

Constructing Democracy: The Underlying Factors That Create a Healthy Democracy

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ABSTRACT

Objective: This paper seeks to analyze how three different factors affect the health of a democracy: voter turnout, electoral system, and election management body. *Background:* While extensive literature discusses voting's impacts on policy, little literature specifically correlates it with democratic health. For years, scholars have debated the merits of various electoral systems, especially regarding the structure of new democracies in Africa and Asia. Most scholars agree that there is not one particular system that is universally advantageous over the rest; instead, the optimal system depends on the country in question and the specific goals and criteria. This paper will analyze 9 main electoral systems (Table 1) and their impacts on the health of democracy. Election Management Bodies (EMBS) manage the operations of an election. The 3 main types are Governmental, Independent, and Mixed. *Methods:* Various datasets from International IDEA, are used to achieve the objective of this paper. For each main question, boxplots are generated to visualize the distribution of democratic health across the categories. Analysis of Variance (ANOVA) is used to determine whether any statistically significant differences exist. *Results:* The first ANOVA model reveals that nations with a high health of democracy have a greater average voter turnout than those with medium health of democracy, and likewise for medium and low. Furthermore, a statistically significant difference exists between List PR and TRS regarding their impacts on a democracy's health. Finally, Governmental EMBs are associated with high-performing democracies, while Independent EMBs are dominant in Authoritarian regimes. This is statistically significant.

Introduction

Across the world, voter turnout trends are negative, with a declining percentage of individuals exercising their democratic right to elect leaders (Solijonov 2016). It is naturally obvious why such a decline is problematic and worrying for the world's democracies. Voter turnout is a clear indicator of the level of civic engagement present in a democratic society, and a drop in voter turnout has negative implications. This naturally begs the question: what is the impact of voter turnout? Does an increase or decrease in voter turnout affect the health of democracy in a statistically significant manner? This paper aims to quantify the health of a democracy and determine just how significantly a change in voter turnout affects this Democracy's Health Construct.

This paper answers the question: How does an increase in voter turnout affect the health of a democracy? Currently, there is not much literature that specifically addresses how voter turnout affects the health of a democracy. However, since healthy voter turnout is often considered to be a defining feature of democracy, it can be logically concluded that an increase in voter turnout would be associated with an increase in the success and health of the overall democracy (Solijonov 2016). Furthermore, this paper analyzes the impact of other factors on the health of a democracy. Among these are the electoral system and election management authority. The questions "Which electoral systems are significantly correlated with a democratic or authoritarian society" and "How does the choice of EMB affect the health of a democracy" are also addressed.

Background

There is extensive literature tackling the issue of democracy conceptualization. Several institutions have developed metrics that aim to numerically describe how democratic a nation is. The two most prominent measures are those by Polity2 and Freedom House. However, both measures have flaws in precision, criteria, coding, etc. In their 2011 paper, Coppedge et al discuss these flaws and propose a new definition of democracy. Their measure of democracy encapsulates not one but 6 different conceptions of democracy, thus addressing one of the predominant flaws in previous measures: the inability to define democracy properly (Coppedge et al 2011). Existing literature, including Coppedge's paper, almost always includes voter turnout among the various measures of a democracy's health. Therefore, it would intuitively follow that an increase in voter turnout would be associated with an increase in the health of a democracy (Solijonov 2016). Several studies deal with voter turnout and its effects on government policy. One such example is Australia. After compulsory voting was established, the increase in voter turnout resulted in a shift towards Labour and their position, with a tangible impact on public policy. (Fowler, 2013). However, there is a gap in the literature that this paper aims to fill. Currently, not much literature exists that explores voter turnout and how it correlates with the health of a democracy. The goal of this paper is to fill this gap.

There is extensive literature that discusses, evaluates, and classifies the numerous electoral systems. A simple way of organizing them is to arrange them into four broad groups, also called electoral formulas: Majoritarian, semi-proportional, proportional, and mixed (Norris 1997). None of these refer to a particular system, but rather a broad principle that multiple systems follow. Majoritarian systems are the oldest and simplest to comprehend. A majoritarian system is one in which the candidate that receives a majority (or sometimes a plurality) of votes wins. A proportional system is one in which the number of seats allotted is based on the percentage of votes won by a certain party. A mixed system synthesizes elements of proportional systems and majoritarian systems. Finally, a semi-proportional system has elements of proportionality but does not allot seats on a strict percentage basis. (Norris, 1997) Within these four formulas are innumerable different systems used throughout the world. Table 1, located in the appendix, summarizes the 10 electoral systems analyzed in this paper.

For decades, political scientists and experts have debated the merits of these systems to determine which is the "best" (Norris 1997). Advocates of proportional systems have cited benefits for minor parties and minority groups; advocates for majoritarian systems are willing to sacrifice this in exchange for a unified, strong, and effective government. This debate is equally strong in the case of fledgling democracies in third-world countries. Over the years, another viewpoint has developed concerning this issue. This view states that there is no one superior electoral system. Instead, it argues that which electoral system appears to be superior is based on personal ethics and priorities (Norris 1997). This paper will aim to determine if there is a statistically significant difference between electoral systems regarding their impact on a democracy's health (Norris, 1997).

A key logistical element in the administration and operation of elections is the Election Management Body, the group that runs the election. They are tasked with managing some if not all of the elements necessary for an election to occur. This includes but is not limited to determining voter eligibility, managing nominations for office, directing polling, receiving votes, and tabulating votes. The aforementioned responsibilities can be considered essential for EMBs (Catt, 2014). A body that does not perform any of these duties cannot be described as an EMB. The United States FEC, for example, is not considered an EMB. The precise management of EMBs varies around the world. Some nations may choose to split up the responsibilities among multiple different departments and groups. Some may choose to handle state and national elections differently. Others may choose to delegate the responsibility to local authorities (Catt, 2014). For this paper, we will analyze three broad models of Election Management: independent, governmental, and mixed (Table 5 contains a quick reference).

An independent EMB refers to a model in which the EMB is independent and autonomous from the executive government. It may still be accountable and tied to the legislative and judicial branches of government, but its members are entirely outside the purview of the executive branch and its departments. As written in the International Institute for Democracy and Electoral Administration: "Many new and emerging democracies have chosen this model,

including Armenia, Bosnia and Herzegovina, Burkina Faso, Canada, Costa Rica, Estonia, Georgia, India, Indonesia, Liberia, Mauritius, Nigeria, Poland, South Africa, Thailand, and Uruguay” (Catt, 2014).

In nations with a governmental EMB, the body is typically part of the executive branch as a department or ministry. Alternatively, such as in the United States, it can be handled through local authorities. EMBs of this model are typically run by a department head or local authorities depending on the variant, and their budget is managed similarly. Many developed and modern nations such as the United States, the United Kingdom, Sweden, Singapore, and Denmark utilize this model (Catt 2014).

Finally, a Mixed EMB refers to a design in which the duties of an EMB are split among different institutions, some of which are governmental and some of which are independent. Typically, it contains two sub-bodies: an independent one that manages policy and a governmental one that manages the implementation and execution. Nations like France, Japan, and Spain have this model, as well as most former French colonies. One concern is the dynamic and potential discord between the two subgroups, which has caused problems in the past (Catt, 2014).

This paper will aim to quantify the health of a democracy and determine the amount of correlation between it and its voter turnout, specifically in the United States. Furthermore, it will attempt to determine whether any significant difference exists between the various electoral systems and how they affect a nation's democratic performance.

Finally, it will attempt to determine whether the three different types of EMB significantly differ in their impact on democratic health. The following research questions (RQs) are explored:

RQ1: What is the relationship between voter turnout and the health of a democracy?

RQ2: What is the impact of the choice of the electoral system on the health of a democracy?

RQ3: How does the choice of an election management board affect the health of a democracy?

Methods

The main method of analysis that will be used to answer the research questions is the Analysis of Variance (ANOVA). ANOVA testing aids in determining whether a given factor has an impact on a dataset. It allows us to compare three or more factors and determine the strength of the correlation between them. ANOVA is used to compare groups to determine whether a statistically significant difference exists between them, which is the primary goal of this paper. This paper uses several datasets provided by the International Institute for Democracy and Electoral Assistance (International IDEA). The first and most important dataset is the Global State of Democracy Dataset, an expansive dataset that contains data for over a hundred countries over 40+ years. Data on voter turnout, electoral integrity, competition, and hundreds of other indicators are included. Secondly, the International IDEA Electoral System Design Dataset is used. Finally, the Electoral Management Design dataset is used.

The Global State of Democracy Dataset is necessary to answer the first research question. In this dataset is a column for voter turnout. There is also a numerical indicator of democratic performance, with 1 being the highest-performing democracy and 5 being an authoritarian regime. To create an ANOVA model, we require a categorical variable to determine if statistically significant results occur. This ANOVA model (Model A1) will have 3 different variables: a “low” range for countries with a performance numeric of 4 or 5, a “medium” range for countries with a numeric of 2 or 3, and a “high” range for countries with a numeric of 1. The dataset is then cleared for all NA or null values. The first boxplot displays the results.

For the second research question, two datasets must be synthesized. The Electoral System Design Dataset and the Global State of Democracy Dataset are combined. Due to a disparity in the years covered, the combined dataset is representative only of the year 2019. This dataset contains data for each country in 2019 and the electoral system used. An ANOVA model (Model A2) is then generated that determines the relationship between the system and the Democratic Performance Numeric.

Two datasets are combined for the third and final research question. The Global State of Democracy Dataset and the Electoral Management Design Dataset are combined. Once again, due to a disparity in the years covered, only entries in 2020 are considered as it is the most recent year for which data is available. Boxplots have been generated that show the distribution of democratic performance measures for each type of Electoral Management Design. Finally, an ANOVA model (Model A3) is created to determine how significant the difference is between the 3 types of election management.

Results

A variety of results were reached after conducting this analysis. The first comparison, between voter turnout and the health of a democracy, is rendered in the following boxplot (Figure 1).

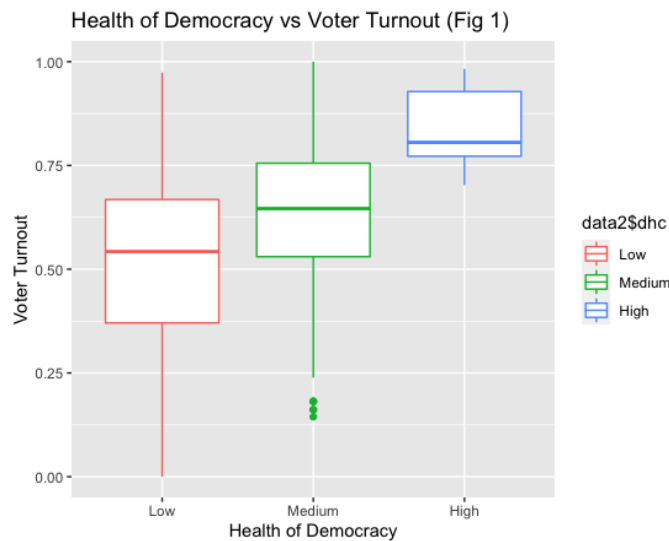


Fig 1: Health of Democracy vs Voter Turnout

Model A1, created for the same comparison, gave the following data:

Table 2. Pairwise comparison of different levels of democracy and the associated voter turnout

	diff	lwr	upr	p adj
Medium-Low	0.1110	0.0934	0.1286	0
High-Low	0.3072	0.2632	0.3512	0
High-Medium	0.1962	0.1534	0.2390	0

For the second part of this paper, in which political systems and their impact of democratic health are analyzed, a similar set of steps were taken. Firstly, boxplots (Figure 2) were generated that plotted each of the 10 systems against the health of democracy.

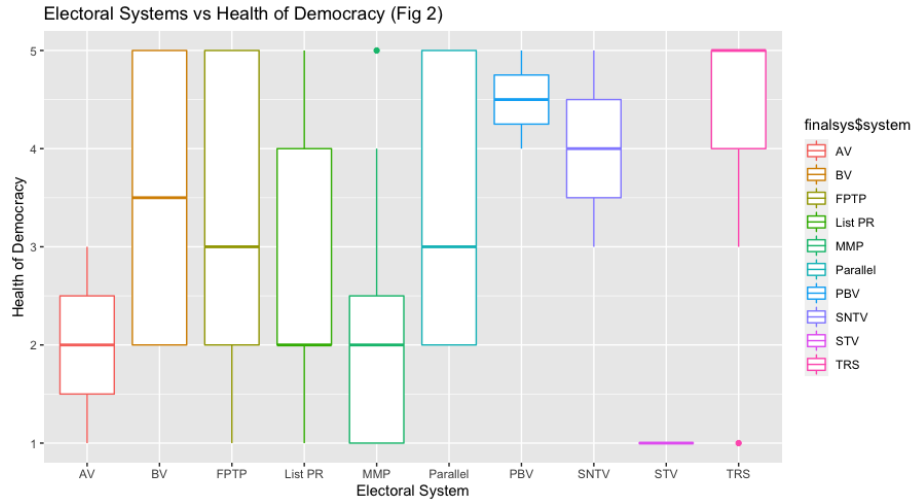


Fig 2: Different Electoral Systems vs Democratic Performance

For further visual analysis, two bar graphs were created. Figure 3 isolates nations classified as Authoritarian Regimes and plots the frequency of each electoral system. Figure 4 does the same for nations classified as High Performing Democracies.

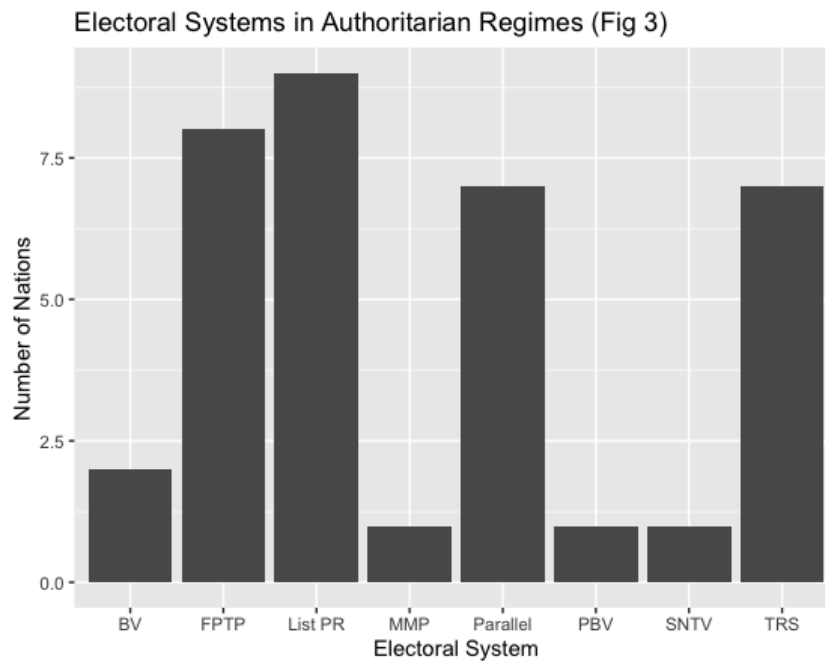


Fig 3: Electoral Systems in Authoritarian Regimes

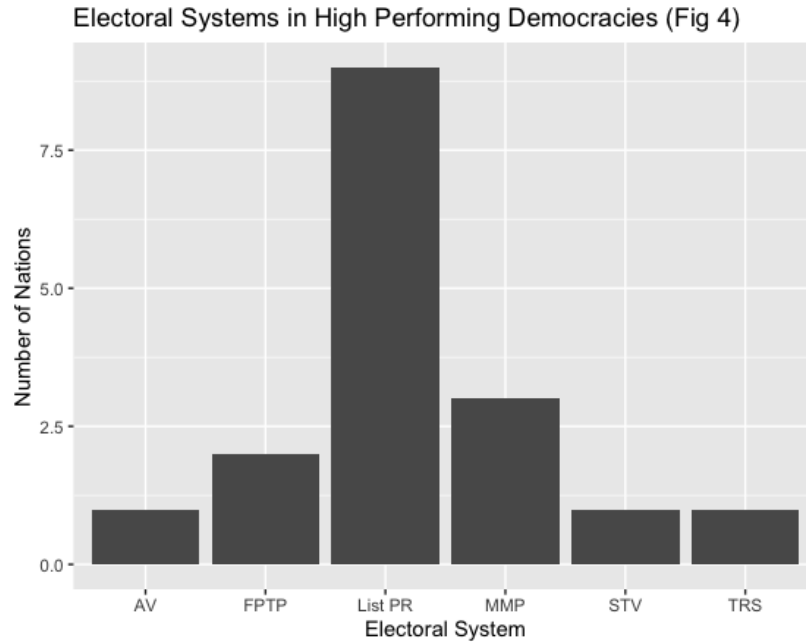


Fig 4: Electoral Systems in High Performing Democracies

Finally, Model A2 is provided in Table 3 (found in the appendix) which shows a detailed comparison between all the systems. The same process was used in the third analysis of EMBs and the Health of Democracy. Figure 5 shows the distribution of Democracy Health Numerics among the three methods under analysis.

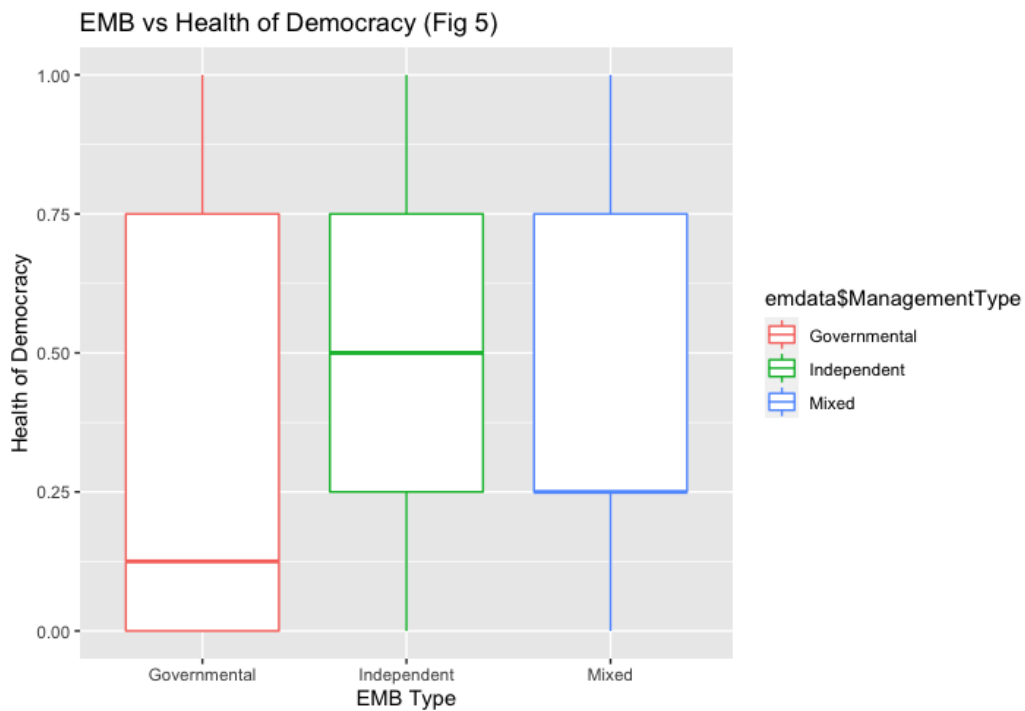


Fig 5: EMB vs Health of Democracy

Figures 6 and 7 isolate Governmental and Independent EMBs and chart the different types of nations that use them.

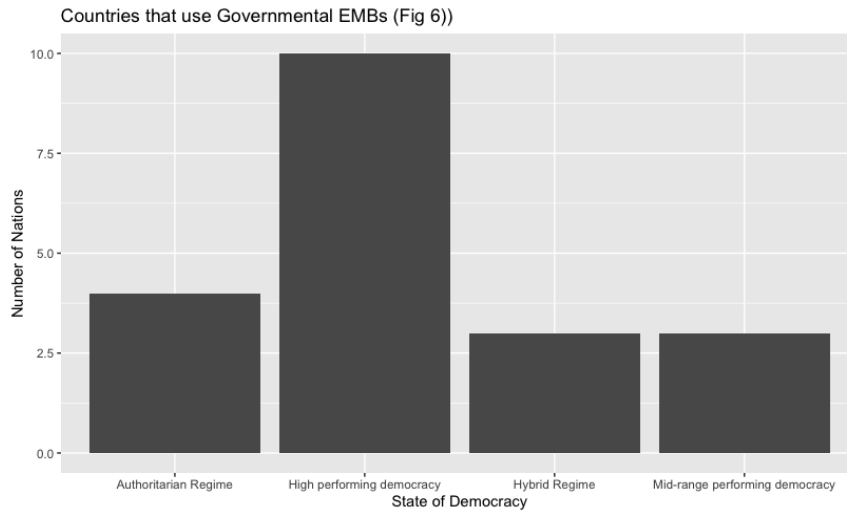


Fig 6: Countries that use Government EMBs

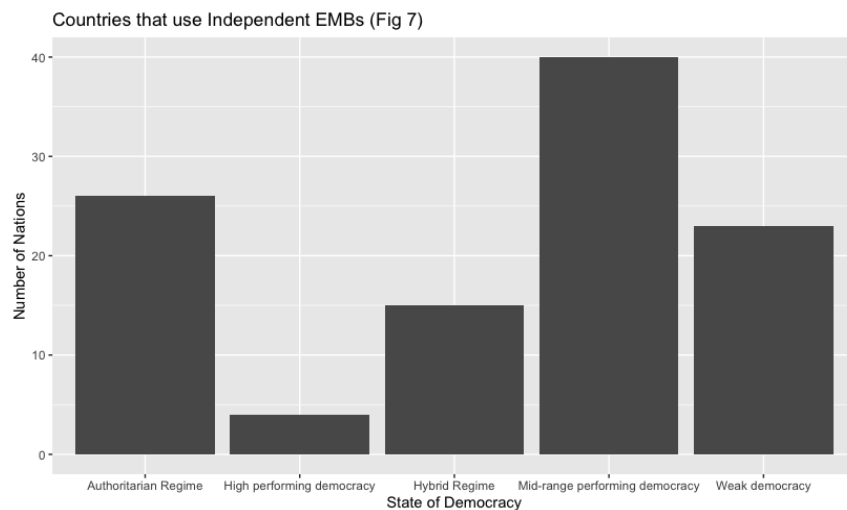


Fig 7: Countries that use Independent EMBs

Finally, Model A3 (shown in Table 4) provided comparisons between all 3 EMB types.

Table 4. Pairwise comparison of types of EMB and associated democratic performance.

	diff	lwr	upr	p adj
Independent-Governmental	0.1939	-0.00020	0.3881	0.0503
Mixed-Governmental	0.09444	-0.1647	0.3536	0.6644
Mixed-Independent	-0.0995	-0.3026	0.1035	0.4785

Discussion and Conclusion

The models provide us with a variety of results for further analysis. Some of these results are intuitive, while others are more surprising and interesting.

The results of Model A1 are intuitive and expected. Model A1 proves that higher voter turnout is associated with greater health of democracy. Figure 1 shows that the distribution of voter turnout in nations with “high” health of democracy is centered higher than for “medium” nations. The same goes for “medium” and “low” nations. The pairwise comparison data further backs this up, showing that nations with high health of democracy have a greater average turnout than medium, and nations with medium health of democracy have a greater average turnout than low. This fits well with both intuitive reasoning and literature (Solijonov, 2016).

The second research question prompts more interesting and unique answers. A quick visual comparison between Figures 3 and 4 reveals one key difference: the use of TRS. In authoritarian regimes, TRS is one of the most popular electoral systems. However, it is very rarely used in High Performing democracies. Analyzing the pairwise comparison output of Model A2 reveals that a significant difference exists between TRS and List PR, indicating that these two systems differ in their impact on the health of a democracy.

There are several reasons this might be the case. In their paper “Electoral Systems in Authoritarian States”, Gandhi and Heller explain that Two-round systems could be advantageous to dominant parties in weak positions. While the nature of TRS allows for smaller parties to have influence, the threshold it sets is usually too high for opposition parties to break through. This makes it highly unlikely that an opposition party can win single-handedly. Gandhi and Heller provide another explanation: a destabilizing effect. The first round of a TRS election reveals the geographic distribution of voters and other data that can be used for violent and intimidatory purposes. Voters can be targeted based on their geographic location and threatened to vote a certain way in the second round (Gandhi & Heller 2017). The latter assertion is based on the research of Sarah Birch, who, in her 2003 paper, further elaborates on the destabilizing effect of TRS. Birch cites a lack of uncertainty as a factor. In most electoral systems, the results are uncertain until balloting starts. However, in TRS, several key data points are revealed after the first round but before the second/final round. This strongly incentivizes “midgame defections”, wherein parties break alliances midway through the election and pursue alternate pathways. If a party finds that it has lower support than expected after the first round, there is an incentive to boycott the second round (Birch 2003). Parties who expect to lose the second round based on first-round results can claim fraud or rigging, thus threatening the legitimacy of democracy. Overall, TRS systems can lead to increased division and antidemocratic action, explaining why it is associated with Authoritarian nations (Birch 2003).

The third research question also produces interesting results. Firstly, a comparison of Figures 6 and 7 provides a clear difference between the various types of EMBs. Most of the nations that use Governmental EMBs are high-performing democracies. Meanwhile, high-performing democracies are the least common among nations that use Independent EMBs. The pairwise comparison table further supports this observation. Based on those comparisons, there is a significant difference between the performances of Governmental and Independent EMBs, with governmental EMBs having a better average Performance Numeric than independent EMBs.

This is one of the more surprising results. Approaching this question intuitively, one would expect Governmental EMBs to be associated with authoritarians. A system in which the Election Management Body is controlled by the executive would naturally be expected to lead to authoritarianism, corruption, and a conflict of interest. Similarly, a system in which the EMB is independent of the executive, and managed by the people's representatives, would be expected to be more democratic and freer. However, our results clearly show that this is not the case.

Several factors may cause this phenomenon. As mentioned above in the excerpt from the International Idea handbook, Independent EMBs are commonplace in new/developing democracies such as India, Uruguay, Indonesia, and other third-world countries (Catt 2014). These nations would naturally have a low Democratic Performance Numeric, which would explain why Independent EMBs are associated with lower health of democracy. Furthermore,

Governmental EMBs are commonplace in major democracies such as the United States and the UK (Catt 2014). It logically follows, then, that Government EMBs would be associated with the high health of democracy.

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