recent addition to the Democratic Electoral Systems around the world data. As the authors pointed out it encompasses the period from 1919 to 1945 and consists of 243 legislative lower house and presidential elections in 34 interwar democracies. The structure of the article is standard, consisting of an introduction, a description of the materials and methods, a substantial part, and a conclusion. The introduction is well structured and determines the framework and focus of the article. The methodology is described step-by-step, it is relevant for the goal of the study and is reproducible. The inclusion of regime types along with the electoral systems (and their sub-types) provides more options for analysis. The application of different conceptual frameworks to define democracy is another benefit for the users.

Substantially, the new addition to the DES dataset has a wide range of benefits for scholars and for all interested in the elections. The historical background is rather significant in the explanation of the contemporary state in a given national context, tracing the origins of transformations. Of particular importance is the collection of information for a historical period, which enables researchers to expand the range of analyses. Thanks to the addition to the database, it is now possible to compare the period before and after the Second World War, institutional transformations (in particular electoral legislation), and changes in societies. It is possible to examine the dynamics in a country’s electoral rules from 1919 to the present by relating them to the dynamics in society. Alongside, associations between the structure of parliaments determined by the electoral rules and the decisions of states regarding the Second World War events might be identified. The above-mentioned are only part of the huge potential that the new database provides. In summary, current challenges cannot be fully understood without knowledge of the historical context, and DES 1919-1945 provides this opportunity to have accessible data on processes regarding the elections in contemporary democracies.

The submitted article can be indexed as is, both structurally and substantively. However, concerning the DES, I would like to make a suggestion. Some of the countries that do not appear in the database are democracies nowadays. It seems to me that following the evolution of their electoral rules would contribute to a better understanding of the processes of democratization. Thus, if DES can be supplemented with more European countries although if not defined as democratic in the examined period, it will have a greater contribution to the comparative politics.

Is the rationale for creating the dataset(s) clearly described?

Yes

Are the protocols appropriate and is the work technically sound?

Yes

Are sufficient details of methods and materials provided to allow replication by others?

Yes

Are the datasets clearly presented in a useable and accessible format?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Elections and electoral systems, comparative politics, political culture

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 26 Aug 2024

Nils-Christian Bormann

Dr. Daniela Pastarmadzhieva suggested to extend the DES 1919-1945 to countries which are democracies today but have not been democracies during the interwar period.

Response: We agree with Dr. Daniela Pastarmadzhieva that this would be interesting and relevant. Unfortunately, we do not have the resources and time to extend the DES as of now but will keep this suggestion in mind for future extensions.

Competing Interests: No competing interests were disclosed.

Reviewer Report 10 June 2024

https://doi.org/10.21956/openreseurope.18659.r40572

© 2024 Riera P. This is an open access peer review report distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

?

Pedro Riera
[1] University Carlos III of Madrid, Madrid, Spain
[2] University Carlos III of Madrid, Madrid, Spain

This is a much-needed article (dataset) on electoral systems in democratic countries in the interwar period. The authors have managed to compile an immense quantity of reliable and useful data that I expect to be widely employed by comparativists of all over the world in the coming years. For this main reason, I support indexing of the article. Having said that, I am listing in the next paragraphs a battery of ideas that, in my view, could improve the dataset and the resulting article.

1. My main concern about the article is that electoral systems per se should play a bigger role in it. Let me offer a couple of examples:
    1. Figure 1 displays information on regime types across the world. However, a similar graph with information on electoral system in use in each country does not exist. Electoral systems are the main object of the article and, as such, they should occupy a more prominent position when offering descriptive information.
    2. The article starts by very briefly explaining the main elements of the new dataset (i.e., electoral rules, consequences of electoral rules, democracy indices and ID variables). However, I was missing some extra focus on the electoral rules variables. Which ones are included in the article? One can imagine that these are going to be the same that

appear in the "sequel", the widely acclaimed Bormann et al.'s "Democratic Electoral Systems around the world, 1946-2020" dataset, but this needs to be explicitly said. On top of that, I have always considered the omission of an "electoral thresholds" variable in the original dataset as one its main mistakes. The reader wonders if this is also the case here and, if so, why the authors have not included information on this important element of democratic electoral systems.

2. Elections as unit of analysis. In the previous *Electoral Studies* articles, the authors use as unit of analysis the election rather than the country. This sometimes can result misleading because the number of elections a country holds depends, among others, on the constitutional inter-election period. In order to be sure that the latter is not entirely responsible for this effect, I suggest that the authors include a new variable in the dataset that captures the duration of the constitutional inter-election period.
3. Dubious theoretical claims:
    1. In page 5, the article argues that the steeper decline of the number of elections in PR countries is due to the geographical clustering of these countries in Europe rather than the type of system of government in place in these countries. However, the reader wonders how the geographical clustering of parliamentary systems in Europe can lead to this result. What is the (theoretical) mechanism linking these two variables (that is, geography and democratic survival)? I am aware of several ideas in this regard, the existence of domino/diffusion effects being the most prominent ones, but these points need to be made clearer in the article.
    2. In page 9, when talking about the effects of formulas in presidential elections, the authors allude to the "relatively young age of many democracies" to justify the existence of null effects in this regard. However, these effects do exist when examining the role of formulas in legislative elections (see previous pages). How can it be this discrepancy whether democracies are of relatively the same age?
4. Small points (page 6):
    1. When talking about how uncommon mixed systems were in the interwar period, provide examples (for example, Denmark).
    2. Why not including a figure about frequency of types of PR electoral formulas?

Is the rationale for creating the dataset(s) clearly described?

Yes

Are the protocols appropriate and is the work technically sound?

Yes

Are sufficient details of methods and materials provided to allow replication by others?

Yes

Are the datasets clearly presented in a useable and accessible format?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Comparative politics, electoral systems, voting behaviour.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 26 Aug 2024

Nils-Christian Bormann

Pedro Riera's main concern has been that electoral systems per se play a minor role in the description of the dataset.
Response: We appreciate this feedback. In addition to the Figures and descriptive analyses we had already included in the first version of the manuscript, we have now added Figure 4 and a corresponding description, providing more details about the distribution of electoral systems across the world.

Pedro Riera has also wandered whether the DES data 1919-1945 contains information on the electoral thresholds, and if not, why this is the case.
Response: The DES 1919-1945 data does not contain information on electoral thresholds because it went beyond the resources of this research project. Consider the following historical and contemporary examples: In Romania, ethnic minority representatives have a lower threshold to reach than their ethnic majority colleagues. In Poland, the threshold is lower for parties than for alliances of parties. In New Zealand and Germany, the electoral threshold only applies to parties that do not win a seat directly. Unlike in countries where thresholds are typically based on the percentage of votes a party gained, Slovenia bases its threshold on the number of seats won. In interwar Czechoslovakia, the threshold was based the absolute number of votes won, not the percentage – only determining whether a party could participate in distribution of votes on the second tier. Thus, deciding which electoral threshold to code and how to deal with many exceptional cases would have taken considerable time. We therefore kept the focus on the original DES coding instructions.

Pedro Riera suggested to include information on the constitutional inter-election periods.
Response: As collecting data on on inter-election periods was fairly straight forward, we added two new variables to the DES 1919-1945: one indicates the length of the term for presidents and parliaments (in years), respectively, the other indicates the intervals in which elections are held (in years) in case parliaments are only renewed partially. For example, Argentina's members of parliament were elected for four years, but elections took place every two years for half of the parliament.

Pedro Riera furthermore raised some concerns regarding two "dubious theoretical claims": The first is about the effect of the geographical clustering of parliamentary systems in Europe on their survival, and the second refers to the non-existing difference between the number of candidates running for presidential elections in plurality vs. absolute majority systems between 1919 and 1945.
Response: We want to thank Pedro Riera for carefully reading our manuscript. We deleted the first theoretical claim, mostly because this note is supposed to present the dataset, and not to defend novel theoretical arguments. We now claim that the discrepancy between the interwar and post-World War II periods "raises important theoretical questions regarding

the stability of presidential versus parliamentary systems." Regarding the second claim: We added that this is a claim about presidential elections. The p residential and semi-presidential regimes in our sample are younger on average than parliamentary ones. For example, parliamentary Denmark, France, Norway, Switzerland, the UK had been democratic for more than ten years when our data starts recording elections in 1919. Among presidential democracies, only the US had been democratic for more than ten years.

Pedro Riera furthermore suggested to provide examples, primarily when speaking about how uncommon mixed systems were in the interwar period.
Response: We added France and Iceland as examples in the text. Denmark only ran one mixed election in 1918, a year that does not fall into our sampling period.

Finally, Pedro Riera wondered why we did not include a figure about the frequency of PR electoral formulas.
Response: The main reason is that such a graph is hard to read. There are 19 different PR electoral formulas, several of them with very few elections. We find it more informative to describe the frequency of the main formulas in the text.

Competing Interests: No competing interests were disclosed.

Reviewer Report 31 May 2024

https://doi.org/10.21956/openreseurope.18659.r40566

© 2024 Arslantas D. This is an open access peer review report distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Düzgün Arslantas
[1] Cologne Center for Comparative Politics,, University of Cologne, Koln, Germany
[2] Cologne Center for Comparative Politics,, University of Cologne, Koln, Germany

The Democratic Electoral Systems (DES) dataset is an important addition to the existing scholarship on the electoral systems. The dataset includes a wide-range of information on 243 legislative lower house and presidential elections in 34 interwar democracies. The merit of the dataset stems from several factors. First, the paper covers a highly unique period in world history, i.e., the interwar years. Not only did this era witness the emergence and the spread of the most destructive political ideologies historically, but it also manifested the fragility of the so-called "established democracies" under non-democratic parties and leaders – even if they assumed power for a short period of time. Second, the dataset provides valuable insights into the trajectory of global electoral system changes, forming a foundational basis for future electoral engineering practices. Third, the dataset bridges a wide range of datasets through multiple identification variables. This allows researchers to make comparisons across different datasets and select the most suitable dataset for strengthening the empirical analysis. Fourth, the interdisciplinary nature of the DES dataset allows for the verification of proposed arguments against other aspects of

electoral politics.

Despite these merits, some deficiencies should be stated. To begin with, first-hand sources are crucial for historical analysis, as few scholars possess sufficient resources to re-evaluate this period. This means that most scholars will possibly adopt the findings of this research without detailed investigation. From this perspective, the fact that some of the languages of the countries analyzed are not spoken by the research assistants may limit the reliability of the findings. Second, in which respect the DES dataset improves the understanding of the diffusion of electoral rules across Europe and the Americas is unclear. Historically, most of the colonized countries adopted the electoral systems of their imperial rulers. It remains to be seen whether such kind of diffusion can be mentioned for democracies as well. Third, additional information on how many elections are classified as “democratic” based on this reductionist account of the “democracy-dictatorship” classification would be beneficial. As widely noted, a binary classification overlooks the increasing prevalence of regimes that fall between these extremes. Finally, I am not fully convinced whether using the sub-title “democratic electoral systems” is conceptually appropriate. If we mention “democratic electoral systems,” then are there also “authoritarian” electoral systems or even “totalitarian” ones? How do they look like? Imagine an electoral authoritarian regime with little or no ethnic and religious pluralism. If this country adopts an electoral system that maximizes descriptive representation of the society, can we call the electoral system “democratic”?

Is the rationale for creating the dataset(s) clearly described?
Yes

Are the protocols appropriate and is the work technically sound?
Yes

Are sufficient details of methods and materials provided to allow replication by others?
Yes

Are the datasets clearly presented in a useable and accessible format?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: comparative politics

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 26 Aug 2024

Nils-Christian Bormann

First, Düzgün Arslantas has raised the concern that our research team did not speak all languages spoken in the countries included in the dataset, potentially introducing bias.
Response: We agree that this may be a problem, although it is a common in cross-national research. We would like to highlight that our research team was able to read source material in Dutch, English, Finnish, French, German, Italian, Serbo-Croatian, Spanish, and

Swedish. Thus, we spoke the languages of 26 of the 34 countries included in the dataset. Moreover, we also relied on data compiled by others in a comparative manner such as Mackie and Rose (1991), Nohlen (2005), and Nohlen and Stöver (2010). There compilations are predominantly authored by country experts, who speak the language and know the cultural specificities of "their" country. We are confident that this allowed us to minimize bias as much as possible. We have clarified this point in the main text (see point 4 in the Section "Materials & Methods").

Second, Düzgün Arslantas pointed out that it remains to be seen whether the DES dataset can improve our understanding of the diffusion of electoral rules across Europe and the Americas.
Response: We agree and apologize for the unprecise wording. We have clarified our statement. We now say: "Finally, the DES 1919-1945 release will prove a valuable resource for scholars who study the origins of electoral systems, for example to explore the role of diffusion of electoral rules across Europe and the Americas."

Third, Düzgün Arslantas asked for additional information on how many elections are classified as democratic, given the increasing prevalence of regimes that fall between the two extremes of authoritarian and democratic systems.
Response: We apologize for not having been clear enough. We include all elections that have been classified as democratic by any of the following datasets: Boix, Miller, and Rosato (2012), the dichotomous Democracy and Dictatorship classification (DD), V-Dem, and Polity5. We did not include elections that took place in periods coded as undemocratic by all four datasets listed above. We have chosen this approach to allow researchers themselves to select elections that they deem to be "democratic enough" for their research interest. We have rewritten the first paragraph of the Section "Democratic Electoral Systems, 1919-1949" to clarify our approach.
Forth, Düzgün Arslantas mentions conceptual issues with the term "democratic electoral system" since this suggests that there are also undemocratic elections.
Response: We carefully disagree here but believe that this disagreement is rooted in a misunderstanding of our position due to a lack of clarity in the previous version of the manuscript. There are indeed elections taking place in non-democratic systems (e.g., Russia as of today), and there is a large body of literature surrounding these elections (see for example Gandhi and Lust-Okar, 2009). But of course, we do not claim that political systems such as Russia are democracies only because they have elections. This is why we fall back on the four datasets listed above to define our universe of cases: elections that happen in a (at least minimally) democratic environment. We ignore elections that take place in non-democratic systems.

Competing Interests: No competing interests were disclosed.