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Elections in Turkey: Three Chapters Analyzing Electoral Manipulation

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

Doctor of Philosophy

in Political Science

by

Uğurcan Evci

Dissertation Committee:
Professor Marek M. Kaminski, Chair
Professor Carole Jean Uhlaner
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Professor Bernard Grofman
Professor Rein Taagepera

2024

DEDICATION

To

My wife Aslı

Over the past ten years, we have moved countless times and solidified our family, experiencing a lifetime's worth of adventures together. Your unwavering support, patience, and encouragement have been my anchor throughout this journey. Thank you for always being there for me and believing in us.

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FIELD OF STUDY

Electoral Reform and Voter Behavior

PUBLICATIONS

Evci, U., & Kaminski, M. M. (2021). Shot in the foot: unintended political consequences of electoral engineering in the Turkish parliamentary elections in 2018. *Turkish Studies*, *22*(3), 481-494.

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ABSTRACT OF THE DISSERTATION

Elections in Turkey: Three Chapters Analyzing Electoral Manipulation

by

Uğurcan Evci

Doctor of Philosophy in Political Science

University of California, Irvine, 2024

Professor Marek M. Kaminski, Chair

This dissertation evaluates attempts at electoral engineering in Turkey to understand the regime's stability and longevity from 1980 to 2018. The primary focus is on determining whether electoral engineering functions as intended and why electoral authoritarians make significant mistakes despite having access to data and resources. The study aims to understand the extent of these failures and the circumstances under which they occur by conducting simulations and comparing their results with actual election outcomes.

The dissertation comprises three chapters, each exploring different aspects of elections and electoral politics in Turkey. The first chapter focuses on the formula proposed by Flis, Słomczyński, and Stolicki (FSS formula) for predicting seat allocation in Jefferson-D'Hondt elections. I propose a "regional correction" to this formula to improve its accuracy in nations with regional imbalances, using data from Turkish Parliamentary elections. I show that dividing a country into three regions that are similar to each other based on a machine learning algorithm, k-means clustering, provides significantly more precise estimates for simulating elections.

The second chapter applies this method to analyze the June 2018 Turkish Parliamentary elections, revealing that most parties made flawed decisions in designing the 2018 electoral reform in Turkey. I show that the incumbent governing political party, AKP, lost approximately 27 to 28 seats in the parliament due to the reform they implemented.

The third chapter expands the scope to include electoral engineering efforts from 1980 to 2018, demonstrating a high failure rate in political parties' attempts at optimal electoral strategies. By analyzing electoral engineering attempts such as initiated reforms or instances when political parties had ample opportunities for electoral engineering but they did not. Overall, I show that political parties were not able to make better decisions compared to random decision-making on electoral engineering.

This research highlights the complexity of electoral engineering and the frequent missteps by political parties, offering insights into the potential outcomes of various hypothetical scenarios in Turkish elections.

INTRODUCTION

Elections in Turkey: Three Chapters Analyzing Electoral Manipulation

Designing an electoral system that favors a particular candidate or a particular political party is not a simple task. The term "Electoral Engineering" (EE) pertains to the design of an electoral system's elements or voting procedures after assessing the possible results of the proposed system. EE operates within the confines of the law and signifies altering electoral structures to perceived benefit, distinguishing it from illicit activities such as cheating, voter suppression, vote buying, and other forms of electoral fraud. Successful electoral engineering refers to cases when the expectations of EE line up with the outcomes, whereas failed electoral engineering refers to cases when the outcomes fell short of expectations of electoral engineering.

The selection of an electoral system is frequently regarded as the most critical constitutional decision in democracies, according to Lijphart (1992; 1994). While Lijphart (1994) explores EE as a tool for enhancing the political system through superior governance, increased stability, or improved representation, others (like Riker 1986) highlight the self-interest motivations of reformers, such as the maximization of seats or the advantageous distribution of public offices. This second interpretation is more prevalent, and it is the definition I refer to moving forward in this dissertation. Other terms synonymous with this include electoral manipulation or, more broadly, heresthetics (Riker 1984, 1986). Manipulation can manifest in different ways during various stages of electoral design (Elklit and Reynolds 2002).

While recent instances of Electoral Engineering (EE) might suggest it's a contemporary trend, the practice of manipulating electoral systems has historical roots. The earliest recorded case of EE is from Rome in AD 105, documented by Pliny the Younger. As the presiding officer of the Roman Senate, Pliny strategically managed the agenda during a crucial vote (Farquharson, 1969). Fast forward to the present day, every reapportionment reform in the United States has been a result of EE (Balinski and Young, 1982). In the recent era, there are cases of electoral engineering from emerging democracies in the 1990s such as Poland, where electoral engineers achieved their objectives in only 48% of cases (Kaminski, 2002), and also Hungary, Estonia, Czechoslovakia, and Russia. We also see cases from democratic nations such as New Zealand (Nagel, 1994) and the United States. Gerrymandering, a method of drawing voting district boundaries to maximize the number of seats won or to achieve other goals, is the most prevalent form of EE in the United States (Keena et al., 2019). Some methods of EE can be curtailed by legal means. However, the ongoing existence of gerrymandering in the US underlines the fact that the vested interests of political parties can effectively hinder the passage of laws designed to eliminate such practices. All in all, EE is common across a wide range of regimes and geographies.

In this dissertation, I evaluate attempts at electoral engineering in Turkey with the aim of understanding the stability and longevity of the regime in Turkey from 1980 to 2018. The main focus of my dissertation is to determine if electoral engineering functions as planned. Another intriguing question is why do electoral authoritarians make mistakes? Despite having access to data and resources, policymakers often make significant errors in designing electoral systems. I aim to comprehend the extent of these failures and the

circumstances under which they occur. After determining whether electoral engineering operates as expected by conducting simulations and comparing their results with actual election outcomes, I provide a brief overview of the social structures during periods of electoral engineering. This serves as a starting point for a more extensive future research project aimed at understanding why electoral engineering fails.

This dissertation analyzes the mechanical effects of electoral engineering and electoral systems. The literature distinguishes between the psychological and mechanical effects of electoral systems. Mechanical effects result from the direct application of electoral laws, while psychological effects stem from voters' expectations about these mechanical effects (Van Der Straeten et al., 2013). A quasi-experimental study from Switzerland and Japan demonstrates that even when psychological effects are expected to outweigh mechanical effects, the mechanical effects were larger (Blais et al., 2011). Another study, which analyzed 462 electoral districts from Finland and Portugal between 1962 and 2011, finds that psychological effects, such as strategic behaviors, are often obscured by non-strategic behavior and concludes that mechanical effects are "the most decisive link of the electoral chain" (Harfst et al., 2018, p. 90). In this study, I assume psychological effects to be negligible to small. This assumption is based on the fact that the reforms analyzed in this dissertation are minor from a voter's perspective, and the method of voting does not change. For instance, the latest electoral reform in Turkey dropped the national electoral threshold from 10% to 7% without any other major changes. Reforms in Turkey were not major like a switch from single-member districts to proportional representation. Because the analyzed changes in electoral systems in Turkey are relatively minor, I do not expect significant psychological effects.

In this dissertation, I present three chapters, each exploring various facets of elections and electoral politics in Turkey. My research illustrates numerous instances of missteps by political parties between 1980 and 2020. Interestingly, I found that the chances of making a successful decision about electoral reform through meticulous deliberation were no better than making such a decision based on pure chance, like a coin toss. There were occasions when certain parties could have utilized electoral engineering to consolidate their political standing but failed to seize these opportunities. Conversely, there were instances when parties initiated electoral reforms, which ultimately proved to be erroneous.

Turkey's Significance:

Understanding the role of Electoral Engineering (EE) in the context of Turkey is particularly critical given the country's emphasis on the electoral process as a central pillar of its democracy. Turkish political leaders universally uphold the significance of the ballot box, often viewing it as the sole instrument of democracy (e.g., Aytaç and Öniş, 2014; Erisen & Kubicek, 2016). Consequently, any manipulation of this process, such as through EE, can significantly impact the democratic integrity of the nation. As Turkey has experienced significant political and social changes, studies on EE within this context have gained heightened importance. Unpacking the intricacies of EE in Turkey can provide insights into its majoritarian democratic setup, political stability, and overall governance structure. Thus, scrutinizing the methods, motivations, and consequences of EE in Turkey is crucial to fully comprehend the dynamics of its democratic process and the implications for its future.

Ever since the 1980 military coup, Turkey's legislative system has operated through a single-chamber parliament. Most electoral districts are multi-member, with the number of seats won by each party within each district allocated proportional to the party's vote share, employing the Jefferson-D'Hondt method (described below) for electoral calculations. Electoral districts typically align with city boundaries, although larger urban areas like Istanbul are split into multiple districts. The size of the parliament has grown from 400 members in 1983 to its current size of 600 deputies from 87 districts. The districts correspond to the cities of Turkey and district sizes range between 1 and 18 deputies except Istanbul. If a city's population requires more than 18 deputies, those cities are represented by two or three districts. The only exception to the maximum of 18 deputies from one district is Istanbul where the three districts are represented by 35-27-36 deputies, respectively. The reason for larger Istanbul districts is that the election law allows cities to be divided into maximum of three districts. With the exceptionally high population of Istanbul compared to other Turkish cities, Istanbul is represented by more than 18 deputies in multiple districts. The second largest city, Ankara, is represented by two districts with 18 deputies from each.

One notable feature of the Turkish electoral system is the 10% national threshold, leading to significant disparities in representation in specific elections, such as in 2002. The main objective of this high electoral threshold was to limit the effective number of political parties to two or three (Özbudun, 1996; Sayarı, 1992; see also Cox, 1997; Taagepera & Shugart, 1989).

In the 1983 and 1987 elections, there were also regional thresholds (intra-district thresholds), calculated by dividing the total valid votes by the number of seats in a district. By 1991, these regional thresholds were established directly by law. However, these thresholds contributed to considerable imbalances. For instance, in the 1987 parliamentary elections, the Motherland Party (ANAP) secured 65% of the seats with just 36.3% of the vote. In Ağrı, ANAP won all four seats with merely 36% of the votes. The regional threshold system was eventually discarded after a ruling by the Constitutional Court, yet the 10% national threshold continues to exist (Sabuncu, 2006).

First Chapter:

The inaugural chapter of my dissertation, critical to my work and future research, centers around the formula proposed by Flis, Słomczyński, and Stolicki (2020)—referred to henceforth as the FSS formula. This formula forecasts seat allocation in Jefferson-D'Hondt elections, leveraging only the national vote distributions. Their formula is essential for understanding the impacts of electoral engineering. Their formula allows one to run counterfactual simulations based on hypothetical vote distributions. In turn, a researcher can compare such counterfactual simulation results with actual election results and understand the outcomes of electoral engineering. In my dissertation, I explore outcomes of electoral engineering by simulating counterfactual elections which allows me to analyze the changes on the number of seats held by political parties across various electoral systems. For such simulations, being able to run counterfactual simulations with precise estimates is crucial.

The Jefferson-D'Hondt apportionment method is a highest averages method used in proportional representation systems to allocate seats among parties based on their share of votes. Named after Thomas Jefferson and Victor D'Hondt, this method ensures that each seat corresponds to a roughly equal number of votes.

In this method, each party's total votes are divided by a series of divisors (1, 2, 3, 4, etc.). For example, if Party A has 100,000 votes, its quotients would be 100,000, 50,000, 33,333.33, and so on. All quotients from all parties are then listed in descending order, and seats are allocated to the parties with the highest quotients until all seats are filled.

For instance, if there are four parties (A, B, C, D) with 100,000, 80,000, 60,000, and 40,000 votes respectively, and 10 seats to allocate, the seats might be distributed as follows: Party A gets 4 seats, Party B gets 3 seats, Party C gets 2 seats, and Party D gets 1 seat. This allocation is determined by comparing the highest quotients from each party until all seats are distributed. This method is widely used in various countries for parliamentary elections.

The authors demonstrate that their formula's precision hinges on three assumptions, one of which is the homogeneous distribution of votes for parties across the nation. Consequently, the FSS formula's accuracy dwindles in nations marked by regional imbalances due to factors such as independent candidates, specific rights accorded to minority parties, substantial disparities in district sizes, and ethnic or other regional divisions.

In response, I propose an adjustment to the FSS formula—dubbed the "regional correction"—utilizing data from Turkish Parliamentary elections held between 2007 and

2018. My paper suggests applying this formula specifically to regions causing regional imbalances by identifying such regions based on a machine learning method, k-means clustering. After an in-depth analysis of the historical and political dynamics within a particular country and applying the formula separately to three areas, the Loosemore-Hanby goodness of fit[1] improves, with values shifting from a range of 4.79% - 4.09% to a range of 2.32% - 0.9%. Figure 1.1 below summarizes my findings.

The regional correction can enhance estimates in countries where the FSS formula's accuracy is compromised, such as Spain or Belgium. This refined method enables me to execute a broad spectrum of simulations on Turkish elections under a multitude of counterfactual scenarios, thereby gaining insights into the potential outcomes of various hypothetical situations. Although the outcomes of defining regions using k-means clustering and manual identification have proven to lead to similar outcomes, using k-means clustering provides scholars with a standardized method of identifying regions with similar political dynamics.

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[1] The Loosemore-Hanby Index is a metric used to evaluate the distance between two distributions. To calculate the Loosemore-Hanby Index, one first calculates the absolute difference between the two distributions. For elections, these are seat distributions. After computing these differences for all parties, one sums them up. The final step is to divide this sum by two. The resulting index provides a single value that represents the overall distance between the two distributions, with lower values indicating a closer match between votes and seats, and higher values indicating greater distance.

Figure 1.1: Improvement in fit (LH) with FSS Correction
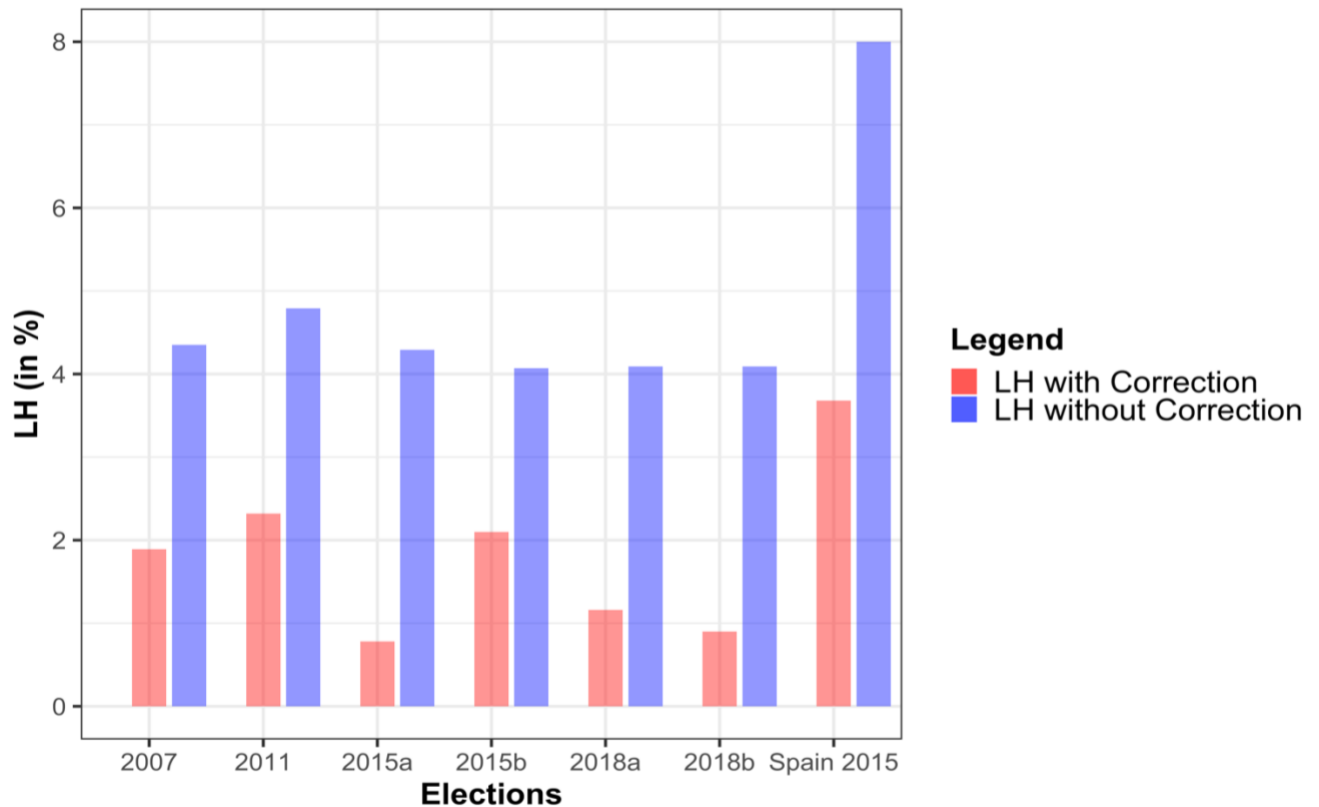
2nd Chapter:

The second chapter of my dissertation delves into the analysis of the June 2018

Turkish Parliamentary elections, applying the method developed in the first chapter. Prior

to these elections, the Justice and Development Party (AKP) and the Nationalist Movement

Party (MHP) advocated an electoral reform that introduced the concept of apparentement,

which enabled parties to form electoral alliances. This reform was significant as it

permitted parties to evade the electoral threshold, provided their alliance met the threshold. This change followed a period of unfavorable polling for MHP, prompting widespread speculation that MHP wouldn't surpass the threshold.

In my analysis, I propose that four out of the five parties currently in the parliament made flawed decisions in response to this reform. While AKP and MHP ended up losing seats they would have secured under the old system, the Republican People's Party (CHP) and the Good Party (İP) found themselves in a more advantageous position, despite their opposition to the reform. My study reveals that the AKP secured 295 out of 600 seats, whereas they could have obtained 323 or 324 seats under the previous system. Figure 1.2 encapsulates my findings from numerous simulations, underscoring that the AKP would have fared better under almost all alternative scenarios.

Figure 1.2:

AKP's Seat Share Across All Scenarios
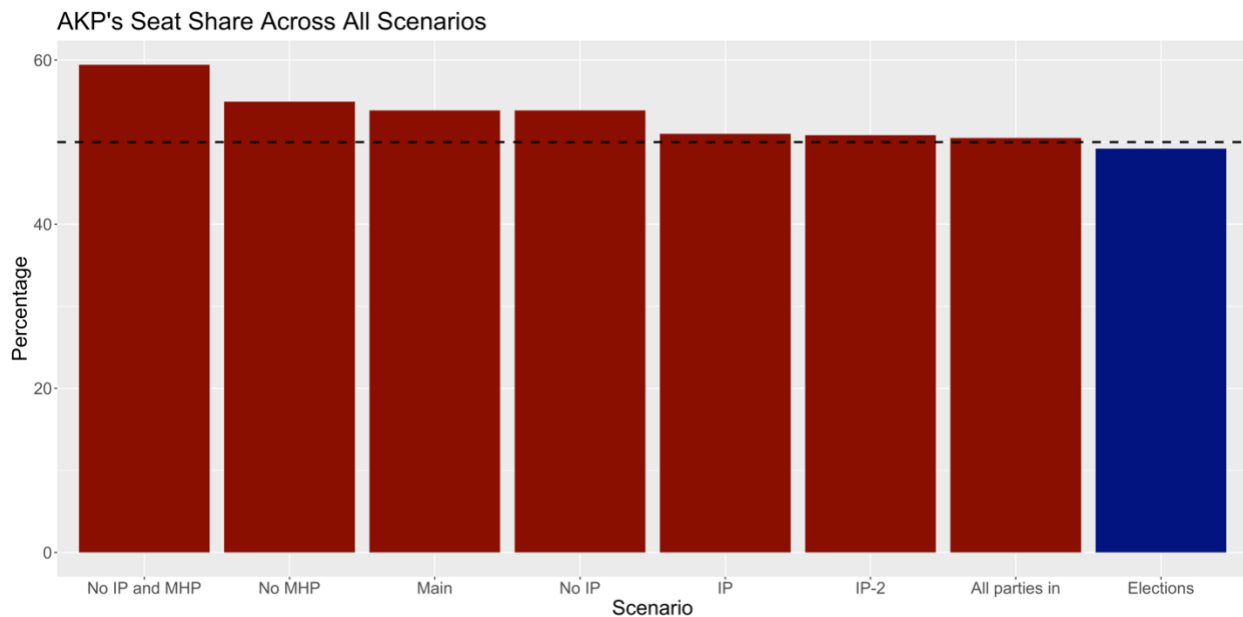
3ʳᵈ Chapter:

In my dissertation's third chapter, I broaden my scope to include electoral engineering efforts from 1980 to 2018. By doing so, I can analyze a larger number of cases, leading to a more comprehensive understanding of party behavior and the success rate of electoral engineering.

Subsequently, I delve into all the attempts at electoral engineering once civil elections were reintroduced in Turkey, beginning with the 1991 elections. My analysis indicates that political parties failed to pinpoint an optimal strategy regarding electoral reform about 54% of the time. For those who orchestrated the reforms, the failure rate was even higher at 62.5%.

I argue that this rate of failure can be attributed to various factors, including the instability of votes under high electoral thresholds, the overestimation of electoral support, a lack of technical knowledge, weak party institutionalization, and a scarcity of reliable polls. One image demonstrating the extent of political parties' mistakes is Figure 1.3, where we can observe that the center left and the center right could have significantly improved their seat share by optimizing their electoral strategies.

Figure 1.3: Visual Representation of Actual Election Results and the Counterfactual Simulation for the 1999 Elections
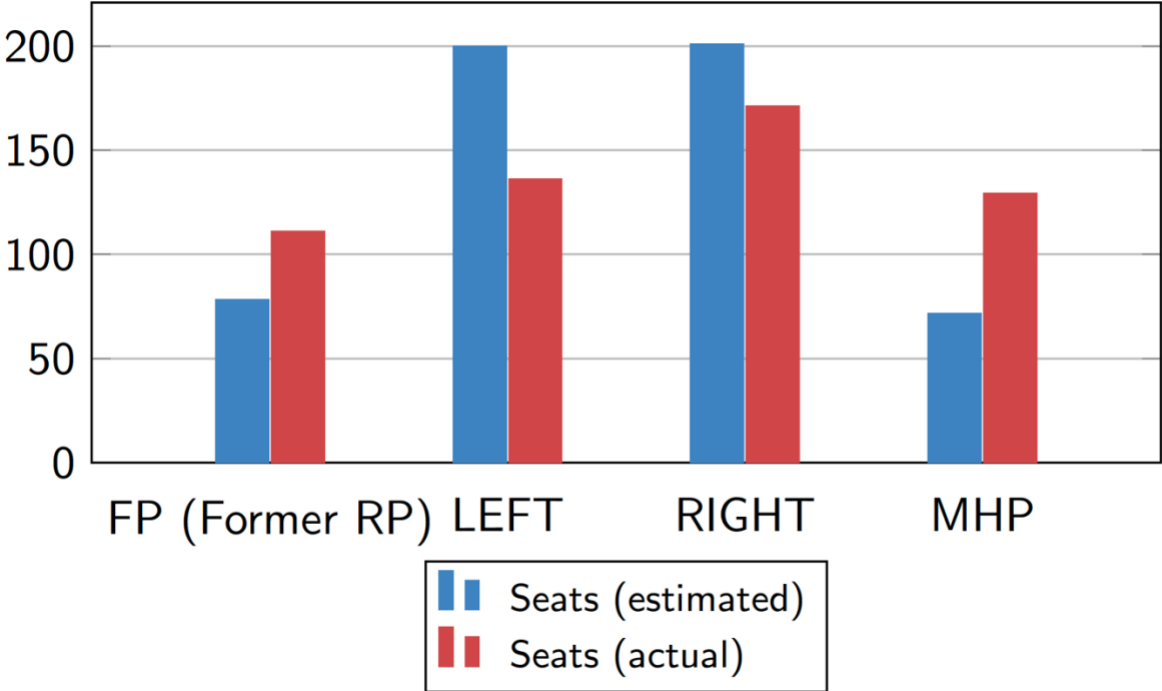
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CHAPTER 1: Regional correction of the Flis-Słomczyński-Stolicki formula: the case of Turkish elections

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Abstract:

This chapter proposes a correction to the Flis-Słomczyński-Stolicki (2019, 2020) formula (FSS formula) for countries with large variation among their districts in terms of political divisions. The FSS formula estimates seat allocations under the Jefferson-D'Hondt method only by using the national vote shares as well as other parameters that are often readily available. Such estimates allow researchers to compare and contrast simulated election results with actual election results to understand the consequences of electoral policymaking. However, the formula does not yield precise estimates in countries where there are independent candidates, special right assigned to minority parties, significant variation in district sizes, and an unequal distribution of votes due to ethnic or other regional divisions. I propose dividing the national distribution of votes into regions that satisfy the assumptions of the FSS formula within themselves. By applying the formula into regions that are consisted of historically and politically homogenous districts, I show that the estimates of the FSS formula become significantly more precise. By applying the regional correction to 2018 Turkish Parliamentary elections as the main case study, and other Turkish elections between 2007 and 2015, I show that applying the formula with the correction to three separate regions improve the Loosemore-Hanby goodness of fit of the formula estimates by 2.1 percentage points to 3.41 percentage points (95% CI). The correction may significantly improve the estimates of the formula in countries such as Spain, Peru, or Belgium.

Keywords: Jefferson-D'Hondt, elections, electoral simulations, Turkish elections

In their paper, Flis, Słomczynski, and Stolicki (2020) introduce a formula (referred as "FSS formula" thereafter) that allows to estimate seat allocations under the Jefferson-D'Hondt seat allocation method solely by using the national vote shares and other easily available parameters of the electoral system (Flis, Słomczyński and Stolicki 2019, 2020). Being able to simulate elections using the FSS formula allows researchers to run counterfactual simulations which can be used to assess outcomes of electoral reforms and electoral policy proposals. The authors examined actual distributions of votes in several European elections and found out that their formula predicted the election results quite precisely. The formula simplifies electoral simulations under the Jefferson-D'Hondt method since it does not require knowing district-level vote shares. It enables quick evaluations of the "effects of vote swings, coalition formation and breakup, spoiler effects, electoral engineering, artificial thresholds, and political gerrymandering" (p. 201).

The FSS formula is defined as follows:

$s_i = p_i \cdot s + \frac{1}{2} c (p_i \cdot n - 1)$, where:

n is the number of "relevant" parties;

p_i is the vote share of party i among the relevant parties (called "normalized" vote share);

c is the total number of electoral districts;

s is the total number of seats in the parliament

s_i is the total number of seats of party i in the parliament.

There are several applications of the FSS formula. Firstly, it provides advantages when modeling political counterfactuals resulting from the modifications of the electoral system such as the introduction of statutory thresholds or changes in the number of districts. Although some of such simulations are also possible by analyzing data at the district-level, obtaining district-level data can pose separate challenges as demonstrated in Gudgin and Taylor (1979), Katz and King (1999), Blau (2001), Linzer (2012), and Calvo and Rodden (2015). Changing the number of districts poses a set of challenges that are difficult to solve without the data that are may be extremely difficult to obtain. By using the FSS formula, changing the number of districts requires only a quick recalculation of the results. This means that the formula allows to evaluate the hypothetical effects of electoral reforms.

Secondly, the FSS formula enables simulations based on hypothetical party systems resulting from splits, mergers, or electoral coalitions, or hypothetical effects resulting from parties that are spoilers (Kaminski, 2018a, 2018b). Balinski and Young (1978) and Bochsler (2010) demonstrate that the Jefferson-D'Hondt system encourages electoral coalitions due to the seat-magnifying impact of the Jefferson-D'Hondt system. As it is visible in Kaminski (2001), Leutgäb and Pukelsheim (2009), Janson (2014), and Karpov (2015), coalitions under the Jefferson D'Hondt system benefit from a merger if the votes of the coalition members add up and the other votes remain unchanged. However, exact additivity practically never happens. In party splits and mergers, simulating distributions of votes at district level is itself very complicated and requires making various assumptions about the partition function of party votes (Kaminski 2001). The FSS formula allows to make certain estimates; for instance, one can estimate what is the minimal total proportion of votes that two parties

would have to receive in order for their coalition to bring them at least as many seats as the total when they compete separately.

Lastly, the formula makes it easier to analyze the impacts of actual electoral engineering and electoral reforms as this will be visible in my analyses of electoral engineering in Turkey in the following dissertation chapters. Typically, electoral engineering involves various changes in the parameters of electoral systems such as seat allocation methods, statutory thresholds, or the number of electoral districts and their magnitudes (Kaminski, 2002). Using the FSS formula policymakers and researchers can evaluate the consequences of electoral reform by simulating electoral results under the "old" electoral system.

Obviously, the estimates are not always precise. The authors have three main assumptions for their formula to work, including that "normalized party vote shares average to national vote shares over all districts" (Flis et al, 2020, p. 207). Under some electoral systems that have idiosyncratic electoral rules, their assumptions may be violated.

Firstly, the presence of independent candidates who are strong in their respective regions creates a problem. For instance, such situations happened in the Turkish national elections in 2007 and 2012. Independent candidates compete only within specific districts and cannot be treated as "parties." Therefore, an estimation using only the national estimates introduce a bias.

Secondly, there may be special rights assigned to minority parties. An example of such a situation is Poland, where official minorities do not need to pass the nationwide thresholds in order to compete for seats in their districts where they are concentrated.

Thanks to this rule, German Minority have had representatives in the Sejm—in the 2019 elections, one representative—despite receiving only 0.17% of total vote.

Thirdly, the formula is not precise in countries where there is a significant variation in district sizes. For instance, in Peru, the number of deputies elected in each district vary greatly. A potential solution is to group smaller and larger districts together in such cases, and then to apply the formula to those district-groups separately.

Lastly, and most importantly, there may be an unequal distribution of votes due to ethnic or other regional divisions. Ethnic representation, or regional representation, may create serious problems for justifying proportional representation electoral systems (Latner and McGann, 2005; Norton, 1997; McLean, 1991). The seat estimates in countries where vote distributions are not homogenous among its regions and districts may be imprecise under the FSS formula. Some instances of such unequal distribution are Spain, Turkey, or Belgium where ethnic-regional political parties are strong only in certain areas of the country.

In this first dissertation chapter, I introduce an *ad hoc* correction to the formula to obtain more precise estimates even in countries which violate the regional homogeneity assumption. Using the parliamentary elections of Turkey in 2018 as a case study, I show that dividing the national distribution into regions that can be reasonably claimed to satisfy the assumptions of the formula within such regions, and then applying the formula to the separate regions, may remedy the problem and bring substantially more precise estimates than the original uncorrected formula. I use a division of districts into regions that have historically or politically followed a specific pattern which would be followed by the

application of the formula into these regions separately (such application would be called "the FSS formula corrected"). I also calculate the size of improvement in the formula's estimating power following the regional correction. It turns out to be significant.

I use the data from the 2018 Turkish Parliamentary elections. In addition to a detailed analysis of the 2018 elections, I also apply the corrected FSS formula to Turkish 2007, 2011, 2015 June, and 2015 November elections to check that the regional correction yields significantly better estimates than applying the uncorrected formula.

Turkey is an ethnically heterogeneous country where some political parties get overwhelming support in certain areas while their support is non-existent in other areas. Therefore, I divide the Turkish electoral districts into three smaller regions. With the high number of total electoral districts, the average size of my three separate regions in my calculations is about that of a medium-sized European country.

While the Loosemore-Hanby goodness of fit is 4.09% when the formula is applied to 2018 parliamentary elections in Turkey without any corrections, the Loosemore-Hanby goodness of fit is 0.9% when the formula is applied to three different regions which satisfy the assumptions by Flis, Słomczynski, and Stolicki (2019, 2020). The analyses of elections ranging from 2007 to 2018 show that the formula with correction yields better LH Goodness of Fit by 3.41 percentage points to 2.10 percentage points (95% CI).

The correction analyzed in this chapter is used in the second and third chapters of this dissertation. In the second chapter, I show that the 2018 electoral reform was a mistake for the AKP, the party which was decisive for implementing the electoral reform, as they lost approximately 28 seats and the majority in the parliament due to the electoral reform that

they have introduced. In the third chapter, I show multiple instances of electoral engineering failures in a longer historical period.

Why and where does the formula not work properly?

Introduction to the Turkish electoral system

The current political system in Turkey is presidential. The present parliament is unicameral and it consists of 600 deputies. Before the conversion to the Presidential system, the role of the President was symbolic. The executive branch stemmed from the parliament as the Prime Minister and the Council of Ministers had to receive a vote of confidence from the Parliament. Essentially, the conversion to the Presidential system redirected the authority to form a council of ministers from the Parliament to the President. Although the conversion to the presidential system weakened the parliament, the Turkish Grand National Assembly still holds the power to legislate, override presidential decrees, call for Presidential elections. Furthermore, in case that there is a conflict between a law and a presidential decree, the law prepared by the parliament takes precedence.

After the coup d'etat of 1980, the Turkish military administration introduced an electoral system based on the Jefferson-D'Hondt method with a unicameral parliament. While 400 deputies were elected in the first parliamentary elections in 1983, the number of deputies is currently 600. The most striking feature of the Turkish electoral system is the 10% national threshold. In 1983, the military administration introduced the electoral threshold to reduce the effective number of political parties to two or three (Özbudun, 1996, Sayarı, 1992, Bakke and Sitter, 2005, see also Taagepera and Shugart, 1989, Cox 1997). As

the Jefferson-D'Hondt method already favors the largest parties, the highest threshold for single political parties in the world had repeatedly resulted in consistent parliamentary disproportionality.

Turkey's regional heterogeneity among its districts stem from the regional concentration of Turkey's Kurdish population. The Kurdish population in Turkey is mostly concentrated in the Southeast and major metropolitan areas whereas there are only few Kurdish people living in the Black Sea Region in Northern Turkey (Because the Turkish government does not collect ethnic data, it is difficult to obtain precise estimates of regional ethnic populations. However, presence of Kurdish population is strongly correlated with HDP vote. Therefore, Figure 2.1 demonstrates the proportion of the Kurdish population by demonstrating the HDP vote).

As one may expect, the Kurdish population tend to vote for parties that represent Kurdish minority interests (Grigoriadis, 2016).[2] The political party that currently represents the Kurdish populations (People's Democratic Party – HDP) is very strong in the Southeast whereas support for the HDP is almost non-existent in certain areas, such as the North. Because of the seat-magnifying impact of the Jefferson-D'Hondt method, the HDP often gets a larger share of seats than its vote share in regions that it is strong, and a smaller share of seats than its vote share in regions that it is weak. For instance, the parliamentary election results on November 1, 2015, show the impact of seat-magnification. Even if the Nationalistic

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[2] Parties that represent Kurdish interests have been controversial in Turkey. Following the French model of citizenship (Yeğen, 2004), Turkish administrations refused the idea of minority political parties. Throughout the 1990s and the 2000s, multiple Kurdish parties were closed and banned by the Turkish Constitutional Court. The most recent political party (People's Democratic Party – Halklarin Demokratik Partisi, HDP) representing the Kurdish population is founded under the umbrella of leftist/socialist organizations that represent a broader coalition of political forces.

Movement Party (MHP) had a larger share of the national vote (11.90% of the national vote, 40 seats), the HDP won more seats with a smaller share of the national vote (10.73% of the national vote, 59 seats) because the MHP was not the strongest party in any districts whereas HDP had the majority in the Southeastern districts of Turkey. Such regional heterogeneity combined with the seat-magnification make it extremely difficult to predict electoral results only by looking at the national distribution of votes.

Table 2.1: The results of major parties and alliances in November 1, 2015, parliamentary elections (percentages)

Competitors	Votes	Seats
AKP	49.50	57.64 (317)
MHP	11.90	7.27 (40)
CHP	25.32	24.36 (134)
HDP	10.76	10.73 (59)
Total	97.48	100.0 (550)

Source: Supreme Election Council (2020). Minor parties excluded. Some numbers do not add up to the total due to rounding. and because minor parties are omitted. The numbers of seats are shown in parentheses.
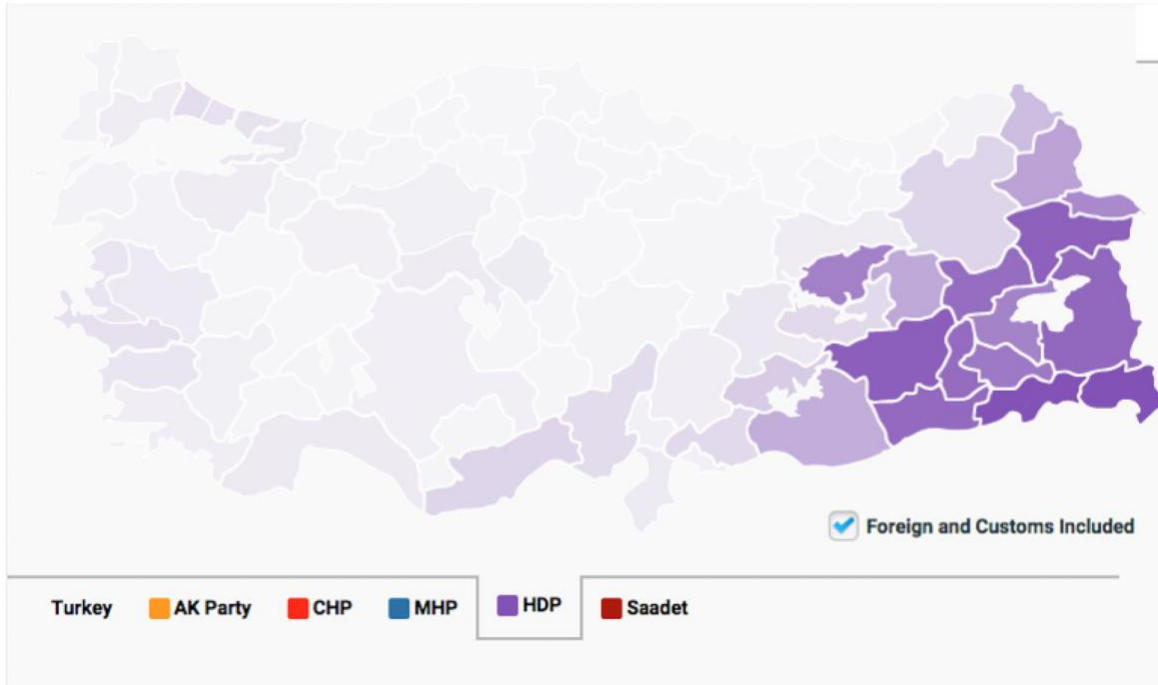
Figure 2.1: HDP's National Vote Distribution in June 2018 elections. Darker purple denotes a higher vote share for the HDP. The map below depicts populations of sub-districts (Konda, 2018)

Simulations: 2018 Turkish Parliamentary Elections

The 2018 Turkish Parliamentary Elections were unique as they were the first elections after a constitutional referendum that converted the Turkish political system from parliamentary to presidential. The elections were also the first after an electoral reform, which brought upon an *apparentement* system, allowing parties to take part in elections as individual parties and also as members of coalitions. The party in the government (Justice and Development Party – AKP) and the main opposition party (Republican People's Party – CHP) were parts of separate coalitions, while the HDP remained as a party without any allegiance to an alliance.

In this chapter, I will show that the FSS formula without corrections does not work in Turkey with HDP's strong regional presence. Then, I modify the application of the formula, which can help us achieving precise electoral estimates. I first apply the formula to the election results only by using the national vote share without any regional corrections to show the discrepancy between the real results and the estimated results. Then, I apply regional corrections to demonstrate how regional correction can significantly improve the formula's estimation power.

To measure the estimation power of the simulations' goodness of fit, I use the Loosemore-Hanby (LH) goodness of fit between actual election results and simulated distributions of seats (Loosemore and Hanby, 1971). The Loosemore-Hanby goodness of fit measures the distance between two distributions (in our cases represented by percentages of seats), then adds up the absolute values of all errors and divides the total by two.

The vectors $\boldsymbol{p} = (p_i)_{i=1,\dots,n}$ and $\boldsymbol{q} = (q_i)_{i=1,\dots,n}$ denote two distributions of seats (with non-negative percentages that add up to 100 in both cases) and they defined over the same set of n parties. Then the LH distance between the two distributions is defined as follows:

$$LH\,(\boldsymbol{p},\boldsymbol{q}) = \frac{1}{2}\sum_{1}^{n}|p_i - q_i|$$

The Logic Behind the Divided Regions

The calculations of the divisions of districts in this study may appear as if they are only linked to the vote distributions within districts. However, the model that this paper proposes takes into account historical and ethnic divisions. Figure 2.1 shows that there is a strong regionality of HDP vote and the Kurdish population in Turkey. Although the official position of the Turkish state is not to recognize any ethnic identities, the Kurdish population of Turkey have dominantly inhabited the Southeast region of the country (Yeğen, 2009). Therefore, the regional divisions that I apply essentially take the historical presence of the Kurdish vote into account in analyzing the elections instead of merely analyzing the district-level vote.

The following chapters present three separate scenarios. Under the first scenario, I apply the formula to Turkish elections by only using the regional vote distribution. Under the second scenario, I divide the districts into two subsets based on the presence of a strong Kurdish voter population. Therefore, while the first region depicts the districts where there is no strong support for HDP, HDP is quite strong in the second region with vote levels higher than 27.5%. However, as the analyses above demonstrate, the fit is still not as good as in the third scenario.

The logic behind the scenario three is to create three separate regions. I call the three regions as "HDP-strong," "HDP-present," and "HDP-absent." In "HDP-absent", support for HDP is almost non-existent. In the "HDP-present" region, there is some support for HDP; however, HDP is not the strongest party in any of the districts. While HDP is not an effective party in forty-four districts (see Taagepera and Shugart, 1989), it is relevant party, but it is

not among the strongest parties in twenty-eight districts. In "HDP-strong," HDP is either the strongest party or one of the two only effective parties in fifteen districts within the third region.

K-means Clustering for Region Identification

Although one can identify the regions by analyzing the districts manually, it is also possible to use a standardized machine learning method in order to group similar districts into three separate groups by using k-means clustering. I use k-means clustering in order to divide Turkey into regions that are similar to each other. K-means clustering in the Turkish case is based on the votes received by the Kurdish political party, HDP. Because I have identified the separate regions based on the strength of the HDP vote, the k-means clustering algorithm also uses the HDP vote in order to analyze districts that are similar to each other based on the HDP support levels.

K-means clustering algorithm aims to partition a dataset into k clusters by minimizing the sum of squared distances between the points and the centroid of the cluster they belong to. More specifically, let X be a dataset with n observations and d features, and let K be the number of clusters we want to identify. The k-means algorithm can be described as follows:

1) Choose K initial centroids randomly from the dataset X.
2) Assign each observation to the closest centroid based on the Euclidian distance between the observation and the centroid

3) Recalculate the centroid of each cluster as the mean of the observations assigned to that cluster

4) Repeat steps 2 and 3 until the cluster assignments no longer change or a maximum number of iterations is reached.

The k-means algorithm seeks to minimize the following objective function:

$$J = \sum_{i=1}^{K} \sum_{x \in C_i} |x - \mu_i|^2$$

Where C_i is the i-th cluster, μ_I is the centroid of the i-th cluster, and $| x - \mu_I |$ is the Euclidean distance between the observation x and the centroid μ_I.

The objective function J measures the sum of the squared distances between the observations and their assigned cluster centroids and the algorithm seeks to find the cluster assignments that minimize J.

The k-means clustering algorithm does not yield precisely the same results with manual district selection. However, regional identification outcomes are similar enough that one can consider k-means clustering as an alternative method to manual district selection, especially in cases when a scholar may not have extensive political and historical knowledge about a country.
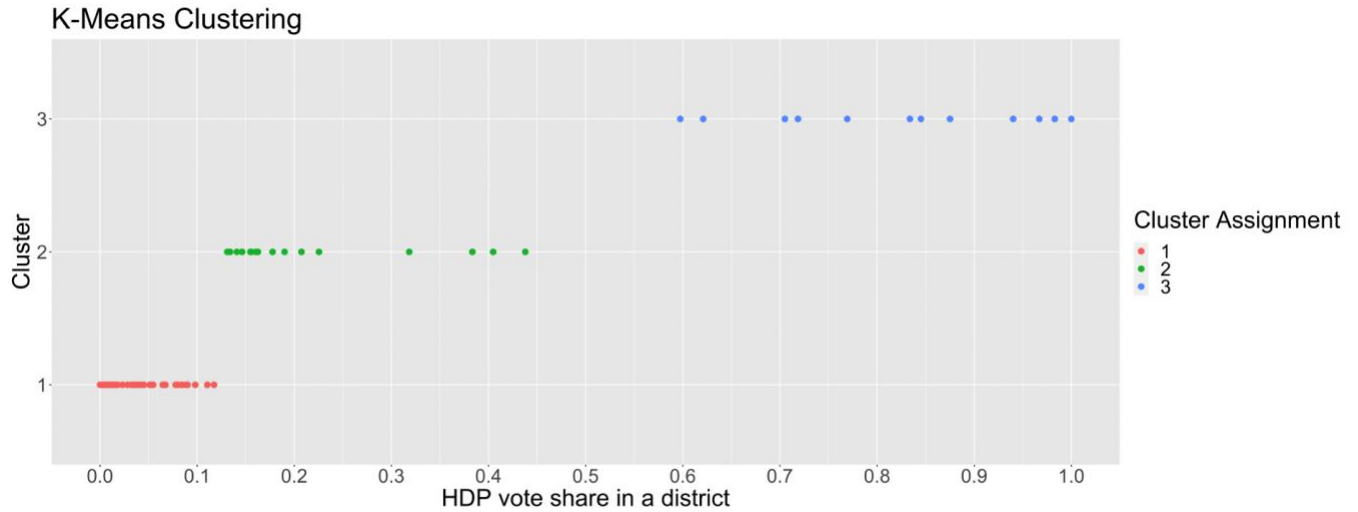
Figure 2.2: Districts identified via k-means clustering. The k-means clustering algorithm identifies three regions of Turkey with similar districts based on the HDP's vote share.

Formula Predictions without any Modifications (1st Scenario)

Table 2.2 shows the formula predictions of election results without any regional corrections. In other words, Table 2.2 shows the discrepancy between the estimated number of seats using the formula and the actual election results. The results are significantly different particularly for the AKP and the HDP. The AKP is present as an effective party in every electoral district. Therefore, the FSS formula overestimates the number of seats for the stronger parties, AKP and CHP, while also underestimating the number of seats for a regional party, HDP. The Loosemore-Hanby index is 4.09%, which is worse than eighty cases of the European elections out of eighty-four that Flis et al. (2018) tested with their formula.

Table 2.2: FSS formula predictions of election results without corrections

Competitors	Normalized Votes	Estimated Seats	Election Results (Seats)
AKP	0.43	308.90	295
MHP	0.11	48.04	49
CHP	0.23	155.78	146
IP	0.10	43.85	43
HDP	0.12	43.43	67
Alliances:			
Cumhur (AKP + MHP)	0.55	356.94	344
Millet (CHP + IP + SP)	0.33	199.63	189
Total		100.0 (600)	600

Note 1: Only relevant parties are listed. Loosemore-Hanby goodness of fit: 4.09%

Formula Predictions with districts divided into two (2nd Scenario)

To overcome the bias of regional parties in the second variant, Turkey was divided into two subsets of districts depending on the strength of HDP (see Table 2.3). The first region included districts in which HDP received less than 27.5% of the votes (73 districts) while the other region included districts in which HDP received over 27.5% of the votes (15 districts). In all districts of the first region, HDP is either the strongest party or a strong contender. The three largest percentages of votes received by HDP in the remaining districts were 23.5%, 17%, and 15.6%.

Table 2.3: Distribution of votes in two regions

Competitors	First Region (72 Districts and 524 Seats)	Second Region (15 Districts and 76 Seats)
AKP	0.44	0.35
MHP	0.12	0.05
CHP	0.25	0.04
IP	0.11	0.02
HDP	0.08	0.54
Alliances:		
Cumhur (AKP + MHP)	0.56	0.40
Millet (CHP + IP + SP)	0.37	0.06

In the simulation, the Millet opposition alliance cannot clear the natural threshold in the second region in which HDP received at least 27.5% of the total number of votes. Therefore, there are only two real competitors in these districts, i.e., Alliance Cumhur and HDP. After distributing seats to the alliance, it becomes evident that in the second region, MHP cannot clear the natural threshold within the alliance, and therefore all seats are shared between AKP and HDP.

Table 2.4 shows the estimated distribution of seats in the second variant. Estimates are better than the estimates in the first variant because HDP receives more seats and AKP receives fewer seats. However, their fit is still not satisfactory since the Loosemore-Hanby

index is 1.75%, which is better than the LH-score of thirty-six cases out of eighty-four in Flis et al. (2018). Although the difference in the number of AKP seats is relatively small, one critical problem is that the formula predicts a majority rule for AKP in the parliament.

Table 2.4: Formula Predictions of Election Results with Two Regions

Competitors	Normalized Votes	Estimated Seats	Election Results (Seats)
AKP	0.43	303.56	295
MHP	0.11	47.03	49
CHP	0.23	147.20	146
IP	0.10	43.74	43
HDP	0.12	58.47	67
Alliances:			
Cumhur (AKP + MHP)	0.55	350.59	344
Millet (CHP + IP + SP)	0.33	190.94	189
Total		100.0 (600)	600

Note 2: Only relevant parties are listed. Loosemore-Hanby goodness of fit: 1.75%.

Formula Predictions with districts divided into three (3ʳᵈ Scenario)

The third variant divides Turkey into three subsets of districts (see Table 2.5). While HDP is strong in fifteen districts, it is also very weak in 44 districts, receiving less than 4.6% of votes. Therefore, in the third variant, the first region includes districts where HDP received less than 4.6% (44 districts), the second region where HDP received between 4.6% and 27.5% (24 districts), and the last region where HDP received more than 27.5%

(15 districts). In the first region, the competition is between the two alliances, Cumhur and Millet; all three actors compete in the second region, and in the last region, Cumhur competes with HDP. In the third region— since MHP cannot clear the natural threshold within the alliance—all seats go to AKP (see Table 2.5). All essential simulations in our paper using the FSS formula can be replicated using the data in Table 2.5. All three regions reasonably satisfy the assumptions that are put forward by Flis et al. (2020) as they do not present large variation in voter distribution among themselves.

Table 2.5: Distribution of votes in three regions

Competitors	First Region (HDP-absent)	Second Region (HDP-present)	Third Region (HDP-strong)
AKP	0.5023 (0.5244)	0.4000 (0.4052)	0.3417 (0.3889)
MHP	0.1490 (0.1556)	0.1005 (0.1018)	0.0473 (0.0000)
CHP	0.1932 (0.2017)	0.2766 (0.2802)	0.0366 (0.0000)
IP	0.1134 (0.1183)	0.1044 (0.1058)	0.0238 (0.0000)
HDP	0.0273 (0.0000)	0.1057 (0.1070)	0.5370 (0.6111)
Simulation Parameters:			
n (number of relevant parties)	4	5	2
c (number of districts)	44	28	15
s (number of seats)	206	318	76

Note 3: Normalized votes after zeroing the results of irrelevant parties are shown in parentheses.

The third correction to the FSS formula is much better in estimating the distribution of seats in real elections (see Table 2.6). The biggest error is 2.99 seats for CHP, while the error in estimating AKP seats is only 0.98 seats. This variant seems to overcome the problems related to the existence of regional parties.

Table 2.6: FSS formula Prediction of Election Results with Three Regions

Competitors	Normalized Votes (all regions)	Estimated Seats	Election Results	Error (in %)
AKP	0.43	295.98	295.00	-0.33
MHP	0.11	46.31	49.00	5.80
CHP	0.23	143.01	146.00	2.09
IP	0.10	45.39	43.00	-5.26
HDP	0.12	69.31	67.00	-3.34
Alliances:				
Cumhur (AKP + MHP)	0.55	342.29	344.00	0.50
Millet (CHP + IP + SP)	0.33	188.40	188.00	0.32

Note 4: Only relevant parties are listed. Loosemore-Hanby goodness of fit: 0.9%.

In Flis, Słomczynski, and Stolicki (2018), the largest value of the Loosemore-Hanby index is for 1979 Spain elections (LH is 6.2%). Out of 84 elections that they analyze, the value of LH is larger than 4% only in 4 elections. The LH is as small as 0.4% (1956 Netherlands elections), and the average LH in all 84 post-1945 parliamentary elections in eight European countries is 1.9%. It is important to note that the analysis by Flis et al. (2018) includes data

from nations with regional voter distributions, such as Spain, where the formula does not work as well as it does in other countries.

The first scenario analyzed in this paper presents an LH value of 4.09%, therefore the estimates are poor compared to Flis et al. (2018). Analyzing the second scenario, we see that the fit is much better. With an LH index of 1.75%, the second scenario leads to a better score than thirty-six cases out of eighty-four in Flis et al. (2018). The best fit, however, is provided by the third scenario. An LH index of 0.9% is a better fit than seventy-three cases out of eight-four elections examined by Flis et al. (2018).

A comparison of the second scenario and the third scenario shows the importance of the division criteria. While the first region includes districts where the HDP is not effective at all, HDP have some presence in the second region. Without a separation between the complete lack of presence in elections and some presence by the regional parties, we treat the complete absence of HDP and some presence of HDP the same. By dividing the districts into three, we can have regions that are more homogenous within themselves, which helps satisfy the assumptions by Flis et al. (2020). This method is likely to work in other countries where the FSS formula without corrections might not work well, such as Spain. In Spain, certain parties participate in elections only regionally, which complicate calculations if no corrections are applied.

Further Cases

The corrected FSS formula was also applied to 2015 June, 2015 November, 2011 and 2007 Turkish elections. This chapter also reports the estimates for 2018 elections obtained by applying the regional correction only by using regional-level aggregate data. The estimates obtained by elections ranging from 2007 to 2015 address additional concerns specified in the introduction, such as the presence of independent candidates. The 2007 and 2011 elections are elections in which the Kurdish political representation did not run as a political party, but they run as independent candidates as the Kurdish representation did not believe that they would clear the 10% threshold as a political party. The allocation of seats to independent candidates solely depended on the district-level vote, and FSS formula doesn't include an option for having independent candidates. The 2015 June and 2015 November elections are the first elections in which the Kurdish representation ran as a political party. The two 2015 elections are the last elections before the electoral reform in 2018 which enabled political alliances and an *apparentement* system in elections.

Figure 2.3: Regional Map of Turkey (Maps of World, 2017)

The regional separation using aggregate-level data for the 2018 elections is based on the presence and strength of the HDP as it is the case with the district-level separation. However, the regional separation only uses the aggregate regional data from the seven regions of Turkey (see figure 2.3). Then, I divide Turkey into three regions as I did with the original method: HDP strong (Eastern and Southeastern Anatolia regions), HDP present (Marmara, Aegean, and Mediterranean regions), and HDP not present (Central Anatolia and Black Sea regions). The cut-off points are the same with the original method used in this paper: 4.6%, and 27.5%.

Table 2.7: Comparison of Precision of Estimates

Elections	LH with the Correction (in %)	LH without the Correction (in %)	Largest Mistake with the correction (seats)	Largest mistake without the correction (seats)
2007	1.89	4.35	10.42	23.34
2011	2.32	4.79	12.79	26.33
2015 June	0.78	4.29	4.29	23.59
2015 November	2.10	4.07	8.76	22.39
2018 (regional division)	1.16	4.09	6.66	23.57
2018 (district division)	0.90	4.09	2.99	23.57

Note 5: In 2007, 2011, and 2015 (both) elections, there were 550 seats in the parliament. In 2018 elections, the total number of seats was 600

Table 2.7 shows that the formula applied with the regional correction is significantly more precise than the formula applied without any corrections ($p < 0.01$, 95% confidence interval: -3.41 to -2.10). Furthermore, the calculations show that the FSS formula without corrections has problems with? estimating extreme values. While the largest mistakes in each election ranges from 22.39 to 26.33 when the formula is applied without a correction, the largest mistakes range from 12.79 to 2.99 when the formula is applied with the regional correction. In each election, the largest error obtained when the formula is applied without any corrections is at least twice greater than the calculations with the regional corrections.

The formula without any corrections particularly performs bad when there are independent candidates. Because the independent candidates act similarly to a political party, as they take advantage of the opportunity to take place in elections as independent candidates to bypass the elections, they are treated as a single party in the estimates. The FSS formula predicts 2.65 and 8.66 seats for independent candidates in the 2007 and 2011 elections, while there were 26 and 35 independent candidates elected, respectively. On the other hand, the formula with the correction provides significantly better estimates for the independent candidates as it predicts 26.88 seats in the 2007 elections and 44.89 seats in the 2011 elections. The estimates for the 2007 elections are particularly precise as the error is only 0.16%. Thus, the additional cases demonstrate that the *ad hoc* correction to the formula is robust under various circumstances.

Future Steps and Limitations

The correction can be applied to other countries that use the Jefferson-D'Hondt method and have also largely ethnic cleavages such as Spain or Belgium. A brief analysis of 2015 Spain elections show that the regional correction can improve the LH goodness of fit from 8% to 3.68%. Another potential issue is the existence of districts that vary significantly in their sizes (e.g. Peru). One solution would be to group smaller and larger districts together and apply the formula to those regions separately.

One problem that arises with the method proposed in this paper is that researchers may still need access to district-level data. A significant advantage of the formula is that it allows researchers to use national-level data which is available in most, if not all, cases. However, using aggregate-level regional data, which is often easily accessible, is a feasible

alternative   (see "Consulta de Resultados Electorales," 2019; "Bolgelere Gore Secim Sonuclari," 2018). With regions that present ethnic patterns over decades, we would not need the district-level data as long as the countries report regional data. Table 2.7 shows that applying the correction only based on aggregate regional level data for the 2018 Turkish General elections improves the LH Goodness of Fit from 4.09% to 1.16%. While the correction based on district-level data is more precise in the 2018 Turkish elections (LH fit 0.9% vs 1.16%), using aggregate-level regional data is more natural and provides researchers with a feasible alternative. Regional correction applied in Spain to Catalonia, the Basque, and "the rest" improves the LH index from 8% to 3.68%. Thus, correction based on aggregate-level regional data is still significantly better than the FSS formula without corrections when Flis et al. (2020) A1 assumption is violated. In general, the method proposed here can be applied to all countries where there are ethnic, religious, political, or other divisions.

Conclusion

In conclusion, this chapter proposes an *ad hoc* correction to the FSS formula. The formula predicts the number of seats obtained by political parties under a Jefferson-D'Hondt electoral system only using the national vote distribution. However, the formula is less precise in countries where are ethnic, political, or religious divisions due to the existence of regional political parties. This paper proposes using separate regions that can be reasonably assumed to satisfy the assumptions defined by Flis et al. (2020) and apply the formula to these regions separately. Applying the formula to Turkish General Elections from 2007 to

2018, I show that the formula with correction yields better LH index by 3.41 percentage points to 2.10 percentage points (95% CI). The LH fit in 2018 elections, 0.9%, is a better fit than seventy-three cases out of eight-four elections examined by Flis et al. (2018). I also show that using aggregate-regional level data yields better estimates than the FSS formula without corrections.

In terms of determining the division, I propose dividing the districts into regions based on historical ethnic, political, or religious divisions that lead to the existence of regional parties. Further studies can apply the method proposed here to Spain, Belgium, or earlier Turkish elections

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CHAPTER 2: Shot in the Foot: Unintended Political Consequences of Electoral Engineering in the Turkish Parliamentary Elections in 2018

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Abstract:

ABSTRACT: The ruling party in Turkey, AKP, made an *ex post* mistake by changing the electoral law before the parliamentary elections in 2018. The electoral engineering was motivated by AKP's fear that its coalition partner, MHP, would not exceed the 10% threshold. The new *apparentement* provision allowed parties to make electoral alliances and the alliances' total votes could then be used to meet the threshold. Surprisingly, MHP met the threshold in the election, while the opposition party, İP, failed to do so. The votes for İP were not wasted, as would have happened under the old law. AKP's seat share dipped below 50% and it consequently lost the parliamentary majority, while under the old electoral law, AKP would have won the majority. I estimate election results using four alternative scenarios, identify all parties that made *ex post* mistakes in supporting electoral reform, and evaluate the reform's political consequences.

KEYWORDS: proportional representation, electoral engineering, Turkey, parliamentary elections, electoral manipulation

1. Introduction

In the second chapter of my dissertation, I analyze a failed case of electoral engineering (electoral reform) in Turkey in 2018, when a new constitutional amendment allowed political parties to form electoral alliances. It was a severe miscalculation for the ruling party, AKP, for they would have received better results under the old electoral law in the ensuing 2018 parliamentary elections. In order to analyze the outcomes of the 2018 electoral reform, I use multiple simulations using the formula from my first dissertation chapter.

Electoral engineering is risky—especially when the party system is unstable, and votes are volatile. Sometimes, hapless institutional engineers get worse electoral results than they would have under the initial electoral law. Grofman and Brunell (2005) even coined a special term—dummymandering—for gerrymandering efforts gone wrong. Sometimes electoral engineering backfires in established democracies such as New Zealand (Nagel 1994), but it is common for authoritarian or democratizing regimes to overestimate their electoral support (Przeworski 1997). In Poland between 1989 and 1993, the parties were very busy with electoral engineering but they achieved their objectives in only 48% of cases (Kaminski 2002). One of the *ex post* mistakes included the failure of Polish communists to implement the most beneficial electoral law (Kaminski 1999). This mistake was later replicated in Hungary (Benoit & Schiemann 2001). Other Central European countries experienced similar engineering failures: Estonia in 1992 (Grofman, Mikkel, and Taagepera 1999), pre-velvet divorce Czechoslovakia in 1992 (Stein 2000), and Russia in 1993 (Moser 2001). Moraski and Loewenberg (1999, p. 168) claim that in immature

democracies "parties in power have consistently misjudged both their electoral prospects and the impact of legal thresholds on their share of parliamentary seats."

In this chapter, I argue that a similar "misjudgment" occurred in Turkey. The parliamentary elections in Turkey in 2018 were preceded by intense electoral engineering by the ruling Justice and Development Party (AKP).[3] AKP introduced one fundamental, coalition-friendly change in the system, i.e., the option of *apparentement or apparentment*, which explicitly allowed the parties to create national electoral alliances for the purpose of counting votes. Similar arrangements are quite common in proportional representation systems. I argue that this change was AKP's *ex post* error. The difference was extremely important because the actual election results very close to critical parliamentary thresholds. Under the old system, AKP would have had a comfortable, single-party majority in the house with approximately 54% of the seats instead of receiving 49.2% of seats.

I begin my chapter by describing the political context of electoral engineering in Turkey, and the ensuing election results. In Section 3, I calculate the expected distribution of seats under the new coalition-friendly electoral law and compare it with the actual election results. I also conduct sensitivity analysis by considering alternative scenarios. In conclusion, I evaluate the political consequences of mistaken electoral engineering. Methodological details are available in the first dissertation chapter.

2. The 2018 electoral engineering and elections

Turkey has a unicameral parliament, the Grand National Assembly and uses the Jefferson-D'Hondt method to distribute 600 seats among 87 districts. The most prominent feature of the electoral system is the 10% threshold introduced by the military administration after the *coup d'état* in 1980, arguably in order to reduce the effective number of parliamentary parties (ENPP) to two or three (Özbudun 1996, Sayarı 1992).

2.1. Political prelude

The combination of the highest threshold for single parties in the world with the Jefferson-D'Hondt method created persistent parliamentary disproportionality. For example, in the 2002 elections, two parties passed the threshold and five parties received between five and ten percent of the total vote. AKP won 66% of seats with only 34.28% of the vote while the main opposition party, CHP (Republican People's Party), won 32.4% of seats with only 19.39% of the votes. High thresholds create incentives for electoral engineering that helps the manipulator's allies pass the threshold or keep the opponents below it (Moraski and Loewenberg 1999, Szymański & Wódka 2017).

The 2018 electoral change originates in the June 7, 2015 elections. The previously dominant AKP fell short of the majority with 46.91% of the seats, stopped by the success of the People's Democratic Party (HDP) that passed the 10% threshold for the first time, receiving 14.55% of the seats. HDP originated from a regional Kurdish party and brought together many leftist and minority organizations. The second biggest winner was the Nationalist Movement Party (MHP). MHP refused to establish a minority government with

CHP, the main opposition party, since it would require HDP's support ("Devlet Bahçeli'nin"

2018). The subsequent failure of parties to form a cabinet led to the re-run elections on

November 1, 2015.

This time, AKP won the majority of seats. However, losing the majority a few

months earlier following the HDP's success triggered a more nationalistic discourse within

the AKP, which decided to broaden its political base. Also, after the elections in 2015 that

were followed by the coup attempt in 2016, AKP hardened its rhetoric against the

Gülenists, the supporters of the religious organization led by Muhammed Fethullah Gülen,

and blamed them for the attempted coup. Moreover, AKP ended seven years of peace talks

with the Kurdish leadership and initiated military operations in Kurdish cities (Göl 2017).

In short, AKP assumed an "anti-terrorist" discourse infused with heavy nationalism.

AKP's more nationalist stance delighted MHP.[4] Consequently, after the November 1

election, MHP helped AKP to shift the parliamentary system towards a presidential one, as

such a move needed a qualified majority of 3/5 to propose a referendum (Yılmaz 2018).

With AKP's promise to continue its nationalist course, MHP agreed to support the

constitutional change (Kaya and Whiting 2019). Since then, MHP has supported AKP in

legislative matters. However, MHP's close relation with the government caused several

prominent MHP's politicians to leave it and form a new party, the Good Party (İP), on 25

October 2017.

The constitutional referendum of 2017 primarily strengthened the executive power

of the president and increased the number of parliamentary seats from 550 to 600.

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[4] See various statements by MHP's leader Devlet Bahçeli ("Bahçeli: HDPlilerin" 2016,,"Devlet Bahçeli'den" 2016, "Devlet Bahçeli: Turkiye'de" 2018).

Nevertheless, the main legislation power has remained in the parliament (Esen and Gümüşçü 2018). After the referendum, a significant amendment to the electoral law, the *apparentement* system, was proposed by MHP's leader, Devlet Bahçeli with AKP's support ("Bahçeli'den Ittifak" 2017). Parties could now create electoral alliances. Voters would vote for their parties, but the total vote for the alliance would be used for passing the threshold.

2.2. Engineering *apparentement* and elections

The law allowing *apparentement* and electoral alliances was introduced by AKP and MHP on March 13, 2018 ("Law Amending" 2018). Following MHP's refusal to establish a minority government with CHP, and AKP's hardened nationalistic rhetoric, MHP's support had declined from 16.3% to 11.9% between the June 7, 2015 and November 1, 2015 elections. Since MHP swiveled from opposition party to governmental ally, it was widely expected to continue losing support. The anticipation of a poor showing was based on polls. At the same time, some MHP politicians were unhappy in partnership with the government and formed a new political party, the İP (Good Party). The new party did better in the polls than the old MHP but, in general, the poll results were highly volatile (see Appendix 3)

AKP had good reasons to fear that MHP wouldn't pass the threshold, while the opposition parties, including the MHP's spinoff, İP, seemed safer. Therefore, AKP supported the *apparentement* expecting that the only major beneficiary would be MHP. If MHP failed to exceed the 10% threshold by competing alone, then the worst scenario for AKP would be that it was the largest parliamentary party with a minority of seats, and

without a potential coalition partner. AKP also tried to block the Good Party from taking part in the elections but the Good Party's ally, CHP, helped them to satisfy the formal criteria.

Under the new law, voters would be able to see the name of the alliance and party names on the ballot and could vote for either their preferred party or the alliance, without having to specify the preferred party. The total number of votes for the alliance and the parties would then be used for passing the 10% threshold. The seats in a district would first be distributed to the alliances using the Jefferson-D'Hondt method; the same method again would be used to distribute the seats within the alliance.

Example 1: How does the Turkish 2018 *apparentement* work?

Consider the following hypothetical example with twenty seats assigned in one district with *apparentement*. For simplicity, let's assume that the votes were cast only for parties that created two fictional alliances: Large Alliance (party A and B) and Small Alliance (party C and D):

Table 3.1: Hypothetical distribution of 20 seats among four parties in two alliances

Competitors	Votes	Seats
Large Alliance	10000	
Party A	28500	3
Party B	81500	9
Small Alliance	0	
Party C	40000	4
Party D	40000	4

Note: 10,000 votes for the Large alliance were cast without specifying the party.

In the first step, I need to allocate 20 seats between two alliances. Using the Jefferson-D'Hondt method means that Large receives 12 seats and Small receives 8 seats.

In the second step, seats must be divided within alliances. For Small, the task is trivial as both parties have identical votes; both C and D receive four seats. For Large, another application of the Jefferson-D'Hondt method to individual party votes cast on parties A and B results in three seats for A, and nine seats for B. The votes for Large with no specifying party were immediately divided between alliance members in proportion to the number of their individual votes. The official election results included only the final votes for both parties after the correction.

The opposition leaders claimed that the electoral reform intended to benefit the government. CHP and HDP decried "manipulation" and opposed the new law. CHP's leader Kemal Kilicdaroglu called it an "alliance and election-cheating law" ("Kilicdaroglu'ndan" 2018). HDP's group deputy chairman stated that the law was essentially cheating the constitution and the election law while protecting the ten-percent electoral threshold ("Gece Yarisi" 2018). The Deputy Chairman of CHP, Seyit Torun, opined, "This election law would divide us and cause very serious irreparable problems." ("CHP'li Torun'dan" 2018). Out of the four parliamentary parties, two voted in favor of the new law (AKP and MHP), while two opposed it (CHP and HDP).

The election results were a big surprise because İP, which was expected to comfortably pass the threshold, received only 9.96%, while MHP received 11.10% of the total number of votes. With such results, İP would not have been in the parliament under the old electoral law, but its alliance with the largest opposition party, CHP, allowed it to enter the parliament with less than 10% of votes. Table 3.2 shows the election results. [5]

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[5] All official election data in my paper are from the website of Supreme Election Council (Yüksek Seçim Kurulu), the highest election authority in Turkey (Supreme Election Council 2019).

Table 3.2: Seat percentages in the 2018 parliamentary elections

Competitors	Votes	Seats
AKP	42.56	49.17 (295)
MHP	11.1	8.17 (49)
CHP	22.64	24.33 (146)
İP	9.96	7.17 (43)
SP	1.34	0 (0)
HDP	11.7	11.17 (67)
Total	99.36	100.0 (600)
Alliances:		
Cumhur (AKP + MHP)	53.66	57.33 (344)
Millet (CHP + İP + SP)	33.94	31.50 (189)

Source: Supreme Election Council (2019). Minor parties excluded. The numbers of seats are shown in parentheses.

3. Counterfactual estimations of election results

The qualitative claim that AKP—as well as some other parties—committed *ex post* errors is relatively easier to formulate than providing reliable quantitative estimates of election results. Below, I present such quantitative estimates under hypothetical scenarios that assume the old electoral law.

My main, underlying assumption is that under normal circumstances, political parties try to maximize their seat share (Kaminski 2002, Benoit and Schiemann 2001). This also seems to be the case with the Turkish reform of 2018 if I consider larger political blocs

rather than single parties, although I discuss some possible deviations from seat-maximization when it collides with potentially large losses of seats by allied parties. In order to simulate election results under the old electoral law, i.e., without the provision for alliances, I use a method that I call "The FSS method." The FSS method uses country-level data (Flis et al. 2018; Flis et al. 2020). For further details, please see the first dissertation chapter.

3.1. Simulated election results under the old electoral law

Scenario 1: In this scenario, the electoral results of all parties in the alliances were assumed to be equal to the results of individual alliance members; the results of non-allied parties were assumed to be unchanged. I also assumed that all votes in the districts would stay the same in the counterfactual elections, with all parties competing individually in accordance with the old electoral law (see Table 3.3).

Table 3.3: Actual and simulated seat percentages in the 2018 parliamentary elections

Competitors	Election Seats	Estimated Seats (Old Law, FSS)
AKP	49.2 (295)	53.86 (323.13)
MHP	8.2 (49)	9.09 (54.57)
CHP	24.3 (146)	23.91 (143.44)
İP	7.2 (43)	0 (0)
HDP	11.2 (67)	13.15 (78.88)
Alliances:		
Cumhur (AKP + MHP)	57.3 (344)	62.95 (377.70)
Millet (CHP + İP + SP)	31.5 (189)	23.91 (143.44)

Note: The numbers or expected numbers of seats are in parentheses. Minor parties omitted. Source: (Supreme Election Council 2019) and own calculations using the FSS formula.

The most important consequence of dissolving the alliances was that under the old law, İP would remain below the 10% threshold in the national elections instead of winning 43 seats. CHP would lose under the old law 2.54 seats. This is due to two factors that took place under the new law: First, in some districts CHP benefited from the vote of its ally, İP, due to the seat-magnifying power of the alliance. Second, İP and CHP jointly benefited from 1.34% of votes received by their smaller allied partner, SP (Felicity Party), which didn't win any seats. The other large parties lost their seats in the new system. In quantitative terms, the 43 seats won by İP are estimated to result in 28.13, 5.57, and 11.88 seats lost for AKP, MHP, and HDP, respectively.

Because voters could vote for their favorite parties, I assumed that grouping parties into alliances did not have an important impact on their electoral results. This means that under the old electoral law, the pro-government MHP would clear the threshold comfortably with 11.10% of the vote, and İP would not. The results were the exact opposite of expectations based on pre-election polls. As a result—if considering only two major party alliances—changing the electoral law brought *ex post* benefits to the opposition alliance instead of the government.

When I consider the four parliamentary parties that voted on the new electoral law, the picture is a bit more complicated. Assuming Scenario 1, AKP and MHP, the government parties, lost seats and initiated reform that acted against their *ex post* seat maximization. The opposition parties did better: CHP opposed the electoral reform, which in fact would give it more seats while HDP opposed the electoral reform and actually lost some seats (Supreme Election Council 2019).

Finally, in support of my Scenario 1, I note that AKP's leadership was strategically willing and ready to maximize its performance by keeping its competitors below the 10% threshold. In a closed session, President Erdogan asked his party members to work against HDP so it would not pass the threshold (Gülen 2018). Given the monopoly of access to state resources and friendly media (Yılmaz and Bashirov 2018), AKP would have run a stronger campaign against İP under the old system to keep it below the threshold. Under the old electoral law, all efforts to push İP's vote up would have been met with opposition from its rivals.

3.2. Sensitivity analysis

The decisive factor that turned AKP's electoral engineering into a serious mistake was İP's vote share, which fell below the threshold. HDP and MHP votes were well above the 10% threshold and exceeded it by about 1.7 and 1.1 percentage points, respectively. In the alternative Scenario 2, I assume that they would have passed the threshold under the old electoral law and that İP would have slightly crossed the threshold in the old system. It could have happened in two different but very close scenarios: İP could score marginally better in the elections and reach the threshold, or İP could have "borrow" some votes from CHP (I analyze the scenario with "borrowed" votes in Appendix 4).

Alternative scenario 2: İP barely crosses the threshold. Table 3.4 presents my estimates for this scenario. I assumed that the election results were identical to the votes for parties within the alliance, including 9.96% of the vote for İP, which is tantamount to lowering the threshold for İP to 9.96%.

Table 3.4: Actual and simulated seat percentages in the 2018 elections

Competitors	Election Seats	Old law+İP FSS
AKP	49.2 (295)	50.5 (303.27)
MHP	8.2 (49)	8.2 (49.24)
CHP	24.3 (146)	22.0 (132.04)
İP	7.2 (43)	6.64 (39.82)
HDP	11.2 (67)	12.6 (75.63)
Alliances:		
Cumhur (AKP + MHP)	57.3 (344)	58.8 (352.51)
Millet (CHP + İP + SP)	31.5 (189)	28.6 (171.86)

Note: **Old law+İP**: İP barely passes the threshold under the old electoral law. The numbers of seats or expected numbers of seats are shown in parentheses. Minor parties omitted. Source: (Supreme Election Council 2019), own calculations using the FSS formula.

The estimates paint a surprising picture. Even with İP crossing the threshold, AKP receives more seats under the old electoral law than in the actual elections and wins the parliamentary majority. HDP and MHP also score better under the old law. Both members of the Millet alliance, CHP and İP, lose seats. The safety margin in my simulation is quite robust with respect to AKP's electoral result because the simulation adds the expected number of 8.27 seats to AKP's share, while only five seats were needed to reach the 50% mark.

While the difference between the actual results and the old system with Scenario 2—with İP assumed to pass the threshold —is smaller than in the previous simulation, the

old system is still better for AKP. The difference is not large, but because AKP needed very little to exceed 50%, it is meaningful.

What is the source of such a decisive gain under this particular scenario? Creating an alliance when the votes of party members add up, and other votes remain unchanged, is always beneficial or at least neutral for members under the Jefferson-D'Hondt formula (Balinski and Young 1978). The creation of two simultaneous alliances complicates the calculation and may result in a loss of seats by one of the alliances. This was the case with the Millet and Cumhur alliances. I can attribute a small overall loss of Cumhur mostly to the fact that Millet took advantage of adding a small dummy member SP (see Table 3.2). SP didn't win any seats, but its 1.34% of votes, combined with the seat-magnifying feature of the Jefferson-D'Hondt system, boosted Millet's overall vote by probably more than a dozen seats. The extra seats that the Millet Alliance won came mostly from the Cumhur Alliance. Without alliances, SP's vote would have been wasted.

In addition to the two scenarios discussed above, one may quickly consider what happens when two more relatively likely scenarios occur:

Scenario 3. MHP doesn't pass the threshold but all other parties do (AKP's worst-case)

Scenario 4. Both MHP and İP fail to pass the threshold.

The FSS method shows that in both cases AKP easily receives the majority in the Grand Assembly. In Case 3, AKP's estimated seats are 329.5 and in Case 4, the number is 356.5. When MHP falls below the threshold, Cumhur's seat share goes down but AKP receives a solid majority.

My final observation is that if HDP doesn't pass the threshold in combination with any of my Scenarios 1-4, this fact further benefits AKP, and enhances my thesis that AKP lost seats as a result of its electoral reform.

4. Conclusion: The political consequences of mistakes in electoral engineering

The electoral reform in Turkey in 2018 resulted in an *ex post* error in electoral engineering. AKP most likely received about 28 fewer seats than they would have received under the old system. While AKP and MHP jointly introduced the *apparentement* law fearing that MHP would not clear the threshold, their legislation benefited the main opposition alliance.

AKP's loss of approximately 28 seats was particularly consequential because its seat share was just under the critical threshold in the Turkish political system (see Table 3.3). AKP alone won 295 out of 600 seats. With a hypothetical majority of 323 seats, AKP would have had a comfortable majority without MHP. While the AKP-MHP coalition operated effectively in the past, there was no guarantee that its future would be easy. MHP had a record of cooperating with the main opposition party, CHP. MHP and CHP even nominated a joint candidate during the presidential elections in 2014. During the local elections of 2019, the leader of MHP, Devlet Bahçeli, openly criticized various statements by President Erdogan ("Bahçeli: Turkiye Ittifaki'ndan" 2019). It is safe to say that after the legislative elections, AKP became substantially weaker and vulnerable to its partner's grumpiness. In the mid-2020, AKP was running a minority government with MHP's confidence-and-supply agreement.

Constitutional amendments require a 3/5 supermajority to initiate referendums, and a 2/3 supermajority to make changes without a referendum. Under Scenario 1, the Cumhur alliance's 62.95% of seats would have given it an approximately 17 seat margin of safety over the 3/5 supermajority, instead of being 16 seats shy of it (see Table 3.3). The 3/5 supermajority would have definitely strengthened AKP.

Quite surprisingly— even in the absence of the main Scenario 1—AKP still would have had a majority or even near-supermajority under all three alternative scenarios. Table 3.5 summarizes the results of my simulations from Section 3:

Table 3.5: Hypothetical AKP's expected seat percentages in the 2018 elections under the old electoral law

Scenario	AKP's expected seats	Political consequences
1. No İP	53.86	AKP's majority, Cumhur's
2. All parties in	50.50	supermajority
3. No MHP	54.92	AKP's majority
4. No İP and no MHP	59.42	AKP's majority
		AKP's near supermajority

Note: Minor parties omitted. Source: (Supreme Election Council 2018), own calculations using the FSS formula.

In all scenarios, AKP would obtain a majority of seats and would not need their junior partner, MHP to sustain majority in the parliament. Even under the seemingly worst-case scenario 3, with the votes of MHP wasted, AKP would receive approximately 34 extra seats for a comfortable majority. AKP's would have been substantially stronger in the Grand Assembly without its partner passing the threshold!

Ex post mistakes in electoral engineering mistakes are not necessarily *ex ante*

mistakes. Under some scenarios, AKP would have been better off with introducing the

reform; under actual scenario, it wouldn't. Frequent occurrences of mistakes simply

represent the fact that electoral engineering is difficult and involves great uncertainty. The

factors facilitating *ex post* mistakes in electoral engineering include: overestimation of

electoral support by the rulers (Przeworski 1997; Kamiński 1999); high volatility of votes

and unexpected changes in voter preferences (Shvetsova 2003); high nationwide

thresholds (Moraski and Loewenberg 1999); or embryonic and fluid party constellation

(Grofman et al. 1999) that produced new entrants, splits, electoral coalitions, mergers,

defections, dissolutions and withdrawals (Kaminski 2001). These factors reduce the

credibility of poll estimates and increase the likelihood that electoral engineering will

backfire and will turn into "dummymandering." Often the events and processes changing

the electoral calculus take place near the end of electoral campaigns, after changes in

electoral law.

In fact, various factors contributing to "dummymandering" existed before the

Turkish elections in 2018. MHP, AKP's prospective partner, split in October 2017, and one

spin-off become İP. Later, İP included prominent politicians from CHP. Further distortions

of the party system and voter preferences were triggered by the formation of two alliances,

Cumhur (2/20/2018) and Millet (5/3/2018). The polls also showed substantial

fluctuations over short periods of time. For example, the predicted support for İP ranged

from 2.9% to 20.2% within just one month between December 2017 and January 2018

("Gezici Arastirma" 2018; "Fatih Altaylı'nın" 2018). Overall, uncertainty, party system

changes, and polls volatility contributed to the mistakes that the Turkish parties made in

their electoral engineering.

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Chapter 3: The Toss of a Coin: Electoral Policymaking in Turkey from 1980 to 2018

Abstract

In this chapter, I analyze electoral engineering cases in Turkey between 1980 and 2018, showing that Turkish political parties and policymakers often failed to identify an optimal strategy regarding electoral reform in this period. The purpose of my study is to gather more data in understanding drivers of successful electoral policymaking. I first analyze all electoral engineering attempts after civil elections were restored in Turkey, starting with the country's 1991 elections. I show that the political parties failed to identify an optimal electoral reform strategy roughly 54% of the time overall, while the failure rate was even higher, at 62.5%, among the parties that designed the reforms since 1991. I find that political parties have not been better off after careful deliberate decision making compared to simply tossing a coin. I compare reasons for such electoral engineering failures in Turkey—which include the volatility of votes under high electoral thresholds, the overestimation of electoral support, a lack of technical knowledge, the weak institutionalization of political parties, and a lack of reliable polls—with other cases in the literature to pave the way for future research.

This chapter examines two specific phenomena of electoral engineering: the unintended consequences of electoral engineering and missed opportunities to benefit from particular electoral reforms. When discussing such missed opportunities, I am referring to instances when political party leaders have had ample opportunities to engage in electoral engineering to improve the likelihood of their success but failed to initiate the appropriate reforms to strengthen their representation via an increased number of seats in the national parliaments. By assessing the outcomes of electoral policymaking and political parties' decisions, I analyze if political parties were successful or not in identifying effective strategies regarding electoral reforms.

This chapter is organized as follows. First, I summarize my methodology for each section of the paper. In order to simulate such scenarios reliably, I devised a method to simulate elections under the Jefferson-D'Hondt method with uneven voter distributions across different districts in the first chapter of my dissertation. After briefly summarizing the simulation method, I present my methodology for measuring the success of an electoral reform. Second, in two different sections, I assess political parties' success or failure following electoral policymaking in Turkey: the 1995 electoral reform proposal; "missed opportunities" in 1995, 1999, and in 2002; as well as the 2018 electoral reform based on the second chapter of this dissertation. As I discuss in greater detail later in this chapter, I define "success" here as an action that has benefited the decision-maker.

The "missed opportunities" section of this chapter covers the situations in Turkey during the 1995, 1999, and 2002 elections. I assert that the political parties were unsuccessful in these elections, both in terms of preparing for electoral reform and

positioning themselves properly vis-à-vis the existing electoral system.[6] Ultimately, I show

that the parties were not better off after their deliberative decision-making than had they

simply tossed a coin. A lack of technical knowledge, clientelism and patronage, unreliable

polls, voter volatility, and the weak institutionalization of the parties are some of the causes

behind the electoral engineering errors made in Turkey in these elections. The data I use

for this analysis comes from official election results, parliamentary meeting proceedings,

and political party campaign documents, in addition to my own simulations based on

official election results.[7]

Similar work assessing the effectiveness of electoral engineering is available in the

literature. One prominent example of this is Kaminski (2002). In his article, Kaminski

(2002) investigates electoral engineering attempts in Poland, a transitioning democracy

during the 1990s. The contribution of this chapter is that it is replicating a similar design

on a longer period of time, in a political system that is not going through a transition. This

replication allows one to understand if Kaminski's results are only the consequence of the

early phase of electoral transition and the parties' unfamiliarity with electoral systems.

Methodology:

Simulations:

Evaluating the impacts of electoral reform policymaking on each political party

necessitates running simulations under hypothetical scenarios. However, such simulations

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[6] I assume that a political party's main objective when pursuing electoral reform is seat-maximization, although this objective could be slightly different, depending on the exact situation, such as having one political party assist a smaller political ally reach a certain threshold, etc.

[7] I use the simulation method outlined in Evci (2020), which is a modification of the method used by Flis et al. (2020).

pose a significant challenge. Turkey employs the Jefferson-D'Hondt electoral method,

widely acknowledged in academic literature for causing seat magnification. This effect

often leads to larger parties being overrepresented as demonstrated in the first chapter of

this dissertation. Hence, a reliable simulation method requires the use of counterfactual

voter distributions.

To ensure the reliability of simulating elections under the Jefferson-D'Hondt

method, I developed a method in the first chapter of this dissertation based on a formula by

Flis et al. (2020), henceforth referred to as FSS. In their paper, Flis et al. propose a formula

for simulating elections under the Jefferson-D'Hondt method in countries with similar

voter distributions across districts. Their formula initially allocates seats according to each

party's vote share, then applies a corrective adjustment to account for the seat

magnification effect of the Jefferson-D'Hondt method. However, their method lacks

precision in countries exhibiting imbalances in voter distributions across districts.

The formula is as follows:

$$s_i = p_i \cdot s + \frac{1}{2} c \, (p_i \cdot n - 1),$$

s_i is the total number of seats of party i in the parliament

p_i is the vote share of party i among the relevant parties (called the normalized vote

share)

c is the total number of electoral districts

s is the total number of seats in parliament

n is the number of relevant parties

Therefore, in the first chapter of my dissertation, I have improved the formula with a machine learning algorithm. By employing k-means clustering on districts nationwide, I identified three district subsets displaying internal similarities. I then applied the FSS formula separately to these three clusters. Although using more clusters would mean more precision, identifying three clusters keep the task manageable while improving the simulation precision significantly.

To gauge the precision of my formula, I compared actual election outcomes with the simulation results generated using my method and real-world election data. I calculated the total error in percentage terms by comparing the outcomes of actual elections with my simulation results (using the Loosemore-Hanby Goodness of Fit metric). Consequently, lower error levels equate to more accurate simulations. Figure 4.1 showcases a comparison between my modified FSS formula, as also shared in the introduction of this dissertation, and the original FSS calculations. It's evident that the FSS formula with my modification results in less than half the error in terms of LH% in all tested cases. Particularly in cases from Turkey, the error is among the lowest compared to all other cases analyzed in the original paper by FSS (2020). Therefore, I assert that the method I devised for running simulations in countries with voter imbalances under the Jefferson-D'Hondt method is well-suited for the objectives of my study. More details regarding my simulation method is available in the first chapter of this dissertation.

Figure 4.1:Comparison of the Loosemore-Hanby Goodness of Fit between FSS and the

correction using Turkish elections as case studies
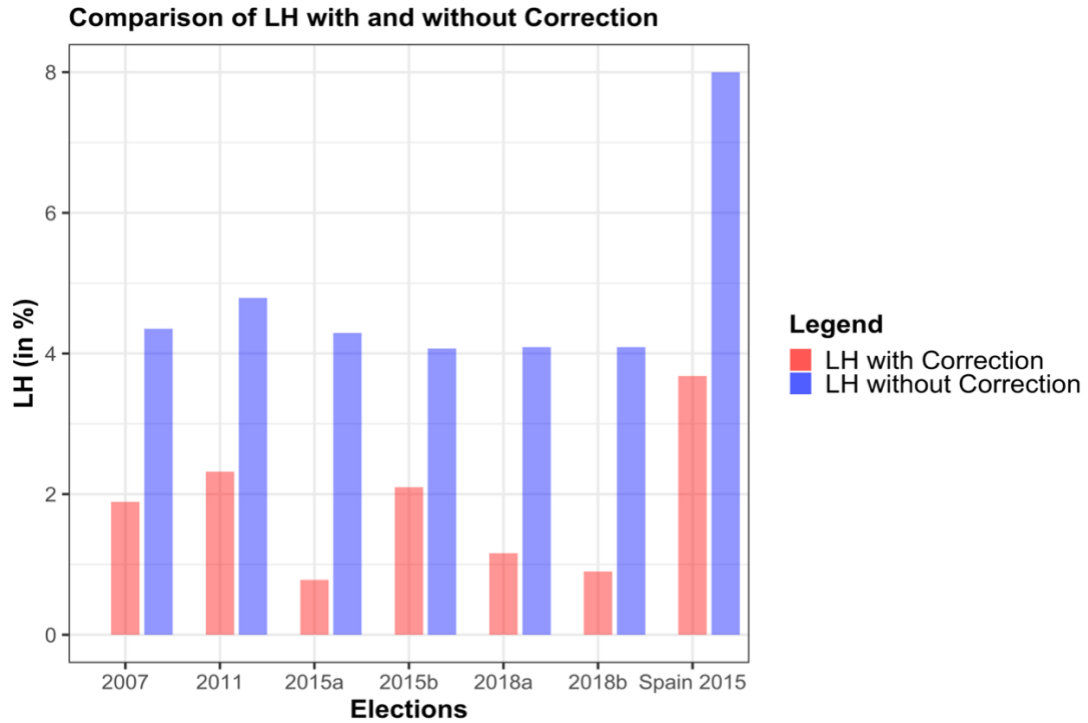
Measuring the Success of an Electoral Reform:

The Success Index introduced by Kaminski (2002) provides us with a tool for estimating the rate of success in an electoral engineering attempt. Kaminski's SUCCESS Index formula is provided below in Equation (1):

$$\left|S = \frac{1}{n}\left(\sum_i s_i\right), \right. \quad (1)$$

where n is the total number of parliamentary parties involved in an electoral reform

process. For i = 1, ..., n is 1 if a party supported the electoral reform and gained ex post

advantages, or, alternatively, if a party opposed the electoral reform and they lost seats ex

post. Conversely, s equals 0 if a party supported the reform but lost seats ex post or if a

party opposed the reform and gained seats ex post. In other words, a 1 denotes a success,

while a 0 denotes an electoral engineering error. Therefore, either a success or an error can

be achieved in two different ways.

Significance

In the present study, my primary focus is on Turkey, thus making this work primarily a

single-country study. Nevertheless, Turkey presents us with valuable information that can

be used in other contexts. Firstly, Turkish politics yields a great deal of variation in terms of

political structures. The existence of regional political parties, political coalitions, and

multiple attempts at electoral engineering, as well as changing political party structures

viewed historically, provide useful insights regarding electoral engineering in general.

Secondly, Turkey's history with authoritarian, competitive authoritarian, and democratic

regimes allows us to understand electoral politics at various points along the democratic

spectrum. Although there are concerns regarding Turkey's drift to competitive

authoritarianism (Esen & Gümüşçü, 2016), there is no evidence of widespread electoral

fraud in recent Turkish elections. Although the elections are not completely fair as the

incumbent political party as well as President Recep Tayyip Erdogan heavily appropriates

state resources for partisan distribution, there is nothing preventing the opposition from

gaining seats or positions once they surpass the required number of votes. One good

example of this situation was the local elections in 2019: the AKP majority government

used all the tools at its disposal but still lost the mayorships in five out of six of Turkey's

largest cities, including the three most populous ones: Istanbul, Ankara, and Izmir. In the

most recent parliamentary and presidential elections in May 2023, Erdogan's AKP received

its lowest share of all votes since its foundation, and it has to rely on its multiple alliance

partners in order to push legislation in the parliament. In March 2024, Erdogan's AKP

failed to be the leading national party in the polls for the first time in local elections. While

the main opposition party, CHP, was able to win municipalities that correspond to the 60%

of Turkey's GDP, the AKP currently controls municipalities that correspond to only 22.1%

of the country's GDP (Doğruluk Payı, 2024).

On a separate note, this chapter also serves as a replication of Kaminski's (2002)

analysis on Poland. By applying Kaminski's design to a longer period on an established

political system, we can gather more data whether Kaminski's results were due to the

unique circumstances in Poland, or whether similar results hold true in different contexts.

Cases of Electoral Engineering in Turkey

Electoral information prelude in Turkey

The 1980 coup established an electoral system in Turkey aimed at reducing the number of

effective political parties. They introduced a two-tiered threshold: a 10% national

benchmark and district-level thresholds based on the ratio of total votes to seats within a

district. Originally, the parliament consisted of 450 deputies. In 1995, following a reform

proposal detailed in this chapter, Turkey's Constitutional Court eliminated the district-level

thresholds. This created an electoral system with a 10% national threshold and increased

the number of deputies to 550. In 2018, a new provision was introduced that allowed

political parties to form alliances for vote tallying. This meant that a party in an alliance

that cleared the 10% national threshold was also considered to have cleared it, regardless

of its individual vote share. The number of deputies in the parliament has been increased to

600. Throughout this period, the Jefferson-D'Hondt method was used for all Turkish

elections.

1995 Electoral Reform Proposal

In this section, I analyze the Turkish political parties' decision-making regarding the

1995 electoral reform and understand their successes and failures. Even if the 1995

electoral reform was never implemented due to a Constitutional Court decision, it

remained the law of the land until two weeks before the elections. Therefore, all political

parties built their strategies as if the elections were to be held under the electoral law

implemented by the electoral reform in 1995, which gives me a great opportunity to

analyze their decision-making. I compare what would have happened if the reform was not

struck down by the Constitutional Court, and what happened in the 1995 elections to

assess political parties' success or failure regarding their support or opposition for the

1995 electoral reform.

This reform was initiated by the CHP and the DYP coalition government. The data I

use to examine the situation comes from Parliamentary Commission proceedings, political

party election manifestos, and parliamentary meeting proceedings (e.g., Cumhuriyet Halk

Partisi, 1995; Demokratik Sol Parti, 1995; Refah Partisi, 1995; Türkiye Büyük Millet Meclisi,

1995). However, there is no available parliamentary voting data to analyze since votes are often not counted when a clear visible majority has voted either yes or no in the parliament.

A constitutional amendment prior to the 1995 elections included fair representation and governmental stability clauses (Yüzbaşıoğlu, 1996). As discussed earlier, government stability was already a major component of the electoral design following the 1980 coup. Still, an electoral design with double thresholds came at the expense of fair representation, as the country's smaller parties often remained underrepresented—even in cases when they could have cleared the 10% national threshold—due to district thresholds, which were sometimes as high as 50%. For instance, the DSP won only 1.56% of all parliamentary seats in 1991, even though they received 10.74% of the national vote. Thus, representation was unfair.

The electoral engineers used the constitutional requirement of fair representation and governmental stability as a justification for the 1995 reform. In general, political parties often argue that they seek to design a better and fairer electoral system when they engage in electoral engineering, and the 1995 Turkish reform attempt was not an exception. However, reviewing the parliamentary meeting proceedings clearly conveys that all opposition parties believed that the proposed reform was designed to advance the interests of the ruling coalition of the DYP and CHP.[8]

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[8] Prior to February 1995, the center-left was represented by the Social Democratic Populist Party (SHP) in the parliament. The SHP was part of the ruling coalition at the time the 1995 reform was initially proposed.

Following the 1995 elections, the coalition government comprised the DYP and CHP. The DYP-CHP coalition designed a system that had a double threshold and an extra district with 100 national seats. Their argument was that the double threshold would maintain governmental stability while the addition of the national district would improve fair representation.

The proposed double threshold system was presented as follows: Only parties that received more than 10% of the national vote would be considered for representation in parliament. Political parties that cleared the 10% national threshold would also need to receive more votes in a district than the total number of votes divided by the total number of deputies in that district.

The additional national district that the DYP-CHP coalition designed would function as follows: There would be 450 deputies elected from already-existing districts. These 450 deputies would be elected from a party list that was almost solely controlled by party leaders. There would also be a single national district with 100 deputies, making the total number of representatives 550. The parties would provide a separate party list naming 100 deputies; these 100 seats would be distributed based on the percentage of votes received by political parties, only for those that exceeded the 10% national threshold. The 100 deputies elected from the single national district would not be subject to a district threshold. As the two-threshold system had already existed in Turkish elections, the major change with the 1995 electoral reform was the inclusion of the 100 national deputies.

However, unsurprisingly, the opposition was far from convinced that this reform was a positive.[9]

Political parties' support or opposition is available in Table 4.1. DSP's opposition for both provisions of the reform is not surprising as the thresholds had led to a significantly lower number of seats for the DSP in the 1991 elections. Instead, the DSP proposed a 5% national threshold without any district thresholds. Meanwhile, the RP supported even higher district thresholds—without specifying a number—likely because they knew that they were in a strong position for the elections (Türkiye Buyuk Millet Meclisi, 1995).

All opposition parties opposed the national district with 100 national deputies, arguing that it was engineered only to benefit the CHP and, further, that it would strengthen political party leaders' domination over their parties (Türkiye Büyük Millet Meclisi, 1995).

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[9] Both justifications for and oppositions to the proposed electoral rules are available in Parliamentary Commission reports, as well as in the proceedings of parliamentary meetings (Türkiye Büyük Millet Meclisi, 1995).

Table 4.1. *Political Parties' Positions on District Thresholds and the National District*

Political party name	Opinion on district thresholds	Opinion on the national district
RP	Support	Oppose
ANAP	Oppose	Oppose
DYP	Support	Support
DSP	Oppose	Oppose
CHP	Support	Support

The debate over the proposed reform was argued in court, and it was eventually struck down by the Constitutional Court following the DSP's appeal on November 18, 1995.[10] Just five days later, the DYP-CHP alliance quickly initiated another reform on November 23, 1995, proposing that the district thresholds should be consistent throughout the nation—a uniform 10% in every district—in addition to the previously established 10% national threshold. On December 1, 1995, the Constitutional Court once again struck down the proposal, this time over the uniform 10% district thresholds (Ormanoğlu, 2020). In terms of support for having district thresholds, there was no change in the various parties' positions between the November 18, 1995, proposal and the November 23, 1995, proposal. Therefore, neither the 100 national deputies or the district thresholds were implemented. The parliament still consisted of the higher number of deputies determined

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[10] The Supreme Court notated that the district thresholds violated the constitutional principle of fair representation.

by the electoral reform, 550; however, the 550 deputies were all elected by the same system.

On December 24, 1995, the elections took place; 550 deputies were elected from 83 districts with a 10% national threshold but without any district thresholds. The change from 450 deputies to 550 was the result of increasing the number of deputies from each district. Additionally, there were also five new districts, as five counties, which were formerly considered part of one larger city, were made individual cities between 1991 and 1995. These counties that became cities were small districts, with the minimum possible number of two deputies elected from each new district.

Ultimately, the proposed reform to the system was not implemented; furthermore, the Constitutional Court also removed the district thresholds that had existed prior to 1995. Still, the 1995 elections provide us with valuable data in terms of the political parties' decision-making when facing electoral reform because the Constitutional Court struck down the decision less than a month before the elections took place. We can thus reasonably assume that the political parties had already established their strategies as if the proposed reform would be the law of the land. Therefore, we can test these parties' hypothetical gains or losses following their decisions under counterfactual scenarios.

1995 Electoral Reform Simulations

Reviewing both the parliamentary meeting proceedings and the commission meeting reports allows me to create three counterfactual simulations so that I can understand each party's position vis-á-vis each electoral component separately. In these documents, party

members clearly outline their positions regarding the proposed electoral design, often with separate comments on the district thresholds, as well as the 100 national deputies.

Table 4.2 shows simulation estimates of counterfactual scenarios, as well as the actual election results. [11] I discuss three counterfactual simulations, as outlined below. I test the impact of each component of the electoral reform both separately and then I assess their impacts together. The components are (a) the district thresholds and (b) the 100 deputies from a single national district. By specifically testing the impact of each component of the electoral reform, I look to flesh out the level of success of the decision-making regarding each aspect of the electoral reform. I did not use parliamentary "yes" and "no" votes for the electoral reform because some parties such as ANAP were heavily critical of the reform, but they still voted yes because the reform also meant that the elections would be held earlier than the planned date in October 1996. [12] They considered an earlier election as an opportunity to boost their number of seats. Therefore, their "yes" vote in the parliament does not indicate support for the principles of the reform.

Below are the three counterfactual simulations, their comparisons, and explanations of what information do each counterfactual simulation yield, all of which are summarized in Table 4.2.

I)   Election simulations with only district thresholds, compared to the actual election results. This simulation exercise helps us to understand the impact of district thresholds.

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[12] This is because the electoral reform also meant that the elections would have been held earlier than the planned election date in October 1996. While the electoral law stipulated that elections would have been held every five years, the parliament had the authority to set early elections.

II)   Election simulations with only district thresholds, compared to election

simulations with district thresholds and a single national district of 100

deputies. This simulation exercise helps us to understand the impact of a

single national district in the presence of district thresholds

III)   Election simulations with a national district of 100 deputies, compared to

actual election results. This simulation exercise helps us to understand the

impact of a single national district without the presence of district

thresholds.

I)

The district thresholds would have helped the larger parties and harmed the smaller

parties. The parties that designed the reform, the DYP and the CHP, would have had better

outcomes without the district thresholds. The strongest party, the RP, would have won an

extra 2.9% of all seats.

II)

The second set of simulations shows that the addition of a national district with 100

deputies would have benefited the smaller parties compared to the larger ones. Elections

with a national district would have led to a 1.27% decline of all seats for the RP. Smaller

parties would have won approximately an extra 0.72% of all seats.

III)

Lastly, the third set of simulations compares elections with a single national district

of 100 deputies but without district thresholds to the actual election results. Under this

counterfactual scenario, we see the most proportional representation in parliament, albeit

it is far from perfect. The main mechanism here is that the seat magnification impact of the Jefferson-D'Hondt method becomes smaller when 2/11 of all parliament deputies are elected from a single district. The seat representation for the smaller parties increases by 1.04 percentage points for the CHP and increases by 0.57 percentage points for DSP; this means that the two smallest parties in parliament would have won approximately nine more seats under scenario three compared to the actual election results, thus improving representational fairness.

In conclusion, it is impossible to argue a large scale successful decision-making for political parties with regards to the 1995 electoral reform. Ultimately, the success index for each component of the reform ranged between 0.5 and 0.6, while the success rate was 0.17 for parties which designed the reforms. The sizes of the impacts appear to be larger for the largest political party—the RP—and the smaller parties—the CHP and DSP. I discuss the successes and failures of the political parties in the following sections of this dissertation chapter

Table 4.2. *1995 Elections – Calculations and Simulations*

	Percentage of votes received in 1995 elections (percentage of seats received)	Seats won in the 1995 elections	District thresholds only (*Success*)	100 deputies only (*Success*)	District thresholds and 100 deputies	Percentage of seats – only district thresholds	Percentage of seats – only 100 deputies	Percentage of seats – district thresholds and 100 deputies
RP	21.38 (28.72)	158	174 (1)	154.26 (1)	167.36 (N/A)	31.64	28.05	30.43
ANAP	19.65 (24)	132	132 (1)	130.99 (1)	131 (1)	24	23.82	23.82
DYP*	19.18 (24.55)	135	132 (0)	133.44 (0)	13 (0)	24	24.26	23.82
DSP	14.64 (13.82)	76	67 (1)	79.18 (0)	71.82 (1)	12.19	14.39	13.06
CHP*	10.71 (8.91)	49	45 (0)	52.09 (1)	48.82 (0)	8.19	9.95	8.88
SUCCESS			0.6	0.6	0.5			

Note. Descriptions of values in parentheses specified in each column in parentheses. "Success" signifies the success of a political party in positioning itself in terms of the reform. 1 denotes successful positioning; 0 denotes failure. The methodology behind the overall Success index calculations is outlined in this chapter; the calculation method is based on a paper by Kaminski (2002). Asterisks denote reform reform designing political parties.

Missed Opportunities: Coalitions in the 1990s

The political science literature on electoral engineering often focuses on types of electoral reform that policymakers have either proposed or passed. However, there are cases in which political parties have missed electoral engineering opportunities, such as when they could have easily improved their positions either by reforming the electoral system or adjusting their relative positions within the existing electoral structure. The Turkish elections that took place between the years 1991 and 2002 demonstrate examples of such missed opportunities. In order to improve their seat shares, Turkey's center-left and the center-right ideological clusters could have introduced *apparentement* rules[13] similar to those introduced in 2018. The rules introduced in 2018 are as follows:

First, seats would be distributed between allied political parties, even though votes would be cast for individual political parties. Second, after determining the seat distributions between political allies, the appropriate number of seats would be distributed among the alliance proportional to the parties' votes within the alliance. Political parties would then be able to bypass the 10% national threshold without clearing it if their alliance was able to clear that threshold.

Apparentement rules allow party leaders to retain their positions in political parties while enabling their party to continue to participate in elections as an alliance. In comparison, mergers between parties for electoral purposes can potentially diminish party leaders' powers, as they then do not have the sole authority in determining party lists. Party leaders did not have any incentives to nominate popular candidates or as it is the

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[13] *Apparentement* is defined as a regulation that allows parties to establish national alliances for the purpose of counting votes.

case in certain European elections (Flis & Wojtasik, 2014) as electoral politics solely

revolved around the leaders themselves.

Under *apparentement* provisions, however, they retain the authority to determine

which candidates are nominated for parliament. Therefore, a reform similar to the one that

was passed in 2018 could have significantly benefited the central parties with only minor

drawbacks. In Turkey, the center-left and the center-right have always had sufficient

majorities to advance such a reform. However, political parties with identical ideological

positions split each other's votes,[14] thus reducing their share of seats in parliament.

The case studies examined here focus on elections that occurred in the years 1995,

1999, and 2002.[15] After 2002, center-right parties disappeared from Turkish politics, and

the center-left merged under the CHP in 2002.

In the 1990s, mergers between the parties were considered risky given that, at the time,

leaders assigned great significance to maintaining their leadership positions. Legacy

political leaders from the 1970s founded their center-left and center-right parties while

there was already existing center-left and center-right parties, creating a duality of

leadership among the center-left and center-right ideologies. However, *apparentement*

appears to have been a plausible option: while the parties would have remained distinct

and the leaders would have retained their positions, it is likely that their electoral support

would have merged (see Appendix A for a sensitivity analysis on testing this assumption).

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[14] Using data from the Turkish Values Survey, Kalaycioglu (1994) quantifies the ideological positions of Turkish political parties. In his analysis, 1 denotes extreme left, and 10 denotes extreme right. The center-left parties are located on the ideological spectrum as 3.94 (the CHP) and 4.28 (the DSP). The center-right parties are located on the ideological spectrum as 6.397 (the ANAP) and 6.402 (the DYP).
[15] The data comes from the Supreme Election Council (Yüksek Seçim Kurulu, 2022). The simulations are based on the simulation method described earlier in this paper. My hypothesis is based on the seat magnification impact of the Jefferson-D'Hondt apportionment method.

Therefore, this section focuses on *apparentement*—a rule that was passed during Turkey's 2018 electoral reform, which was analyzed in the first chapter of this dissertation

Table 4.3. *Chart Depicting an Assumed Ordinal Ranking of Hypothetical Counterfactual Scenarios in Cases of Party Mergers*

			Party 1		
		Merge, No Threshold	No Merge, No Threshold	Merge, Threshold	No Merge, Threshold
	Merge, No Threshold	(0, 0)	N/A	N/A	N/A
	No Merge, No Threshold	N/A	(1, 1)	N/A	(1, 3)
Party 2	Merge, Threshold	N/A	N/A	(2, 2)	N/A
	No Merge, Threshold	N/A	(3, 1)	N/A	(3, 3)

Table 4.3 demonstrates why merging did not make sense but *apparentement* could make more sense in the 1990s. In Table 4.3 the term "merge" refers to the merger of two hypothetical parties, and "threshold" refers to those political parties that clear the 10%

national threshold in order to be represented in parliament. This chart assumes that political parties prioritizes being represented in the parliament first, and then political party leaders prioritize holding their resource allocation powers by keeping the parties separate. Therefore, meeting the threshold is better than not meeting the threshold, and not merging is better than merging.

Here, 0 denotes a situation in which leaders lose their ability to allocate resources and their party is unable to clear the national threshold; 1 denotes when a leaders retain their position but are unable to clear the threshold; 2 denotes when a party clears the threshold but its leaders lose their sole authority due to a merger; and 3 denotes when a party clears the threshold independently and that party's leaders do not lose sole authority over resource allocation. N/A denotes unattainable scenarios. Table 4.5 demonstrates that leaders had an incentive not to merge as payoffs of 1 and 3 would have been better for them compared to the payoffs of 0 and 2.

As mergers were not favored by leaders, I use *apparentement* for my simulations. Under an *apparentement* regime, political party leaders don't lose their seats while they become stronger in the parliament due to a higher share of the votes and the seats.

Method

In order to measure success and failures for each political party, I run simulations using the methods explained above and I compare actual election results with what would have happened under counterfactual scenarios where political parties engaged in apparentement.

When establishing counterfactual simulations concerning political alliances, I first

look to show that forming such alliances would not lead to fewer total for the political

parties forming the alliance. Under ideal circumstances, data on voters' secondary party

choices would provide definitive answers to this hypothesis. This data would presumably

demonstrate that a voter would be likely to choose the ideological counterpart of their

preferred party as their second choice. Such information would lead to the conclusion that

if ideologically identical parties were to establish an alliance, they would not lose voters

simply as a result of that alliance. However, such data is unavailable; individual-level voter

data for Turkish elections in the 1990s is extremely limited, both in terms of access and

scope. Therefore, I use a method introduced by Kaminski (2001) where he defines the

additivity, super-additivity, and sub-additivity of an alliance.[16]

I utilize these three definitions concerning coalitions in the *Sensitivity Analysis* in

Appendix A to show that Turkey's center-left and center-right political parties would have

fared better, even with sub-additive alliances. This suggests that the benefits of forming

alliances do not hinge on the additivity of votes, as political parties would have been better

off, even in the case of sub-additivity. Later, I compare my simulated election results with

the actual election results, showing that *apparentement* would have yielded much better

results for the center-left and the center-right parties. Following this section on the

apparentement provision, I apply the above-outlined Success index (Kaminski, 2002) to

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[16] *Sub-additive coalition*: The total votes received by a coalition are fewer than the sum of votes that the parties would have received if they had entered the election separately.

Additive coalition: The total votes received by a coalition are the same as the sum of votes that the parties would have received if they had entered the election separately.

Super-additive coalition: The total votes received by a coalition are greater than the sum of votes that the parties would have received if they had entered the election separately

each case discussed here, as well as to the 2018 electoral reform, based on a prior analysis of the 2018 elections in the second chapter of this dissertation. Ultimately, I conclude that political parties in Turkey have failed to take advantage of electoral alliances as a means of advancing their positions. The findings of this study also show that Turkey's center-left and center-right political parties could have impeded the rise of extreme-right parties if they had engaged in strategic alliances and electoral engineering.

Simulation Results

Below, I discuss the results of the 1995, 1999, and 2002 elections. In each simulation, additivity is assumed, although I demonstrate in Appendix A that even certain cases of sub-additivity would have led to similar outcomes unless there were major drops in the total support of an alliance which was unlikely. Election simulations are based on the first chapter of this dissertation, as explained earlier in this chapter under the methodology section.

In this work, I specify which coalition governments were leading the country prior to each election. However, it is important to note that an *apparentement* reform could function as a bipartisan reform since, as this section will show, such a reform would benefit both the center-left and the center-right simultaneously. Together, Turkey's center-left and center-right parties had a total of 86.2%, 71.2%, and 56% of all seats prior to the, respectively, 1995, 1999, and 2002 elections.

1995 Elections.

Table 4.4. *1995 Election Simulations Compared with the Real Election Results*

Parties or alliances	Seats (estimated)	Seats (actual)	Percentage difference (percentage of all seats)
RP	135.44 (24.62)	158 (28.72)	-4.10
Left	141.36 (25.70)	125 (22.72)	2.97
Right	273.20 (49.67)	267 (48.55)	1.12

Note. "Seats (estimated)" denotes the simulated estimates of the number of seats with *apparentement* (with percentages of seats in parentheses). "Seats (actual)" denotes the number of seats realized in elections (with percentages of seats in parentheses).

Figure 4.2: Visual representation of counterfactual election simulations with actual election results in 1995.

Before the 1995 elections, the ruling government was a coalition government with the CHP and the DYP, a coalition of a center-left and a center-right party. In the 1995 elections, the formation of alliances among the center-left and the center-right would have improved their seat share relative to the actual results. The leftist alliance's position would have improved by 2.97 percentage points of all seats, whereas the rightist alliance's position would have improved by 1.12 percentage points of all seats.

As explained earlier, the mechanism behind such gains is the seat-magnification impact of the Jefferson-D'Hondt method. To match the number of seats that the center-left won in 1995, they would have needed 21.54% of all votes rather than their actual vote share of 25.35%. The disparity is not as significant for the center-right parties because they

had already gained relatively higher levels of electoral support. The DYP and ANAP received, respectively, 19.18% and 19.65% of the national vote. The alliance would have boosted their share of seats from 48.55% to 49.67%.

While the center-left and the center-right could have gained more seats in terms of the absolute number of seats, there is more to the story. In the 1990s, Turkey was experiencing polarization between secularism and non-secularism rather than polarization between left- and right-wing political factions (Kalaycıoğlu, 2001). My simulations show that the fundamentalist religious party, the RP, gained a significant boost in their number of seats (i.e., 28.72% of all seats, rather than 24.62% of all seats) due to the center-left's and center-right's failure to introduce *apparentement*. Similar failures allowed the RP to advance in the local elections that took place in 1994. In addition, the center-left and the center-right were both split into two parties in the local 1994 elections. In Istanbul, the center-right won 37.6% of all votes, and the center-left won 32.68% of all votes. However, the RP's mayoral candidate, Recep Tayyip Erdoğan, won the mayorship despite receiving only 25.19% of all votes. Considering that the local 1994 elections initiated Erdogan's ascent in Turkish politics (Heper & Toklas, 2003), the rise of the RP as the leading party, combined with the failure of the center-left and the center-right to introduce *apparentement*, had considerable long-term consequences for the political scene in Turkey.
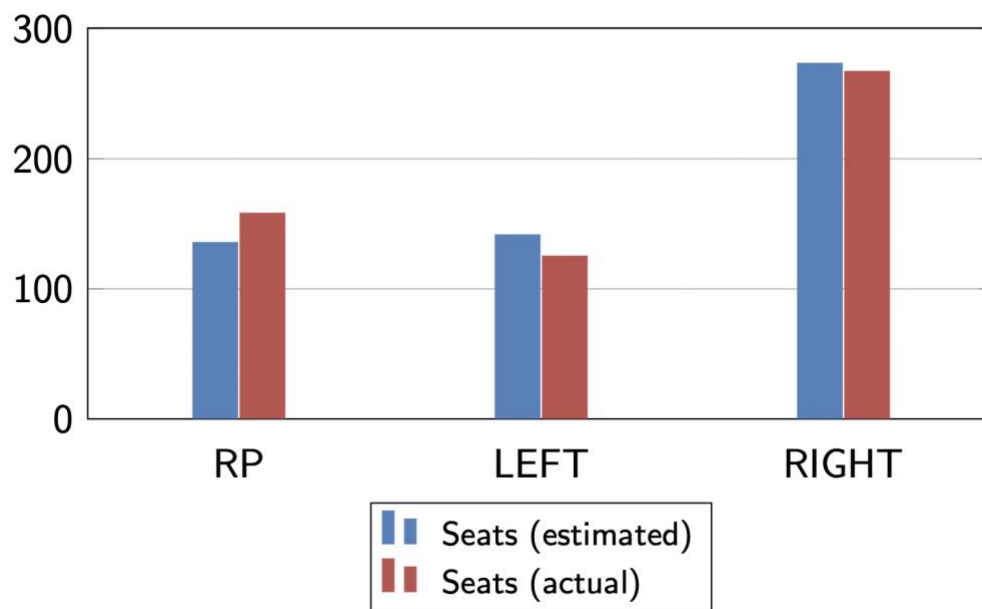
1999 Elections.

Table 4.5. *1999 Elections Simulations Compared with the Actual Election Results*

Parties or alliances	Seats (estimated)	Seats (actual)	Percentage difference (percentage of all seats)
FP (formerly RP)	78.13 (14.20)	111 (20.18)	-5.98
Left	199.62 (36.29)	136 (24.72)	11.57
Right	200.79 (36.50)	171 (31.09)	5.42
MHP	71.46 (12.99)	129 (23.45)	-10.46

Note. "Seats (estimated)" denotes the simulated estimates of the number of seats with

apparentement (with percentages of seats in parentheses). "Seats (actual)" denotes the

number of seats realized in elections (with percentages of seats in parentheses).

Figure 4.3: Visual representation of counterfactual election simulations with actual election results in 1999.
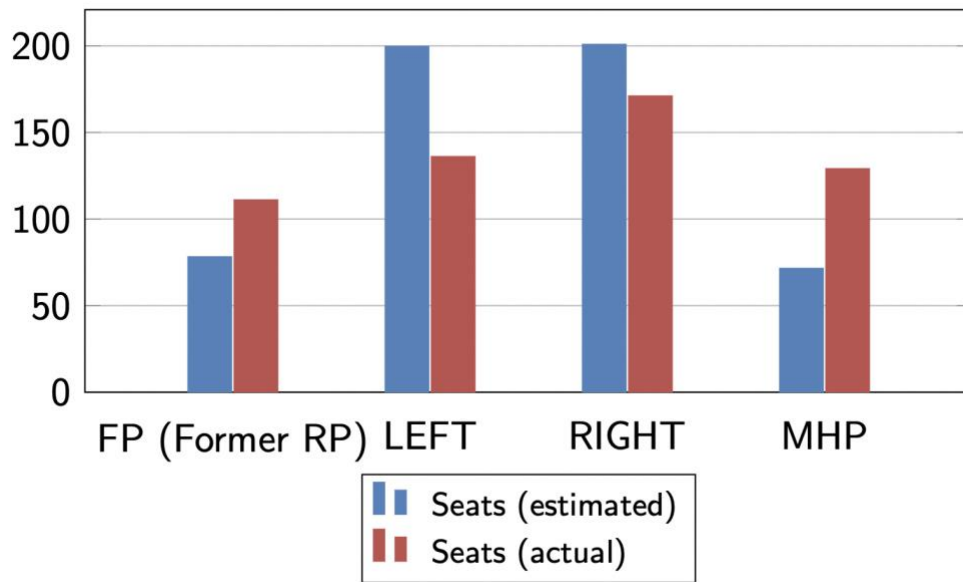
The country's leading alliance prior to the 1999 elections was one between the ANAP, the DSP, and the DTP (the DTP was an off-shoot of the DYP), which together formed a minority government. However, after the parliament decided to hold early elections on July 30, 1998, the combined minority government of the ANAP, DSP, and DTP was dissolved on November 25, 1998. Thus, from January 11, 1999, to May 28, 1999, the 56th government was led by the DSP as a minority government. In 1999, there were significant potential gains for the left via *apparentement*, as the CHP, a leftist party, remained below the threshold, sitting at 8.71%. While the 1995 elections show the significance of seat magnification under *apparentement*, the 1999 elections also demonstrate that

apparentement is an effective strategy against the 10% national electoral threshold. The

CHP alone squandered a total of 2,716,094 votes due to the left's failure to engage in an

alliance.

Meanwhile, the right's share of seats would have increased from 31.09% to 36.50%,

even if a leftist alliance would have meant that there would be an additional party in

parliament; while the left would have gained another 64 seats with an additional party

entering parliament, the right would have gained another 30 seats. The losers of

apparentement between the center-left parties and the center-right parties would have

been the extremist parties, specifically, the FP and the MHP, which consisted of religious

fundamentalists and extreme nationalists. As mentioned above, Turkey in the 1990s was

polarized between secularism and non-secularism; thus, the 1999 elections demonstrate

another case in which the central parties that shared identical ideologies could have

prevented the rise of the extreme-right parties by introducing *apparentement* and by

engaging in alliances.

2002 Elections.

Table 4.6. *2002 Elections*

Parties or alliances	Seats with a rightist alliance (estimated)	Seats without a rightist alliance (estimated)	Seats (actual)	Percentage difference with the rightist alliance (percentage of all seats)	Percentage difference without the rightist alliance (percentage of all seats)
AKP	287.68 (53.17)	357.13 (66.01)	363 (67.10)	-13.69	-1.07
Left	145.65 (26.92)	183.86 (33.99)	178 (32.90)	-5.88	1.07
Right	107.68 (19.90)	N/A	0	N/A	N/A

Note. "Seats (estimated)" denotes the simulated estimates of the number of seats with *apparentement* (with percentages of seats in parentheses). "Seats (actual)" denotes the number of seats realized in elections (with percentages of seats in parentheses).

Figure 4.4: Visual representation of counterfactual election simulations with actual election results in 2002.
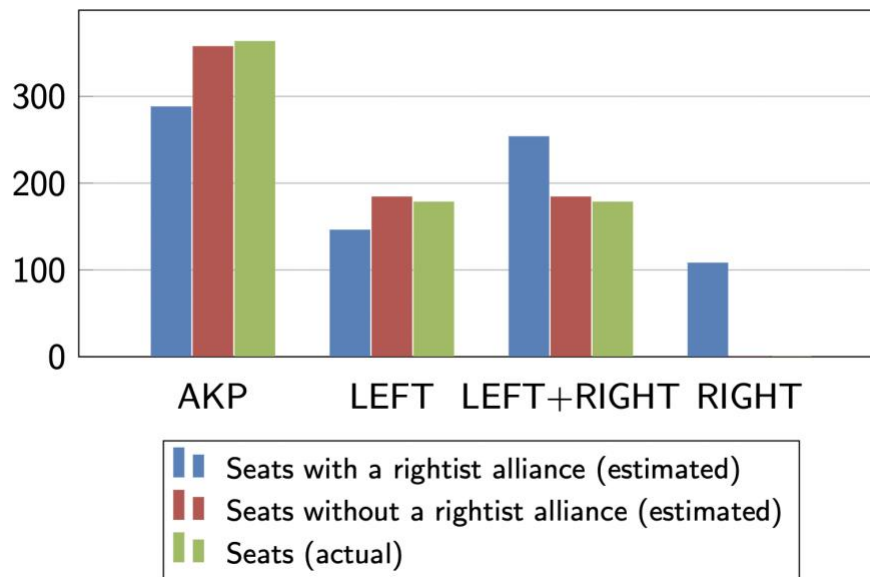
The country's leading alliance prior to the 2002 elections was between the DSP, the ANAP, and the MHP—a far-right nationalist party. The 2002 elections[17] constitute the only instance in which the left and the right would not have benefitted from forming alliances simultaneously due to the possibility of two additional right-wing parties gaining seats if the center-right had established an alliance.[18] An election that included the AKP, a center-

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[17] Even if there were 550 total seats in the Turkish Parliament in 2002, the simulations estimate 541 seats; since the Kurdish political actors could not bypass the threshold, nine of them were elected as independents from Kurdish cities. Because it is not possible to simulate the seats won by independents, I assume the votes for independent candidates would remain equal under hypothetical scenarios given that their political movement was unlikely to cooperate with any other political actors or parties at the time.

[18] The reason for this is that only two parties won seats in the Turkish Parliament in 2002 due to the 10% threshold: the AKP and the CHP (center-left). The CHP by itself represented almost the entire center-left, won only 1.22% of the national vote. The two center-right parties, the DYP and the ANAP, won 9.54% and 5.13% of the vote, respectively. Thus, the center-right could not win any seats in the parliament. There was also an entrant right-wing populist political party, called The Young Party, which received 7.25% of the vote, which most likely resulted in the DYP remaining below the 10% threshold.

left alliance, and a center-right alliance would have resulted in approximately 108 seats for the center-right, compared to the zero it gained in the actual election. On the other hand, in the event of two simultaneous center-right and center-left alliances, the center-left alliance would have lost 5.88% of all the seats they won in 2002. The AKP's losses would have been more dramatic: they would have lost 13.69% of all seats, dropping from nearly winning a three-fifth supermajority to just barely winning a majority. Once again, the implementation of *apparentement* would have impeded the rise of the religious right in Turkey.

It is important to note that the 1999 elections were held 16 years after the military's electoral law was passed and four years after the 1995 changes following the orders of the Constitutional Court. After the termination of the military tutelage of the 1980s, one could argue that the parties did not have sufficient time to adapt to the civilian nature of the elections held in 1991. It is also possible that the conditions prior to the 1995 elections were exceptionally chaotic due to the extremely short window of time following the 1995 reform proposal and the Constitutional Court's decision. However, it appears that the center-left and the center-right continued to repeat the same mistakes, even though they had extensive experience with the existing electoral system.

Lastly, as specified earlier, the center-left and the center-right had strong majorities in parliament prior to all the elections discussed in these simulations. Furthermore, the coalition governments consisted only of center-left and center-right parties prior to the 1995 and 1999 elections. Therefore, the center-left and the center-right had ample opportunities to pass an *apparentement* reform prior to the 1995, 1999, and 2002 elections. The simulations discussed here show that the groups that benefited from these missed electoral engineering opportunities were invariably the fundamentalist and far-

right nationalist parties, despite the fact that only the fundamentalist party, the RP, led a coalition with the DYP between June 1996 and June 1997. Furthermore, the political climate between the years 1995 and 1999 favored the center-left and the center-right parties since, even with a weaker military tutelage relative to the 1980s, the military still played an important role in politics, and it strongly supported a more prevalent center-left and center-right.

In sum, I have shown that the center-left and the center-right missed many opportunities to integrate an *apparentement* provision into Turkey's electoral law. Foregoing such opportunities cost them a significant share of parliamentary seats in almost all cases under review, and such failures facilitated the rise of non-centrist, populist, extreme-right political parties.

Success over time

Thus far in this chapter, I have analyzed the decisions of Turkey's political parties in four separate electoral instances: the 1995 electoral reform proposal, missed opportunities in 1995, 1999, and 2002 elections. In addition, the second chapter in this dissertation analyzes the 2018 elections. In the 1995 elections, the parties positioned themselves vis-á-vis the proposed electoral reform with the 10% national threshold, the district thresholds, and the creation of a national district with 100 deputies. The failure to implement *apparentement* in the elections of 1995, 1999, and 2002 can be viewed together as a single case since it is likely that this missing such an opportunity was an inherent issue with the political parties that was unlikely to change between these three elections.

Table 4.7. *Success over time*

Party	10% National threshold in 1995 reform proposal	District thresholds in the 1995 reform proposal	100 national deputies in 1995 reform proposal	Alliances or coalitions in the 1995, 1999, and 2002 elections	Combined – 1995 reform proposal	2018 electoral reform
DYP	1*	0*	0*	0*	0*	
CHP	1*	0*	1*	0*	0*	0
ANAP	1	1	1	0*	1	
DSP	0	1	0	0*	1	
RP	1	1	1			
AKP						0*
MHP						0*
IYIP						0
HDP						1

Note. The asterisks for cases other than for the 1995, 1999, and 2002 alliances denote that the corresponding political party was one of the reformers. The asterisks for the 1995, 1999, and 2002 alliances denote that these political parties have been a part of a ruling government at least once prior to one of the 1995, 1999, or 2002 elections. Empty boxes mean that the party either did not exist at the time or did not have an active role in Turkish politics.

In all, the political parties made a total of 28 decisions. Of those 28 decisions, only 13 were successful. The rate of "Success" is even lower among the parties that initiated a reform, or had the power to use electoral engineering for their benefits (i.e., three out of

fourteen). A binomial test comparing the probability of "Success" to tossing a coin reveals that there is no significant difference between the two ($p = 0.8506$). In other words, there is no evidence to suggest that the political parties would have been less successful if they had simply tossed a coin to decide their positions.

We can also compare the average gains from electoral engineering decision-making to 0. The gains made in each instance are available in Appendix B. A single-sample t-test shows that there is no significant difference between the average gains in terms of seat percentages and 0 ($p = 0.527$). Therefore, we cannot conclude that Turkey's political parties gained additional seats in parliament by making deliberate decisions regarding electoral engineering.

Discussion

Reasons for Electoral Engineering Mistakes

Electoral engineering is difficult, and political parties make major mistakes while pursuing their electoral engineering plans. Even though policymakers often have access to data and expertise, they still frequently fail to design reforms that would maximize their benefits while minimizing the gains of opposition parties. While the Turkish political context offers no positive cases where electoral reform designers were fully successful in their electoral engineering goals, in this section, I summarize the conditions by which the likelihood of successful electoral engineering would be higher.

A brief literature review reveals that the following factors can lead to electoral engineering mistakes: (1) the overestimation of electoral support, particularly when participating in electoral bargaining with the opposition (Kaminski, 1999; Przeworski, 1997); (2) high volatility of votes and unexpected shifts in voter preferences, particularly under high electoral thresholds (Kaminski, 2002; Kaminski et al., 1988; Shvetsova, 2003); (3) frequent transformations of party systems and political party identities (Grofman et al., 1999; Kaminski, 2001, 2006); (4) a lack of technical knowledge (Kaminski, 1999); (5) weak political party institutionalization with strong leaders overshadowing political party ideologies; (6) a lack of reliable polls, and political bias in polls (Kaminski, 1999); and, lastly (7) the occurrence of transition-specific poll biases during the introduction of new electoral law and elections (Kaminski, 2002). For Turkey, volatile voting patterns under high electoral thresholds, the overestimation of electoral support, a lack of technical knowledge, the weak institutionalization of parties, and a lack of reliable polls were the likely culprits of electoral engineering mistakes made in Turkey.

First, I identify the weak institutionalization of political parties in Turkey as an issue resulting from political leaders' domination of these parties throughout the 1990s and lasting until the 2010s. With the rare exception of elections in which political parties conducted primaries, party leaders have been given the sole authority to determine nominations for parliament, as well as for governmental positions once the party is in government. For instance, opposition parties criticized the CHP-DYP alliance for strengthening the tyranny of party leadership among Turkey's political parties (Türkiye Büyük Millet Meclisi, 1995).

Weak institutionalization of the political parties was exacerbated in the 1990s by the expiring bans on legacy political leaders from the 1970s. Following the 1980 coup d'etat, the military administration banned political leaders from the 1970s from taking part in politics for ten years. The period between 1980 and 1991, thus, witnessed emergence of new center-left and center-right political parties. However, once the ban expired, the legacy leaders from the 1970s got back to politics. They founded their own parties which created a duality in center-left and center-right leadership. Due to multiple parties representing similar ideologies, election campaigns have strongly emphasized leaders' trustworthiness and personality (Özbudun, 2002). With such dominance of the leaders, it was not possible to campaign around common ideologies.

Second, the volatility of votes appears to be a fundamental issue in Turkish politics, given the country's history of military coups and the shifting political and social cleavages. We already have evidence that predicting votes is difficult even in stable regimes. A natural experiment shows that simply being presented as the first party on a ballot could increase the vote share of a political party (Flis & Kaminski, 2022). Predicting votes is even more difficult in volatile voting regimes. A combination of high electoral thresholds, political parties' general lack of investment in civil society, and the weak institutionalization of political parties appears to have exacerbated the issue. Özbudun (2002) shows that the average volatility score in Turkey between 1961 and 1999 varied between 11.4 and 28.4, even if we exclude the elections immediately following the 1980 coup d'état. Özbudun states that this level of volatility reflects a continual process of party realignment.[19]

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[19] Arslantas et al. (2020) also show similarly high levels of voter volatility.

The weak also institutionalization of parties and volatility of votes were exacerbated by shifting social and political cleavages. the 1990s witnessed a changing social and political cleavage structure. While the polarization was between the left and the right in the 1970s, the cleavage shifted toward competition between secularism and Islamism in the last decade of the century (Kalaycıoğlu, 1994). In the 1990s, the political parties moved from an ideological fight between the left and the right since polarization in Turkish politics in that decade stemmed from a divide between secularism and Islamism (Cumhuriyet Halk Partisi, 1995; Demokratik Sol Parti, 1995; Refah Partisi, 1995; Sayarı, 2007). The 1980 coup was successful in suppressing the cleavage between the left and the right. However, the military administration promoted a Turkish-Islamic synthesis, which created new cleavages in the country between the movements of secularism, nationalism, and religious conservativism (Selçuk & Hekimci, 2020). Thus, the changing social and political cleavages led to changes in political party structures in line with the cleavage discussion by Lipset and Rokkan (1967), thereby making the impacts of electoral rules more unpredictable.

Third, polling in Turkey has always been subpar. In the 1990s, the public release of polling results was banned, which was an impediment to assessing the accuracy of opinion polls. In cases in which newspapers violated this ban, two out of five polling firms were able to predict the winners of the elections.

Among the five firms, the average percentage point differences between the polling results and the election results for each political party were 1.18, 1.43, 2.65, 2.35, and 2.35 for the elections that took place in the 1990s. The margins of errors were larger than 5% for at least for one party in three out of five firms' polls (Aydaş, 2020). These same three firms were also unable to predict which parties would clear the 10% national threshold.

The second dissertation chapter also shows that highly volatile opinion polling prior to the 2018 Turkish parliamentary elections contributed to a major electoral engineering mistake, as the electoral designers erroneously thought that one of the parties would not clear the electoral threshold, even though it did indeed clear the required 10%. Polls administered in Turkey may be unreliable due to a lack of scientific standards, larger errors than what is reported, and Turkey's competitive and authoritarian nature (Aydaş, 2020; Esen & Gümüşçü, 2016; Toros, 2011).

Fourth, although there is no clear evidence for a lack of technical knowledge regarding Turkey's electoral systems, there are indications of policymakers' incompetence. Clientelism and patronage have been prevalent in Turkish politics since the Ottoman Empire. This history has led to the perception that access to state resources goes through political parties. Furthermore, prominent scholars argue that party-directed patronage has prevented rational policymaking (Ayata, 1994; Heper & Keyman, 1998, p. 162; Kalaycioğlu, 2001; Sayari, 1975). Given the situation in which Turkish leaders were granted hegemony over political party resources—in contrast to merit-based assignments—along with the tendency of some of Turkey's most gifted citizens emigrating, resulting in so-called "brain drain" (Elveren, 2018), political elites may not have had access to the best talent in terms of electoral engineering.

Lastly, I should note that it takes time for political parties to understand and adapt to electoral reforms. Further, in certain contexts, political parties are sometimes not able to adjust even over the long term (e.g., the top-two primary system in California). In this study, there are both short-term and long-term electoral engineering implications, which allows me to compare political parties' understanding of electoral reform over time. For

instance, while Turkey's 1995 electoral reform—which was struck down by the

Constitutional Court—required a rapid response by political parties, the decision not to

engage in electoral alliances during the 1990s demonstrates a failure of long-term thinking.

By 2002, Turkey's political parties had positioned themselves in an electoral system that

was initially designed in 1983 and then reformed in 1995. While it is reasonable to expect

that there would be an increased rate of electoral decision-making failures following

particularly complex or recently instated electoral reform, it is evident that the political

parties frequently demonstrated incompetence regardless of their experience in the

political sphere.

We also see that the nature and causes of such failures have changed over time. For

instance, while Turkish parties tended to avoid electoral alliances in the 1990s, they were

far more likely to engage in them in the 2010s; for example, opposition parties operated in

tandem during the 2014 presidential elections, the 2018 national parliamentary elections,

and the local elections in 2019, while the Turkish government engaged in alliances in the

2018 and 2019 elections. Although evaluating such changes in political party decision-

making regarding electoral systems is beyond the scope of this project, this approach

provides yet another research area where one could expand upon the present study in

order to understand the impacts of adapting to electoral reforms in the long-term.

Conclusion

This study proves that Turkey's policymakers and political parties were no better

off after engaging in deliberative decision-making over proposed electoral reforms than if

they had simply tossed a coin. I reveal how political parties made mistakes in their decision-making regarding electoral reforms, and how there were a number of missed electoral reform opportunities during the 1990s. I also discussed in detail an electoral reform proposal from 1995 that was struck down by the Constitutional Court to assess political parties' decision-making following electoral reform proposals. My analyses show that neither the designers of the reforms nor others were successful in identifying and enacting ideal electoral reform strategies to further their political aims. Lastly, I provide a brief comparative analysis on why do such mistakes occur as a starting point of a future study.

It is evident that electoral engineering is a complex undertaking. Although Sartori (1968) defined electoral systems in general as "the most specific manipulative instrument of politics" (p. 273), political parties often make mistakes in designing electoral reforms and then suffer from the unintended consequences of their initiatives. The findings presented in this chapter do not establish that electoral engineering is an inefficient tool for furthering political parties' ambitions. However, the results do demonstrate that parties must be extremely careful when designing electoral reforms since, in cases like Turkey, their deliberate decision-making might not be better than simply tossing a coin.

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Appendix A

Sensitivity Analysis.

To undertake sensitivity analysis, I calculate the minimal transition rates that would give a particular coalition the majority of votes, the majority of seats, and the number of seats that the parties won separately in the 1995, 1999, and 2002 elections. Although the resultant predictions are not as strong as those that I would have been able to formulate had I access to voter preference data, they allow for reasonable assumptions due to reasons explained below.

The minimal transition rate in Table A denotes the proportion of votes that the center-left or the center-right would have had to have received to obtain the majority of national votes, the total number of national legislators gained in their respective elections, and the majority of national legislative seats. For instance, a minimal transition rate of 0.735 for the center-left in 1999 means that the center-left parties could have received only 73.5% of the votes that they actually did receive in the elections that year, and they still would have won the same number of seats in parliament.

Calculating these values allows me to show that political parties would have had to lose a significant number of votes as an alliance for an *apparentement* provision to hurt them. However, there is no indication that the parties would have lost this number of votes. In the instance used as an example in the paragraph above, there is no indication that at least 26.5% of center-left voters would have changed their voting preferences due to an electoral alliance between the center-left parties. Thus, a value of 0.735 indicates that even

under certain instances of sub-additivity, the center-left would have been better off. For instance, the center-left could have lost 20% of their votes and still won more seats in parliament.

The minimal transition rate for winning the actual number of seats is above 1 for the center-left only in the case of the 2002 elections (i.e., 1.163, meaning that the left would have had to have received 116.3% of the votes that they received in an *apparentement* election in order to receive the same number of seats). However, the reason for this is that the center-right parties were unable to clear the 10% national threshold in 2002. Given that an alliance between the center-right parties would have provided them a total of 14.67% of all the votes and 19.9% of all the seats, the left would have had to have received a higher number of votes as an alliance in order to sustain the same number of seats in parliament under an *apparentement* provision. Yet, if we calculate a counterfactual scenario in which only the left enters elections as an alliance and the right remains below the national 10% threshold, then we see, once again, that the minimal transition rate for the center-left is less than 1.

Table A. *Minimal Transition Rates*

Election year	Minimal transition rate for the majority of the votes (Left)	Minimal transition rate for the majority of the seats (Left)	Minimal transition rate for the actual number of seats (Left)	Minimal transition rate for the majority of the votes (Right)	Minimal transition rate for the majority of the seats (Right)	Minimal transition rate for the actual number of seats (Right)
1995	1.97	2.005	0.85	1.29	1.0095	0.981
1999	1.38	1.32	0.735	1.57	1.36	0.86
2002	2.07	1.68	1.163	2.91	2.06	0
2002, Without Right	2.07	1.39	0.962	N/A	N/A	N/A

The minimal transition rates provided in Table A show that in all cases, the center-left and center-right parties would have been better off with additive coalitions, as well as with some sub-additive coalitions. For example, in the 1999 elections, if they had engaged in an alliance under *apparentement*, the left could have won the same number of seats that they won in the elections by receiving only 73.5% of their total vote count, and the right could have won the same number of seats by receiving only 86% of their total vote count. The sole possible exception to these positive outcomes is that the leftist coalition might not

have benefited from an additive coalition in the 2002 elections, but this is because I include the center-right parties in my calculations, which failed to clear the threshold. When the center-right parties are removed, it is once again apparent that the center-left would have been better off under an additive alliance, even if the votes received by the second center-left party (i.e., the DSP) was minimal (1.22% of all votes). Because the transition rates show that political parties would have had to have lost significant numbers of votes under *apparentement*—an unlikely scenario—I conclude that my counterfactual scenarios under the assumption of additivity provides us with reliable estimates. The sensitivity analysis demonstrates that benefits derived from forming an alliance do not hinge on the additivity of votes, given that alliances could have provided political parties with better outcomes even under cases of sub-additivity.

CONCLUSION

Although this dissertation revolves around proportional representation systems and case studies, electoral engineering and failures in electoral reform design are not only prevalent in proportional representation systems. The most popular case of electoral engineering failures in single-member districts would be the United States and because electoral engineering can happen at the state-level, there is a constant flow of electoral engineering cases from the United States. Such electoral engineering may range from gerrymandering to complete overhaul of voting systems such as transitions from first-past-the-post to ranked choice voting. In this section, I briefly discuss electoral engineering within the context of the United States based on the findings from the literature.

One example of electoral engineering in the United States is the replacement of at-large with single seat constituencies. Davidson & Grofman (2021) discuss the impact of the Voting Rights Act (VRA) of 1965 on the transition from at-large to single-seat constituencies in the southern United States. The transition from at-large to single-seat districts was a significant aspect of the transformation of southern politics, particularly in relation to issues of representation and minority rights. By moving away from at-large systems, which often marginalized minority voices, towards single-seat districts, there was an aim to provide fairer representation and enhance the political participation of historically disenfranchised groups.

This change was crucial in increasing minority representation, particularly for African Americans, as it dismantled the at-large systems that diluted minority voting power and allowed white majorities to dominate the political landscape. By dividing jurisdictions

into smaller districts, each electing one representative, the single-seat constituency system enabled minority groups to elect candidates of their choice. This transition led to a significant increase in African American representation in local and state governments, contributing to a broader political realignment in the South and fostering a more inclusive and diverse political landscape. Furthermore, some small and medium-sized U.S. jurisdictions adopted modified at-large systems such as cumulative or limited voting and Brockington et al. (1998) show that such modifications also had the potential to boost minority representation similar to single-member districts.

The electoral system transition has been gradual, largely precipitated by the Voting Rights Act (VRA) of 1965 and subsequent amendments. While the VRA itself did not mandate changes to voting systems, it provided a legal framework to challenge systems that resulted in racial discrimination. Legal challenges and litigation under the VRA began in earnest in the 1970s and 1980s, leading to court-ordered changes in voting systems in many jurisdictions. However, the specific timing and nature of these transitions varied widely depending on the unique legal, political, and demographic circumstances of each jurisdiction. Overall, transitions in the electoral systems within the United States post-VRA demonstrate how national legal challenges could impact local electoral engineering, and potentially push policymakers to implement political systems that challenge the status quo (Grofman et al., 1992; Grofman et al., 2000; Lublin, 1997; Lublin, 1999; Lublin & Voss, 2000).

However, single-member constituencies have not been without controversies even if they boosted minority representation in areas where used at-large constituencies. The

practice of gerrymandering has raised concerns about the manipulation of district boundaries to dilute minority voting power, undermining the intended benefits of single-member constituencies. Techniques such as fragmenting/packing may still lead to underrepresentation of minority groups (Grofman, 1992). Grofman et al. (1992) discuss how to identify such districts, and how can we remedy issues such as racial gerrymanders. However, none of these solutions is perfect. In fact, even in 2023, gerrymandering and diluting minority representation via gerrymandering is prevalent.

Some of the recent debates on electoral engineering in the United States revolve around replacing plurality methods with ranked choice voting (RCV) in order to increase the likelihood of electing a Condorcet winner. Ranked choice voting (RCV) allows voters to rank candidates in order of preference. In theory, ranked choice voting can increase the likelihood of electing a Condorcet winner as candidates with a broader appeal are more likely to succeed. Proponents of RCV reforms in the United States argue that RCV tends to elect more ideologically moderate candidates, it discourages extreme points of views, increases the likelihood of minor parties becoming more competitive, and it reduces the likelihood that a spoiler candidate would split the majority vote, leading to the election of a less-popular candidate (Jerdonek, 2006; Nielson, 2017). The impacts of RCV, on the other hand, may not be as positive as expected. In a survey experiment, Nielson (2017) shows that exposure to RCV election compared to a plurality election did not significantly change the election outcomes and it did not have a positive impact on voters' confidence in elections and the democratic process. Furthermore, support for RCV does not appear to emanate from commitment to democratic norms, but rather political parties calculate their potential gains as it is usual in electoral engineering. Santucci (2018) shows that RCV

adoption in Maine was coupled with a runner-up political party in most recent elections overwhelmingly supported an RCV reform. This also aligned with elite endorsements as well as a drift in the mass of public opinion.

The brief analysis of electoral engineering in the United States demonstrates that healthy democratic systems are not immune to electoral engineering and there are many potential forms of electoral engineering. Even in a single country such as the United States, it is possible to identify multiple forms of electoral engineering with agendas such as restricting voter access or gaining advantages over competitors. My dissertation provides an overview of instances of electoral engineering in Turkey with regards to seat gains; however, policymakers also used electoral engineering in order to limit minority access to politics. Therefore, electoral engineering is complex, and analyses of multiple cases provides us with better insight regarding why and how electoral engineering occurs as well as the outcomes of electoral engineering.

In this concluding chapter, I present an overview of comparable cases of failures across the globe to my analyses in Turkey. Throughout this chapter, I present a puzzle inquiring how do policymakers make such grave mistakes even with an abundance of data and resources and I lay the groundwork for future research. By creating a table that demonstrates similar instances of electoral engineering failures, I identify certain common reasons of electoral engineering failures which create a path for me to create a database of electoral engineering decisions. Such a database with a starting base of Table 5.1 presented here will allow me to test my hypotheses regarding common reasons of electoral engineering failures and success using statistical tools.

Table 5.1. *Comparison of Identified Reasons for Electoral Engineering Failures Globally, 1989-2005*

	High volatility of votes	Transformations in party systems	Overestimating electoral support	Lack of technical expertise	Unreliable polls	Emerging democracy	Weak institutionalization of parties (including party system fragmentation and leader domination)	Public pressure causing leaders to implement reform that is not favorable to them	Compromise between parties
Poland 1989	X	X	X	X	X	X	X		
Poland 1993	X	X	X		X	X	X		
Poland 1997	X	X				X	X		
Poland 2001	X	X				X			
Poland 2003	X	X	X			X			
Hungary 1989	X	X	X	X	X	X			
Estonia 1992	X			X		X	X		X
New Zealand 1993								X	
Russia 1993	X	X				X			
Italy 1993							X	X	
Italy 2005	X	X							
Turkey 1991	X	X		X	X		X		
Turkey 1995 reform		X	X	X	X		X		
Turkey 1995 alliances		X	X	X	X		X		
Turkey 1999		X	X	X	X		X		
Turkey 2002	X	X	X	X	X				
Turkey 2018	X				X	X			

Note. The information compiled for this table comes from Andrews and Jackman (2005), Arslantaş et al. (2020), Aydaş (2020), Baldini (2011), Benoit and Schiemann (2001), Birch et al. (2002), Evci and Kaminski (2021), Grofman et al. (1999), Kalaycıoğlu (1994, 1999, 2001), Kaminski (1999, 2002), Nagel (1994), Passarelli (2018), Renwick et al. (2009), and Toros (2011)

What predicts success and failure in electoral engineering?

Given that I do not conduct any experimental or a statistical test of causality in this study, it is difficult to precisely pinpoint predictors of success and failure in electoral engineering. However, this study provides me with in depth data from a case study of Turkey along with cases from the literature to set up a database where I can test my hypotheses regarding electoral engineering. Therefore, the following are the hypotheses that one can test in future studies.

H1: High volatility of votes leads to a higher level of electoral engineering failures

H2: Transformations in party systems leads to a higher level of electoral engineering failures

H3: Weak institutionalization of political parties leads to a higher level of electoral engineering failures.

Concluding from the comparative analysis of global electoral engineering failures, several critical factors emerge as prominent predictors of failure. High volatility of votes stands out as a significant factor, illustrating situations where voting patterns are unpredictable and exhibit considerable fluctuation. These fluctuations often stem from shifting political landscapes, widespread dissatisfaction with established parties, issue-driven voting, or

extensive media influence. Countries undergoing substantial political changes or transition periods, such as emerging democracies, are particularly vulnerable to this volatility.

Additionally, transformations within party systems present themselves as another pivotal determinant. This involves significant changes or shifts within a country's political party system, often coinciding with the emergence of new democracies. Since these democracies typically witness the establishment of fresh political parties, forging a robust political system might be time-consuming and fraught with inconsistencies. This could lead to a lack of stability and potentially, to electoral engineering failures.

While the status of being an emerging democracy itself is an influential factor, it's worth noting that it's frequently associated with other causes of failure like high volatility of votes and transformations in party systems. The complexities of designing an electoral system in an emerging democracy can often give rise to various challenges, leading to potential failures in the electoral engineering process. However, the relationship between an emerging democracy and failures in electoral engineering is often mediated by other factors, making it an indirect cause of failure.

The weak institutionalization of political parties is another significant contributor to the failures. Political parties lacking firm structures, well-defined processes, or enduring traditions tend to be unstable or reliant on individual leaders rather than consistent policies, platforms, or organizational structures. This weakness can create a delicate political environment prone to failures in electoral engineering.

Comparative Findings from Turkey

Comparing the reasons for these failures in Turkey with other documented cases lays the groundwork for future research. Subsequent studies should explore failures in electoral reform across diverse types of governments, ranging from established democracies and emerging democracies to competitive authoritarian regimes. This methodology represents a significant contribution to the field, offering a tool for researchers to better understand electoral engineering and electoral rules in their specific areas of study. Additionally, investigating voters' perceptions of electoral reform through experimental studies could provide valuable insights.

Although it is difficult to generalize with the information presented in Table 5.1, we can still identify certain trends predicting failure and success in electoral engineering. Namely, high volatility of votes, transformations in party systems, being an emerging democracy, and weak institutionalization of political parties appear to be common reasons of electoral engineering failures. Furthermore, unreliable polls and lack of technical expertise also appear to be a common cause; however, they are more prevalent in Turkey compared to all other cases. The identified common reasons of electoral engineering failures, on the other hand, appear to impact certain instances of failures in Turkey and I will explain how Turkey contributes to the comparative discussion.

High Volatility of Votes: High volatility of votes refer to a situation in which there is an unpredictable and significant fluctuation in the voting patterns. The presented literature such as Kaminski (2002), Benoit & Schiemann (2001), or Birch et al. (2002) demonstrate

that shifting political landscapes, dissatisfaction with established parties, issue-driven voting, or media influence can lead to high volatility of votes. In Turkey, 1991 and 2002 present volatility in votes. 1991 was the first elections held after the military leader of the 1980 coup d'état stepped down, and there were multiple new political parties competing for seats. In 2002, Recep Tayyip Erdogan's AKP ran in elections for the first time while the center left and center right political parties lost significant support. In both instances, the political landscapes were shifting. Furthermore, in 2002, we observe dissatisfaction with established political parties. In 2018, a newly established opposition political party disturbed the status quo and led to volatility in votes. Therefore, Turkey provides further evidence that high volatility of votes matters in predicting success or failure of electoral engineering.

Transformations in Party Systems: Transformations in party systems refers to significant changes or shifts within a political party sys. This appears to correlate with being an emerging democracy, as one can expect. Because emerging democracies have newly established political parties, constructing an established political system may take time. For instance, in Poland, it appears that transformations in party systems did not last until the 2003 elections (Kaminski 1999, 2002). Besides shifting political landscapes such as an emergent democracy, dissatisfaction with established political parties may also lead to transformations in party systems.

For the case of Turkey, we clearly see the impact of transformations in party systems throughout the 1990s. The transition from a coup administration to a civil administration resulted in the emergence of multiple center-left and center-right political

parties to emerge. Although those political parties represented identical ideological

arguments, they refused to act together. My third dissertation chapter demonstrates that

their refusal to cooperate or merge led to their demise in 2002. Although I don't consider

the foundation of the Good Party (IP) an act of transformations in party systems, it still

shows that even one new political party can lead to miscalculations in electoral reform

designs. Therefore, my dissertation provides evidence that transformations in party

systems can be a predictor of electoral reform success and failure.

Being an Emerging Democracy: It is evident that designing an electoral system in an

emerging democracy is difficult. Lijphart (1992) identifies the decision to choose an

electoral system as one of the most important constitutional decisions in democracies.

However, it is important to note that an emergent democracy is often correlated with other

causes of electoral engineering failure specified here, such as high volatility of votes or

transformations in party systems. Throughout my comparative analyses, I could not

identify a direct causal pathway between being an emergent democracy and failures in

electoral engineering. Instead, the relationship was always mediated by other factors.

Turkey's democratic path is convoluted. The country enjoyed certain periods where

democracy prevailed and suffered from other moments such as coup administrations. I do

not identify any direct causal pathway that leads to failures in electoral engineering

following a coup or a following an authoritarian era.

Weak institutionalization of political parties and a weak civil society: Lastly, my

analysis of Turkey along with my comparative readings lead to the conclusion that weak

institutionalization of political parties is a significant determinant of success or failure in

electoral engineering. Weak institutionalization of political parties may lead to cases where political parties lack solid structures, processes, or traditions that give them stability and influence over time. Poorly institutionalized political parties may be unstable, ephemeral, or reliant on individual leaders rather than enduring policies, platforms, or organizational structures.

Some reasons that may lead to weak institutionalization of political parties could be a lack of internal political party democracy, leader-centric parties, fluid political party ideologies, low political party membership engagement, and an inconsistent voter base.

For the case of Turkey, we clearly see the impact of leader-centric political parties as well as lack of internal democracy in political parties. Particularly throughout the 1990s, leaders who did not want to lose their resource allocation powers in the parliament refused to identify strategies of electoral success because such strategies could diminish their power. Furthermore, due to a lack of internal democracy in political parties, authorities of leaders were never questioned. Therefore, political parties often acted in the best interests of their leaders instead of the best interests of their electorate.

The impact of weak institutionalization of political parties is often exacerbated by a weak civil society. In the case of Turkey, elections every 5 years and political parties are the only political tools that many Turkish citizens engage in politics.

In addition to the comparative analyses of global electoral engineering failures, the history of electoral engineering in the United States reveals a variety of factors that can lead to failure, mostly based on a conflict between strategic decision making and improving representation. Despite legal measures such as the Voting Rights Act of 1965 to mitigate such issues, gerrymandering and strategic political calculations often complicate efforts to

create more equitable and representative systems. As the analysis of these instances uncovers the inherent complexities of electoral engineering, my future research, leveraging historical data, can create a comprehensive database to test hypotheses about the common predictors of electoral engineering failures not only in the United States, as well. This endeavor has the potential to illuminate pathways towards more just and resilient electoral systems globally.

As for future studies, creating a comprehensive database to test these hypotheses could provide more conclusive evidence. This database could capture the key variables of interest, such as the degree of vote volatility, the nature and extent of party system transformations, the status of a country's democracy, and the level of political party institutionalization. By controlling these variables, it might be possible to determine their individual and collective impact on the outcomes of electoral engineering. The database could be constructed using a mix of qualitative and quantitative data, enabling a rigorous statistical analysis that could help confirm or challenge these predictors. Collecting data over an extended period could also allow for the study of trends over time, and the database could be continually updated to refine the analysis as new cases arise. Such research could greatly contribute to the understanding of the complexities of electoral engineering and inform strategies to mitigate potential failures in the future.

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