DELINEATING DEMOCRACY: THE POLITICS OF GERRYMANDERING IN COMPARATIVE PERSPECTIVE

by

BAYLEE HAMMERICKSEN

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Approved: *Professor Daniel Tichenor*
Primary Thesis Advisor

This thesis examines the significance of gerrymandering in the U.S. electoral system today, to understand if this phenomenon is truly a case of American exceptionalism and if it poses a significant political problem. By analyzing a sample of U.S. states, and then taking a cross-national, comparative view of different electoral systems to see how other countries redistrict well, viable solutions to American gerrymandering can be found. Upon analysis, it becomes clear that, in different magnitudes, every U.S. state redistricting system is flawed. While some scholars and experts in the field argue that the issues of U.S. gerrymandering can be solved within the single-member district (SMD) electoral system, others argue a change in the electoral system is necessary (mainly through a variation of proportional representation - PR). Upon examining the redistricting systems of six U.S. states and six international countries, a clear pattern emerged: the less partisan control there is over redistricting, the lower levels of gerrymandering emerge in the resulting electoral maps. The U.S. and Hungary have the highest levels of gerrymandering and allow the most partisan control over redistricting. On the other hand, Ireland and Australia have no issues with gerrymandering, and their national legislatures have not part of the redistricting process. While the U.S. is unlikely to switch to a PR system, perhaps following the examples of Ireland and Australia and implementing truly independent redistricting commissions is the solution to combat gerrymandering once and for all.

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Section I: Introduction

Project Description

      Since the founding of the U.S. electoral process, redistricting has been done by state legislatures to legally redraw the border lines of political districts following the decennial federal census to reflect changes in the population. From the origins of redistricting, one significant way that this procedure has been manipulated is gerrymandering. Gerrymandering occurs when state legislatures redraw district boundaries to favor a particular candidate or political party, which often results in the district appearing to be misshapen (as seen below).

Figure 1: "Pennsylvania 7th District has Become Increasingly Gerrymandered," from Fair Districts PA (2013).
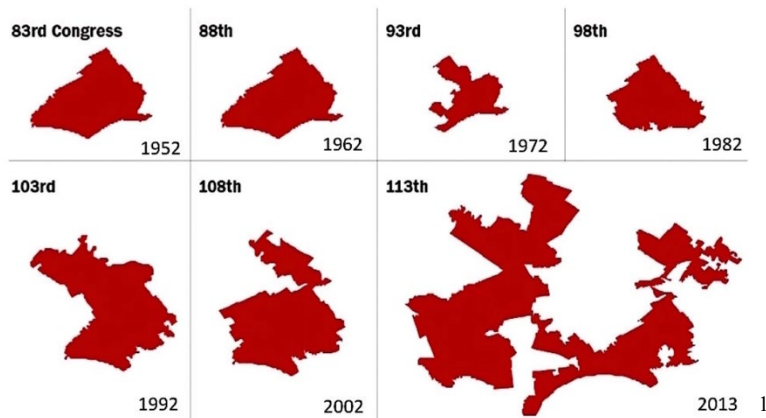
      This study will assess the political dynamics and democratic costs of how congressional district lines are drawn in the United States today, a process that often favors the preferences of elected incumbents and political parties, rather than popular will. A few landmark court decisions will inform the historical construction of the U.S. electoral system, and by extension, the state redistricting processes. These cases will also be examined to understand what loopholes have allowed gerrymandering to continue from the country's founding and into the present day.

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[1] *Pennsylvania 7th District has Become Increasingly Gerrymandered. Fair Districts PA*. Accessed February 7, 2024. https://www.fairdistrictspa.com/the-problem/about-gerrymandering.

This thesis will use state constitutions and other public documents to address the different redistricting structures in place across the United States, to determine the degree of partisan influence that is allowed in the redistricting process.

At the global level, the scale of gerrymandering's impact is an example of near-U.S. exceptionalism. This thesis will investigate the connection between the single-member plurality electoral system, in which candidates compete for a single seat and win by plurality vote (see the Table of Definitions later in this section for more details), and the presence of gerrymandering in the United States. These data will then be compared to several international democracies (and one country that is backsliding into an autocracy), each with different variations of a proportional representation electoral system. In this system, a party receives the same percentage of seats that it gets in votes (again, refer to Table of Definitions for more details). Regardless of the variation adopted in the electoral system, almost every country analyzed has lower levels of gerrymandering than the United States. The only country that rivals the level of gerrymandering seen in America is Hungary, *the backsliding democracy* that is headed by a deemed "authoritarian." This comparative analysis is useful in examining links between a country's electoral system and partisan influence in redistricting, a system that determines the power of people's votes in electing their leaders in a true democracy.

This thesis begins by examining the history and formation of the single-member plurality electoral system in the United States, and how that has influenced the process by which states redistrict their boundaries following the decennial Census. Then, the redistricting systems of six states will be analyzed to measure how different redistricting rules produce varying degrees of partisan bias and gerrymandering in district maps. Following this interstate analysis, scholarship from leading political scientists and researchers will be compiled to determine the linkages

between a single-member plurality electoral system and gerrymandering, and on the other hand how proportional representation has been linked to little or no gerrymandering across time and space. Given the scholarship on the merits of proportional representation and the subsequent lack of gerrymandering, six international countries, each with a different variation of proportional representation, will be analyzed to determine if gerrymandering has truly never occurred. The purpose of this thesis is not to determine if proportional representation is a "better" electoral system than single-member plurality when it comes to preventing gerrymandering. Rather, it serves as a comparative analysis to highlight the similarities, differences, and connections between the United States and other countries, between electoral systems and redistricting, between free and fair elections and gerrymandering.

Research Questions

The core question of this thesis is the degree of significance that gerrymandering holds in contemporary electoral politics across the world. While the term "gerrymandering" was originally coined in the United States, this process has occurred around the world, across time and space. This has changed the nature of elections and the popular will of voters, but to what degree? In the United States, where issues of gerrymandering have appeared most publicly, are critics of gerrymandering correct that this process poses a profound political problem - one that contradicts democratic values? In May of 2018, the Center for American Progress published a report that found between 2012 and 2016, gerrymandered districts shifted an average of 59 seats per election. This means that 59 politicians that would not have been elected based on voter support for their party won elections anyway, because the lines were drawn in their favor. A shift of 59 seats is "slightly more than the total number of seats apportioned to the 22 smallest states

by population," and is also more than the number of representatives for California, which has "53 House members representing a population of nearly 40 million people" (as of 2018).[2] Statistics like these inform the debate on the significance of gerrymandering in the United States, and highlight the importance of the integrity of its redistricting systems and, by extension, electoral systems that bring forth the nation's next leaders.

      The scope of this thesis will then be widened to facilitate a cross-national, comparative view of the significance of gerrymandering. The statistics reported by the Center for American Progress have not been reported in other countries, mainly because this issue does not exist to such a magnitude. Through examining electoral history, electoral systems, and redistricting processes, the goal is to find why this issue seems to be unique to the United States. Through a comparative lens, the presence of gerrymandering in the United States and the implementation of a single-member plurality system will be examined to determine if there is any correlation between the two factors. In the cross-national view, the lack of gerrymandering among other, wealthier countries with a high index of democracy and their use of a party-list proportional representation system will also be analyzed to determine if a correlation between the two entities exists, and if so to what degree. In a party-list proportional representation system, a party receives the same percentage of seats that it gets in votes, and each party ranks candidates on a list to fill the elected seats (refer to the Table of Definitions below).

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[2] Tausanovitch, Alex. "Voter-Determined Districts: Ending Gerrymandering and Ensuring Fair Representation." Center for American Progress, February 8, 2024. https://www.americanprogress.org/article/voter-determined-districts/.

Literature Review

While gerrymandering has been a coined term since the American election of 1812, the issue of partisan bias and skewed district lines remains a key feature of contemporary U.S. politics that concerns the American public, and one that scholars suggest is growing more problematic. In their book, *Gerrymandering the States,* political scientists Anthony J. McGann, Charles Anthony Smith, Michael Latner, and Alex Keena observed that partisan bias increased notably between 2000 and 2010. They measured partisan asymmetry, the inequality between the proportion of total votes that should be received by a party based on votes, and the proportion of legislative seats they did receive. From these measurements, they found that in 2012 partisan asymmetry was 9.38%, versus 3.4% in 2002. On the state level, nine states had an asymmetry score of over 30%. Of these nine states, almost all were biased toward Republicans (McGann et al., 2021).

This asymmetry has real-life impacts on the American public, manifested in the form of voter turnout. In a study conducted by G. Bingham Powell, he found that despite the higher prevalence of politics in American public life compared to other democracies (more of the population participating in campaigns, higher rate of public reports discussing politics at least some of the time), voter turnout in national elections is far below the average 80% of the eligible electorate that other industrialized (mainly European) democracies, and trust in the national government was the second lowest in the group, only ahead of Italy (Powell, 1986). While voter turnout is not a core argument in this thesis, it is a notable consequence that has appeared across political science literature and is worth mentioning in the background of this argument.

The act of gerrymandering contributes to other political decisions that can change the fate of the country without the people's consent. For example, Alex Keena found that Republican

partisan gerrymandering increased dramatically after the 2011 redistricting, and bias was most extreme in states with historical racial segregation. This bias has had long-term consequences, as it was also found that these same states with the most extreme Republican gerrymandering were more likely to pass laws that restricted voting rights and less likely to respond effectively to COVID-19 (Keena et al., 2021). Historian Nicholas Seabrook also emphasized the dangers of gerrymandering as one of the greatest threats to democracy. He argues that gerrymandering has magnified the divide between parties and contributes to the disappearance of central voters, as extremists on both sides are winning more elections and becoming secure enough in their seats to pass their agendas at the expense of the will of the people (Miller and Seabrook, 2022). Danny Hayes and Seth C. McKee wrote an article specifically addressing the participatory effects of redistricting. They found that election results from the 1990s and early 2000s showed that citizens in redrawn districts were half as likely to know the incumbent's name than citizens who remained in familiar districts. They followed a case study in Texas, where they found an increase in roll-off rate (a measure of voter fatigue, leaving sections of the voting ballot blank) from 3% to 8% in gerrymandered districts when controlling for other factors compared to familiar districts (Hayes and McKee, 2009).

While most scholars agree on the significance of gerrymandering in the U.S. political system, a small opposition has a different opinion. Most interesting of them is Nicholas Seabrook, who, as seen in the previous paragraph, has given interviews and written a book highlighting the dangers of gerrymandering in U.S. politics and warns of its dangers beyond electoral results. However, in his *first* book, *Drawing the Lines: Constraints on Partisan Gerrymandering in U.S. Politics*, he challenges the academic consensus of gerrymandering's dangers and instead concludes that bipartisan redistricting (when both parties redraw district

lines together) is more dangerous to democracy than partisan gerrymandering. He argues this is not only because gerrymandering focuses on the short-term benefits of capturing congressional seats and does not produce certain long-term results, but also because both parties have incentives to reduce district competitiveness in bipartisan redistricting versus a single majority party overseeing the task. When one party has the incentive to reduce the competitiveness of the other party by gerrymandering districts it is one issue, but when both parties seek to make the other less competitive during the same redistricting cycle, it creates gridlock in redrawing district maps. Such gridlock has potential consequences like maps taking longer to be drawn than necessary, state courts stepping in to solve disputes within the redistricting commission, and even poorly drawn maps by courts that aren't properly equipped or knowledgeable or redistricting practices (as it is not the court's primary responsibility) and are rushed to submit districts maps before the state's deadlines (Seabrook, 2017).

　　While Seabrook's research alone could be attributed to a "change in opinion" based on new evidence between 2017 and 2022, political scientists Andrew Gelman and Gary King also published an article agreeing with his initial work. Like Seabrook in *Drawing the Lines*, their research indicated that redistricting tends to increase electoral responsiveness (a rise in votes) by creating high levels of uncertainty for participants. He surmised from the data that when voters were no longer aware of who the local and state candidates were due to redistricting, they were more likely to vote in elections. Citing a previous study they conducted which examined over 30 state legislatures, 60 "redistrictings," 267 statewide elections, and 29,679 district-level elections, they found that outside of the South (due to increasing Republican strength and competitiveness), voter responsiveness, as measured by voter turnout in response to changes in the partisan composition of the legislature, has gradually dropped overtime at the state level and in the U.S.

Congressional elections (King and Gelman, 1991). Using this previous study to inform their new one, Gelman and King mirrored Seabrook's argument that the average redistricting effect is very large in the first year and sharply decreases after that point. Combined with the discovery that partisan bias is rarely greater than about 8% in favor of either party due to the numerous legal constraints on gerrymanders, Gelman and King argue that redistricting raises electoral responsiveness with minimal bias, which helps the democratic system more than harms it (Gelman and King, *Enhancing Democracy Through Legislative Redistricting*, 1994). While these opinions are notable in that they go against the general opinions of political science scholars, this thesis will not spend a copious amount of time analyzing these opinions as they are part of a minority group in the existing literature on gerrymandering. Although Gelman and King found partisan bias to rarely rise over 8%, this number has grown significantly since the time of their report in 1994 and thus no longer has relevant merit. Furthermore, Seabrook has shifted his argument from his first argument in *Drawing the Lines* to highlight the significance of gerrymandering, which has changed as electoral circumstances have changed.

The presence and political impact of gerrymandering have been specifically linked to the single-member district (SMD) electoral system. Political scientists studying this subject generally advance two competing arguments. The first argument is that the dysfunctions of gerrymandering can be solved within the SMD electoral system without changing it. For example, Danny Hayes and Seth C. McKee attributed their findings of increased roll-off rates (when voters vote in the presidential election but not in other races) in redrawn districts to the nature of single-member districts, more specifically how districts are smaller and more numerous in this system, thus subject to more change than a proportional representation system with larger

and fewer districts (in some cases the entire country being one district) (Hayes and McKee, 2009).

Anthony J. McGann and his co-authors cited the landmark court case *Vieth v. Jubelirer* (2004) as a loophole in which gerrymandering can survive and thrive in the SMD system. *Vieth v. Jublirer* (2004) was centered around the question of whether a state violates the Equal Protection Clause of the Fourteenth Amendment when gerrymandering is allowed to occur. In a split decision with no majority opinion, the Supreme Court decided not to intervene in this case because no appropriate judicial solution could be found. Justice Scalia noted that the Court should declare all claims related to partisan (but not racial) gerrymandering nonjusticiable, meaning that the Court could not hear them (see Table of Significant U.S. Supreme Court Redistricting Cases below). This precedent has remained to this day. The *Vieth* decision has been deemed by many to have eliminated legal constraints on states employing partisan gerrymandering and undermined the one-person, one-vote standard of previous legal redistricting cases beginning in the 1960s.

As a result, when one party controls the state government, it can guarantee itself a majority on the state's congressional delegation (not the voters). To solve the problems of partisan asymmetry of up to 30% in some states, McGann and his co-authors suggested that if *Vieth v. Jubelirer* could be overturned or if the existing redistricting rules could be tightened, then partisan gerrymandering could be lessened in the US (McGann et al., 2016). Kathryn VanderMolen and Jeffrey Milyo also proposed the introduction of independent redistricting commissions as a potential solution to gerrymandering. They examined what causes public confidence in the honesty of the state redistricting process by analyzing responses to election studies. Opinions about the redistricting process are matched to state characteristics, including

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the presence of independent redistricting commissions, state legislature polarization, and the "professionalism" of the state legislature. The authors found that public attitudes towards gerrymandering are determined by a distaste for legislative professionalism and an affinity for the party in control of the state government, so an independent commission could be a potential solution to take the power out of the majority party's hands into a more neutral body, in the sense that there would be no majority opinion that would take over redistricting (VanderMolen and Milyo, 2016).

The second argument developed by political scientists is that to solve gerrymandering and promote political participation in democracies, a change in the electoral system is necessary. Whereas scholars like Hayes, McKee, McGann, VanderMolen and Milyo find that significant reform is possible within the current SMD electoral system and state redistricting processes, another group of scholars and experts claim that reform requires systemic change. For instance, Markus M.L. Crepaz notes that in U.S.-style single-member district systems, only one member represents the district, so the success or failure of a politician depends on how the district's boundaries are drawn. In European proportional representation (PR) systems, districts are geographically large (sometimes the whole country is one district) and thus gerrymandering is nonexistent. Even other countries that use single-member districts (such as Canada, Australia, and the UK) don't have issues with gerrymandering either because redistricting is done by non-partisan bodies (Crepaz, 2022).

Stephen Medvic appeared to agree with Crepaz. He advocated for the importance of solving or at the very least curbing gerrymandering, even if the only result is to generate more public confidence and participation in elections. While he suggested that bureaucratic redistricting (like the Iowa Model), or independent/citizen redistricting commissions could be

possibilities to reform our electoral system within the boundaries of single-member districts, he more importantly advocated for the adoption of a mixed-member proportional system, akin to Germany while also holding onto some of the traditional American electoral system (Medvic, 2021).

Eliora van der Hout and Anthony J. McGann appeared to take a more radical approach. They argue that SMD, "first past the post" elections cause inequality in that some people's votes count for more than others and is dependent on the distribution of opinion in the constituency in which that voter lives. For example, states like Ohio and Pennsylvania receive more political attention than states like Texas or California because, in the latter states, there is a strong majority demographic of voters who are committed to one party. California's population votes majority Democratic and Texas votes majority Republican, but in Ohio and Pennsylvania, there is a more even spread of Democratic and Republican voters so the state can "swing" direction in elections. In this sense, voters in Ohio and Pennsylvania have more power regardless of party affiliation than voters in California or Texas. In the article, the authors argued that if the distribution of opinion was random and predictable, it would be fine, but this is clearly not the case in the current system. To them, for an SMD system to treat all voters and parties equally, it must produce results like party-list proportional representation (van der Hout and McGann, 2009).

Lee Drutman agrees, arguing that the current American SMD electoral system blocks third- or multi-party groups from emerging in the political system, which only contributes to the "escalating hyper-partisan doom loop." However, he noted that the U.S. used to have multiple parties that were more compromise-oriented, as seen with their use of fusion voting, and so it can return to such a state again. In fusion voting, "fusion ballots" are cast in which more than one

political party can nominate the same candidate, which encourages cross-party coalitions and alliances (see more information in Table of Definitions below). The facilitation of numerous parties and the re-introduction of fusion ballots can help the number of voters in the political "middle" find a group that they better identify with, which in turn can combat voter fatigue and increase emotional investment in political participation (Drutman, 2022).

G. Bingham Powell conducted another study in which he measured the distance between the median citizen and the voted party median and then compared this number to the distance between the median citizen and legislative median. The median citizen was found by taking data from citizen self-placement on the left-right ideological continuum (left referring to Democrat, right referring to Republican). From this self-placement, he defined the median citizen as one in which half of the electorate was on either side of them. Powell then examined these distances between single-member district (SMD) electoral systems and proportional representation (PR) systems to measure what electoral systems are more closely tied to their voters. He found that the average legislator in the proportional system is only .6 away from the median citizen, whereas the average legislator in the majoritarian system is 1.6 away (nearly three times further), giving the proportional system a large advantage in reaching citizens (which also explains studies showing citizens in countries under proportional representation having higher voter turnout and trust in their national government) (Powell, 2000).

Overall, the debate between single-member districts versus proportional representation, or even a combination of the two systems, stems from the recognition of gerrymandering as a serious political issue that can have extremely adverse effects on democracy. As we have seen in Seabrook's first book and Gelman and King's studies, there has been a small minority of political scientists and scholars who have argued that gerrymandering isn't a significant issue.

However, most of these arguments occurred over twenty years ago before partisan asymmetry significantly increased due to gerrymandering, so their arguments will not be deeply analyzed in this thesis. My interaction with this debate will not be to necessarily choose one solution over the other but to weigh the costs and benefits of each approach using state and country constitutions, election results, public documents, court decisions, and secondary literature. It is unrealistic to advocate for a change in the electoral system, especially in the United States. Given how deeply entrenched the SMD system is in American politics, a suggestion for changing the electoral system to proportional representation or any other arrangement would be unrealistic and unhelpful in finding applicable, constructive solutions to gerrymandering.

<u>Methods</u>

Within this analysis, a combination of quantitative and qualitative data acquired from existing scholarship will be utilized to understand the origins and continued prevalence of gerrymandering in the United States. More specifically, landmark Supreme Court decisions will be examined to track historic efforts to eliminate gerrymandering and precedents that limit some redistricting procedures but open loopholes for others. Public documents will also be used to study the differences in state redistricting structures and analyze if these differences contribute to biased partisan influence. Secondary literature from political scientists and electoral experts will also be carefully analyzed. Examining the work of these experts and detecting potential biases will allow this analysis to become more well-rounded by encompassing different points of view but will also reveal if the literature points to a majority opinion regarding whether gerrymandering has a significant impact on the U.S. democratic system.

Public and primary documents, along with election results and journalistic accounts, will be employed to assess the different electoral structures that are present in a variety of European countries as comparators with the U.S. These sources, as well as existing literature from political scientists and electoral experts, will help to identify why gerrymandering is not present in most of these systems or is present to a significantly lesser degree than the U.S. Identifying the differences between party-list proportional representation, single transferable vote, and mixed-member proportional representation will be utilized and studied to understand how these electoral systems produce different redistricting results (see Table of Definitions below for descriptions of these electoral systems). This data will also be used to determine if the choice of electoral system is tied to the presence or lack of gerrymandering.

Cross-National Summary Glossary of Definitions

- ***Single-member plurality system (SMP)***: Individual candidates compete for a single seat, designated to represent a district of voters. A candidate is determined a "winner" once a plurality is reached (they receive the most overall votes). Also known as the "single-member district (SMD) system," "first past the post" or "winner takes all" system.

  o This system rewards the loudest, most prominent voices with overrepresentation, favoring the biggest parties and political movements over smaller ones.

  o Can be susceptible to pork-barrel policies, which refers to a politician securing funding (often government spending) that is intended to benefit a specific district or region of voters in return for their political support. This "support" is often in the form of campaign contributions or votes. This system caters to specific

districts or areas the politician wants to secure votes from, rather than the good of the country.

- ***Party-list proportional representation (PR):*** A party receives the same percentage of seats that it gets in votes. Before every election, each party creates a list of individuals in rank order to fill the elected seats.

  o This system has special appeal for minorities, as a wider variety of parties means that a wider array of interests is catered to in a manner not seen in SMP systems, but it can also fragment assemblies chaotically into many small parties.

  o Under PR rules there are either a few, large districts, or no districts at all, so no one ends up with a local representative that is legally bound to represent their regional interests, as in SMP.

- ***Single transferable vote***: A form of proportional representation in which voters rank the candidates by choice for multi-member district seats. To get elected, a candidate needs to be ranked as the first choice more times than is listed on the quota. If no one reaches the quota, then the least popular candidate is removed, and people who voted for them as their first choice have their votes moved to their second choice. The process continues until every seat is filled.

- ***Mixed-member proportional representation***: A certain number of seats are elected by single-member plurality rules, and the other seats are elected by proportional representation.

- ***Fusion voting***: Ballots are cast in which more than one political party can nominate the same candidate, allowing voters to choose the party that best matches their values. This system encourages cross-party coalitions and alliances across a wider spectrum of

political interests, which helps elevate the presence of minor parties. This system also tends to put forth more moderate candidates, for if a candidate can attract a wider range of voters with ideas that appeal to more of the population (more so than, say, right or left-wing extremism) then they are more likely to be elected.

- *Partisan asymmetry*: The principle that a share of total votes received by a party does correspond to the specific number of legislative seats it should receive.

- Roll-off rates: This measures the rate at which voters vote for the president but not any other government positions or races on the ballot.

- *Electoral responsiveness:* This is the degree to which the partisan composition of the legislature responds to changes in voter preferences (Gelman and King, *Enhancing Democracy Through Legislative Redistricting*, 1994, 542). In other words, how the Democrat-Republican balance in the legislature changes in response to changes in what party voters are voting for in national elections.

- *Cracking:* A strategy of gerrymandering that entails splitting a certain demographic of voters into multiple districts. This can be racial cracking, splitting minority (often black) votes across districts, or partisan cracking by spreading a strongly Democratic or Republican voting block across districts.

- *Packing*: A strategy of gerrymandering that entails packing as many of a certain demographic of voters as possible into one district to dilute their voting power. Like with cracking, this can either be along racial (often black) or partisan lines.

- *Majority-minority districts*: These are districts that contain a majority of a racial or linguistic minority population. Majority-minority districts are allowed to exist in accordance to Section II of the Voting Rights Act to legally prevent minorities from

becoming fragmented across districts, and the Supreme Court case *Thornburg v. Gingles* established a three-part test for proving whether vote dilution in a majority-minority district has occurred (see Table of Supreme Court Cases).

| June 27, 2023 | *Moore v. Harper* | The issue in this case was whether state legislatures are allowed by the Constitution to regulate federal elections without oversight from state courts, which is known as the *independent state legislature doctrine*. In November 2021, the North Carolina General Assembly adopted a new congressional map based on 2020 Census data. The legislature was controlled by the Republican Party at this time. In the case *Harper v. Hall* (2022), a group of Democratic voters and nonprofit organizations challenged the map in state court, alleging that the new map was a partisan gerrymander that violated the state constitution. | In February 2022, the North Carolina Supreme Court ruled that the state could not use the map in the 2022 elections and sent the case to the trial court for further proceedings. The trial court adopted a new congressional map drawn by three court-appointed experts. In a 6-3 decision, the United States Supreme Court affirmed the North Carolina Supreme Court's original decision in *Moore v. Harper* that the state's congressional district map violated state law. In a 6-3 decision, Chief Justice John Roberts wrote that the "Elections Clause does not insulate state legislatures from the ordinary exercise of state judicial review," Roberts wrote of that constitutional provision. The ruling still puts the Supreme Court and other federal courts in a position to |

			second-guess state courts in certain types of election-related cases.

Section II: Historical Background to U.S. Redistricting

"We have to end the practice of drawing our congressional districts so that politicians can pick their voters and not the other way around," President Barack Obama declared in his 2016 State of the Union Address. "If we want better politics, it's not enough to just change a congressman or a senator or even a president. We have to change the system to reflect our better selves."[3] In this address, Obama illuminated the significance of gerrymandering and its potentially catastrophic impacts on the U.S. political system. The scale of gerrymandering's impact is limited to only a few countries outside of the United States, the U.K., France, and Hungary. For a country that claims to be the "land of the free," the fact that the U.S. has a level of partisan asymmetry only comparable to autocratic governments should be concerning. To understand the roots of this problem, different state legislatures with varying levels of partisan asymmetry (both liberal and conservative) will be analyzed to determine if state redistricting politics influence levels of gerrymandering. Institutional actors such as the courts and independent commissions will also be investigated to determine if they play a role in perpetuating gerrymandering in U.S. redistricting processes and, by extension, elections. This information will then be compared to six other countries, each with different electoral systems that (with one exception) produce less gerrymandering than the U.S., to determine if and how electoral politics influence redistricting processes.

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[3] "Remarks of President Barack Obama – State of the Union Address as Delivered." National Archives and Records Administration, January 13, 2016. https://obamawhitehouse.archives.gov/the-press-office/2016/01/12/remarks-president-barack-obama-%E2%80%93-prepared-delivery-state-union-address.

The National Electoral System: Historical and Constitutional Features

Before analyzing the redistricting processes of individual states, it is first important to look at the *national* electoral system that shapes how elections are conducted and, by extension, how the location of district lines impacts which voters vote for which representatives. In the United States Constitution, Article I, Section II states that "The House of Representatives shall be composed of Members chosen every second year by the People of the several States [. . .] Representatives [. . .] shall be apportioned among the several States which may be included within this Union, according to their respective Numbers."[4] While the Constitution specified that there was only to be a certain number of representatives from each state, it did not specify how they were to be elected or apportioned. However, we do know that single-member districts as a method of representation were considered among the Framers. In Federalist Paper 56 under the pseudonym "Publius," James Madison wrote "Divide the largest state into ten or twelve districts and it will be found that there will be no peculiar interests, and it will be found that there will be no peculiar local interests in either, which will not be within the knowledge of the Representative of the district."[5] Despite the praise for single-member districts in this essay, most of the thirteen states used multi-member districts in the first congressional elections. This is distinctive from proportional representation because the system had yet to be developed.[6]

Some decades later, this status quo would change with the passing of the Apportionment Act of 1842, which set the House of Representatives membership at 223 members, and stated

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[4] "Article I, Section 1: General Principles." National Constitution Center. Accessed January 15, 2024. https://constitutioncenter.org/the-constitution/articles/article-i/clauses/749#:~:text=Article%20I%2C%20Section%201%20provides,in%20a%20representative%20bicameral%20Congress.
[5] "The Federalist Papers: No. 56." The Avalon Project. Accessed January 15, 2024. https://avalon.law.yale.edu/18th_century/fed56.asp.
[6] Tory Mast. "The History of Single-Member Districts for Congress." FairVote. Accessed January 15, 2024. https://archive.fairvote.org/?page=526.

that they "should be elected by districts composed of contiguous territory equal in number to the number of representatives to which said state may be entitled, no one district electing more than one representative."[7] Single-member districts were henceforth instituted by Congress. After each national census, apportionment laws were regularly enacted, increasing the number of representatives as the population of the U.S. increased and more states were added to the Union. Eventually, the districting provisions of the 1842 Apportionment Act were modified, resulting in "several important changes in congressional districting policy."[8] An Apportionment Act passed in 1850 increased the size of the House to 233 but dropped the provisions requiring elections by districts. However, in 1862 another Apportionment Act restored the provisions of the 1842 Apportionment Act requiring districts composed of contiguous territory. An Apportionment Act in 1872 reiterated the requirement of districts composed of contiguous territory, but also added that they should contain "as nearly as practicable an equal number of inhabitants."[9] The 1901 Apportionment Act added that districts should not only be of equal population and contiguous but also be of "compact territory."[10] Then, in 1929 Congress passed an Apportionment Act that "capped House Membership at the level established after the 1910 Census [435 Representatives] and created a procedure for automatically reapportioning House seats after every decennial census" and kept the requirements from previous apportionment acts regarding contiguous,

[7] "Election Policy Fundamentals: At-Large House Districts." Congressional Research Service, January 12, 2024. Chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://crsreports.congress.gov/product/pdf/IF/IF12568#:~:text=Congress%20banned%20general%20ticket%20elections,more%20than%20one%20Representative.%E2%80%9D%20The.

[8] Tory Mast. "The History of Single-Member Districts for Congress."

[9] Jason Gauthier. "Apportionment Legislation 1840 - 1880." United States Census Bureau. Accessed January 15, 2024. https://www.census.gov/history/www/reference/apportionment/apportionment_legislation_1840_-_1880.html#:~:text=Set%20the%20size%20of%20the,1850%20Apportionment%20Results%20and%20Notes.

[10] Jason Gauthier. "Apportionment Legislation 1890 - Present." United States Census Bureau. Accessed January 15, 2024. https://www.census.gov/history/www/reference/apportionment/apportionment_legislation_1890_-_present.html.

compact, and equally populated districts the same.[11] The Apportionment Act of 1929 gave little direction concerning congressional districting, apart from establishing the system by which House seats would be allocated based on population shifts in states. This gave states free reign to draw districts of varying sizes and shapes, as well as allowed states to abandon districts altogether and elect some representatives at large, which states like New York, Illinois, Washington, Hawaii, and New Mexico chose to do. For example, in the 88th Congress (which was in session in the early 1960s), 22 of the 435 representatives were elected at-large.[12]

Supreme Court Redistricting Precedents

The 1960s brought with it a dramatic series of changes in redistricting legislation that impacted the processes to such a degree that it continues to set the precedent for redistricting processes today. In the era of Jim Crow, political disenfranchisement of African American voters (among other factors) led to the Civil Rights Movement for social and political reform. Methods like literacy tests and grandfather clauses were used by states to keep African Americans from voting, and even when African Americans could vote they were packed into "majority-minority districts." These are districts that contain a majority of a racial or linguistic minority population. While majority-minority districts still exist today and are protected by Section II of the Voting Rights Act (to legally prevent minorities from becoming fragmented across districts), the Supreme Court case *Thornburg v. Gingles* (1986) established a three-part test for proving whether vote dilution in a majority-minority district has occurred (see Table of Supreme Court

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[11] "The Permanent Apportionment Act of 1929." US House of Representatives: History, Art & Archives. Accessed January 15, 2024. https://history.house.gov/Historical-Highlights/1901-1950/The-Permanent-Apportionment-Act-of-1929/.
[12] Tory Mast. "The History of Single-Member Districts for Congress."

Cases above).[13] Some states also did not consistently redistrict, which failed to account for population shifts within the state (largely shifts of African Americans). This was the issue that was raised in the first Supreme Court case on redistricting.

In 1962, Charles Baker and other Tennessee citizens alleged that a 1901 law designed to apportion seats for the state's General Assembly had been ignored, as the state hadn't redistricted since that year. The Supreme Court decided to hear the case and decided in *Baker v. Carr* (1962) that federal courts could hear cases "alleging that a state's drawing of electoral boundaries, i.e., redistricting, violates the Equal Protection Clause of the Fourteenth Amendment of the Constitution."[14][15] Then in 1964 came two important court cases. In the first case, *Wesberry v. Sanders*, the Georgia court found that "finding that congressional districts must have nearly equal populations to ensure that "as nearly as is practicable, one man's vote in a congressional election is to be worth as much as another's."[16][17] The second case, *Reynolds v. Sims* (1964), the Alabama high court found that the United States Constitution requires "no less than substantially equal state legislative representation for all citizens."[18][19] These three court cases, and especially *Reynolds v. Sims* (1964), established that the Equal Protection Clause of the Fourteenth

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[13] "Majority-Minority Districts." Ballotpedia. Accessed February 16, 2024. https://ballotpedia.org/Majority-minority_districts.

[14] *Baker v. Carr* (1962)." Legal Information Institute, Cornell Law. Accessed January 15, 2024. https://www.law.cornell.edu/wex/baker_v_carr_(1962)#:~:text=Primary%20tabs-,Baker%20v.,Fourteenth%20Amendment%20of%20the%20Constitution.

[15] "Timeline of Redistricting Cases Heard by the Supreme Court of the United States." Ballotpedia. Accessed January 15, 2024. https://ballotpedia.org/Timeline_of_redistricting_cases_heard_by_the_Supreme_Court_of_the_United_States#cite_note-oyezwesberry-23.

[16] *Wesberry v. Sanders* (1964). Oyez. Accessed January 15, 2024. https://www.oyez.org/cases/1963/22.

[17] "Timeline of Redistricting Cases Heard by the Supreme Court of the United States."

[18] *Reynolds v. Sims* (1964). Oyez. Accessed January 15, 2024. https://www.oyez.org/cases/1963/23.

[19] "Timeline of Redistricting Cases Heard by the Supreme Court of the United States."

Amendment includes a "one-person, one-vote" principle, which continues to be the standard in redistricting practices today.[20]

Below is a table containing a timeline of significant U.S. redistricting cases, which includes the cases previously described in this section as well as additional cases that, for the sake of efficiency, were not analyzed in depth for this thesis. They are included in the table for the reader's reference in case they would like to do some additional research into this topic.

Table 1: Significant U.S. Supreme Court Redistricting Cases[21]

Date	Case Name	Issue	Decision
June 10, 1946	*Colegrove v. Green*	The case was brought by three Illinois voters who alleged that the state's congressional districts "lacked compactness of territory and approximate equality of population," violating the U.S. Constitution.	The Supreme Court affirmed the decision of the federal district court, which dismissed the complaint because no requirements related to compactness, contiguity, or equality of population existed within the bounds of federal law.
March 26, 1962	*Baker v. Carr*	The case was brought by a group of Tennessee voters who alleged that the redistricting of the state legislature failed to account for significant population	The Supreme Court ruled 6-2 in favor of the plaintiffs, finding that apportionment cases are justiciable (the federal government has a

		variations between districts, violating the Equal Protection Clause of the Fourteenth Amendment of the U.S. Constitution.	right to intervene in such cases).
February 17, 1964	*Wesberry v. Sanders*	The case was brought by James Wesberry Jr. against Georgia Governor Charles Sanders. Wesberry alleged that the population of Georgia's Fifth Congressional District (his home district) was two to three times larger than that of other districts in the state, diluting the impact of his vote relative to other Georgia residents which violates the U.S. Constitution.	The Supreme Court ruled 6-3 in favor of Wesberry, finding that congressional districts must have nearly equal populations to ensure that each man's vote has equal worth.
June 15, 1964	*Reynolds v. Sims*	The case was brought by a group of Alabama voters who alleged that the redistricting of Alabama's state legislature violated the Equal Protection Clause of the Fourteenth Amendment of the U.S. Constitution. During this time, the Alabama Constitution required that each county have at least one	The Supreme Court ruled 8-1 in favor of the plaintiffs, finding that the United States Constitution requires equal state legislative representation for all citizens.

		representative and that there be as many senators as there were senate districts. Therefore, these conditions created population variations between state legislative districts.	
June 30, 1986	*Davis v. Bandemer*	The case was brought by a group of Indiana Democrats who alleged that the redistricting of Indiana's state legislature diluted the impact of Democratic votes in key districts, violating the Equal Protection Clause of the U.S. Constitution.	The Supreme Court ruled that Indiana's district plans did not constitute an illegal partisan gerrymander, but more importantly they maintained that partisan gerrymandering claims are justiciable under the Equal Protection Clause (federal courts have the right to intervene in such cases).
June 30, 1986	*Thornburg v. Gingles*	This case made the redrawn districts of the North Carolina General Assembly invalid on the basis that the districts blocked the ability of black voters to elect candidates of their choice.	The Supreme Court established three criteria for analyzing claims of vote dilution in majority-minority districts: (1) the racial or language minority group is "sufficiently large and geographically compact to constitute a majority in a single-member district"; (2) the minority group is "politically cohesive" (its members tend to vote

			similarly); and (3) the "majority votes sufficiently as a bloc to enable it ... usually to defeat the minority's preferred candidate."[22]
April 28, 2004	*Vieth v. Jubelirer*	The case was brought by a group of Pennsylvania Democrats who alleged that the state legislature, controlled by Republicans at the time, had developed a congressional district map that included an illegal partisan gerrymander.	The Supreme Court issued a split decision with no majority opinion, declining to intervene in the case. The case established no precedent regarding claims of unconstitutional partisan gerrymandering.
June 25, 2013	*Shelby County v. Holder*	The issue being examined in this case was the constitutionality of Section 4(b) of the Voting Rights Act of 1965, which contains a formula used to determine which state governments are subject to the federal preclearance requirement of Section 5. Section 5 of the Voting Rights Act requires certain state and local governments to clear changes in election laws with	The Supreme Court struck down Section 4(b) as unconstitutional in a 5-4 decision, as it exceeded Congress' power to enforce the Fourteenth and Fifteenth Amendments. The majority reasoned that the unequal treatment of the states was based on outdated facts and that a state cannot be subject to preclearance because of past discrimination. The court did not determine

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[22] *Thornburg v. Gingles, 478 U.S. 30* (1986)." Justia Law. Accessed January 22, 2024. https://supreme.justia.com/cases/federal/us/478/30/.

		the federal government before their enactment (known as preclearance). Section 4(b) contains a formula used to determine which governments are subject to the preclearance requirement of Section 5.	whether Section 5 is also unconstitutional, but because Section 5 is only applied to states covered by Section 4(b), Section 5 is effectively useless unless Section 4(b) is replaced by Congress (which has not been done).

The Voting Rights Act

Then in 1965, President Johnson signed the Voting Rights Act into law, which was designed to enforce the voting rights guaranteed by the Fourteenth and Fifteenth Amendments of the U.S. Constitution, to secure the right to vote for racial minorities across the country, and to prevent any kind of racial discrimination in voting by banning tactics like literacy tests designed to keep them from the polls.[23] On the heels of these three historic court cases and the Voting Rights Act, Congress in 1967 passed the Uniform Congressional District Act, which prohibited "at-large" and other multi-member elections and required that all members of the House be elected from a single-member constituency (district).[24] This law only affected Hawaii and New Mexico, as all other states were using elections by districts at this time. This law was passed due to two factors. First, in the wake of the 1965 Voting Rights Act, there was concern that the southern states might use winner-take-all, at-large elections to dilute the voting strength of then-

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[23] "Voting Rights Act (1965)." National Archives and Records Administration. Accessed January 15, 2024. https://www.archives.gov/milestone-documents/voting-rights-act#:~:text=It%20outlawed%20the%20discriminatory%20voting,after%20the%20amendment%20was%20ratified.

[24] "The 1967 Single-Member District Mandate." FairVote. Accessed January 15, 2024. https://archive.fairvote.org/library/history/flores/district.htm.

recently enfranchised black people in the South. Second, there was concern that the courts might order at-large elections in states that were having difficulties with redistricting, which could have threatened the position of incumbents whose district seats were considered safe for re-election.[25] However, apart from the political reasons chosen to pass this act, the court cases and bills passed by Congress above have set redistricting standards that are still used today, which brings us to the current state of redistricting in America. States are required to follow the requirements set by the "one person, one vote" standard and the Voting Rights Act and conduct elections and redistricting within single-member districts, but apart from these requirements states can set up the redistricting system as they see fit. No two states have the exact same redistricting process, but it has been found that certain processes have led to less partisan bias than others, which will be investigated below.

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[25] Tory Mast. "The History of Single-Member Districts for Congress."

Section III: Redistricting in the United States

Redistricting Criteria of the Princeton Consortium Redistricting Report Card

In this section, six American states were chosen for analysis to represent the diverse systems of redistricting that are present in the United States. The states chosen are New York, Nebraska, Iowa, Michigan, Ohio, and Texas. The decision to analyze these countries was informed by research into factors like the state's geographic location and partisan bias, as well as electoral map data presented by the Princeton Consortium. The Princeton Consortium will figure prominently in this section, as it graded state redistricting systems based on partisan fairness, competitiveness, and geographic features, as well as provided a detailed methodology to support its findings. This methodology, and analysis of the six states based on the Princeton Consortium data, will be further articulated below.

Why the Princeton Consortium?

Out of the fifty U.S. states, six were selected for electoral analysis based on a scoring system created by the Princeton Election Consortium. The Princeton Consortium was one of only a small handful of groups that analyzed and "graded" state redistricting systems, using maps from the last redistricting cycle. The other grading systems, however, had no methodology or descriptions of why states were graded a certain way. As will be seen in the sections below, the Princeton Consortium included a detailed analysis of its scoring system, and three different levels of criteria under which states were graded (partisan fairness, competitiveness, and geographic features). This detailed methodology provided by the Princeton Consortium provided a more comprehensive foundation for the analysis of state redistricting systems to be built upon, combining the quantitative formulas that determined state redistricting grades with the

qualitative features of the redistricting system's construction, history, and potential legal challenges.

Titled "Gerrymandering Project Redistricting Report Card,"[26] the Princeton Consortium's system was calculated with three specific measures in mind: partisan fairness, competitiveness, and geographic features, to determine which states conducted redistricting most equitably.

Partisan Fairness

To determine partisan fairness, five metrics were included in the calculations. First, democratic seat share counts the number of districts whose Democratic vote share percentage estimate is over 50%. Second, the number of competitive seats is found by counting the number of districts whose "Democratic and Republican vote share percentage estimate is between 46.5-53.5%."[27] Third, to find partisan bias, the difference between a party's actual seat share versus the hypothetical 50% seat share in an election where Republicans and Democrats won equal seats is calculated to find if a party is unfairly winning additional seats. A positive difference indicates a partisan advantage for Republicans, and a negative difference indicates an advantage for Democrats. Fourth, the presence of packed wins is determined by calculating the difference between the "average win percentage of each party's wins."[28] Meaning, if a voting demographic strongly associated with one party is packed into a few districts or fragmented across various districts, it will have a much higher average win percentage than the other party. In an ideally

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[26] "Redistricting Report Card." Gerrymandering Project | Princeton University. Accessed February 15, 2024. https://gerrymander.princeton.edu/redistricting-report-card/.

[27] "Redistricting Report Card Methodology: The Gerrymandering Project." Princeton University. Accessed January 9, 2024. https://gerrymander.princeton.edu/redistricting-report-card-methodology.

[28] Ibid.

fair map, both parties would have similar average win percentages, so the presence of packed

districts becomes obvious in the calculations. The fifth and final metric in determining partisan

fairness is the mean-median difference between a party's average vote share and its median vote

share across all districts. If voters are being packed into a few districts and cracked in others,

then this would skew the difference. For example, if a party has a median vote of 45 percent and

a mean vote share of 50%, then the redistricting plan has only a 5 percent difference which

indicates symmetry. If the mean and median are drastically different, then the district distribution

is skewed in favor of one party over another. The partisan fairness measure is the most

comprehensive of the three measures used by the Princeton Election Consortium Blog but also

sets up the electoral foundations upon which the subsequent competitiveness measure is based.

Competitiveness

The competitiveness measure is calculated based on the Princeton Election Consortium

Blog's definition of a competitive district, outlined as a district in which the Democratic and

Republican vote share is within the range of 46.5-53.5%.[29] These competitive districts are

counted and then compared to the number of competitive districts found in alternative maps that

the Princeton Election Consortium Blog computer-generated. These alternative maps were

generated from Gerrychain, a common software used for computational redistricting. From this

program, one million alternative maps were drawn up and used and measured against the current

districting plans of the fifty states. Creating a distribution of scores from this comparison, the

following system was used to grade states for their redistricting plans in the Gerrymandering

Report Card.

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[29] Ibid.

- "A" to maps with more competitive districts than 95% of the maps in alternative, computer-generated districting plans.

- "B" to maps where the number of competitive districts is between the 64th and 95th percentile of the distribution.

- "C" to maps where the number of competitive districts is between the 5th and 64th percentile of the distribution.

- "F" to with fewer competitive districts than 95% of the maps in alternative, computer-generated districting plans

Like the traditional U.S. grading system, a map that receives an "A" is considered the most competitive (and therefore best") map, even against the alternative maps that the Princeton Election Consortium Blog computer-generated. The grading system goes down to an "F," level map, which indicates little-to-no competitiveness against these same computer-generated maps. Below is a map that details the overall grade distribution of each state's redistricting practices and results in the United States.

Figure 2: "Redistricting Report Card," from the Princeton Election Consortium (2022).
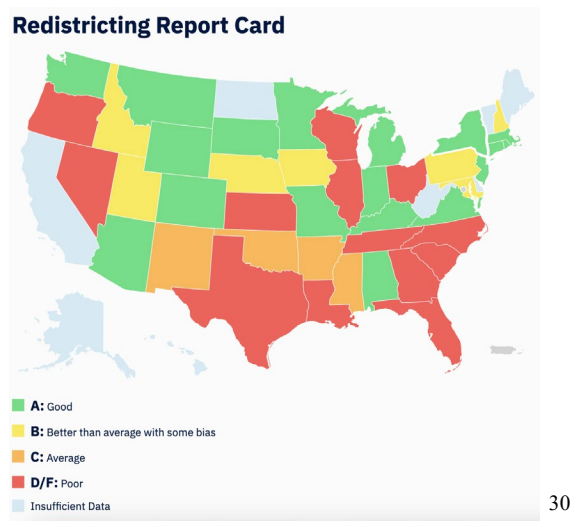
As the map indicates, eighteen U.S. states are graded with an A, and most of them are in the northern regions of the United States and spread from the West to East coasts. The Princeton Election Consortium calculated little to no partisan bias in these states, and there is a relatively even spread of Democratic and Republican majorities in the legislatures across these states. Seven states received a B grade, and like the states given an A grade, they spread from West to East Coast and remained in the northern regions of America. These states also have a relatively balanced Democratic or Republican majority in the legislatures, albeit with a slight Republican bias. Four states received a C grade, and all of them were in the central-southern regions of America. Once again, the partisan bias is split. Two states have a Republican bias (Oklahoma and Arkansas) and two have a Democratic bias (New Mexico and Mississippi) in the state legislatures. Thirteen states were given a D or an F grade. While there were a few outliers on the West Coast and in the northern United States, the majority lay in the Southern and Eastern regions. All but two of these states (Oregon and Nevada) have a strong Republican partisan bias drawn in the maps.

The table below categorizes forty-two states by the grade given by the Princeton Election Consortium Blog (in the order from A to D/F), including individual grades on partisan fairness, competitiveness, and geographic features. This table also includes the direction of partisan advantage (Democratic or Republican), as provided by the enacted redistricting plans. This table will not include the eight states that are categorized as having "insufficient data" (California, Alaska, Hawaii, North Dakota, West Virginia, Delaware, Vermont, and Maine), due to the lack of maps that the Princeton Election Consortium has graded. This table will be referenced throughout this thesis and can be used to compare states both used in the analysis and not.

Table 2: State Grades, Princeton Election Consortium

State Name	Grade: Overall	Grade: Partisan Fairness	Grade: Competitiveness	Grade: Geographic Features	Partisan Advantage
Washington	A	A	A	A	Republican
Montana	A	A	C	C	None
Wyoming	A	A	C	A	None
Colorado	A	A	C	C	None
Arizona	A	A	C	C	None
South Dakota	A	A	C	A	None
Nebraska	A[31]	A	A	C	Democratic
Minnesota	A	A	C	C	Republican
Missouri	A	A	C	C	None
Indiana	A	A	C	A	None
Kentucky	A	A	C	C	None
Virginia	A	A	C	A	None
New Jersey	A	A	C	C	None
New York	A	A	C	A	None
Connecticut	A	A	C	C	Democratic
Rhode Island	A	A	C	C	None
Massachusetts	A	A	A	C	None
Idaho	B	B	A	C	Republican
Utah	B	B	F	C	Democratic
Iowa	B	A	C	B	Republican
Michigan	B[32]	A	A	F	Democratic
Alabama	B[33]	B	F	B	Democratic

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[31] Even though the Redistricting Report Card Map indicates Nebraska as receiving an "B" grade overall, the individual map grades indicate an A.

[32] Even though the Redistricting Report Card Map indicates Michigan as receiving an "A" grade overall, the individual map grades indicate an B.

[33] Even though the Redistricting Report Card Map indicates Alabama as receiving an "A" grade overall, the individual map grades indicate a B.

Pennsylvania	B	B	F	A	Democratic
Maryland	B	B	C	C	Republican
New Hampshire	B	A	A	F	Republican
New Mexico	C	C	A	C	Democratic
Oklahoma	C	C	C	C	Republican
Arkansas	C	C	C	C	Republican
Mississippi	C	C	C	C	Democratic
Illinois	D	C	F	F	Democratic
Ohio	D	F	C	C	Republican
Oregon	F	F	F	C	Democratic
Nevada	F	F	C	C	Democratic
Texas	F	F	C	F	Republican
Kansas	F	F	C	C	Republican
Louisiana	F	A	C	C	None (racial gerrymandering)
Wisconsin	F	F	C	C	Republican
Tennessee	F	A	C	C	None (racial gerrymandering)
North Carolina	F	F	F	C	Republican
South Carolina	F	F	F	C	Democratic (racial gerrymandering)
Georgia	F	C	C	C	Republican (racial gerrymandering)
Florida	F	F	C	B	Republican

Geographic Features

The Princeton Election Consortium Blog's computer-generated maps are not only extremely useful in illustrating competitive districts, but they are also used as a comparison tool in the third and final measure that focuses on geographic features.[34] The geographic features measure focuses on district compactness. In turn, compactness is measured through two different computations. The first is the Reock score, which is calculated by forming a perfect circle around the district, big enough to surround the entire district but as small as possible around its borders. The closer the district resembles a circle, the more compact it is. The score ranges from 0 to 1, 0 meaning the district is not compact and 1 meaning that the district is ideally compact. The second computation is the Polsby-Popper score, which is calculated by taking the ratio of a district's area to the computed area of a circle "whose circumference matches the perimeter of [the] district."[35] Like with the Reock score, the less distorted the boundaries of the district are and the closer it resembles a circle, the more compact the district is. Furthermore, like the Reock score, the score ranges from 0 to 1, with 0 meaning the district is not compact and 1 meaning the district is ideally compact. The Princeton Election Consortium Blog used these computations as follows to determine district compactness, or as they worded it on their Report Card, "geographic features."

- Average Reock score over all districts.

- Minimum Reock score over all districts.

- Average Polsby-Popper score over all districts.

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[34] Ibid.

[35] "Redistricting Report Card Methodology: The Gerrymandering Project." Both the Reock and the Polsby-Popper scores are named after the political scientists and scholars who came up with them. Ernest Reock was a professor who specialized in legislative redistricting and related government issues. Daniel Polsby is a scholar and professor in law who has researched gerrymandering. Along with fellow scholar Robert Popper, they co-developed the Polsby-Popper score.

- Minimum Polsby-Popper score over all districts.

Another factor that is examined in the compactness score is the number of county splits, that is, the number of counties that are split into at least two districts. While some counties have populations that are too large for the ideal population size of a district, other counties appear to be split for partisan reasons of cracking voter demographics across districts. No specific calculation or research process was provided for how they incorporated this information into their compactness formula, but it does play a role in how the states were graded for the geographic features measure.[36] The state-by-state grades for geographic features can be found in Table 2 above.

The Princeton Election Consortium Blog's Redistricting Report Card (RRC) was used to analyze every state in America along the three measures of partisan fairness, competitiveness, and geographic features. From the fifty states, New York, Nebraska, Iowa, Michigan, Ohio, and Texas were selected for deeper analysis. They were selected based on three factors: Redistricting Report Card grades, geographic location, and dominant party in the U.S. Legislature.

<u>Process of State Selection for Analysis</u>

Redistricting Report Card Grades: Map Data Available

While the Princeton Election Consortium were able to assign grades to most of the 50 states, there were eight states categorized as having "insufficient data" (California, Alaska, Hawaii, North Dakota, West Virginia, Delaware, Vermont, and Maine), due to the lack of maps that the Princeton Election Consortium could access. States with "insufficient data" were not

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[36] Ibid.

chosen for this thesis precisely for that reason. Furthermore, some states that received grades

from the Princeton Election Consortium had more data and maps available to them than other

states. For example, the Princeton Election Consortium had access to 23 Ohio district maps that

were proposed, redrawn, and redrawn from the 2020 census to the 2022 enactment, whereas New

Jersey only had two maps available from the same election cycle. States with more maps to

analyze were chosen due to the additional data that was provided.

State Geographic Location

Within the constraints of the data available from the Princeton Election Consortium Blog,

an attempt was made to choose states across America. An extension of geographic location is the

historical context in which the state was established. Some states have been a part of the Union

since the country's founding (think to the 13 original colonies), while others (moving further

West) are much newer. Older states have more established redistricting systems, which gives

them a different context than newer states that were taken into consideration in state selection.

Apart from age, the historical context that led to the state's founding was also an important factor

taken into consideration in choosing states to analyze. For example, historical slave states and

states that implemented Jim Crow laws created a different redistricting process than traditionally

anti-slave states or states established after the Emancipation Proclamation (thus never legally had

slavery as part of its economic system). Below is the Princeton Election Consortium

Redistricting Report Card map, the same map shown in Figure 2. However, in this figure, the six

states chosen for analysis are specially marked so that you can see the geographical spread that

was attempted.

Redistricting Report Card

A: Good
B: Better than average with some bias
C: Average
D/F: Poor
Insufficient Data
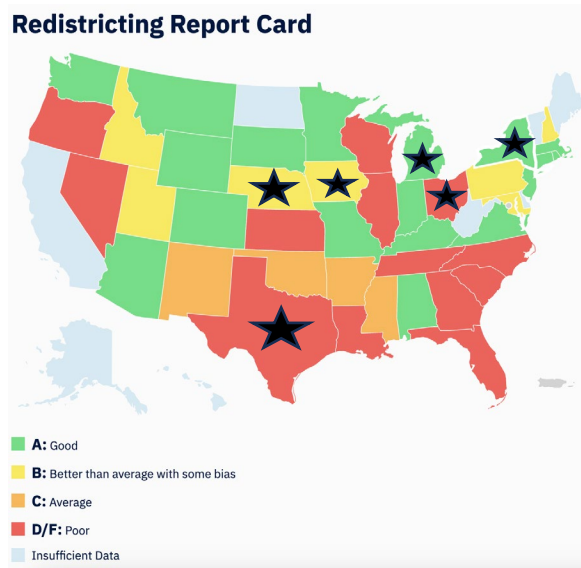
[37]

It becomes quickly apparent when looking at this map that no states on the West Coast were selected, as well as no states in the traditional Southern Belt. This was mostly due to a lack of data and map information provided by the Princeton Election Consortium. However, states like Oregon, South Carolina, or Pennsylvania were not chosen due to the national attention they have received in past decades due to issues with gerrymandering and partisan asymmetry. While states like Texas, Ohio, and Iowa are included in the state analysis and have their own fair share of both positive and negative media attention, but based on the secondary literature from academics and experts in the field it was found that these latter states are mentioned to a lesser extent than the likes of Oregon, South Carolina, or Pennsylvania. So, Texas, Ohio, and Iowa were chosen in combination with the other states whose redistricting systems are hardly mentioned in redistricting coverage to offer a more original analysis to what already exists in the literature.

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[37] "Redistricting Report Card."

Dominant Party in the U.S. Legislature

The third and final category considered in selecting states for analysis was the dominant party in the U.S. Legislature. While there is a general pattern that the partisan asymmetry tends to bias more toward the Republican Party (especially the more asymmetrical the district maps become, see Table 2), this does not mean that Democratic asymmetry does not exist. Indeed, some may argue that Oregon has a level of Democratic-biased gerrymandering that is only rivaled by North Carolina's gerrymandering to favor the Republican party (see Table 2). So, within the constraints of the data available from the Princeton Election Consortium and geographic location, an attempt was made to include states with both Democratic and Republican asymmetry in their redistricting plans.

States Selected for Analysis

The six states selected have been grouped into three categories, with two states in each category. This grouping was based on levels of electoral asymmetry present in redistricting plans, referring to the imbalance of power between the majority and minority parties in Congress. This concept follows the "partisan fairness" category of the Princeton Election Consortium's Redistricting Report Card, which supported this analysis. The categories, and states selected for each, are as follows: no asymmetry (New York, Nebraska), relative asymmetry (Iowa, Michigan), and extreme asymmetry (Ohio, Texas). The electoral redistricting systems of each state will be analyzed to determine why they were placed in their respective categories, and perhaps reveal a better way to redistrict that lessens the probability of gerrymandering. To guide this analysis, the redistricting system of each state will be categorized under the following structure: 1) state historical and constitutional attributes of redistricting; 2)

contemporary redistricting decision-makers; 3) challenges, judicial decisions, and evaluations; 4) Princeton Consortium grade; 5) conclusions on the effectiveness of redistricting methods and results.

No Asymmetry: New York

State Historical and Constitutional Attributes of Redistricting

The electoral redistricting process in New York underwent reform beginning in 2014 when citizens voted "yes" on Proposition 1, a constitutional amendment to "implement historic changes with the intent to achieve a fair and readily transparent process by which to redraw the lines of state legislative and congressional districts."[38] Beginning in 2021, New York's state Legislature and congressional districts have been drawn by a ten-member Commission (which will be discussed in the next section).

According to New York's state constitution (Art. III Section 3(6)), the Commission must hold at least twelve public hearings in specific cities and counties throughout the state and must make all redistricting plans easily accessible to allow citizens to "develop alternative redistricting plans for presentation to the commission at the public hearings."[39] This hybrid commission is the latest, and more concrete, step in a series of efforts New York has made for electoral reform. Previously to the establishment of this new commission, New York's state constitution (Art. III Sections 3, 4) already required that "state legislative and congressional districts be compact, contiguous, preserve political subdivisions, preserve communities of interest, preserve the cores

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[38] "About | Background on the Commission." New York State Independent Redistricting Commission. Accessed January 10, 2024. https://nyirc.gov/about.
[39] "New York | Gerrymandering Project." Princeton University. Accessed January 10, 2024. https://gerrymander.princeton.edu/reforms/NY.

of prior districts, and be drawn to promote competitiveness. Intentionally favoring or disfavoring an incumbent, party, or candidate for office is prohibited."[40] In 2010, New York also passed legislation ending the practice of "prison gerrymandering," the practice of politicians counting incarcerated people in the prison that they are held in, rather than their actual place of residence, which distorts district populations. The legislation states that, for redistricting, currently incarcerated people must be counted in their last-known place of residence.[41] So, the Hybrid Commission is only the latest step in a series of measures taken to fight gerrymandering in New York, a step that has proven effective in its first two years of action.

Contemporary Redistricting-Decision Makers: The Hybrid Commission

As was previously mentioned, New York's state Legislature and congressional districts have been drawn by a ten-member Hybrid Commission since 2021. This change removed redistricting power from the state Legislature, which previously had the responsibility. The makeup of the Commission is as follows: Two commissioners are appointed by the New York State Senate Majority Leader, two are appointed by the New York State Senate Minority Leader; two are appointed by the Speaker of the New York State Assembly; and two are appointed by the New York State Assembly Minority Leader. The final two citizen-commissioners are then selected by these eight appointees. Neither of these final two members can be enrolled as a Democrat or Republican in the past five years. Appointing authorities must have consulted with organizations devoted to protecting the voting rights of minority and other voters before making their appointments, and all Commission members must be registered voters in New York State.[42]

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[40] Ibid.
[41] Ibid.
[42] Ibid.

The Commission will submit proposed redistricting plans to the state Legislature for a vote, and the Legislature is not permitted to make amendments to the Commission's proposals until after two proposal maps have been rejected.

New York: Challenges, Judicial Decisions, and Evaluations

While the New York Hybrid Commission appears to be effective in drafting nonpartisan district maps (see the grades below), it has faced several criticisms from the public. The Commission has not faced any legal challenges or judicial decisions since its foundation, but this is partially due to the fact of its recent establishment (2021). Despite the lack of legal challenges thus far, public criticism is still worth highlighting to demonstrate that despite the progress against gerrymandering that has been made compared to other states in America, there is still improvement to be made. First, legislative leaders in New York (which are majority Democrats) directly appoint eight of the ten members of the Commission, which leaves room for partisan bias to make its way into the redistricting board. Second, the New York Commission does not have the final say on the district maps. Any maps it draws must be approved by the Legislature, and if the Commission's maps are rejected twice then the Legislature can enact its own maps.

These problems, however, have solutions, as seen in the state of California's redistricting system. California's Legislature has no role in picking members of their Commission, they may only remove a set number of names from the list. Furthermore, California's Commission has the sole authority to approve and adopt maps, and the Legislature can only submit comments of map proposals akin to the public.[43] However, it is worth mentioning that New York receives a higher

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[43] "About Us | Legal Framework." We Draw The Lines CA. Accessed January 11, 2024. https://wedrawthelines.ca.gov/about-us/.

overall grade from the Princeton Election Consortium than California does. While California was classified as a state with "insufficient data" to receive an overall grade, the Princeton Election Consortium did grade its 2021 Final Commission Congressional map. This map received a B overall, but this included an F in competitiveness. the map works well in producing competitive state maps with partisan fairness.[44] This shows that despite the praise California has received for its redistricting system, it is still subject to human bias and gerrymandering. So, perhaps by extension the New York redistricting system is not as bad, and some critics make it out to be.

The New York Hybrid Commission has also faced challenges on the grounds of gender and ethnic diversity as the first eight appointees included only one woman and no Latinx people. The next consecutive rounds included two women of color, but there are still no Latinx people on the Commission, which has continued to receive complaints. If this pattern continues, this could affect the legitimacy people hold in the system, and perhaps its effectiveness in the future. The Commission has also struggled to receive adequate funding, which could also affect its survival in the future.[45] But, despite the challenges it is facing, the New York Hybrid Commission is leading the country in fair, competitive district maps according to the Princeton Election Consortium.

Princeton Consortium Grade

According to the Princeton Election Consortium's RRC, New York's Special Master Congressional Map received an overall grade of A. More specifically, the state redistricting Hybrid Commission received an A in partisan fairness, a C in competitiveness, and an A in

[44] "California | Gerrymandering Project." Princeton University. Accessed January 11, 2024. https://gerrymander.princeton.edu/reforms/CA.
[45] "New York | Gerrymandering Project."

geographic features. While the C in competitiveness appears to be a poor grade when examining

it in the context of the American educational grading system, the Princeton Election Consortium

specifically noted that a C indicates that this map is "[s]imilarly competitive relative to other

maps that could have been drawn."[46] Following the 2020 Census, the New York Hybrid

Commission only drafted four maps before enacting their final plan. The fact that they achieved

high district competitiveness in four maps, in comparison to the Princeton Election Consortium's

grading system that utilizes one million potential maps is impressive and highlights the potential

benefits of using an independent redistricting commission.

Conclusions

New York's congressional map has one of the highest grades out of all fifty states, which

explains its position in the category of no asymmetry in this thesis. New York was one of only

six states to receive an A in both partisan fairness and geographic features, and the C in

competitiveness is indicative of a map that is comparably competitive compared to other maps

that could have been drawn. Upon looking at New York's congressional map, these grades

appear to correlate well on a visual level. In other words, most districts on the map appear

relatively compact. The only district areas that appear less compact would be the Congressional

Districts 21 and 24. More specifically, the way these two districts envelop Congressional

Districts 20 and 25 on three sides marks a noncompact state. However, if this map is compared

to Ohio or Texas' Congressional Maps (see Figures 9-11), then Congressional Districts 21 and

24 appear like mild compactness violations by comparison.

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[46] Ibid.

Figure 4: "New York 2023 Congressional Map," from the *New York Daily News* (2023).
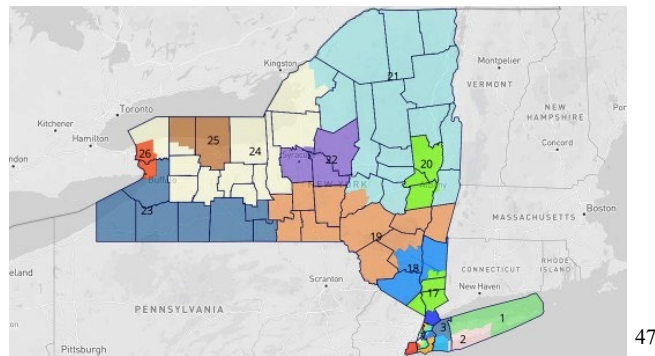
With little to no issues of noncompactness in the Congressional map, and no evident partisan bias, New York's Hybrid Commission appears to be quite effective in their first cycle of redistricting. However, the issues of legislative leaders in New York directly appointing eight out of 10 members to the Commission, and the fact that final maps must be approved by the state (with the condition that if the Commission's maps are rejected twice then the Legislature can enact its own maps) must be closely observed in future redistricting cycles. These criticisms leave open loopholes for partisan intervention in redistricting that can lead to gerrymandering if not held accountable. However, this issue has not occurred yet, so it is not the intention of this thesis to state that this outcome is inevitable. Rather, it is something to observe in future redistricting cycles to see if a system like the New York Hybrid Commission can remain effective and free from partisan bias.

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[47] Joseph T. Burns. "N.Y.'s Congressional Map Must Remain: The State's Top Court Should Have Turned Down Redistricting Case." New York Daily News, November 1, 2023. https://www.nydailynews.com/2023/11/01/n-y-s-congressional-map-must-remain-the-states-top-court-should-turned-down-a-redistricting-case/.

No Asymmetry: Nebraska

State Historical and Constitutional Attributes of Redistricting

Unlike New York, Nebraska has undergone no new redistricting reforms. The Legislature has historically controlled redistricting, which has continued into the present day (see next section). However, the Nebraska Constitution does set out rules and guidelines for the state Legislature to follow when redistricting. For example, the Nebraska Constitution goes beyond the federal requirements of equal population and the Voting Rights Act, and further requires that state legislative districts be contiguous, compact, and keep to county boundaries "whenever practicable."[48] This change came in April 2011, along with other redistricting guidelines that congressional districts should be held to the same constitutional requirements as state legislative districts, both congressional and state legislative districts should be "understandable to voters, preserve the cores of prior districts, and keep the boundaries of cities and villages when feasible," and district boundaries "should not be established with the intention of favoring a political party, other group or any person."[49] Current Nebraska legislative rules call for the legislative redistricting committee to make guidelines, redistricting data, and draft maps available to the public, as well as at least one public hearing to be conducted in each district before maps are finalized.[50]

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[48] "Nebraska State Constitution Article III-5." Nebraska Legislature. Accessed January 11, 2024. https://nebraskalegislature.gov/laws/articles.php?article=III-5.
[49] Rules of the Nebraska Unicameral Legislature (2023-2024), Rule 3 Section 6. Accessed January 11, 2024. https://nebraskalegislature.gov/FloorDocs/Current/PDF/Rules/RuleBook.pdf.
[50] Ibid.

Contemporary Redistricting Decision-Makers: The State Legislature

In Nebraska, both congressional and state legislative district lines are solely drawn by the unicameral state Legislature. The redistricting committee is made up of nine members of the Legislature, three from each district. No more than five members of the committee can be affiliated with the same political party.[51] Only a simple majority is required to approve a redistricting plan, but it can be vetoed by the governor (though this historically has happened on few occasions).

Challenges, Judicial Decisions, and Evaluations

The Legislature controlling the redistricting process has often had a negative influence on redistricting because the majority party in the state Legislature has control in changing the district boundaries to favor their party in elections, which in turn suppresses the voices of the minority party. In the case of Nebraska, the Republican majority in the state Legislature has more power to suppress the voices of the Democratic party. Most gerrymanders have historically occurred from this method of redistricting, so it is no surprise that this has received a fair share of public criticism. However, despite these criticisms, there have been no legal challenges or judicial decisions to change Nebraska's redistricting status quo. Part of the reason why this could be is that, when compared to other states that use this method of redistricting, Nebraska's maps appear to be more competitive and nonpartisan. This could be due to the small size of the state population and by extension the redistricting commission itself. The fact that the redistricting commission only has nine members (three from each district), with no more than five being from

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[51] "Nebraska." All About Redistricting, January 20, 2022.
https://redistricting.lls.edu/state/nebraska/?cycle=2020&level=Congress&startdate=2021-09-30.

the same party, means that there is less of a chance of partisan bias compared to other states with larger populations.

Princeton Consortium Grade

The Princeton Election Consortium's RRC gave Nebraska's Final Congressional Map the overall grade of an A, with an A in partisan fairness, an A in competitiveness, and a C in geographic features. It is important to note that a C in this category indicates "Compact districts, [with a] typical number of county splits," which is far above the grades that many other states received (which will be discussed later).[52]

Conclusions

Nebraska's congressional map has one of the highest grades out of all fifty states, which explains its position in the category of no asymmetry in this thesis. Nebraska was one of only four states to receive an A in both partisan fairness and competitiveness, and the C in geographic features is indicative of a map that is comparably compact compared to other maps that could have been drawn. Nebraska was not given an A in geographic features due to the shape of its districts not being entirely compact. There are only three districts in Nebraska, but the state legislature still failed to make them entirely compact, as is shown below.

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[52] "Nebraska | Gerrymandering Project." Princeton University. Accessed January 11, 2024. https://gerrymander.princeton.edu/reforms/NE.

Figure 5: "Nebraska Statewide Map," from the Nebraska Legislature (2022).
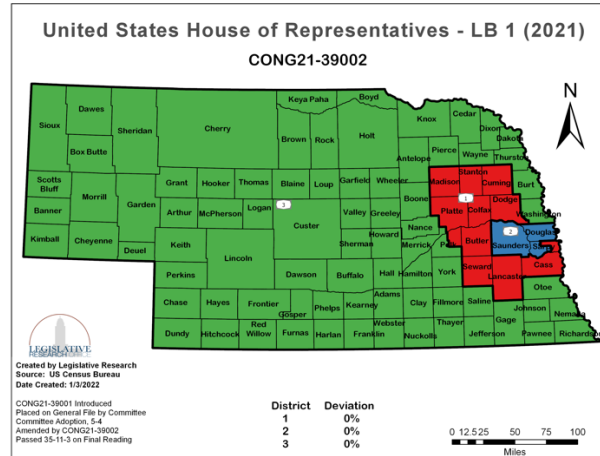
The first observation one may make of this district map is the difference in gross size between the three districts. This has to do with the population differences in each region: to make each district equal in population, their total sizes had to vary. Congressional District 2, for example, is home to the largest metropolitan area in Nebraska that has more people living in a smaller space of land, while Congressional District 3 mainly comprises farmland and a lower population of people that tend to live further apart from one another.[54] While the district sizes may appear unequal on the map, it does not affect compactness or the Princeton Consortium geographic features measure. What does affect the geographic measures feature, however, is the lack of compactness in the eastern half of the state. Congressional District 3 appears to almost "swallow" Congressional District 1 by surrounding it on all but one side, and Congressional District 1 continues this pattern by wrapping around Congressional District 2. These districts appear slightly less compact than New York (which explains the C in geographic features) but is

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[53] "Maps Clearinghouse." Nebraska Legislature. Accessed March 10, 2024.
https://nebraskalegislature.gov/about/congress_map.php.
[54] "Our District." U.S. Congressman Don Bacon. Accessed March 10, 2024.
https://bacon.house.gov/about/district.htm#:~:text=Welcome%20to%20the%202nd%20Congressional,areas%20of%20western%20Sarpy%20County.

better than many other state Congressional maps in America (which will be seen in the maps of the other states chosen for analysis).

Although the Princeton Election Consortium has indicated a slight Democratic bias, the Nebraska Legislature appears to be effective in redistricting in a nonpartisan way. However, the fact that the Legislature oversees redistricting and requires only a simple majority to pass a redistricting plan is a source of concern. It may have produced equitable maps in this last redistricting cycle, but the district maps in future cycles must be observed to ensure that the politicians in charge of reshaping them are doing so in a way that does not suppress the voices of minority groups in the state.

The next category of analysis is relative asymmetry, in which most American states lie. For this thesis, the two states selected to highlight relative asymmetry are Iowa and Michigan. Iowa (and to some degree, Michigan) appear in secondary literature as prime examples of redistricting systems that states should follow (see below). Yet despite this praise, both redistricting systems received lower grades from the Princeton Election Consortium than the likes of New York and Nebraska. Upon analyzing each system, it becomes clearer as to why this is.

Relative Asymmetry: Iowa

State Historical and Constitutional Attributes of Redistricting

The Iowa redistricting system having relative asymmetry came as a surprise in the research process. Before analyzing the electoral and redistricting systems, the books and essays of political scientists were read to gauge the academic consensus on which states had the best redistricting systems. In almost every source examined, the Iowa redistricting system was

mentioned as, in the words of Professor of Political Science and author Charles Bullock, "a prime example of a state where neither partisanship nor incumbent protection plays a role and has a unique approach with legislative agency drawing congressional districts."[55] Iowa has one of the United States' first redistricting commissions, called the Legislative Services Agency (LSA).

In addition to the federal requirements of one person, one vote and the Voting Rights Act, Iowa's state constitution (Art. III Sections 34, 37) requires that state legislative and congressional districts be "compact and contiguous territory" as well as preserve political subdivisions.[56] While other states have similar redistricting requirements, like New York and Nebraska, Iowa has two additional elements in their policy, the first being the prohibition of districts being drawn "for the purpose of favoring a political party, incumbent legislator or member of Congress, or other person or group, or for the purpose of augmenting or diluting the voting strength of a language or racial minority group." The second element is the prohibition of "partisan data" being used to establish districts, including:

a. Addresses of incumbent legislators or members of Congress.

b. Political affiliations of registered voters.

c. Previous election results.

d. Demographic information, other than population head counts, except as required by the Constitution and the laws of the United States."[57]

[55] Charles Bullock, *Redistricting: The Most Political Activity in America* (Washington, D.C.: Rowman and Littlefield, 2010), 10.
[56] "1857 Constitution of the State Iowa - Codified." State of Iowa. Accessed January 12, 2024. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.legis.iowa.gov/docs/publications/ICP/1023054.pdf.
[57] "Redistricting Standards." Iowa Code 2001: Section 42.4(5). Accessed January 12, 2024. https://www.legis.iowa.gov/DOCS/IACODE/2001/42/4.html.

Especially given the fact that it was the first state to attempt such redistricting standards, Iowa's redistricting model, more specifically the prohibition of "political data" in redistricting, was something that the United States had never seen before and has since been hailed by electoral reformers as the supreme example of fighting gerrymandering.[58] However, when examining the electoral results behind this model, it has been found that the results are not so supreme after all.

Contemporary Redistricting Decision-Makers: The Legislative Services Agency

Created in 1980 through Iowa statutory process, the LSA is made up of members of the state Legislature and is responsible for drawing congressional and state district maps. They are guided by a five-member bipartisan temporary redistricting advisory commission, none of whom can be "an eligible elector of the state at the time of selection," or "hold partisan public office or political party office," as well as have "a relative or is employed by a member of the general assembly or of the United States Congress, or is employed directly by the general assembly or by the United States Congress."[59] The LSA, with the help of the redistricting advisory commission, can draft up to three maps, which the state Legislature can accept or reject. The first redistricting plan must be proposed to the General Assembly before April 1 of each year ending in one.[60] Once the first proposed redistricting plan is given to the General Assembly, the commission is required to conduct at least three public hearings in different geographic regions of the state and issue a report to the General Assembly summarizing the information given to the public.[61] If the

[58] Stephen K. Medvic. *Gerrymandering: The Politics of Redistricting in the United States*. (Cambridge, U.K.: Polity Press, 2021), 143-144.

[59] "Temporary Redistricting Advisory Commission." Iowa Code 2001: Section 42.5. Accessed January 12, 2024. https://www.legis.iowa.gov/DOCS/IACODE/2001/42/5.html.

[60] Ed Cook. "Legislative Guide to Redistricting in Iowa." Legislative Services Agency, 1982. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.legis.iowa.gov/docs/publications/LG/9461.pdf.

[61] "Duties of Commission." Iowa Code 2001: Section 42.6. Accessed January 12, 2024. https://www.legis.iowa.gov/DOCS/IACODE/2001/42/6.html.

first plan is rejected, then the second map must be proposed 35 days after the initial rejection, with another 35 days provided to present a third map if a second rejection occurs. For the second and third proposed maps, no public hearing needs to be held. If the third bill is rejected, or if no map is adopted by September 1, then the Iowa Supreme Court will establish a valid redistricting plan.[62] The LSA is given three chances to propose an acceptable state map, with limited legislative intervention, hence its popularity in discussions of models to fight gerrymandering.

Challenges, Judicial Decisions, and Evaluations

Given the overwhelming positive recommendations of Iowa's redistricting system that are present in scholarly literature and American media, it is perhaps of no surprise that there have been no legal challenges or judicial decisions. It is interesting to note that Iowa has more partisan bias yet less criticisms than the New York system, but this perhaps could be due, at least in part, to the plethora of positive scholarly and political reviews of the Iowa system. This could have trickled down to the lack of public criticism.

Princeton Consortium Grade

The Princeton Election Consortium's RRC gave Iowa's Final Congressional Map the overall grade of a B. While Iowa received an A in competitiveness and a C in geographic features (which, if you recall from Nebraska, indicates compact districts with a typical number of county splits), it received a B in partisan fairness. Recalling how Charles Bullock hailed the Iowa model as a prime example of a state where partisanship plays no role in redistricting, these

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[62] Ed Cook, "Legislative Guide to Redistricting in Iowa."

results came as a surprise. While a B still indicates that Iowa is better than the American state average in partisan fairness with only some bias, there is a noticeable Republican advantage. In fact, the Republican Party controls the positions of governor, secretary of state, attorney general, and both chambers of the state Legislature.[63] While this could be indicative of a largely Republican-voting population, when analyzed alongside the B in partisan fairness it is indicative of electoral asymmetry, which makes the Iowa model one that shouldn't necessarily be prized in scholarly literature as much as it currently is.

Conclusions

Through analyzing its redistricting system, it has been revealed that Iowa is not the prime redistricting model that U.S. politicians and scholars make it out to be. Rather, it is more exemplary of a national average of slight partisan asymmetry, with districts that are only semi-compact. This is highlighted in the congressional map below.

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[63] "Party Control of Iowa State Government." Ballotpedia. Accessed January 12, 2024. https://ballotpedia.org/Party_control_of_Iowa_state_government.

Figure 6: "Proposed [and Enacted] Plan 2: Iowa Congressional Districts," from the Iowa Legislative Services Agency (2022).
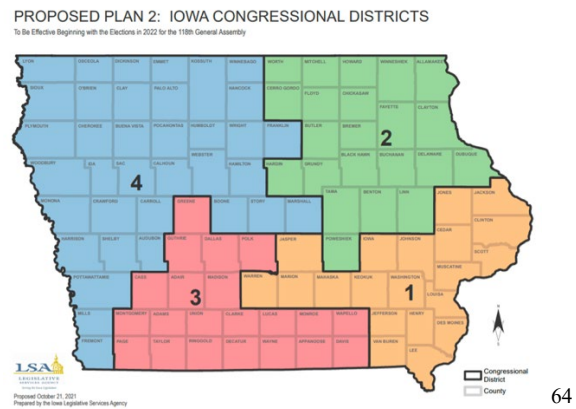
Iowa received a B in geographic features from the Princeton Consortium, which is reflective of the district shapes in this map. Unlike the district shapes in New York and Nebraska, which received higher overall grades, no districts in Iowa appear to "absorb" another district or surround it on multiple sides (see the New York and Nebraska maps and descriptions for examples of this). While this is a positive attribute of Iowa's maps, the shapes of the individual districts are still not as compact as they could be. For example, Congressional District Four has a small strip that extends down to the southwest corner of the state while simultaneously reaching east across the center line of the state. Congressional District 1 is in the southeast corner of the state but has a small strip that reaches west vertically and is "sandwiched" between Congressional Districts 3, 2, and even 4 in one small area. These extra "branches" that extend from the centers of the districts are the reason why Iowa failed to receive an A in geographic features. However, a B is indicative of districts that are more compact than the

[64] Katie Akin. "Iowa Legislature Approves New Congressional and Legislative Maps." Iowa Capital Dispatch, October 29, 2021. https://iowacapitaldispatch.com/2021/10/28/iowa-legislature-approves-new-congressional-and-legislative-maps/.

national average, which is telling of how poorly districts are allowed to be shaped before it is deemed a "problem."

It is important to note that while there is single-party control in the state Legislature and thus an increased risk of partisan gerrymandering, the partisan bias is only slight compared to the national average. Furthermore, in Iowa's redistricting process, the proposed district maps have never been rejected three times, so the LSA has retained control over redistricting and the Iowa Supreme Court has never had to step in to redistrict. There has been enough state-level respect for this redistricting model that there have been no efforts by the state legislature to overthrow it overtly, which is an interesting phenomenon that is worth observing in future redistricting efforts.[65] Behind the glamour that is thrown on the "Iowa Model" is a redistricting system that is not far above the national average of partisan asymmetry.

Having relative asymmetry in redistricting is common in most American states, with a relatively equal balance of Democratic and Republican-leaning bias in maps (Republican bias being slightly more common). The second state chosen to accompany Iowa in the category of relative asymmetry is Michigan, which has a Democratic bias.

Relative Asymmetry: Michigan

State Historical and Constitutional Attributes of Redistricting

Amid a series of court controversies (see section below), a 2018 redistricting reform amendment sponsored by the organization "Voters Not Politicians" was passed, and beginning in

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[65] "Iowa | Gerrymandering Project." Princeton University. Accessed January 12, 2024. https://gerrymander.princeton.edu/reforms/IA.

the 2020 redistricting cycle, Michigan's legislative and congressional districts have been drawn by an independent commission (see section below).[66]

Under Article IV, Section 6 of the Michigan Constitution of 1963, the Commission has the exclusive authority to redistrict the state. The Michigan State Legislature may offer suggestions, but it has no authority to draw the maps or approve/disapprove of them.[67] During the redistricting process, there is a ranked order that the Committee must follow:

1. Districts shall be of equal population as mandated by the United States constitution, and shall comply with the voting rights act and other federal laws.

2. Districts shall be geographically contiguous. Island areas are considered to be contiguous by land to the county of which they are a part.

3. Districts shall reflect the state's diverse population and communities of interest. Communities of interest may include, but shall not be limited to, populations that share cultural or historical characteristics or economic interests. Communities of interest do not include relationships with political parties, incumbents, or political candidates.

4. Districts shall not provide a disproportionate advantage to any political party. A disproportionate advantage to a political party shall be determined using accepted measures of partisan fairness.

5. Districts shall not favor or disfavor an incumbent elected official or a candidate.

6. Districts shall reflect consideration of county, city, and township boundaries.

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[66] "Michigan | Gerrymandering Project." Princeton University. Accessed January 13, 2024. https://gerrymander.princeton.edu/reforms/MI.

[67] "Redistricting 101." Michigan Independent Citizens Redistricting Commission. Accessed January 13, 2024. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.michigan.gov/-/media/Project/Websites/MiCRC/MISC3/Redistricting_101.pdf?rev=6a8025af10ed436ab647dad865d51b71#:~:text=The%20MICRC%20is%20required%20to%20hold%20at%20least%20five%20public,%2C%20House%2C%20and%20Senate%20districts.

7. Districts shall be reasonably compact."[68]

According to the Michigan Constitution, the deadline to finish the redistricting process and vote on a map is November 1.[69]

Contemporary Redistricting Decision-Makers: The Independent Citizens' Redistricting Commission

Registered Michigan voters must apply to the Secretary of State office (SOS) to be considered for service on the Michigan Independent Citizens' Redistricting Commission. Thousands of applicants are narrowed down from 60 applicants from each major party and 80 applicants who are unaffiliated with either party. The SOS applies statistical weighting to each application to narrow the list down, based on geography and demographics to ensure that any random sample represents a diverse makeup of individuals. From this narrowed sample, SOS will randomly select the final 13 Commissioners, including four members of each major party and five who are not affiliated with either party.[70] Once selected, the task of the Michigan Independent Citizens Redistricting Commission is to redistrict the state congressional maps.

Throughout the redistricting process, the Commission must accept written public comments and public map submissions. The Commission must also hold at least 10 public hearings across the state before it begins drawing maps, and at least another five public hearings across the state to present its draft maps before they are officially adopted. As well as the five public hearings,

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[68] "Report on 2021 Redistricting." Michigan Independent Citizens Redistricting Commission, 2021. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.michigan.gov/micrc/-/media/Project/Websites/MiCRC/MISC8/Commission-Report.pdf?rev=b81719cd008241af8c4ce2b8691365ce&hash=FF6205E81C19EF40CD8285A72EDE42D4.
[69] "Redistricting 101."
[70] "Commission Selection Process." Voters Not Politicians, May 4, 2019. https://votersnotpoliticians.com/redistricting/selection/.

the Commission must provide public notice of each map that will be voted on (posted on their website) and provide at least 45 days for public comment on the proposed map before it is voted on. There is little concrete evidence on whether public engagement has impacted the way the Independent Citizens' Redistricting Commission had conducted redistricting map plans, but as recently as January 2024, Secretary of State Jocelyn Benson encouraged Michigan voters to take part in upcoming sessions of the Michigan Independent Citizen's Redistricting Commission to redraw districts, saying that "I hope all citizens will actively participate and provide their input throughout the Commission's upcoming open meetings. I fully expect the Commission will listen closely to citizen input and incorporate it into the newly independently drawn districts."[71]

Challenges, Judicial Decisions, and Evaluations

Michigan's redistricting commission is relatively new compared to other states, born from the legal controversies of the 2011 redistricting cycle. Starting in 2011, in the court case *League of Women Voters of Michigan v. Benson* (2019), the League of Women Voters of Michigan filed a lawsuit in federal district court to challenge Michigan's state legislative and congressional maps as partisan gerrymanders and in violation of the First and Fourteenth Amendments.[72] The plaintiffs argued that in the proposed maps, the Michigan state legislature cracked and packed Democratic voters while spreading Republican voters across safe Republican districts. In May, the court granted the defendant's motion to dismiss the case for

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[71] "Secretary Benson Encourages Michiganders to Participate in Public Redistricting Process." State of Michigan, January 22, 2024. https://www.michigan.gov/sos/resources/news/2024/01/22/secretary-benson-encourages-michiganders-to-participate-in-public-redistricting-process.

[72] *League of Women Voters of Michigan v. Benson* (2019). Brennan Center for Justice. Accessed January 13, 2024. https://www.brennancenter.org/our-work/court-cases/league-women-voters-michigan-v-benson.

lack of standing, but only in part. The court dismissed the plaintiff's "statewide claims" but held that the plaintiffs had standing to bring "district-specific" claims.

After a series of appeals, a trial took place in the U.S. Court of Appeals for the Sixth Circuit in February 2019 to review the district-specific claims, and in April the court struck down the challenged districts and ordered the Michigan legislature to draw new maps for the congressional, state house, and state senate elections. The court also ordered that special elections be held in 2020 for any state senate districts that were modified by the remedial plan. The defendants appealed this decision to the U.S. Supreme Court, who sent the case back to the district court considering the Court's ruling in *Rucho v. Common Cause* (2019) that federal courts have no jurisdiction to hear partisan gerrymandering claims.[73]

Princeton Consortium Grade

Independent redistricting commissions have been generally regarded as a method that eliminates partisan gerrymandering, as it takes redistricting out of the hands of politicians who must consider election into public office when drawing district lines. However, when it comes to Michigan this method has not come without partisan asymmetry.

The Princeton Election Consortium's RRC gave Michigan's Final Congressional Map the overall grade of a B, with an A in partisan fairness, a C in competitiveness, and a C in geographic features. However, these individual grades do not appear to go together as partisan fairness is difficult to achieve with split geographic features (the competitiveness is left out of this reasoning as a C in the Report Card indicates a map that is "similarly competitive to other maps that could have been drawn"). Within the geographic features measure, the average

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[73] *League of Women Voters of Michigan v. Benson* (2019).

compactness score across the state was a low C, which was much closer to the F on the scale than a B. Furthermore, the county splits number was graded as an F.

Conclusions

Examining the number of county splits is important because it can lead to information costs for the voters who have been directly impacted by redistricting. Political scientists Danny Hayes and Seth McKee did a study on the issue, investigating whether redistricting leads to a lack of familiarity with new incumbents, and thus an increase in nonvoting in U.S. House elections. Their analysis focuses specifically on voter roll-off, when "individuals abstain from voting in a House contest after casting a top-ticket vote," and how it can be used to measure the "participatory effects" of redistricting.[74] Hayes and McKee found that "Compared to same-incumbent and open seat voters, redrawn voters are more likely to roll off in House contests [. . .] roll-off probabilities are 0.04 for same-incumbent and open seat voters and 0.11 for redrawn voters. In other words, roll-off is more than twice as likely among redrawn voters as all others."[75] While this study analyzed U.S. House elections in Texas, this phenomenon can be found in multiple states as voters who are redistricted and thus presented with new politicians to elect are more likely to abstain from voting. In the case of Michigan, an abnormal number of county splits contributes to this issue, especially when the counties being split are Republican counties in a state with a Democratic majority (the Democratic Party controls the offices of governor, secretary of state, attorney general, and both chambers of the state legislature).[76] Thus,

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[74] Danny Hayes, and Seth C. McKee. "The Participatory Effects of Redistricting." *American Journal of Political Science* 53, no. 4 (2009): 1006–23. http://www.jstor.org/stable/20647963.
[75] Ibid.
[76] "Party Control of Michigan State Government." Ballotpedia. Accessed January 13, 2024. https://ballotpedia.org/Party_control_of_Michigan_state_government#:~:text=Michigan%20has%20a%20Democratic%20trifecta,chambers%20of%20the%20state%20legislature.

while the maps were considered competitive with partisan fairness, this issue of geographic splits could cause issues to develop in the future that must be observed closely. In the Michigan Congressional Map below, which includes both county lines and district lines, you can observe the country splits more closely.

Figure 7: "Final Plan Chestnut," from the Michigan Independent Citizens Redistricting Commission (2022).
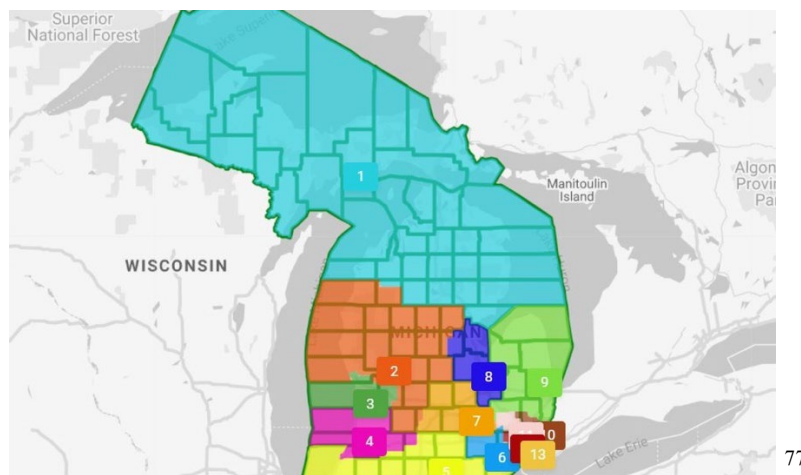
In this map, the small green lines indicate county boundaries, while the color-coded regions represent the Congressional Districts. This map clearly marks the areas where Congressional Districts cut through the middle of county boundaries, which comes with costs to voters that are considered by some to be undemocratic. Furthermore, some Congressional Districts appear to suffer from noncompactness. For example, Congressional District 2 has a branch that extends down south. Congressional Districts 10-13 are also awkwardly shaped with branches and extensions outside of the traditional square or circular shape that is preferred for compact districts. Below is a close-up image of these districts, for better viewing.

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77 "Final Plan Chestnut." Michigan Independent Citizens Redistricting Commission. Accessed March 10, 2024. https://michigan.mydistricting.com/legdistricting/comments/plan/279/23.
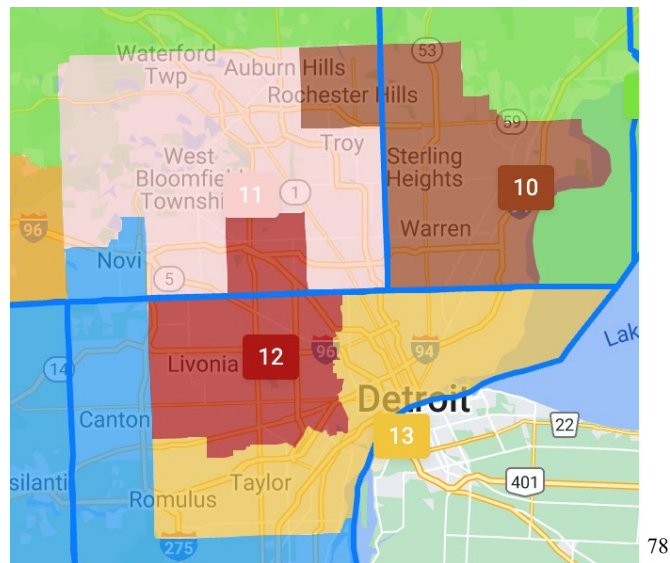
The information gathered from the Princeton Consortium and these maps show that, despite Michigan's issues with district lines crossing through county lines and non-compact districts, it is an example of the average U.S. electoral map. If problems like these are the "average" in America, it shows just how prevalent gerrymandering is in the United States. As will be seen later in this thesis, there are worse electoral maps than this one that are allowed to be enacted in America.

Like most other states in America, Iowa and Michigan have relative partisan asymmetry. However, there is a notable presence of states with extreme asymmetry. Unlike states with relative partisan asymmetry, where there is more of a balance of states with Republican and Democrat biases, a distinct majority of states with extreme asymmetry have a Republican bias. Two states that exemplify this bias are Ohio and Texas, both of which have been in the news extensively in recent years for their blatant gerrymanders that have been criticized by the public.

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[78] Ibid.

Extreme Asymmetry: Ohio

State Historical and Constitutional Attributes of Redistricting

While the case *Randolph Institute v. Householder* (2019) was going on (see section below), an amendment was proposed to the Ohio Constitution to create a hybrid redistricting commission to draw its congressional and state legislative districts. This amendment was passed and approved by 71% of Ohio voters in November 2015.[79] As a result, beginning in 2021, Ohio has used two redistricting systems to draw congressional and state legislative districts (see section below).

In addition to the U.S. federal requirements of one person, one vote, and the Voting Rights Act, Article XI of Ohio's state Constitution requires that state legislative and congressional districts be compact, contiguous, and preserve county lines. For state legislative districts exclusively, favoring an incumbent or party is prohibited, and the partisan lean of state legislative districts should be proportional to the statewide preferences of Ohio voters.
On the occurrence of a second round of congressional districting in the Legislature, a plan cannot favor or disfavor a political party or incumbents, cannot split governmental units, and must attempt to draw compact districts. Maps produced in the second round must also include an explanation of how they complied with these criteria.[80]

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[79] "Who is on the Commission." Ohio Redistricting Commission. Accessed January 13, 2024. https://www.redistricting.ohio.gov/.
[80] "Article XI: General Assembly Redistricting." Ohio Constitution | Ohio Laws. Accessed January 13, 2024. https://codes.ohio.gov/ohio-constitution/article-11.

Contemporary Redistricting Decision-Makers: The Hybrid Redistricting Commission

For congressional districts, the Ohio State Legislature must attempt to pass redistricting plans with bipartisan support. If this fails, then redistricting responsibilities go to a seven-member Commission made up of the Governor, State Auditor, Secretary of State, and one person appointed by each state legislative leader. If the Commission then fails, then the task goes back to the Legislature. If the Legislature proposes a map and there is still no bipartisan support, the plan will go into effect for four years and the process will begin again after the time has passed.[81] For state legislative districts, the same seven-member Commission that serves as a backup for drawing congressional districts has the primary responsibility for drawing state legislative maps. If at least two Commissioners from each party vote for the proposed maps, then they will remain in effect for the entire decade. If this vote fails, the maps will only be in effect for four years and the redistricting process will start again afterward.[82]

Upon maps being drawn up and proposed, public input is required for both congressional and state legislative maps. For congressional maps, either a joint committee of the Legislature or the backup redistricting Commission (depending on the stage of the process) must hold at least two public hearings before adopting a map. For the state legislative process, the redistricting Commission must hold at least three public hearings before adopting a map. Additionally, the state legislative commission must electronically broadcast its meetings in a "publicly accessible way."[83] While maps produced on party lines only last four years rather than a full decade, there is no mechanism in the Ohio redistricting system to stop legislators from continuing to pass four-

[81] "Article XI, Section 3: Requirements for Drawing House of Representatives Districts." Ohio Constitution | Ohio Laws. Accessed January 13, 2024. https://codes.ohio.gov/ohio-constitution/section-11.3.

[82] "Article XI, Section 4: Requirements for Drawing Senate Districts." Ohio Constitution | Ohio Laws. Accessed January 13, 2024. https://codes.ohio.gov/ohio-constitution/section-11.4.

[83] "Article XI, Section 1: Ohio Redistricting Commission." Ohio Constitution | Ohio Laws. Accessed January 13, 2024. https://codes.ohio.gov/ohio-constitution/section-11.1.

year partisan maps. Thus, the hybrid commission as done in Ohio, as a partisan institution and a backup option in the case of congressional maps, does not appear to be as effective against partisan gerrymandering as it could be. This is reflected in the Gerrymandering Report Card.

Challenges, Judicial Decisions, and Evaluations

Similarly to Michigan, Ohio has struggled with federal lawsuits regarding partisan gerrymandering. In the court case *Randolph Institute v. Householder* (2019), the Ohio A. Philip Randolph Institute, the League of Women Voters of Ohio, and a group of Ohio residents filed a lawsuit that claimed Ohio's 2011 congressional map was a partisan gerrymander that violated the First and Fourteenth Amendments of the U.S. Constitution. The plaintiffs argued the map was intentionally designed to give Republicans a 12–4 advantage in congressional seats. In May 2019, the Ohio Supreme Court struck down its congressional election map as unconstitutional and ordered the legislature to draw a new map by June 14. The defendants appealed the decision to the U.S. Supreme Court, but the case was sent back to the district court in October 2019 to be dismissed because the Court's ruling in *Rucho v. Common Cause* (2019) means that federal courts have no jurisdiction to hear partisan gerrymandering claims. [84]

Princeton Consortium Grade

The Princeton Election Consortium's RRC gave the Ohio Temporary Congressional Map the overall grade of a D, with an F in partisan fairness, a C in competitiveness, and a C in geographic features. The use of "temporary" in the title of the map refers to the fact that after the

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[84] *Ohio A. Philip Randolph Institute V. Householder* (2019). Brennan Center for Justice. Accessed January 13, 2024. https://www.brennancenter.org/our-work/court-cases/ohio-philip-randolph-inst-v-householder.

previously proposed maps failed to gain bipartisan support in the Legislature and the redistricting

Commission, this map was approved for four years, after which the redistricting process will

begin again. Given that this map was proposed by the Ohio State Legislature and found no

bipartisan support after three attempts, this grade of an F in partisan fairness is not surprising.

The grade of F indicates significant Republican bias in the congressional map, with the algorithm

showing that out of 15 districts, the average Democrat only wins in four districts. The fact that

the competitiveness and geographic features measures were only graded as a C, indicating

average competitiveness compared to other maps that could have been drawn and average

compactness in districts with no county splits, seems a bit odd, especially considering the

extremely low partisan fairness measure.[85]

Conclusions

The Princeton Consortium partisan bias score is alarming enough on its own to merit

attention and highlights the flaws in allowing state Legislatures to draw district maps that impact

their or their party's elections. With shapes like Ohio's Ninth Congressional District (the first

photo showing its original shape after the 2010 census and respective redistricting, and the

second photo shows its "new" shape after the 2020 census and respective redistricting), partisan

gerrymandering is rampant in this state because of redistricting being put in the hands of

politicians.

[85] "Ohio | Gerrymandering Project." Princeton University. Accessed January 13, 2024.
https://gerrymander.princeton.edu/reforms/OH.

Figure 9: "This map shows the new District 9 (in orange) superimposed on the old congressional districts," from Ballotpedia (2022).
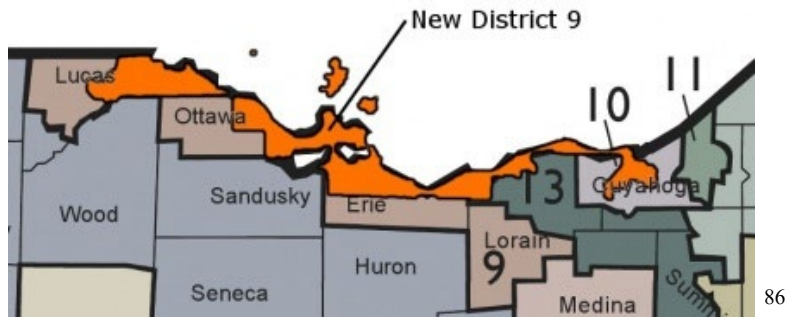
Figure 10: "Ohio's Ninth Congressional District," from Ohio Secretary of State (2022).
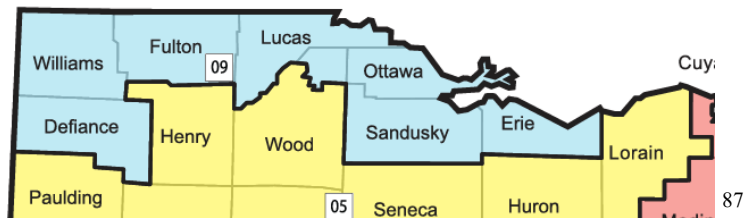
While the new Ohio Ninth Congressional District map has a better, slightly more compressed shape than its predecessor, it is by no means "compact" by any measurement. These maps show that despite changes that are made after each census, Ohio's redistricting system is indicative of the pitfalls of allowing the state legislature to redistrict. Even if the state Legislature fails to redistrict, the Commission that is supposed to serve as a backup is also heavily partisan (made up of the Governor, State Auditor, Secretary of State, and one person appointed by each state legislative leader). The potential back and forth between the Legislature and the Commission if one or both fail to submit a successful redistricting plan creates instability

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[86] *Ohio's Ninth Congressional District (2011). Ballotpedia.* Accessed January 13, 2024.
http://www.sos.state.oh.us/sos/upload/reshape/congressional/2011-12-15-statewide.pdf.
[87] *Ohio's Ninth Congressional District (2022).* n.d. *Ohio Secretary of State.* Accessed January 13, 2024.
https://www.ohiosos.gov/elections/ohio-candidates/district-maps/.

between two heavily partisan bodies. With no independent or non-partisan body to intervene against partisan interests, gerrymandered district maps like the ones above are allowed to prevail.

Extreme Asymmetry: Texas

State Historical and Constitutional Attributes of Redistricting

Like Ohio, Texas is a state with a reputation for extreme partisan gerrymandering that favors the Republican party and has suffered criticisms for its distorted district shapes. The 2011 redistricting process in Texas was full of controversy, beginning with infighting breaking out between Republicans in the state Legislature over the impact of Hispanic population growth on legislative seats.[88] Once the proposed maps were released to the public, Democrats in the state immediately criticized the map for cracking and packing districts to underrepresented minorities, particularly the Hispanic and African American populations in Texas.[89] Beyond political controversy, the district maps also suffered legal issues under the Voting Rights Act (see section below). However, despite this political and legal controversy that took place in a single redistricting cycle, Texas has taken no action to change its redistricting system.

In addition to the federal requirements of one person, one vote and the Voting Rights Act, Texas's state constitution requires that state legislative districts be contiguous and preserve whole counties. There are no state law requirements for drawing congressional districts.[90] Unlike the other states analyzed, Texas law does not require public hearings to discuss redistricting

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[88] John Bresnahan. "Smith, Barton in Texas Map Dust-Up." Politico, April 4, 2011.
https://www.politico.com/story/2011/04/smith-barton-in-texas-map-dust-up-052451.
[89] Ross Ramsey. "Updated: Perry Adds Redistricting to Agenda." The Texas Tribune, May 31, 2011.
https://www.texastribune.org/2011/05/31/updated-perry-adds-redistricting-to-agenda/.
[90] "Article 3: Legislative Department." The Texas Constitution. Accessed January 14, 2024.
https://statutes.capitol.texas.gov/Docs/CN/htm/CN.3.htm.

plans and proposed maps. However, the state does continue to take public input as a few public hearings are held across the state, and the Legislature will accept public map submissions.[91] While the Voting Rights Act and the U.S. Constitution guarantee that minority populations should have fair opportunities to elect representatives, in Texas this has not been the case. The state gained five additional House seats in the last two decades due to increases in the Hispanic population, but no additional Hispanic Congresspeople have been elected despite Hispanic people running for office, which has been attributed to racial gerrymandering.[92] With the redistricting power remaining in the hands of politicians, regardless of whether the Legislature or the LRB has the responsibility, and little to no state laws to tighten the restrictions on redistricting, it comes as no surprise that this state has extreme partisan asymmetry.

Contemporary Decision-Makers: The Legislative Redistricting Board

The state Legislature draws both Texas' state legislative and congressional districts and is subject to the governor's veto. However, even this veto can be overridden with a 2/3 vote in each chamber of the Legislature. If the state legislature fails to achieve consensus in drawing new legislative districts in the first session following the Census, the Legislative Redistricting Board (LRB) of Texas takes over redistricting responsibilities. This five-member Board is made up of the Lieutenant Governor, the Speaker of the House of Representatives, the Attorney General, the Comptroller of Public Accounts, and the Commissioner of the General Land Office. The Board must assemble in Austin within 90 days of the end of the legislative session and must then approve a district plan within 60 days. A simple majority vote is enough for the Board to approve

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[91] "Redistricting Home."
[92] "Texas | Gerrymandering Project." Princeton University. Accessed January 14, 2024. https://gerrymander.princeton.edu/redistricting-report-card?planId=recL5EF85h0ILukMA.

a new district plan. If the Legislature and the LRB fail to adopt redistricting plans, the governor may call a special session. If the governor doesn't call a special session or the special session fails to produce maps, then a court will issue a plan to "fill the void."[93]

Challenges, Judicial Decisions, and Evaluations

The Texas district maps presented in 2011 suffered legal issues under the Voting Rights Act. Section 4 of the Voting Rights Act contained a formula that determined which states would be subjected to federal pre-clearance, or federal court pre-approval of redistricting plans.[94] Section 5 of the Voting Rights Act also required federal preclearance for states with a history of voter discrimination (like Texas) who sought to change voting rules and district boundaries.[95] A federal court denied preclearance to Texas' proposed maps under Section 5 of the Voting Rights Act in 2012. However, a year later in the case *Shelby County v. Holder* (2013)*,* the Court ruled that Section 4 was unconstitutional because the coverage formula was based on data that were over forty years old (dated back to 1965) and thus did not represent the current needs of the states, as well as went against the constitutional principles of equal sovereignty of the states. Section 5 was not struck down, but without the formula, no state can be put under federal preclearance until a new formula is enacted by Congress (which has not been done).[96]

Even with the preclearance obstacle removed, Texas' maps still faced issues as a San Antonio federal court issued orders for the Texas state Legislature to draw interim maps. In

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[93] "Redistricting Home." Texas Redistricting, Texas Legislature. Accessed January 14, 2024. https://redistricting.capitol.texas.gov/.
[94] "Section 4 of the Voting Rights Act." Civil Rights Division, U.S. Department of Justice. November 17, 2023. https://www.justice.gov/crt/section-4-voting-rights-act.
[95] "About Section 5 of the Voting Rights Act." Civil Rights Division, U.S. Department of Justice. November 17, 2023. https://www.justice.gov/crt/about-section-5-voting-rights-act
[96] *Shelby County v. Holder* (2013). Brennan Center for Justice, June 21, 2023. https://www.brennancenter.org/our-work/court-cases/shelby-county-v-holder

2013, the Governor signed new redistricting plans, based heavily on the San Antonio court's

maps, into law. Then, in 2017, a trial court found that the 2013 congressional and state House

maps were unconstitutional, citing "remnants of intentional discrimination."[97] However, in 2018,

the U.S. Supreme Court reversed most of that court's opinion, declaring no redrawing was

needed for all but one state House district.[98] Despite all of this political and legal controversy

that took place in a single redistricting cycle, Texas has taken no action to change its redistricting

system.

Princeton Consortium Grade

The Princeton Election Consortium's RRC gave the Texas Final Congressional Plan the

overall grade of a F, with a F in partisan fairness, a C in competitiveness, and a F in geographic

features. The grade of F in partisan fairness indicates significant Republican bias in the

congressional map, with the algorithm showing that out of 38 districts, the frequency of

Democratic wins is only 13 wins. The Republican Party controls the offices of governor,

secretary of state, attorney general, and both chambers of the state legislature.[99] This statistic,

combined with the fact that redistricting power is given to the state legislature or the LRB, both

of which are dominated by Republican politicians, it comes as no surprise that partisan

asymmetry is reflected in the maps they have drawn. While the grade given in the

competitiveness measure was technically a C, the Princeton Consortium added a note that the

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[97] Jim Malewitz, and Alexa Ura. "Federal Court Invalidates Part of Texas Congressional Map." The Texas Tribune, August 15, 2017. https://www.texastribune.org/2017/08/15/federal-court-invalidates-part-texas-congressional-map.
[98] Alexa Ura. "U.S. Supreme Court Rules Texas Lawmakers Did Not Intentionally Discriminate in Drawing Political Maps." The Texas Tribune, June 25, 2018. https://www.texastribune.org/2018/06/25/us-supreme-ruling-court-texas-redistricting-case/.
[99] "Party Control of Texas State Government." Ballotpedia. Accessed January 14, 2024. https://ballotpedia.org/Party_control_of_Texas_state_government.

grade was low enough that it almost received a F. In the geographic features measure, the Texas map received an F in both compactness and county splits, which makes sense as the Texas Constitution has no additional rules for drawing congressional districts.

Conclusions

Texas is the state with the worst grade in the Princeton Election Consortium's RRC, tied with North and South Carolina. When looking at the image below of the current Congressional Map, one can see why. In a state with a large partisan majority and a redistricting system with little to no historical, constitutional, or judicial regulations, gerrymandering is allowed to run rampant and suppress the opinions of thousands of voters living in the state. Regardless of whether the state Legislature or the LRB is redistricting, both entities are found to be extremely partisan and made up entirely of politicians, who are allowed to shape the district boundaries for their state elections. Texas' redistricting process creates an undemocratic election process. Not undemocratic in the sense that U.S. national elections are conducted in an inequitable way, but in that gerrymandering is allowed to establish itself in the state maps, which elevates some voters over others according to their partisan affiliation or geographic location.

Figure 11: "Texas 2021 Congressional Districts," from Redistricting Online (2022).
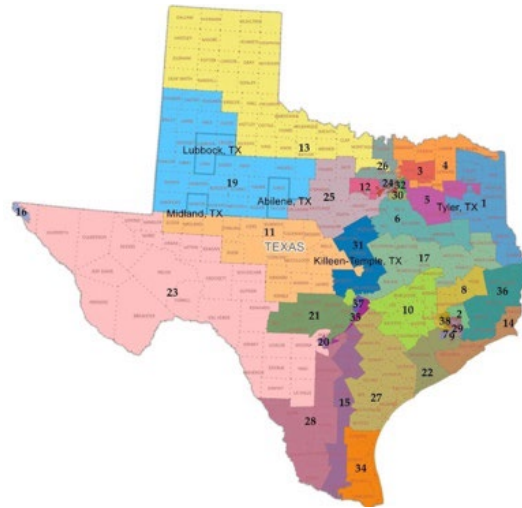
100

Across this map of the congressional districts, you will find that many of the district

shapes in Texas are noncompact and strangely distorted around certain cities or communities. To

point out a few, the 3rd Congressional District is almost completely within the 4th Congressional

Districts, surrounded on almost all sides. The 13th District makes an approximate "L" shape at

the northernmost part of Texas. 14th Congressional District runs in a thin, vertical line from the

southern tip of Texas up to the center of the state, and the 15th Congressional District is squeezed

in the eastern region. Beyond these districts explicitly mentioned, most of the other district

borders of Texas are gerrymandered in a manner of noncompact shapes. This is the result of a

state redistricting process with politicians in charge of drawing the lines and no (state)

constitutional regulations to check their power. With the Texas state courts showing no resolve

to counter this issue, and the *Rucho* decision (2019) establishing that the Supreme Court will not

interfere in cases of partisan gerrymandering, it seems that maps like this will continue to be

produced unless significant change comes from within Texas.

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[100] *Texas 2021 Congressional Districts*. 2021. *Redistricting Online*.
https://redistrictingonline.org/stateredistrictingalmanac/state-redistricting-info-texas/.

U.S. Analysis and Conclusions

When redistricting is done fairly, each person's vote is equal to every other person's vote. The "one person, one vote" doctrine established by *Reynolds v. Sims* (1964) requires that every state district contain roughly the same number of people. With roughly equal populations in each district, voters have an equal opportunity to influence policies in their state. Gerrymandering, however, poses a large obstacle to this ideal. By rigging district lines to favor certain politicians or political parties, voting power is diluted and minority groups are prevented from electing candidates of their choice. The term "gerrymandering" originated in the United States, and since shortly after the country's founding, this issue has threatened the democratic process of redistricting and elections.

As shown in Table 2, 25 out of the 50 American states received lower than an A grade in their redistricting processes, highlighting the continued practice of gerrymandering and partisan bias in contemporary political settings. This was highlighted in the individual state analyses of Iowa, Michigan, Ohio, and Texas. While Iowa and Michigan only had relative partisan asymmetry, Ohio and Texas had some of the worst gerrymandering in the United States for the last redistricting cycle.

While Iowa has an independent redistricting commission in the LSA, any maps they draw must be approved by the state legislature. After three rejected LSA maps, the Iowa Supreme Court steps in to redraw the maps. While three rejections have never occurred, it leaves the door open for further partisan redistricting beyond the power that the state legislature already has approving or rejecting maps. In Michigan, despite the presence of the Independent Citizens Redistricting Commission, gerrymandering has persisted in the form of geographic (county) splits that cut across communities and can lead to information costs when it comes to knowing

who the candidates are in voting. While these systems aren't undemocratic in practice, they are problematic in the results they create - gerrymandering and partisan biases – which then impacts the integrity of democratic elections.

Ohio and Texas, however, each give their state legislatures the power to redistrict. This creates an undemocratic system in which politicians are allowed to redraw the district boundaries for their own elections, which is inherently unsound and unfair to the voters whose voices are diluted or elevated following their partisan preferences. In Ohio, if the legislature fails to pass a map plan, then the Commission that is supposed to serve as a backup is also heavily partisan (made up of the Governor, State Auditor, Secretary of State, and one person appointed by each state legislative leader). This redistricting instability between two heavily partisan bodies, with no independent or non-partisan body to intervene against biased interests, allows gerrymandered district maps to prevail. In Texas, the maps produced by the state legislature are subject to the governor's veto, but this veto can be overridden with a 2/3 vote in each chamber of the Legislature. Similarly to Ohio, if the state legislature fails to pass a new district map, the LRB takes over as a backup plan, but it is also heavily partisan (made up of the Lieutenant Governor, the Speaker of the House of Representatives, the Attorney General, the Comptroller of Public Accounts, and the Commissioner of the General Land Office). If the LRB also fails to produce a map, then the governor may call a special session, or the Texas Supreme Court can produce the maps. In other words, in both Texas and Ohio, the responsibility of redistricting is pedaled between several partisan bodies. These deeply problematic, undemocratic redistricting systems are among the worst in the United States and represent the worst of gerrymandering seen across the world.

These four states, and the other 21 that the Princeton Election Consortium gave lower than an A grade, have redistricting systems that range from problematic to undemocratic, and all allow gerrymandering to persist. This does not mean, however, that the other 25 states that received an "A" from the Princeton Consortium did not come without redistricting issues. For example, New York received an A and was graded to have no partisan bias in redistricting, but legislative leaders in New York directly appoint eight of the ten members of the Hybrid Commission. The state legislature in New York are majority Democrats, and so their ability to elect most members of the Commission leaves room for partisan bias to make its way into the redistricting board. The Hybrid Commission does not have the final say on the district maps. Like Iowa, any maps it draws must be approved by the state Legislature. Furthermore, if the Commission's maps are rejected twice then the Legislature can enact its own maps. While this rejection has not happened, it opens the door for partisan bias beyond the influence that the state Legislature already receives in nominating members to the Hybrid Commission.

The case of Nebraska is certainly an interesting one because it is an undemocratic redistricting process that produces democratic results. The state Legislature oversees redistricting and requires only a simple majority to pass a redistricting plan. This is a source of concern as if there is a majority party in the Legislature, then it will be easier to pass gerrymandered maps. It may have produced equitable maps in this last redistricting cycle, but there is a higher likelihood of gerrymandered maps in future redistricting cycles since the responsibility is held in the hands of politicians. *Both New York and Nebraska exemplify some of the best redistricting systems in the U.S., but they do not come without flaws*. In fact, some flaws with the systems are so large that it seems surprising that they produced equitable maps at all. This begs the question: is there any state that can claim to have an unproblematic, democratic method of redistricting?

For the answer to this question, we look to the state of Washington, which received the highest state grade from the Princeton Consortium (A overall, A in partisan fairness, A in competitiveness, A in geographic features – see Table 2). Washington's district lines are drawn by a five-member independent commission. The Washington State Redistricting Commission is made up of four voting members who are picked by the leaders of the Democratic and Republican caucuses in the state Legislature. Two Democrats and two Republicans are chosen, and a fifth, nonvoting chairperson is then picked by the voting members.[101] The Commission will submit its districting plan to the legislature, which must approve of the plan for it to be enacted. The state Legislature also has the power to amend the map plan within 30 days of its submission by the Commission, if two-thirds of the state House and Senate approve the amendment.[102] Therefore, as seen in Iowa and New York, the presence of an independent redistricting commission is undermined by the power of the state Legislature to accept, reject, or amend the maps. This gives politicians dangerous power over the district boundaries that determine their political elections and futures, and thus this is a problematic redistricting system. While it produced equitable maps in this last redistricting cycle, there aren't enough protections within the system to ensure that this result continues.

Given this information, it appears that the redistricting systems in all U.S. states reflect significant flaws, although some are more fundamentally biased and undemocratic than others. The next part of this thesis will investigate the roots of this nationwide issue. In secondary literature regarding electoral politics and redistricting, political scientists and experts in the field generally advance two competing arguments. The first argument is that the dysfunctions of

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[101] "About Redistricting." Washington State Redistricting Commission. Accessed February 20, 2024. https://www.redistricting.wa.gov/about.

[102] "Washington." All About Redistricting, May 3, 2023. https://redistricting.lls.edu/state/washington/?cycle=2020&level=Congress&startdate=2022-02-08.

gerrymandering can be solved within the single-member district (SMD) electoral system without changing it. The second argument developed by political scientists is that to solve gerrymandering and promote political participation in democracies, a change in the electoral system is necessary (mainly through a variation of proportional representation – PR). A large component of this second argument is that gerrymandering is a non-issue in almost every other country on Earth (the exceptions being Britain, France, and Hungary, which will be analyzed later in this thesis). Identifying the differences in variations of proportional representation (see Table of Definitions) present in countries with little to no issues regarding gerrymandering will be analyzed to understand how these electoral systems produce different redistricting results. This data will also be used to determine if the choice of electoral system is tied to the presence or lack of gerrymandering.

Section IV: Secondary Literature on Preventing Gerrymandering

Despite the dozens of different redistricting systems and the variety of grades given by the Princeton Election Consortium, only one state (Washington) was given the grade of an A in all categories of the Report Card. Even in this instance of a "flawless" district map with no partisan asymmetry, Washington's redistricting system did not come without its fundamental flaws. In other words, there is no perfect system of redistricting that consistently produces competitive maps with partisan fairness and compact, contiguous geographic features. This leads us to a series of questions: how has gerrymandering been allowed to happen? How has gerrymandering been allowed to grow in some states?

Rising Partisan Asymmetry in the U.S.

In a study conducted by Anthony McGann, Charles Anthony Smith, Michael Latner, and Alex Keena, they found that "Partisan bias increased notably between the 2000 and 2010 districting rounds. Partisan asymmetry in 2012 was 9.38%, whereas for the 2002 districts, it was 3.4%. In terms of this bias, if the parties split the national vote 50/50, then the bias towards Republicans went from 2% in 2002 to 5% in 2012. Breaking it down to the states, some states are unbiased but nine states have an asymmetry score of over 30%."[103] In the book *Gerrymandering the States,* authors James Keena, Michael Latner, Anthony McGann, and Charles Anthony Smith find in their investigation of redistricting in 2011 that "dozens of state legislative plans were drawn with extreme partisan bias. This bias gives Republican state legislative candidates about 9 percent more seats in the average state legislature than Democratic

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[103] Anthony J. McGann, Charles Anthony Smith, Michael Latner, and Alex Keena. *Gerrymandering in America the House of Representatives, the Supreme Court, and the future of popular sovereignty.* (New York, NY: Cambridge University Press, 2016), 80.

candidates for a similar share of the vote."[104] They also found that this level of partisan

asymmetry was comparable to the level of bias "observed in the gerrymandering of

congressional maps."[105]

From studies like these, and the state redistricting systems that were analyzed above, the

significance of gerrymandering in contemporary U.S. electoral politics becomes clear. As

partisan asymmetry continues to rise through the decades and across the states in America, critics

of gerrymandering appear to be correct that this process poses a profound political problem that

contradicts democratic values. In the secondary literature on redistricting, there are two main

arguments that political scientists and experts in the field make. The first main argument is that

gerrymandering can be solved within the SMD electoral system without changing it. The second

main argument is that to solve gerrymandering, a change in electoral system is necessary (mainly

through a variation of PR). The second main argument is gaining traction in the field of political

science because gerrymandering doesn't occur in most other countries on Earth. Even in

countries that experience forms of gerrymandering (Britain, France, Hungary), it is to a much

lesser degree than in the United States.

Main Argument 1: Solutions to Gerrymandering Can be Found Within the SMD System

Charles Bullock, a leading political scientist studying legislative politics, articulates in his

book *Redistricting: The Most Political Activity in America that* "[t]he impact of districting

schemes is greatest in systems like those used in the U.S. House and most American state

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[104] Alex Keena, Michael Latner, Anthony J. McGann, and Charles Anthony Smith. *Gerrymandering the States: Partisanship, Race, and the Transformation of American Federalism*. (Cambridge, UK: Cambridge University Press, 2021), 11
[105] Ibid.

legislatures where each district chooses one representative. With only one representative per district, parties compete under winner-take-all-rules, so that the seats in the legislature held by a party can be maximized under a plan that allows it to win consistently with small majorities."[106] He notes that "[s]ingle-member districts are particularly well-suited to partisan gerrymandering" because "when it comes to redistricting, the state has the first opportunity to complete the process. Federal courts will not interfere with the state legislatures' efforts so long as it appears that the legislature will complete the task in time for the next election."[107] Bullock explains that gerrymandering being allowed to occur as frequently as it currently is in the U.S. comes with policy consequences:

> "Designing maps that produce an unresponsive legislature thwarts electoral minorities from achieving their policy preferences. Allowing mapmakers to arrange voters to minimize the number of competitive districts results in legislators being less willing to appeal to swing voters, as they will appeal to their larger partisan base and become more partisan to avoid more extreme opponents that would cause more of a threat. So, the absence of moderates could make compromise in the legislature more difficult to achieve."[108]

Bullock's solution to gerrymandering is to take redistricting out of the hands of politicians and instead to give the responsibility to non-partisan, independent redistricting commissions in every U.S. state. The "prime model" that would influence the construction of these independent commissions would be Iowa.[109] While the analysis of

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[106] Charles S. Bullock. *Redistricting: The Most Political Activity in America*. (Lanham, MD: Rowman & Littlefield, 2010), 2.
[107] Ibid, 12, 123.
[108] Ibid, 165.
[109] Ibid, 159.

Iowa's redistricting system revealed that it was not as equitable as political scientists and

the media portray it to be, if every state were to implement this system it would improve

the overall levels of gerrymandering present in America today.

In *Gerrymandering the States,* Keena, and his co-authors come to the same conclusions

as Bullock, stating that "Redistricting determines who gets into office, which can have long-term

ripple effects on the politics that are approved by the state government."[110] Furthermore, the

occurrence of "A state legislature drawing biased districts for itself, of course, creates a problem

of entrenchment. The only way to change the districts is to get control of the legislative process,

and this is unlikely to happen because the districts are biased in favor of the ruling party. This

creates obvious problems of democratic accountability."[111] Similarly to Bullock, Keena and his

co-authors found that "maps drawn by nonpolitical actors have on average less bias than maps

drawn by political actors. Accordingly, reforms that transfer redistricting authority from a

political body to nonpolitical actors, such as citizens commissions or courts, are likely to lead to

substantial reductions in partisan bias."[112] In other words, changes within the SMD system,

through independent redistricting commissions, were advocated for as the solution to

gerrymandering.

Political scientist Lee Drutman agrees with Bullock, noting that redistricting causes

"hyper-partisan polarization" that "has a reinforcing feedback quality, what [he's] called 'the

two-party doom loop.' That is, as the parties move further apart from each other, they engage in

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[110] Alex Keena et. al. *Gerrymandering the States*, 139.
[111] Ibid.
[112] Ibid, 184.

more aggressive hardball tactics and rhetoric [that] further push them away from each other."[113]

He also argues that this problem stems from the two-party system:

> "Most voters are dissatisfied with the state of U.S. politics, and in particular, the
>
> hyper-partisan polarization, the gridlock and failures of government, and the
>
> anxieties it generates. But they lack a mechanism to express that frustration within
>
> the two-party system. The most obvious challenge is that they can only send a
>
> very crude signal: Democrat or Republican. There are rarely third-party options.
>
> Most of the third parties produced by our current system do not offer viable,
>
> moderate choices. Put simply, voters cannot clearly signal, through voting, that
>
> they want less hyper-partisanship."[114]

Drutman argues that a potential solution to the hyper-partisanship that gerrymandering creates is

the implementation of fusion voting. Once legal and used in all U.S. states, "fusion allows and

even encourages cross-party coalition and alliances and eliminates the two-party, winner take all

system."[115] Fusion refers to an electoral process in which more than one political party

nominates the same candidate on the ballot, allowing voters to support their preferred candidate

without having to support one of the two major parties. This usually means a minor party and

major party "fuse" together to support the same candidate. A candidate's vote total is the sum of

the votes they received on each of their nominating party's lines (see Table of Definitions).[116] In

the U.S., fusion voting was done with single member districts, so this change is one that would

be implemented without a change in electoral structure. However, fusion voting may not

[113] Lee Drutman. "The Case for Fusion Voting and a Multiparty Democracy in America: How to Start Breaking the Two-Party Doom Loop." New America, 2022. http://www.jstor.org/stable/resrep43427, 4.
[114] Ibid, 16.
[115] Ibid, 18.
[116] Joe Allen. "Fusion Voting, Explained." Protect Democracy, December 19, 2023. https://protectdemocracy.org/work/fusion-voting-explained/.

necessarily be the answer, as gerrymandering still occurred when fusion voting was done, and the U.S. is unlikely to change its electoral system.

Impacts of Gerrymandering Outside of Hyper-Partisanship – Are Solutions Within SMD Enough?

However, these aren't the only issues that gerrymandering causes. Aside from hyper-partisanship, gerrymandering has also been shown to have some correlation with people's trust in government and, by extension, voter turnout. In general, the "Pew Research Center put trust in government over the last five years at a historical low - about 20 percent [. . .] By OECD [Organization for Economic Cooperation and Development] data, trust in government in the United States was at 30 percent in 2018, considerably below the OECD average of 45 percent. Numerous European countries scored far better (Germany 58 percent, the Netherlands 66 percent, Norway 68 percent, Switzerland 85 percent)."[117] This statistic alone cannot be directly correlated to gerrymandering. For that matter, neither can voter turnout. In his article "American Voter Turnout in Comparative Perspective," political scientist G. Bingham Powell argued that "Participation is, in general, facilitated by greater socioeconomic resources and by general levels of political awareness and self-confidence. [. . .] [P]articipation is also facilitated or hindered by the institutional context within which individuals act."[118] The "institutional context" refers to "Legal rules, social and political structures, and configurations of partisanship."[119] In other words, your class status, flexibility of your work schedule, ability to access transportation, and

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[117] Alex Keena et. al. *Gerrymandering the States*, 145-146.
[118] G. Bingham Powell. "American Voter Turnout in Comparative Perspective." The American Political Science Review 80, no. 1 (1986): 17–43. https://doi.org/10.2307/1957082, 17.
[119] Ibid.

many other factors go into political participation rather than simply your beliefs or trust in government.

While political participation has an unclear relationship with gerrymandering according to statistics and thus should not be examined too closely, other numbers are worth noting. For example, the fact that "voter turnout in American national elections is far below the average 80% of the eligible electorate that votes in other industrialized democracies due to institutional settings" like the two-party electoral system is an interesting shortcoming on the part of the U.S.[120] This percentage is in sharp comparison to the fact that:

> "Nearly 90% of the American public reports discussing politics at least some of the time, compared to an average of only 68% across the 11 European nations. Thirty percent of the American citizens report having worked during a campaign at some time, more than double the average for seven European nations in which this question was asked."[121]

Not only is the prevalence of politics in citizen daily life greater in the United States, but the average educational level is also much higher in the United States than in most of Western Europe. The American citizen is also more likely to hold a white-collar or professional job than their European counterparts.[122] Despite this evidence, which should suggest a higher U.S. voter turnout, Powell argues that there are institutional factors that prevent this from happening. For example, tight voting registration laws that "make voting more difficult in the United States than in almost any other democracy" is a large

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[120] Ibid.
[121] Ibid, 18-19.
[122] Ibid.

factor that is unique compared to other countries.[123] In fact, "Of the 20 democracies outside the United States, only France leaves voter registration to voluntary initiative of citizens. In France citizens are required to register in their community and to obtain identification cards, which facilitates voter registration."[124]

According to Powell's calculations, "If citizens in the average democracy were as interested in politics as Americans, voter turnout would increase by 2.2%; American levels of efficacy would increase turnout by .5%."[125] Furthermore, if the average democracy "reached American education levels," then voter turnout would "increase by 1.6%."[126] On the flip side of this data, he found that "If the other democracies had the American levels of competition - encouraging constituencies and party-group linkages, their turnout would be predicted to decrease by about 13%. The weak American linkages between parties and groups (and the associated weak party organizations) would reduce turnout by 10%. The low competitiveness of some American electoral constituencies would reduce turnout by about 3%."[127] The "low competitiveness" of some American electoral districts is a problem directly caused by gerrymandering.

Main Argument 2: Solutions to Gerrymandering in a New Electoral System (PR)

"American Voter Turnout in Comparative Perspective" pairs well with the book that Powell wrote a couple of years later, *Elections as Instruments of Democracy: Majoritarian and Proportional Visions.* In this analysis, he first finds the median citizen in America, calculated by

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[123] Ibid, 21.
[124] Ibid.
[125] Ibid, 33.
[126] Ibid.
[127] Ibid, 34.

citizen self-placement on the left-right ideological continuum (left referring to Democrat, right

referring to Republican). From this self-placement, he defined the median citizen as one in which

half of the electorate was on either side of them. Powell then measured the distance between the

median citizen and the voted party median, and compared this distance to the distance between

the median citizen and legislative median to measure what electoral systems are more closely

tied to their voters. He examined these distances with majoritarian, single-member district

(SMD) electoral systems and proportional representation (PR) systems. The graph depicting

these differences is shown below.
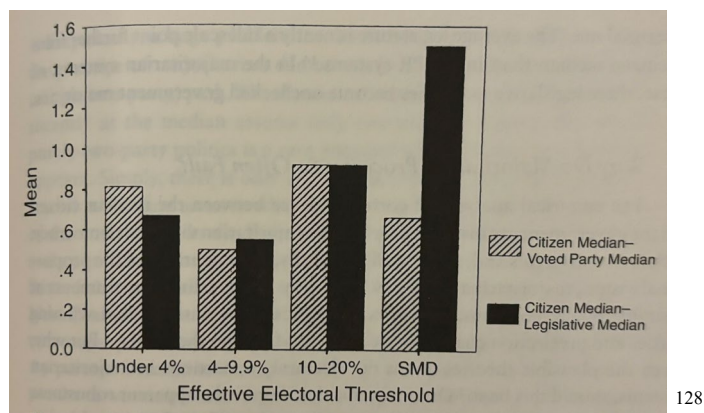
Figure 12: "Left-Right Distances: Citizens, Voted Party Median and Legislative Median by Election Laws," from Powell, *Elections as Instruments of Democracy* (1988), 195.

In this graph, Powell found that "In the PR systems the solid bar (CM-VPM) is low and similar

in height to the cross-hatched bar (CM-LM), showing little effect of vote-seat disproportionality

on median congruence. But in the single-member district systems the solid bar is about twice as

high as the cross-hatched bar, showing the net problem for congruence associated with

legislative disproportionality in these systems."[129] In other words, in PR systems there is roughly

proportional between the number of seats won by a political party and votes and the number of

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[128] Ibid.

[129] G. Bingham Powell. *Elections as Instruments of Democracy: Majoritarian and Proportional Visions*. (New Haven, CT: Yale University Press), 1988, 195.

seats they were able to take due to the construction of the electoral and redistricting systems. On the other hand, the SMD systems appeared to have over twice the levels of disproportionality of seats compared to PR, indicating vast disparities between the number of seats political parties should get from voters versus the number of seats it receives due to mechanisms like gerrymandering.

In another graph that depicts the distances between the median citizen and the median legislative, median government, and median policymakers, Powell found that "The average legislator in the proportional design systems is only .6 away from the median citizen; the average legislator in the majoritarian systems is nearly three times that distance at 1.6. If ultimately it is the median legislator who determines policy, as some theorists expect, the proportional design models have a very large advantage."[130] The graph depicting these differences is shown below.

[131]
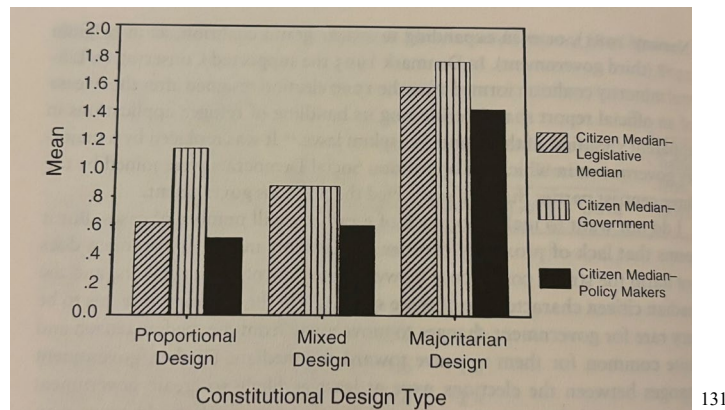
Figure 13: "Left-Right Distances: Legislatures, Governments and Policymakers by Constitutional Design Type" from Powell, *Elections as Instruments of Democracy* (1988), 222.

This graph illustrates the vast separation between legislators and their voters in SMD systems, which can contribute to problems of representation in policymaking at the national level. This problem does not appear to be nearly as prominent under PR systems, due at least in part to the

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[130] Ibid, 222.
[131] Ibid.

larger plethora of parties to associate with and the more fluid, flexible nature of coalitions that appear in today's PR governments. Taken together, both of the previous figures demonstrate Powell's main argument that "majoritarian systems frequently perform poorly (on average) in creating either governments or policy maker coalitions close to the median voter."[132] This is because in majoritarian systems "the plurality winner is too far from the median - and is then given by the election rules a legislative majority that precludes the need to bargain with smaller parties at or across the median."[133]

While Powell finds that proportional systems are much closer to the median than majoritarian systems, and thus are better "instruments of democracy," he argues that there is an inherent tradeoff between majoritarian and proportional methods of government. The costs and benefits of each system are weighed differently by each government, depending on what its goals are. Powell argues that majoritarians value concentrated power, for it enables elected governments to carry out their mandates and give voters "clear information about responsibility for government actions (accountability)."[134] However, unless public opinion is "very homogenous," concentrating power to the majority hands of the government will be "detrimental to the normative principle of giving proportional influence to agents of all the electorate."[135] On the other hand, proportional systems produce closeness between the citizen median and the legislative median (as seen in the graphs), which "should be reassuring to those worried about dependence on elite coalition formation or the instability of post-election governments."[136] In

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[132] Ibid, 242.
[133] Ibid, 246.
[134] Ibid, 234.
[135] Ibid.
[136] Ibid, 254.

Powell's study, he found that "the proportional vision and its designs enjoyed a clear advantage over their majoritarian counterparts in using elections as instruments of democracy."[137] In other words, despite the different political goals and tradeoffs for each system, when it comes to political participation and closeness between citizens and their legislatures, Powell found that proportional systems were the clear winner. Thus, to him, solving the issues of citizen separation from politicians caused by SMD and gerrymandering would mean that a change in the electoral system is necessary.

Out of the advantages that proportional representation has, there is one that stands out among the rest, and it is one that Powell did not mention in his book: not a single country using true proportional representation has issues with gerrymandering. Markus Crepaz builds upon the arguments set by these previous political scientists, and ties in the issues of single-member plurality, proportional representation, and redistricting in a succinctly written book. In essence, he advances the argument that in single-member district systems like the U.S. has, only one member represents the district, so the success or failure of a politician depends on how the district's boundaries are drawn. In European proportional representation systems, districts are geographically large (sometimes the whole country is one district) and thus gerrymandering is nonexistent. Even other countries that use single-member districts (such as Canada, Australia, and the U.K.) don't have as large of issues with gerrymandering (if any) because redistricting is done by non-partisan bodies.[138] In fact, there are only a few countries in the world that have issues with gerrymandering (such as Britain, France, and Hungary), and even then, it does not

[137] Ibid.
[138] Markus M.L Crepaz. (2017). *European Democracies* (9th ed.). Routledge. https://doi.org/10.4324/9781315679235.

approach the scale and degree of gerrymandering that has occurred in the United States, as will be seen in the next section.

Taking data from other countries with little to no gerrymandering and comparing it to the U.S. combination of an SMD electoral system prevalence of gerrymandering will help to identify why higher levels of gerrymandering are unique to the U.S. By analyzing how redistricting is done well in other countries, viable solutions to American gerrymandering can perhaps be found and utilized to protect democracy in future redistricting and election cycles. However, the purpose of this thesis is not to choose one electoral or redistricting system over the other, but to weigh the costs and benefits of each approach and see what each does well, and perhaps what it does not do as well. It is unrealistic to advocate for electoral change in the United States, given how deeply entrenched the SMD system is in American politics. Rather, taking pieces from what other countries are doing in their redistricting or electoral politics could be the key to finding applicable, constructive solutions to gerrymandering.

Section V: International Countries

As the previous section underscores, a very broad scholarly literature has shown that proportional representation allows for a wider array of political parties and options for voters, which has significantly lessened issues of hyper-partisanship compared to the United States. Furthermore, the closeness between the median citizen and legislature suggests that the people's preferences are more closely followed in proportional representation, rather than in single-member districts. The ability for voters to rank their preferred candidates (rather than voting for just one option) and the common phenomenon of PR countries having very few districts (the entire country often being one district) gives politicians less incentive to gerrymander. It is perhaps because of these factors that no countries using true PR have issues with gerrymandering.

Process of Country Selection for Analysis

From the dozens of countries that use proportional representation, six were selected based on the following factors: 1) the variation of PR used, 2) the legal precedent of electoral districts that aren't set in the country's Constitutions, and 3) containing a population of over five million. Five of the six countries were also chosen for being practicing democracies. The sixth country chosen, Hungary, is considered a "backsliding democracy," but was chosen because it is the only other country that has a level of gerrymandering comparable to the United States. The purpose of this comparative analysis is to examine how some countries redistrict well, and how their methods could be translated to the U.S. to stop gerrymandering. Furthermore, this analysis will highlight how some countries have flaws in their redistricting plans, in ways that are comparable to the redistricting systems seen in some U.S. states that struggle with gerrymandering. Thus, by

ensuring that the countries studied are as comparable to the U.S. as possible through the deliberate search of (mostly) democracies that have flexible electoral districts and significant populations, solutions to gerrymandering can be as relevant and applicable as possible.

Variation of PR System Used

While no two countries use the same electoral variation of proportional representation, there are general patterns of variations that can be grouped across several countries. The PR variations with the largest groups of countries are single-member districts, single transferable vote, and mixed-member proportional representation (see Table of Definitions).

Single-member districts are, as the name suggests, comparable to the American single-member district system with individual candidates competing for a single seat in the legislature, and a "winner" is declared once a plurality is reached. While only two countries fit under this variation (the U.K. and France), they are prominent European democracies that are considered great political, economic, and social allies of the United States, so they were incorporated into this analysis.

In a single transferable vote system, voters rank candidates by choice for multi-member district seats. A voting quota is set by the country, and to get elected, a candidate needs to be ranked as the first choice in a number that surpasses this quota. If no one reaches the quota, then the least popular candidate is removed, and people who voted for them as their first choice have their votes moved to their second choice. The process continues until every seat is filled. Ireland and Australia are the two countries that use this system, as well as pass the other requirements of not having their districts set in the Constitution and a population of over five million (which will be described in the sections below).

In a mixed-member proportional representation system, a certain number of seats are elected by single-member plurality rules (see single-member districts definition above), and the other seats are elected by proportional representation. The two countries that use this system and fill the district and population requirements are Germany and Hungary. Hungary is the one country chosen in this analysis that is not a democracy. It was intentionally chosen because it is the only other country that has a level of gerrymandering comparable to the United States (which will be elaborated further below).

Electoral Districts that Aren't Set in the Constitution

While this seems like a strange stipulation for country analysis when looking from the U.S. perspective, it is common in other PR countries to have districts set in their Constitutions (the most notable example being Spain). In countries with set constitutional districts, the district boundaries never change (barring a constitutional amendment, but no evidence has suggested that this has happened). These set district boundaries are not comparable to the U.S. system of decennial redistricting, so it would not be useful for this comparative analysis and finding constructive solutions to American gerrymandering. All six states have semi-consistently redrawn district boundaries, which will allow for a better analysis of how the methods of countries that redistrict well can be (potentially) translated to U.S. redistricting.

Population of Over Five Million

The third and final stipulation used to determine country selection was that the countries selected must have a population of over five million.[139] The minimum quota of five million was so that the countries chosen for analysis have a significant population in comparison with the United States. According to the U.S. Census Bureau, the current U.S. population is at 336,103, 948 people, which puts it at the third most populous country in the world (behind China and India, respectively).[140] No country using variations of proportional representation has a population that reaches the size of the U.S. but seeking those with larger populations can make the comparative analysis a bit more similar. On the other hand, choosing a range of populations above five million and analyzing how the redistricting system and the presence of gerrymandering (if any) change will be interesting to analyze. The country with the smallest population is Ireland at 5.2 million, but it was particularly chosen for its attempted gerrymandering in the 1970s that backfired massively (which will be elaborated on later). Hungary has a population of 9.9 million (being chosen mainly for its comparable level of gerrymandering to the U.S.). Australia has a population of 26.8 million, the United Kingdom has a population of 67.89 million[141], and France has a population of 68.4 million. Germany has the highest population of the six chosen states at 84.1 million.[142] As of April 2023, the population of the United Kingdom was 67.89 million.

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[139] I would like to thank Professor Craig Parsons for assisting in determining this metric for the international country selection.

[140] "U.S. and World Population Clock." United States Census Bureau. Accessed February 26, 2024. https://www.census.gov/popclock/. The U.S. population number was accurate as of February 26, 2024.

[141] "U.K. Population." Worldometer. Accessed February 26, 2024. https://www.worldometers.info/world-population/uk-population/.The U.K. population number was accurate as of February 26, 2024.

[142] Ibid. Each country's population number was accurate as of February 26, 2024.

Countries Selected for Analysis

The six countries are grouped into three categories, with two countries in each category. The categories, and countries chosen for each, are as follows: single-member district (the United Kingdom, France), single transferable vote (Ireland, Australia), and mixed-member proportional representation (Germany, Hungary) (see Table of Definitions for electoral system definitions). While every country's electoral and redistricting systems fall under the umbrella of PR, the variations each country uses will be analyzed and then compared to the U.S. to better understand why gerrymandering is an example of near-U.S. exceptionalism.

To guide this analysis, the redistricting system of each country will be categorized under the following structure, which mostly parallels the categories used for the U.S. state redistricting analysis: 1) historical and constitutional attributes of redistricting; 2) contemporary redistricting decision-makers; 3) challenges and evaluations; 5) conclusions on the effectiveness of redistricting methods and results. By analyzing these details in each country's redistricting systems, we can see both how and why these countries redistrict well (or do not, in some cases) and how this could be relevant to redistricting reform in the United States.

Single-Member Districts: The United Kingdom

Historical and Constitutional Attributes of Redistricting

The history of the U.K.'s modern electoral system, more specifically the national elections sending politicians to Parliament, begins with the Third Reform Act of 1884-1885, which undid the First and Second Reform Acts that established the election of members to

Parliament from two-member districts by the Block Vote[143] and then the Limited Vote[144], consecutively.[145] The Third Reform Act abolished the Limited Vote seats and First Past the Post (FPTP) became established as the dominant system. After this Act, most seats in the House of Commons (the democratically elected House of Parliament) have been elected by plurality. However, up until 1948, some multi-member districts remained. With the passage of the Representation of the People Act in 1948, the last of the two-member districts were removed and "therefore created, for the first time, a system of single-member plurality (SMP) across the whole country" that has lasted to the present day.[146] Some individual countries within Britain use different electoral systems in local elections, but the focus of this thesis is on national elections and its impacts on redistricting, so smaller elections won't be analyzed.

Contemporary Redistricting Decision-Makers: The Boundary Commissions

The U.K.'s system of redistricting (which they refer to as "redistribution"[147]), has a largely unchanged process from the 1940s. Since that time, there have been six redistricting, done in 1947, 1954, 1969, 1983, 1995 and 2023. Unlike the U.S., which redistricts after every

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[143] "Bloc Vote." Electoral Reform Society. Accessed January 18, 2024. https://www.electoral-reform.org.uk/voting-systems/types-of-voting-system/first-past-the-post/block-vote/. In a block voting system, each constituency (district) elects more than one representative and voters can cast as many votes as there are available seats in government, in Britain's case being Parliament.

[144] "Limited Vote." Electoral Reform Society. Accessed January 18, 2024. https://www.electoral-reform.org.uk/voting-systems/types-of-voting-system/first-past-the-post/limited-vote/. In a limited voting system, voters have more than one vote, but less votes than the number of seats to be filled in Parliament. This system is seen as a form of First Past the Post, but with more than one winner.

[145] "U.K.: Electoral System Experimentation in Cradle of FPTP." ACE Project: The Electoral Knowledge Network. Accessed January 18, 2024. https://aceproject.org/main/english/es/esy_uk.htm.

[146] Alan Renwick. "Electoral System Change in Europe since 1945: U.K." Electoral System Change in Europe since 1945, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.electoralsystemchanges.eu/Files/media/MEDIA_177/FILE/UK_summary.pdf.

[147] Every country in the chosen sample, except for the United States, uses the word "redistribution" as opposed to "redistricting." However, for reasons of consistency and avoiding potential confusion, the word "redistricting" will be used for the continuation of this thesis.

decennial census, boundary commissions are required to report every eight years. Redistricting is done by four independent "boundary commissions," one each for England, Scotland, Wales, and Northern Ireland. There are four members in each commission, appointed by their secretaries of state. The speaker of the House of Commons chairs each of the boundary commissions but is not allowed to participate in boundary review, and meetings are all conducted by a High Court judge. The commissions make boundary recommendations to Parliament, which can accept or reject the plans but not modify them. The only person who can modify outside of the boundary commissions is a secretary of state from any country in the U.K., but this has never happened.[148]

In the current redistricting rules for the U.K., there is a guaranteed minimum number of seats for Scotland (71) and Wales (35), a maximum and minimum for Northern Ireland (16-18), and a total number of seats for Great Britain (i.e. England, Scotland, and Wales) that should not excessively pass 613. As has previously been highlighted, since 1948 it is also law that every constituency will nominate a single member. Other redistributing rules include:

- 'So far as is practicable,' constituency boundaries should not cross major local government boundaries--although this requirement is less stringent for Scotland and, especially, Northern Ireland;

- A constituency's electorate must be as near the electoral quota as practicable, within the constraint of the previous rule (commissions may depart from that previous rule to avoid disparities in electorates among neighboring constituencies);

- Commissions may depart from strict application of the previous two rules 'if special geographical considerations, including in particular the size, shape and accessibility of a constituency' make that desirable;

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[148] "The United Kingdom Redistribution Process." ACE Project: The Electoral Knowledge Network. Accessed January 18, 2024. https://aceproject.org/main/english/bd/bdy_gb.htm.

- Commissions should consider the inconveniences that may be caused, and the local ties that may be broken if they give full effect to the 'equal electorates' requirement.[149]

Beyond the rules listed above, the boundary commissions have two other significant rules that give them flexibility in redistricting. Firstly, the commission can "over-ride the requirement not to create constituencies crossing designated local government boundaries if this was necessary to avoid major disparities in constituency electorates."[150] Secondly, "the use of 'special geographical considerations' (of which size, shape and accessibility are cited as particular examples) to justify over-riding both the local government boundary and the equal electorates requirement" is also allowed.[151]

Aside from these redistricting laws and requirements, the boundary commissions also must follow a certain set of operations in a specific order. First, the commission decides when to start a periodic review and announces its intentions to redistribute. The four commissions are not required to act together in doing this, but they always have. However, English redistricting normally take much longer to complete. Next, each commission calculates its electoral quota from the country's registered electorate at the time the review was announced, then divided by its current number of seats. In England, Scotland, and Wales, the commissions determine each major local government unit's "theoretical entitlement" to seats, dividing its electorate by the electoral quota (this not done in Northern Ireland because local government units are not identified). If some theoretical entitlements produce constituencies that are very large or very small relative to the quota, two contiguous local government units can be combined to achieve greater equality (however, this has rarely happened). Then, the boundary commission comes up

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[149] "Election Laws or Constitutional Provisions Listing Redistricting Criteria for Selected Countries: The United Kingdom." ACE Project: The Electoral Knowledge Network, n.d. Accessed January 18, 2024.
[150] "The United Kingdom Redistribution Process." ACE Project.
[151] Ibid.

with several options of map schemes for constituencies in each local government unit. After that, the commission evaluates the options offered and decides which one to put out to public consultation as its provisional recommendation. After the public consultation (see below), the commission assesses the additional information and advice provided by the assistant commissioner who held the inquiry and decides whether to modify or confirm its provisional recommendations. If it confirms, the provisional proposals become the final recommendations, and they are published and included in the final report to Parliament. If the commission decides to change any or all its provisional recommendations (including a proposed constituency name), however, the changes are published, and a further round of public consultation is initiated. When all the recommendations have been made final, the reports are submitted to Parliament through the relevant secretary of state.[152]

As with the set of steps that the boundary commission is required to take in the redistricting process, there is also a mandatory order to the public consultation process. This process starts when the commission publishes its provisional recommendations for a local governmental unit in at least one newspaper circulating in the area. It sends notices to all affected members of Parliament, political parties, and local governments in the area, giving details of the map recommendations and indicating where these maps can be viewed. Representations are invited within one month of the publication. Next, after the closing date for representations has passed, if objections have been received from either at least one hundred local electors or one interested local authority, then a public local inquiry must be convened. This inquiry is chaired by a specially appointed assistant commissioner (AC), who is usually a High Court lawyer. Assistant commissioners must have no political affiliations and, in England specifically, have no

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[152] Ibid.

detailed knowledge of the area they are assigned. Before the inquiry, a document is produced

summarizing the representations received; a full list of those making representations and the

grounds for the recommendations are added. Then at the local inquiry, the AC invites those who

made written representations to make oral submissions, where they may be questioned by the AC

and cross-examined by others who have made representations. Some of those objecting to the

provisional recommendations (mainly the political parties) offers alternative configurations for

one or more constituencies. Electoral considerations cannot be discussed, but the proceedings are

usually dominated by the political parties and their representatives. They use the criteria in the

rules, especially those concerning community ties and the inconveniences of change, to influence

the AC to recommend constituencies to the commission that are in their electoral interest. Based

on what is said and heard in the inquiry, plus site visits, the AC's report summarizes local

opinions on the provisional recommendations, discusses any counterproposals presented to the

inquiry, evaluates the evidence, and recommends whether the commission should change its

provisional recommendations.[153] This process may be repeated if a commission publishes

revised recommendations after receiving an AC's report, but a further local inquiry is rare since

the commissions will not allow issues already fully covered in the previous proceedings to be

reconsidered. For instance, there were only two second-local inquiries in the most recent

redistricting review, which included eighty-three first inquiries.[154]

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[153] Ibid.
[154] Ibid.

Challenges and Evaluations

This redistricting system is seen as a bit controversial (especially when compared with the rest of Europe) and comes with both its criticisms and its praises. The largest complaint on behalf of citizens (and sometimes politicians) of the U.K. is how long the redistricting process can take. The latest review took four years to complete in England, with consideration of one county (Devon) taking 1,028 days to complete. Furthermore, the rules are ambiguous, with subjective standards like "as far as practicable" that can leave room for error, such as partisan bias, in redistricting. Five main redistricting procedural issues have been criticized. First, the guarantee of a minimum number of seats for three of the four countries (excluding Northern Ireland) means that they are over-represented relative to England, whose population is growing at a more rapid pace. Second, different commissions can give weight to various criteria that can aggravate issues of equality. For example, in the fourth review and after Parliament expressed a desire for no growth in the number of its members, the Scotland Commission decided not to create any additional seats whereas the Wales Commission created an additional two seats, even though Wales was already substantially over-represented. Thirdly, the same commission can weigh the criteria differently in different areas of the country, which (especially combined with the previous critique), gives the impression of inconsistency. Fourth, the use of the registered electorate rather than the total population in redistricting, means that two to three million people are not included in the map plans. The fifth and final main critique is that the local inquiry system allows political parties to critique the maps at public inquiries (which favor their electoral interests) without saying why, which could convince the AC to force map changes and potentially skew the system.[155]

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[155] Ibid.

Another, more important critique of the United Kingdom's redistricting system is the presence of gerrymandering, albeit a much lesser version than is present in areas of the United States. In a 2021 study analyzing biases in the U.K.'s electoral system, partisan asymmetry was present in all the recent elections. In 1979, the Conservative Party won 43.9 percent of the votes cast but 53.4 percent of the seats. Four years later, it won 42.4 percent of the votes but 61.1 percent of the seats. In 1987, its share of the votes was 43.4 with 57.8 percent of the total seats won. Then in 1992, its vote share fell slightly to 42.3 percent, but its share of the seats fell more rapidly to 51.6 percent. The Labour Party won in the 1997 election with 43.3 percent of the votes and 63.6 percent of the seats. So over five elections, the leading party's share of the votes ranged between 42.3 and 43.9 percent, but its share of the seats varied more, from 51.6 to 63.6 percent. Furthermore, the Conservative Party won nearly the same share of votes in the four elections but won very different shares of the seats. However, when the Labour Party won with the same vote percentage, its share of the seats was much larger than what the Conservative Party ever had.[156]

Conclusions

Despite the presence of non-partisan, independent redistricting bodies, the ambiguous and contradictory rules of redistricting combined with the nature of First-Past-the-Post elections have set up conditions for which gerrymandering can occur. In the words of the authors of the 2021 study,

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[156] Ron Johnston, Charles Pattie, Danny Dorling, David Rossiter. "Fifty Years of Bias in the UK's Electoral System." *APSA: Elections, Public Opinion and Voting Behaviour Section Website*. (2001). chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.dannydorling.org/wp-content/files/dannydorling_publication_id1322.pdf, 1.

"The translation of votes into seats in single-member constituency electoral systems involves the interaction of two geographies – the geography of support for the individual political parties; and the geography of the territorial constituencies laid across those maps. This can result in biased election outcomes, even if the production of the second set of maps is vouchsafed to an independent body, whereas the geography of election campaigning can produce the reactive malapportionment we identified as a major feature of recent British elections."[157]

In a country that uses the same electoral system for national elections, and an independent redistricting committee that must answer to the legislature (as seen in some U.S states), it is perhaps not surprising that these two countries share gerrymandering in common. This would suggest that gerrymandering is not as much of an example of U.S. exceptionalism as previously thought. The U.K. is not a country that the U.S. should look to for solutions to gerrymandering, as their electoral and redistricting systems are very similar and thus produce similar results. However, it is worth noting the pattern that these two countries embody: an SMD electoral system, combined with the national legislature largely controlling redistricting, produces partisan asymmetry and gerrymandering. As will be explained in the next section, this pattern continues with one other country: France.

Apart from the U.S. and the U.K., another European country that is unique in its variation of a single-member district electoral system is France. Similarly, France is one of the only other representative democracies that suffers from issues of gerrymandering.

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[157] Ibid, 5.

Single-Member Districts: France

Historical and Constitutional Attributes of Redistricting

The establishment of France's modern electoral system to nominate members to the National Assembly occurred much more recently than its British counterparts. Since 1945, France has implemented several different variations of proportional representation and mixed voting systems. Until 1951, party-list proportional representation was in effect. Then, the Electoral Reform of 1951 introduced a mixed voting system through "Appartement" (a coalition of French political parties) in which several allied party lists could receive all seats in the districts by having an absolute majority of votes cast. However, this system was quickly changed in 1958 with the implementation of two-round, runoff voting, which has been in place ever since (except for 1985-86, when proportional representation was briefly reintroduced). The 1958 and 1986 electoral systems are the same and are conducted as follows. On the first election day, voters in each arrondissement (district) nominate one candidate to the National Assembly. If this candidate wins 50% of the vote or has the absolute majority of votes cast and at least one-quarter of the votes of registered voters, then they are elected. If not, a second ballot is held around two to three weeks later. All candidates winning more than 12.5% of the votes of registered voters, or the top two candidates if two candidates didn't make it, go through to the second round. In the second round, the candidate who receives the largest number of votes is elected.[158][159]

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[158] Simon Toubeau. "Electoral System Change in Europe since 1945: France." Electoral System Change in Europe since 1945, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.electoralsystemchanges.eu/Files/media/MEDIA_211/FILE/France_summary.pdf.

[159] Dylan Difford. "How Do Elections Work for France's Parliament, the French National Assembly." Electoral Reform Society, May 30, 2022. https://www.electoral-reform.org.uk/how-do-elections-work-for-frances-parliament-the-french-national-assembly/.

Contemporary Redistricting Decision-Makers: The Constitutional Council (and Consultative

Council)

Before 2008 the act of redistricting fell to the President, with review by the Constitutional

Council. The Constitutional Council is the highest constitutional authority in France, and it's the

Council's job to ensure that constitutional rules and principles are upheld in laws and electoral

practices (including redistricting). A 2008 constitutional reform introduced an independent

commission called the Consultative Council which reviews and publishes a public statement on

any redistricting bill. However, their opinion is only advisory and carries no authoritative weight,

and they have no role in drawing the district boundaries.[160] In the 2009 redistricting process, the

Consultative Council gave suggestions for changes in nearly half of the districts, and the

Constitutional Council followed most of their recommendations. The formal redistricting process

started in September 2008 and was accepted as constitutional by the Constitutional Council in

January 2010.[161]

Challenges and Evaluations

France has more of an active multiparty system than the U.K. (and certainly more than

the U.S.). The French electoral and redistricting systems have been more highly regarded by

political scientists for producing less partisan gridlock and hyper-partisanship than has been

known to occur in SMD systems. However, contrary to this higher popular political opinion,

France still suffers from partisan bias as a product of its redistricting system.

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[160] "Public Authorities: Commission of Article 25 of the Constitution and Election of Deputies." National Assembly,
January 2009. https://www.assemblee-nationale.fr/13/dossiers/commission_article25_an.asp.
[161] Nicolas Sauger and Bernard Grofman. "Partisan Bias and Redistricting in France," 389.

Similarly to the United States and the United Kingdom, the French variation of the

single-member district electoral system has led to issues of gerrymandering and partisan

asymmetry that favor the political right (although at a lesser level than the United States). Apart

from the nature of the electoral system itself, another issue in the French system is that

redistricting plans occur very infrequently. Unlike the U.S. or the U.K., there is no set schedule

for redistricting. Because of this there have only been three censuses since the Electoral Reform

of 1951: one in 1958, another in 1986, and most recently in 2009.[162] With such long spaces in

between redistricting that doesn't consider the rising and changing populations in France, certain

districts become much more underrepresented (or overrepresented) than others.

Aside from population shifts not being accounted for due to no regular redistricting, there

are few constitutional rules that constrain gerrymandering in France. The redistricting process

starts with National Assembly seats being allocated to "geographically defined administrative

units."[163] Second, with departments, single seat constituencies require that their boundaries be

specified and that rules be laid down about the degree to which population equality is necessary

across districts. In France, evaluating population equality across districts refers to residents,

rather than total population or registered voters. Aside from these vague rules, there are no

specific redistricting rules. This allows the Constitutional Council to draw districts with few

constraints, which can potentially introduce partisan bias and gerrymandering as we have seen in

recent French maps.

Even though France is a multiparty system, there are two main coalitions that dominate

the National Assembly. The "left block" is defined as the Socialist Party, the Communist Party,

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[162] Nicolas Sauger and Bernard Grofman. "Partisan Bias and Redistricting in France." *Electoral Studies* 44 (December 1, 2016): 388–96. https://doi.org/10.1016/j.electstud.2016.09.007, 388.
[163] Ibid, 389.

and the Green Party, with the "right block" composed of the Union for French Democracy (UDF) and Rally for the Republic (RPR), with other smaller parties like the New Center, Union of Democrats and Independents (UDI), and Radicals allying with them. The parties that are not included in these two blocks have never represented more than two percent of the seats in the National Assembly, but range in representing 10.7 percent to 26.2 percent of the electorate depending on the year. So, the French National Assembly elections remain a contest between two major coalitions of parties, rather than a true multiparty system.[164] A second problem is with the nature of the two-round electoral system, and how it has been known to be highly disproportional and artificially boosts large parties.[165] With the nature of France's two large coalitions in the National Assembly, the voting system only exacerbates their dominance (as seen in the disparity between the share of seats the minor parties get versus the share of the electorate).

Conclusions

Overall, as has been previously stated in the cases of the U.S. and the U.K., partisan bias is more likely to occur when: redistricting is a partisan process not conducted by an independent and/or non-partisan group (especially when the electoral system is dominated by two parties or coalitions), redistricting is not guided by strict legal rules, and when redistricting does not occur frequently, allowing population changes and inequalities to grow and gerrymandering practices like packing or cracking can take their greatest effect.[166] Because France suffers from all of these

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[164] Nicolas Sauger and Bernard Grofman. "Partisan Bias and Redistricting in France," 390.
[165] "Two-Round System." Electoral Reform Society. Accessed January 19, 2024. https://www.electoral-reform.org.uk/voting-systems/types-of-voting-system/two-round-system/.
[166] Nicolas Sauger and Bernard Grofman. "Partisan Bias and Redistricting in France," 392.

shortcomings, it is no surprise that gerrymandering has occurred. However, it is important to note that the level of gerrymandering experienced in France has not been recorded to come near the level of gerrymandering seen in areas of the United States. While the French redistricting model is not one that the U.S. should look to for solutions to gerrymandering, it is worth observing the continued pattern that was mentioned in the last section. The U.S., the U.K., and France all use an SMD electoral system and allow the state (or national) legislatures to control redistricting, which has led to the presence of partisan asymmetry and gerrymandering in each country.

While the U.K. and France are unique in both being a representative democracy and using a single-member district (SMD) electoral system, there is another electoral system that is seen as a middle ground between SMD and proportional representation: single transferable vote. Ireland and Australia both use this electoral system, and neither country has ever had recorded problems with gerrymandering. However, Ireland did attempt to gerrymander the district in the 1970s, which massively backfired in a way never seen in the U.S., the U.K., or France.

Single Transferable Vote: Ireland

Historical and Constitutional Attributes of Redistricting

Ever since it declared independence in 1922, Ireland has used proportional representation through the single transferable vote (STV) system to elect members to the Dáil.[167] Soon after

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[167] "Single Transferable Vote." Electoral Reform Society. Accessed January 20, 2024. https://www.electoral-reform.org.uk/voting-systems/types-of-voting-system/single-transferable-vote/. Rather than one person representing a small district, bigger regions elect more representatives (usually four to five). On election day, voters rank their candidates on a list from their favorite to least favorite. The candidate who has more number one choice than the quota (individually set per country) is elected. If no one reaches the quota, the people counting the votes remove the least popular candidate and the people who voted for them as their number one choice have their votes moved to their second favorite candidate.

establishing independence, the Constitution of the Irish Free State (Saorstát Eireann) Act of 1922 was passed. Article 26 of this Constitution established the foundation for the Dáil electoral system, including a provision that states, "The members [of the Dáil Eireann] shall be elected upon principles of Proportional Representation." It also established the principles of redistricting in Article 27, which made provision for University seats in the Dáil. Article 28 set out rules regarding election timing.[168] However, a new constitution was approved by referendum in July 1937 that changed some of the provisions in the 1922 counterpart. The new Constitution of Ireland has the electoral system rules in Article 16, and now states that "The members shall be elected on the system of proportional representation by means of the single transferable vote."[169] It also says that the number of Dáil members must be no less than one member for every 30,000 people (of the population) and not more than one member for every 20,000 people (of the population).[170] The maximum period between boundary reviews was increased from ten to twelve years.[171] Furthermore, a minimum district magnitude of three was established.[172] With these rules in place, the STV electoral system works pretty standard in Ireland. Since the 1923 Act, each elector has "one transferable vote" where a transferable vote is "capable of being given so as to indicate the voter's preference for the candidates in order."[173] A ballot paper is valid if one clear preference is expressed. So, voters are free to express as few or as many preferences as they wish.[174] The process for voting goes as follows. First, voters vote for candidates in order of

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[168] Alan Renwick. "Electoral System Change in Europe since 1945: Ireland." Electoral System Change in Europe since 1945, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.electoralsystemchanges.eu/Files/media/MEDIA_147/FILE/Ireland_summary.pdf.

[169] "Constitution of Ireland – Section 16.2." Irish Statute Book, July 1, 1937. https://www.irishstatutebook.ie/eli/cons/en/html#article16.

[170] Ibid.

[171] "Constitution of Ireland – Section 16.2.4."

[172] "Constitution of Ireland – Section 16.2.6."

[173] "Constitution of Ireland – Section 17

[174] Alan Renwick. "Electoral System Change in Europe since 1945: Ireland."

preference on a list. You can vote for as many people as there are on the list, regardless of party affiliation, but you can only assign one number per candidate. When it comes to tallying the votes, the vote stays with the first-choice candidates unless they have been excluded from the count (which will be explained later). After votes have been cast, the ballot papers are sorted and counted according to first preferences. The quota is then calculated by dividing the total number of ballot papers by the number of seats that need to be filled plus one, and then adding one to that result. If the quota is reached by a candidate, then that candidate wins. If no one reaches the quota, then there will be a second count in which the lowest candidate is eliminated, and the people who voted for that person as a first choice will be counted for their second choice. This process will be repeated until a quota is reached.[175]

Contemporary Redistricting Decision-Makers: The Independent Constituency Commission

Before and during the 1970s, drawing district boundaries was the responsibility of the political parties in the Dáil. Following the gerrymandering attempt in the 1970s (see section below), the Independent Constituency Commission was created in 1980. The commission was established by the Minister for Housing, Planning, and Local Government after the census (which occurs every five years). Chaired by a high judge, the Commission prepares a district map report and submits it to the Oireachtas (Irish National Parliament).[176][177] In 2022, an Electoral Reform Act was passed which established The Electoral Commission, which has

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[175] Department of Housing, Planning and Local Government. "A Guide to Ireland's PR-STV Voting System." Government of Ireland, November 2018. https://assets.gov.ie/111110/03f591cc-6312-4b21-8193-d4150169480e.pdf.

[176] "Census of Population." Citizens Information: Government of Ireland. Accessed January 20, 2024. https://www.citizensinformation.ie/en/government-in-ireland/how-government-works/government-records-and-statistics/census/#:~:text=information%20and%20contacts-,Introduction,place%20on%203%20April%202022.

[177] "Dáil Éireann Debate - Wednesday, 27 Feb 1974." House of the Oireachtas, February 27, 1974. https://www.oireachtas.ie/en/debates/debate/dail/1974-02-27/27/#spk_59.

overtaken the tasks of the Constituency Commission in making "independent recommendations to the Oireachtas on the make-up of Ireland's electoral constituencies for the next Dáil elections."[178][179]

Challenges and Evaluations

The Irish electoral system has consistently delivered a high degree of proportionality, and all parties have little to no asymmetry between their seat percentage and the percentage of votes from the electorate. Even the largest parties have little to no asymmetry. For example, Fianna Fail, the largest party at every election for over 60 years, has won on average 45 percent of the votes and 48 percent of the seats, while the third largest party, Labour, has won an average of 12 percent of the votes and 11 percent of the seats.[180] Although the STV system has received some criticism for promoting intra-party fragmentation, the Irish parties have seemed to defy this concept as they have appeared to be relatively cohesive despite competition among candidates from the same party. In the Dáil, as in Parliament, it has been observed that it is very rare for party representatives to break ranks from the party line on any issue. So, Ireland does not appear to participate in the criticisms of STV and reaps the system's benefits. The STV electoral system is supported in Ireland because it delivers proportional representation and a wider range of parties that voters can get behind and identify closer with. This system gives voters the power to choose their parliamentary representatives by ranking all candidates in order of their choice, both between parties and within parties. Although most voters vote along party and geographical lines (voting for a candidate from their local area), it is not necessary to do so, thus allowing them

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[178] "Electoral Reform Act 2022." Government of Ireland, 2022. https://www.gov.ie/en/publication/72f88-electoral-reform-act-2022.

[179] "Dáil and European Parliament Constituency Reviews." The Electoral Commission, November 20, 2023. https://www.electoralcommission.ie/constituency-reviews/.

[180] "Ireland: The Archetypal Single Transferable Vote System." ACE Project: The Electoral Knowledge Network. Accessed January 20, 2024. https://aceproject.org/main/english/es/esy_ie.htm.

more freedom to choose representatives that their identify with on an idea of policy level.[181] In light of the popular support for the STV system and the lack of partisan asymmetry it produces, it begs the question: How and why was gerrymandering attempted in the 1970s?

Before and during the 1970s, drawing district boundaries was the responsibility of the political parties in the Dáil, which often led to maps with partisan asymmetry. In 1974, the Electoral Amendment Act was passed by the Fine Gael-Labour Party coalition. As a result of this Act, Minister for Local Government (and member of the coalition) James Tully radically redrew the boundaries in the Greater Dublin region, creating larger, three-member constituencies as opposed to smaller, four to five-member ones.[182] The goal of this change was to capitalize on the weakness of the Fianna Fail party in this region and construct the maps to make them win less seats in the Dáil. However, this plan backfired as the Fianna Fail party still won majority votes in each district that was redrawn, and the scheme was mocked as a disastrous "Tullymander." This event inspired changes in the redistricting system. The 1974 Act was repealed by the Electoral Amendment Act of 1980, which created a new set of constituency boundaries.

Conclusions

Given the pattern that has been observed with political parties overseeing redistricting and partisan asymmetry subsequently appearing in district maps, it is not surprising that Ireland struggled with this issue in the 1970s. What is a change from the pattern we have seen from other countries is that, in Ireland, the Act caused so much national outrage that the entire redistricting system was changed in such a manner that no gerrymandering has been successfully attempted

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[181] Ibid.
[182] "Electoral Amendment Act, 1974." Electronic Irish Statute Book, 1974. https://www.irishstatutebook.ie/eli/1974/act/7/enacted/en/html.

ever since. While no reason can be directly drawn from this difference, it is interesting to note that this change in pattern occurred with a country that uses a variation of proportional representation.

As has been noted by political scientists, the purpose of PR is to minimize "wasted votes" (votes that are not shown in the election outcome) and ensure that the parties are represented in complete proportion to the votes they receive from the electorate. Even small political minorities are less likely to waste votes because more party options can be represented in the national legislature. Furthermore, large multimember districts compound the difficulty of gerrymandering and make each district more competitive, as there are more options to choose from across party lines no matter how boundaries are drawn.[183] It does not stop politicians from trying, as seen with James Tully, but it does stop them from succeeding in a way that the SMD system clearly cannot, as seen with the U.S., U.K., and France examples.

Despite Ireland's historic struggles with partisan asymmetry and attempted gerrymandering that came to a head in the 1970s, since the Electoral Amendment Act of 1980, these issues have been largely eliminated. The Irish electoral system has consistently delivered high proportionality in elections since 1980, and all parties have little to no asymmetry between their seat percentage and the percentage of votes from the electorate. The use of an independent redistricting commission has appeared to deliver equitable district lines that don't favor one party, which is a method that the U.S. could look toward to solve its own issues with gerrymandering. It will also be interesting to observe the impacts of the 2022 Electoral Reform

[183] Douglas Amy. "PR Library: How Proportional Representation Would Finally Solve Our Redistricting and Gerrymandering Problems." FairVote, October 20, 2022. https://fairvote.org/archives/how-proportional-representation-would-finally-solve-our-redistricting-and-gerrymandering-problems/.

Act and the implementation of the Electoral Commission in future elections, as it is currently too soon to tell if this will be an effective step against gerrymandering.

The second country chosen for this analysis that uses the single transferable vote system is Australia, which has had no recorded history of gerrymandering or partisan asymmetry in its redistricting process.

Single Transferable Vote: Australia

Historical and Constitutional Attributes of Redistricting

The history of modern federal elections in Australia began in 1918 with the Commonwealth Electoral Act. This Act introduced an alternative, "preferential" voting for the House of Representatives.[184][185] Similarly to single transferable vote, in an alternative voting system the voter ranks their choices of candidates by putting numbers next to their names (with "1" indicating a first choice, and down from there). If more than half of the voters have the same first-choice candidate, that person becomes the MP. If not, the counters remove whoever came last from the ballot, the voters that put that candidate as their first choice will count for the second choice. This process is repeated until one candidate has half of the votes. While the alternative vote and single transferable vote systems are similar in function, their core difference lies in the number of candidates elected. Alternative voting is preferred for single-member districts, whereas single transferable voting is preferred for multi-member districts (which will be highlighted below). Soon after, in 1924, compulsory voting was introduced and has been in

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[184] "Alternative Vote." Electoral Reform Society. Accessed January 20, 2024. https://www.electoral-reform.org.uk/voting-systems/types-of-voting-system/alternative-vote/.

[185] "A Short History of Federal Electoral Reform in Australia." Australian Electoral Commission, October 8, 2019. https://www.aec.gov.au/Elections/history-of-electoral-reform.htm.

place ever since. The electoral system remained unchanged until 1948 when the single transferable vote system was introduced for Senate elections. While this electoral system was unchanged in basic voting function, the introduction of multimember districts marked a transitional period in Australian electoral history, a new method of electing members into the Commonwealth government that has lasted until the present day.

Contemporary Redistricting Decision-Makers: The Australian Electoral Commission

The Australian Electoral Commission is made up of the Electoral Commissioner, the Australian Electoral Officer for that state or territory, the Surveyor-General, and the Auditor-General for that state or territory.[186]

There are three "triggers" that initiate the redistricting process, as outlined in the Commonwealth Electoral Act: where the representation entitlement of a state changes (when the Australian Constitution requirement of the total number of districts to be close to twice the number of senators), where the boundaries of a district are gerrymandered (which has not occurred), or where a redistricting has not been held for seven years because the previous two triggers have not been met.[187] Once a trigger has been hit and the Commission is assembled, two enrollment quotas are calculated. The first is the current enrollment quota, and the other is the projected enrollment quota (which is usually three and a half years after the expected completion of the redistricting process). After the redistricting process begins, the Electoral Commissioner invites interested people or organizations to submit redistricting suggestions, which must be

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[186] "Steps in the Redistribution Process." Australian Electoral Commission, November 13, 2014. https://www.aec.gov.au/electorates/Redistributions/steps.htm.
[187] Damon Muller. "The Process of Federal Redistributions: A Quick Guide." Parliament of Australia, September 6, 2022. https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/pubs/rp/rp2223/ProcessofFederalRedistributionsQuickGuide.

submitted within 30 days of the invitation going out. After this period has passed, the suggestions are made available for public inspection. The public has fourteen days to make written comments on the suggestions, which the Commission will lodge and consider. After receiving public comments, the Commission then divides the territory into "divisions" (districts) and publishes its initial proposed redistricted map. After the maps are published, there is a 28-day period within which objections to the proposed maps can be made. There is then a 14-day period in which written comments on the objections can be submitted. The Commission has 60 days after the closing date for comments of initial objections to deliberate. After considering the objections, the Commission publicly announces a proposed map. If the proposed map is significantly different from the proposal initially made, then the Commission must invite further objections from the public for seven days. If there are any further objections, then the Commission must consider them before making a final decision on the boundaries and names of the electoral districts. The Commission publishes its final decision and reasons in a final report which is sent to the Special Minister of State and then tabled in both houses of Parliament. The Australian Parliament has no power to reject or amend the final determination of the augmented Electoral Commission.[188]

Challenges and Evaluations

Even though there have been no recorded instances of partisan asymmetry or gerrymandering in Australia, public demand in Australia led to further major electoral reform in the 1970s. In the *McKinlay* and *McKellar* court cases, the Australian High Court decided to alter the basis of the drawing of the boundaries of the Australian House of Representative electorates

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[188] "Steps in the Redistribution Process."

by "making it explicit that the constitutional requirement that districts be represented in the House by numbers of members 'in proportion to the respective numbers of their people was a binding one, which the Parliament could not avoid implementing."[189][190] The long-term effect of these court rulings has resulted in more frequent redrawing of electoral boundaries in districts that have experienced more population changes. Queensland, for example, which saw its federal electoral boundaries redrawn only once between 1955 and 1975, has had its boundaries redrawn five times between 1975 and 1998.

The most recent electoral change came in 1983, with the establishment of the Joint Select Committee on Electoral Reform (now called the Joint Standing Committee on Electoral Matters). This parliamentary committee has become the focal point for changes to the electoral system in the last decade. The Committee's work gave rise to such changes as the "printing of party affiliations on ballot papers, the introduction of party financing laws, and the creation of the independent Australian Electoral Commission. The Commission has worked closely with the Committee to seek to maintain an effective implementation of the will of the Parliament in the electoral field."[191] Despite this cooperation, it is the Commission that has the sole charge of redistricting, not the Committee. The true independence of this redistricting body is perhaps what allows Australia to continue having no instances of gerrymandering in its electoral maps.

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[189] "Representation Amendment Bill 1977." Parliament of Australia, 1977.
https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id:%22legislation/billsdgs/XTMO6%22.
[190] "A Short History of Federal Electoral Reform in Australia."
[191] Ibid.

Conclusions

Australia's use of an independent Commission that works outside of the Australian Parliament has proven to be effective in redistricting efforts, as there has been no recorded instance of gerrymandering since the electoral system has switched to a PR, single transferable vote system. There have been some cases of malapportionment, or the adoption of different electoral quotas for different regions for cases of equality (making sure that there are notdistricts being over or underrepresented), which can lead to partisan bias. Two well-known examples of this are the South Australian 'playmander' under former premier (government spokesperson) Tom Playford which created a huge over-representation for country districts, and the 'bjelkemander' in Queensland under then-premier of the Labor party Ned Hanlon, which divided the state into multiple regions with different quotas. Despite the wordplay on "gerrymander," this is not accurate. While there was partisan asymmetry because of malapportionment, it was the result of a specific quota system and not the rigging of district boundaries to favor a political party (gerrymandering).[192] Furthermore, the partisan asymmetry seen in Australia in these two famous examples is not to the scale of gerrymandering seen in the U.S., the U.K., or France.

While it is unlikely that the U.S. will switch to a single-transferable vote system or any variation of PR, one aspect of the Australian system that could be more realistically implemented is an independent redistricting commission. Like Ireland, Australia has had no instances of partisan asymmetry or gerrymandering under this system. Furthermore, there are states in the U.S. that use independent redistricting commissions and often have lower partisan asymmetry of levels of gerrymandering as a result. As was analyzed in Section III of this thesis, New York and Washington use independent redistricting commissions and received high marks from the

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[192] Antony Green. "A Beginners Guide to Gerrymandering." ABC News, November 1, 2011. https://www.abc.net.au/news/2011-11-02/a-beginners-guide-to-gerrymandering/9389878.

Princeton Consortium (A) for the lack of partisan bias present in the enacted district maps. Washington state's independent commission received the highest grade of all fifty states. The independent commissions in these states must seek approval from the legislature before approving district maps, and the states' partisan bias levels are still the lowest in the nation. If the independent commissions were able to enact maps without legislature approval, thus removing any partisan influence from the redistricting process, this perhaps could improve partisan bias measures even further. Given the fact that there are already independent commissions in parts of the United States, the implementation of independent redistricting commissions in all fifty states would be a more manageable and realistic step towards redistricting reform over an electoral change to PR. The implementation of an independent redistricting commission in all U.S. states runs into issues of federalism and constitutionality that won't be addressed in this thesis, but it is a solution worth investigating to solve gerrymandering in the United States.

The next two countries to be analyzed use an electoral system that combines single-member plurality and proportional representation, known as mixed-member proportional representation. In this system, a certain number of seats are elected by single-member plurality rules, and the other seats are elected by proportional representation (the proportionality of each is determined by the country's governing bodies). The first country to implement this system was Germany, which will be analyzed in the following section.

Mixed-Member Proportional Representation: Germany

Historical and Constitutional Attributes of Redistricting

Germany introduced mixed-member proportional representation in 1949, after previously experimenting with an absolute-majority two-round system and pure proportional representation.

It was intended to be a provisional system, but it has remained in place and essentially unchanged since 1949.[193] In this system, voters nominate members to the German Bundestag (Parliament) every four years. The Basic Law in Germany stipulates that Bundestag Members be elected in "general, direct, free, equal and secret elections". "General" refers to the fact that all German citizens can vote once they turn 18 years old. The elections are "direct" because citizens vote for their representatives directly. "Free" means that no political or other pressure may be exerted on voters. "Equal" means that each vote cast carries the same weight regardless of party affiliation or location in Germany. "Secret" means that everyone must be able to vote without others learning which party or candidate he or she has chosen to support without.

Half of the members of the Bundestag are elected directly from Germany's 299 districts, voting in a first-past-the-post plurality system. The other half are elected from party lists in Germany's sixteen states using a pure proportional representation system. To account for both halves of the Bundestag, voters cast two votes in the elections. The first vote allows voters to elect their local representatives to the Bundestag from the districts. The second vote is cast on a party list, and it is this vote that determines the relative strengths of the parties represented in the Bundestag.

There are then two calculations that the Bundestag makes to allocate seats. First, the number of seats to be allocated to each state in the party-list side of elections is calculated based on the proportion of the German population living there. The seats in each state are allocated to the party lists in that state, based on the proportion of second votes each party received. Second, the minimum number of seats is determined by calculating the number of district seats it won

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[193] "Germany: The Original Mixed-Member Proportional System." ACE: The Electoral Knowledge Network. Accessed January 21, 2024. https://aceproject.org/main/english/es/esy_de.htm. The only significant change in the electoral system to-date is the implementation of two separate votes for district and state elections in 1953, rather than a single vote that applied to both elections.

based on the first votes for each state list, as well as the number of seats it gains (or loses) based on the number of second votes it receives. The higher of the two calculations results is the party's minimum number of seats in the state. Adding together the minimum number of seats in each state then represents the guaranteed minimum number of seats in Germany as a whole. Because of these calculations, it is often necessary to increase the size of the Bundestag to ensure that each party receives its guaranteed minimum number of seats, known as "balance seats." The current Bundestag, for example, has 736 seats, with 598 regular seats and 138 balance seats.[194]

While the German electoral system is "mixed" in name, in action it is very much a proportional representation system. The only significant difference between Germany's system and pure PR is that the five percent threshold[195] that Germany has for national elections excludes very small parties from representation in the Bundestag. Despite this fact, there is a large range of political parties in the German government, and despite the threshold, new political parties have been elected into the Bundestag with relative ease:

> "Besides the Christian Democratic Union/Christian Social Union (CDU/CSU), Social
> Democratic Party (SPD) and Free Democratic Party (FDP), which have been in the
> Bundestag since 1949, a new Green Party (GR NE) gained seats in 1983 and 1987. After
> falling below the threshold in 1990, the Greens, in a coalition with Alliance '90, were
> able to return to Parliament in 1994. After German unification, even small East German
> parties gained parliamentary seats. In the all-German elections of 1990, the East German
> Alliance '90/Greens and the Party of Democratic Socialism (PDS) cleared the five

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[194] "Election of Members of the German Bundestag." German Bundestag, March 9, 2011.
https://www.bundestag.de/en/parliament/elections/election_mp-245694.
[195] If a party receives less than five percent of the national vote, then it will not be represented in the Bundestag.

percent threshold, which was applied, separately in the territory of former East Germany and former West Germany, for that one election."[196]

By producing highly proportional outcomes with a range of parties in the Bundestag, the odds of the German electoral system leading to a "manufactured majority" (the occurrence of a single party winning an absolute majority of the Bundestag seats on a minority of the popular votes) are very unlikely. In fact, over the last fifty years in Germany, manufactured majorities have never occurred, and any majority government has been led by a coalition of multiple parties.[197] Like many other representative democracies, Germany pairs the proportional representation electoral system with an independent redistricting commission to handle redrawing district and state boundaries.

Contemporary Redistricting Decision-Makers: The Electoral Districts Commission

Every four years, the president of Germany nominates an independent standing Electoral Districts Commission (EDC - Wahlkreiskommission) as is required by German Electoral Law. Presided over by the president of the Federal Statistical Bureau, the Commission is tasked with reporting population changes and developments in electoral districts and submitting recommendations on how to redistrict following these changes. In addition, a judge of the Federal Court of Administration, and five more members (usually high-level administrative state functionaries) are selected to serve on the commission. The EDC is required to follow the following five rules for electoral redistribution:

- State borders must be observed;

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[196] "Germany: The Original Mixed-Member Proportional System."
[197] Ibid.

- The population of an electoral district should not vary more than plus or minus 25 percent from the overall average population of electoral districts--if the population deviation exceeds plus or minus 33 percent, redistricting is mandatory;

- The number of electoral districts assigned to each state should be in proportion to its relative population size;

- An electoral district should be one coherent area;

- The boundaries of communities, counties and independent cities should be observed.[198]

The Commission has 15 months to complete its report and present its findings to the Ministry of the Interior. This report must contain the current population of electoral districts and recommendations for redistributing district seats and modifying existing district boundaries. Part of this recommendation is several alternative map plans, so that the Bundestag may have more than one option available when deciding how to redraw the districts. The Bundestag, then, makes the final decision on what redistricting plan to adopt.

Challenges and Evaluations

The Bundestag is not required to accept any of the proposals put forward by the EDC (unless population deviations greater than 33 percent), and because of this it frequently decides not to accept many of the EDC's recommendations on redrawing district lines. Rather, it only accepts changes mandated by law.

The EDC has given pushback on this power, especially when also considering in Germany, surplus seats are given to certain states because of population growth which creates

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[198] "Redistricting in Germany." ACE: The Electoral Knowledge Network. Accessed January 21, 2024. https://aceproject.org/main/english/bd/bdy_de.htm.

unequally populated districts *just below* the 33 percent mandatory redistricting limit. It has

argued that "Unless the populations of legislative districts are equalised, bias in the election

results may continue due to an uneven number of members."[199] It is important to note that this

"bias" is not a result of gerrymandering in the district and state maps, as there have been no

recorded cases of that since the implementation of the mixed-member proportional

representation system, but of the surplus seats given under the electoral system. There has also

been no mass public pushback on the German electoral system, which perhaps makes sense as

there has been no recorded instances of gerrymandering and the maps proposed by the EDC are

adopted, at least in part, by the Bundestag.

Conclusions

 In all, redistricting in Germany is enforced under the law, and the use of an independent

organization for redistricting has made gerrymandering nonexistent in the country. However, the

issue of the Bundestag making the final decisions on what redistricting plans to adopt is a source

of concern for future elections. The state governments and members of the Bundestag have not

been receptive to many of the EDC's recommendations on redrawing district or state lines. It

could be a fear that new districts would make it harder for incumbents to win or lead to losses of

party seats, but regardless of the root cause, it has been recorded that the Bundestag only accepts

the redistricting changes that are mandated by law. Despite the ultimate control of redistricting

by the Bundestag, there has been no partisan asymmetry or gerrymandering. While this is largely

due to the legal requirements set in place for redistricting, and some degree of respect for the

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[199] "Redistricting in Germany."

opinions of the EDC, there is still room for potential partisan asymmetry. This potential could be removed if the EDC were given full control of redistricting.

While Germany has had no recorded issues with partisan asymmetry or gerrymandering, its redistricting system would be unlikely to work in the U.S. As was analyzed in Section III of this thesis, the Iowa independent redistricting commission (LSA) drafts maps, but it is up to the state legislature to accept or reject the maps. Furthermore, it can draft up to three maps before the state legislature takes over redistricting. Iowa received a B from the Princeton Consortium, with present partisan bias in its district maps. The Iowa redistricting process, while under a different electoral system, shares similarities with how Germany redistricts, but has more issues with gerrymandering and partisan bias. So, implementing this across America might improve gerrymandering in some states, but would worsen the problem in others and ultimately fail to solve the issue across America.

It was mentioned at the beginning of this section that five out of the six countries (outside of the U.S.) chosen for analysis were democracies, to be as comparable to the U.S. as possible. This leads us to the final country in this analysis, and the second to use mixed-member proportional representation: Hungary. While classified as a parliamentary republic in name, the country has undergone a shift under the leadership of Prime Minister (and alleged authoritarian) Viktor Orban. Despite this fact, Hungary was chosen for analysis because its redistricting system produces a scale of gerrymandering that only has one rival: the United States.

Mixed-Member Proportional Representation: Hungary

Historical and Constitutional Attributes of Redistricting

Members of the Hungarian National Assembly are elected using a mixed-member majoritarian voting system, implemented in 2014. Of the 199 total members, 106 are elected by first-past-the-post in single-member districts and the remaining 93 are elected by a party list PR system in a single national district. For the party list seats, a five percent threshold applies to single parties. This threshold rises to ten percent for alliances of two parties and 15 percent for coalitions of three or more parties. However, parties representing national minorities in Hungary have a lower threshold of 0.27 percent of the vote (a party representing German Hungarians was able to have a seat in the Assembly this way in 2018). Minorities that do not reach the threshold get to send non-voting spokespeople to the Assembly instead.[200]

Another difference between Hungary's mixed-member system and Germany's (or any other relevant countries') is that surplus seats are not distributed to parties to compensate for the disproportionality of single-member district-elected seats, they are simply added on. This means that a party that already got more seats than its share of the vote should allow from single-member districts would still get more from party lists. Thus, the proportionality of this system is limited and there is a strong bias towards the largest party – the Fidesz-KDNP party, which won 67 percent of the seats but 49% of the votes in the 2018 election (134 out of 199 seats). This is less biased than the first election with the mixed-member majoritarian system in 2014, in which the party won 66.8 percent of the seats but 45 percent of the votes (133 out of 199 seats). This

[200] Dylan Difford. "How Do Elections Work in Hungary?" Electoral Reform Society, April 1, 2022. https://www.electoral-reform.org.uk/how-do-elections-work-in-hungary/.

election was more disproportionate than any post-war British election according to the Gallagher Index, which measures electoral disproportionality.[201]

The limited proportionality of this system is only aggravated by Hungarian Electoral Law. Section Four of Hungarian Electoral Law does require that districts vary by no more than 15 percent but calculated from the mean number of voters in the district. Rather than an overall 15 percent deviation, this law allows districts to vary by 15 percent above or below the mean.[202] The Fidesz-KDNP majority party has taken advantage of this law to skew districts even further in its favor.

Given the corruption, disproportionality, and international criticism that the Hungary electoral system receives, it may come as no surprise that their process of redistricting results in massive gerrymanders to a level that can only be seen elsewhere in the U.S.

Contemporary Redistricting Decision-Makers: The National Assembly – Fidesz Party

The redistricting system in Hungary was changed in 2010 when Orban took office. The Fidesz party, the supermajority in the National Assembly, redrew all the constituencies unilaterally without including or consulting any opposition party.[203] To protect the boundaries drawn, the Hungarian Electoral Law was enacted in 2011 that set the boundaries of the districts. With the passage of this law by the Fidesz party, the borders of the districts in Hungary are now written directly into law and moving them would require a two-thirds vote of the National Assembly (which is not currently possible as the Fidesz party is the supermajority for the fourth

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[201] Chris Terry. "Just How Popular Is Hungary's Fidesz?" Electoral Reform Society, April 12, 2018. https://www.electoral-reform.org.uk/just-how-popular-is-hungarys-fidesz/.
[202] Ibid.
[203] Paul Krugman. "Hungary, an Election in Question, Part 2." The New York Times, February 28, 2014. https://archive.nytimes.com/krugman.blogs.nytimes.com/2014/02/28/hungary-an-election-in-question-part-2/?_php=true&_type=blogs&_r=0.

election in a row).[204] It was noted in the beginning of this Section that countries with district boundaries set in the Constitution were deliberately excluded from analysis, because this is not comparable with the U.S. redistricting system. However, an exception was made in the case of Hungary for two reasons: 1) this was a recent change, one that shifted Hungary from a country with low partisan asymmetry in national maps to one of extreme gerrymandering; and 2) this redistricting change exacerbates the political differences between Hungary and the U.S., but also has produced similar results in regard to gerrymandering levels in (areas of) both countries.

Challenges and Evaluations

The trend of disproportionality in Hungarian elections began in 2010 when Prime Minister Viktor Orban was elected. Orban quickly became head of the Fidesz-KDNP party, which has dominated Hungarian politics ever since. The elections are only one snapshot of the series of criticisms that Orban and his government have suffered. Since 2010, Hungary has been the prime example of "democratic backsliding," a process in which newly democratized countries fall back into undemocratic behavior.[205] Freedom House, an organization that monitors democracies, has reported Hungary as a 69/100 in their democracy score, or "partly free." This is the lowest score of any EU democracy, which Hungary is part of.[206] In fact, the European Parliament released a statement in 2022 declaring that Hungary has become an "electoral autocracy" and that it condemns the "deliberate and systematic efforts of the Hungarian

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[204] "Act CCIII of 2011 on the Elections of Members of Parliament." European Commission for Democracy Through Law (Venice Commission), March 3, 2014. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.venice.coe.int/webforms/documents/default.aspx?pdffile=CDL-REF(2014)037-e.

[205] Ibid.

[206] "Explore the Map: Global Freedom Status." Freedom House, 2023. https://freedomhouse.org/explore-the-map?type=fiw&year=2023.

government" to undermine European values. The Parliament took responsibility and said that the "lack of decisive EU action" has contributed to the emergence of a "hybrid regime of electoral autocracy", meaning a "constitutional system in which elections occur, but respect for democratic norms and standards is absent."[207]

The borders of these districts, which are now set in law, are drawn to the Fidesz party's advantage. They break up the areas in Hungary where the opposition party-alliance voters have traditionally been strongest and scatter the voters over Fidesz-majority districts. Following this same pattern, left-leaning districts were broken up and blended into historically right-leaning districts, creating fewer districts where left-leaning candidates have a higher likelihood of winning elections.[208] An area where historically left-leaning districts are located is in eastern Hungary. As seen in the figure below, the 2006 district maps in Hajdú-Bihar (an administrative county in eastern Hungary), under the original redistricting system, were drawn in a manner that allowed for other parties to win elections. The MSZP party referred to in this figure is the Hungarian Socialist Party, which won three of the nine districts in the region (noted in red). The 2014 map, produced after the 2011 Hungarian Electoral Law that locked district boundaries in the Constitution, produced a decisive Fidesz victory in all six districts.

[207] "Hungary Can No Longer Be Considered a Full Democracy." European Parliament, September 15, 2022. https://www.europarl.europa.eu/news/en/press-room/20220909IPR40137/meps-hungary-can-no-longer-be-considered-a-full-democracy.
[208] Paul Krugman. "Hungary, an Election in Question, Part 2."

Figure 14: "Hajdú-Bihar Megye 2006," from *The New York Times* (2014).

HAJDÚ-BIHAR MEGYE 2006

EREDETI VÁLASZTÁSI RENDSZER   ÚJVÁLASZTÁSI RENDSZER

MSZP: 3, FIDESZ: 6   MSZP: 0, FIDESZ: 6
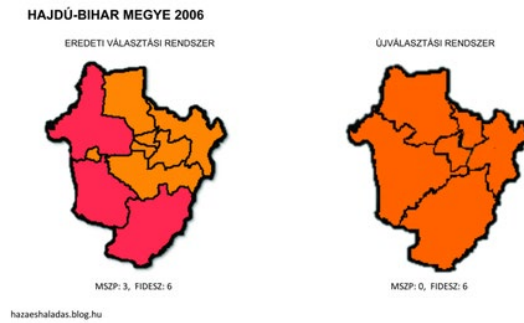
hazaeshaladas.blog.hu   [209]

Both maps include district shapes that are not compact, as seen in various U.S. states (like Michigan, Ohio, and Texas – see Section III), but only after 2011 did the maps produce one dominant winner for all subsequent elections. Electoral maps of the entire state of Hungary, depicting the shifts in district boundaries before and after the 2011 Hungarian Electoral Law could not be found, but evidence from secondary literature suggests that the Fidesz party achieved similar dominance in all regions of the country.

Conclusions

The level of gerrymandering seen in Hungary can only be matched by certain states in the U.S, like Texas, Ohio (see Section III for analysis of their redistricting systems), Oregon, and North and South Carolinas (see Table 2 for Princeton Consortium grades). This highlights a key difference between redistricting in the U.S. and Hungary. American redistricting responsibility is given to the individual states, whereas in Hungary the National Assembly oversees redrawing maps for the entire country. The separation of redistricting power in the U.S. makes producing maps with a dominant party across the whole nation (as seen in Hungary) much more difficult to implement. Another key difference between the two redistricting systems is that no American state can legally cement district boundaries into law as Hungary has done. Despite these

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[209] Ibid.

differences, there are other similarities between the redistricting systems of Hungary and states with gerrymandering issues in the U.S. (referring to states that received a grade of B or lower in partisan bias from the Princeton Consortium) that may explain the prevalence of gerrymandering in both countries. The two main similarities between these redistricting systems are 1) noncompact districts, and 2) the state legislature (or National Assembly) assuming control over redistricting.

As seen in the figures and maps incorporated in this thesis, the district shapes enacted in electoral maps are often not compact. They are often the opposite, with strange, nonlinear boundaries that cut through or move around certain communities to skew the voting power toward a specific party. Compactness is based on the principle that voters residing within a district should live near one another. It can also refer to a shared culture among residents of a district that should be kept intact. In making districts noncompact, these communities are often separated or packed into one district where they become a minority voice in the election process. This was seen in Ohio and Texas (among other U.S. states) and the Republican party drew district boundaries that cut through strongly democratic communities. This was also seen in Hungary, as the boundaries were drawn to spread out the ideological left parties and made the Fidesz party the dominant population in every district.

The drawing of noncompact district boundaries was allowed to happen in both countries because the legislatures were given the primary responsibility of redistricting. With no independent body to check their partisan influences in redrawing district boundaries (or cementing them into law, as Hungary did), the politicians in the state legislatures and National Assembly are given excessive power to shape the districts to their will. In Hungary this has been a clearer process, with the Fidesz party taking over the legislature, instituting a supermajority,

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gerrymandering the district maps, and then cementing them into law with no significant political opposition to challenge them.

Unlike Hungary, there is some political counterforce to gerrymandering in America. More specifically, the Supreme Court has struck down state maps on occasion. The most recent example of this came in September 2023, when the Supreme Court struck down Alabama's efforts to stop the redrawing of its congressional maps by a court-appointed "special master." This decision came after the case *Allen v.* Milligan (2023), in which Alabama's proposed map was struck down by a federal district court for "severely fracturing black voters among multiple districts," thus violating the Voting Rights Act.[210] However, as seen in this case, the Supreme Court only intervenes in cases of racial gerrymandering. In the case *Rucho v. Common Cause* (2019), the Supreme Court ruled that it does not have the power to oversee issues of partisan gerrymandering and that responsibility lies with the individual states (see Table 1 for more details). So, like Hungary, partisan gerrymandering as seen in Ohio, Texas, and other U.S. states is allowed to continue if the majority in the state legislature continues to hold onto power and redraw the district maps in its favor.

The fact that the levels of gerrymandering between a declared "electoral autocracy" and "backsliding democracy" with an authoritarian leader are similar to (parts of) a country that prides itself on being the "land of the free" is a reason for American concern. These countries share certain elements of redistricting that have been connected to vast gerrymandering, partisan bias, and an increasingly non-democratic electoral process. To truly live up to the ideal of representative democracy, the gerrymandering of districts to benefit certain incumbents of parties

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[210] Li, Michael. "Alabama's Congressional Map Struck Down as Discriminatory - Again." Brennan Center for Justice, September 26, 2023. https://www.brennancenter.org/our-work/analysis-opinion/alabamas-congressional-map-struck-down-discriminatory-again.

at the cost of the opinions of voters must be eliminated, as other U.S. states and countries in this thesis have done. This would not be an easy task, but examples have been set by other countries, including allies of the United States, who can help them overcome this issue in the political system.

Cross-National Analysis and Conclusions

While gerrymandering originated in the United States and has been highlighted in secondary literature as a case of American exceptionalism in redistricting, the individual country analyses of the United Kingdom, France, and Hungary have shown that this is not the case. Even in the cases of Ireland, Australia, and Germany, countries that have not had successful attempts at gerrymandering, there are still historical and constitutional elements of redistricting that make them less immune to gerrymandering than previously thought. Interestingly, the structural factors that make each country susceptible to gerrymandering are the same factors that are present in the American states that currently struggle with gerrymandering.

The United Kingdom struggles with gerrymandering, despite the use of non-partisan, independent redistricting bodies, due to two main factors. The first of these factors is the structure of U.K. redistricting laws. They are often vague, like the rule that "as far as practicable," district boundaries should not cross major local government boundaries. The vague nature of redistricting laws can also be found in certain U.S. states. While there are U.S. federal requirements of one person, one vote and the Voting Rights Act that every state must follow, the state can choose whether it wants to add additional requirements. As seen in Ohio (see Section III), the only laws it requires are that a plan cannot favor a political party or incumbents, cannot split governmental units, and must attempt to draw compact districts. However, there are no

specifications or measurements on how this is to be done, so it is very open to partisan interpretation. In Texas (Section III), the state constitution requires that state legislative districts must be contiguous (with no specifications on how to achieve this) and preserve whole countries, while there are no state law requirements for drawing congressional districts.

Other U.K. procedural issues have also received a fair share of criticism. For example, the guarantee of a minimum number of seats for three of the four countries (excluding Northern Ireland) means that they are over-represented relative to England, whose population is growing at a more rapid pace. Another example is the use of the registered electorate rather than the total population in redistricting, meaning that two to three million people are not included in the map plans. Finally, rules that have given political parties increased power in criticizing proposed maps also is a major source of complaint. This rule states that political parties are allowed to critique the maps at public inquiries (which favor their electoral interests) without saying why, which could convince the assistant commissioner to force map changes and potentially skew the system.

While the structure of U.K. redistricting laws is not conducive to preventing gerrymandering, the second and more significant factor contributing to gerrymandering is that the redistricting committee must answer to the legislature for map approval. If the assistant commissioner approves of the independent redistricting commissions' maps, then the maps are published in a final report to Parliament. Parliament has the power to accept or reject the district maps and recommend changes to district boundaries if it so chooses. This is very similar to the redistricting process in some U.S. states. As was analyzed in Iowa and Washington (see Section III), the independent redistricting commissions had the responsibility of drawing state district maps, but it was up to the state legislature to accept or reject them. It is also worth noting that

both the U.S. and the U.K. use an SMP electoral system, which places a higher stake on redistricting as it favors the largest parties over smaller ones with overrepresentation. While the U.K. has more than two parties, unlike the United States, the Labour Party and Conservative Party are the two largest parties in Parliament and have enough of a majority that they are two most powerful by far. Seeing as states like Iowa and the U.K. use similar methods of redistricting, it is perhaps no surprise that there are moderate levels of partisan asymmetry and gerrymandering present in both regions.

It has been shown through the U.S. and the U.K. case studies that partisan bias is more likely to occur in SMP systems, when redistricting is a partisan process, not conducted by an independent and/or non-partisan group (especially when the electoral system is dominated by two parties or coalitions). This problem is exacerbated when redistricting is not guided by strict legal rules and when redistricting does not occur frequently, allowing population changes and inequalities to grow and gerrymandering practices like packing or cracking can take their greatest effect. Because France suffers from all these shortcomings, it is no surprise that gerrymandering has occurred.

Even though France is a multiparty system, two main coalitions dominate the National Assembly. The parties that are not included in these two coalitions have never represented more than two percent of the seats in the National Assembly, so elections remain aren't representative of a true multiparty system. Furthermore, unlike the U.S. or the U.K., there is no set schedule for redistricting in France. Because of this, there have only been three censuses since the Electoral Reform of 1951: 1958, 1986, and 2009. With such long spaces in between redistricting that does not consider the rising and changing populations in France, certain districts become much more underrepresented (or overrepresented) than others. This problem is only exacerbated by the fact

that in France, evaluating population equality across districts refers to residents, rather than total population or registered voters. Aside from population shifts not being accounted for due to no regular redistricting, there are no specific redistricting rules in France (like Texas). This allows the Constitutional Council to draw districts with few constraints, which can potentially introduce partisan bias and gerrymandering as we have seen in recent French maps.

While the U.S. has regular redistricting, the two-party system in state and national legislatures is a significant similarity with France, and a factor in placing significant importance on redistricting for elevating or suppressing partisan voices. Furthermore, as seen in states like Ohio and Texas (see Section III), vague or nonexistent state redistricting rules give the state legislature more power to redraw the district boundaries in their favor. In France, redistricting is done by the Constitutional Council (with advice given by the Consultative Council), who are appointed by President, the National Assembly, and the Senate. In states like New York (see Section III), the Hybrid Commission is elected by members of the state legislature. While there are "independent" commissions placed in charge of redistricting, they are elected by politicians and thus more susceptible to partisan influence. New York does not currently have issues with gerrymandering like France. However, this does not mean that the system is completely protected against it, and it could only be a matter of time until a commissioner with partisan intent is brought into the commission and has the power to redraw districts in a biased manner.

The next set of countries analyzed did not engage with the SMP electoral system, instead using the system of single transferable vote. While this system, in theory, is closer to PR and thus lessens the chances of gerrymandering, an analysis of Ireland showed that occasions of gerrymandering are still possible under the right conditions. The Irish electoral system has consistently delivered a high degree of proportionality, and all parties ranging from the largest to

smallest have little to no asymmetry between their seat percentage and the percentage of votes from the electorate. However, in 1974 gerrymandering was still able to occur due to the Electoral Amendment Act, which was passed by the Fine Gael-Labour Party coalition. As a result of this Act, Minister for Local Government James Tully radically redrew the boundaries in the Greater Dublin region to capitalize on the weakness of the Fianna Fail party in this region and construct the maps to make them win fewer seats in the Dáil. However, this plan backfired as the Fianna Fail party still won majority votes in each district that was redrawn. This event inspired changes in the redistricting system. The 1974 Act was repealed by the Electoral Amendment Act of 1980, which created a new set of constituency boundaries, and Ireland has returned to a highly proportional, gerrymandering-free redistricting system since then.

As seen in the U.S., U.K., and France, there is a clear pattern that has been observed with political parties overseeing redistricting and partisan asymmetry subsequently appearing in district maps. So, it is not surprising that Ireland struggled with this issue in the 1970s after the Electoral Amendment Act allowed Tully and his coalition to redraw the district maps. What is a break from the pattern we have seen from other countries is that, in Ireland, the Act caused so much national outrage that the entire redistricting system was changed in such a manner that no gerrymandering has been successfully attempted ever since. The use of an independent redistricting commission, that can draw and enact maps free from legislature approval, has appeared to deliver equitable district lines that do notfavor one party. This is a method that the U.S. could look toward to solve its issues with gerrymandering. Even in the U.S. state with the least amount of partisan bias in redistricting (see Table 2 for Princeton Consortium grades), Washington's independent redistricting commission still must seek approval from the legislature

before enacting district maps. If the requirement of legislature approval could be eliminated, perhaps the U.S. would have redistricting results more akin to Ireland.

The second country to use single transferable vote in this analysis was Australia, a country that has never had any recorded instances of gerrymandering (or attempts at gerrymandering, as Ireland had). In response to public demand, Australia underwent electoral reform in the 1970s and 1980s, which had three main changes: district boundaries have begun to be redrawn more frequently, the creation of the Joint Standing Committee on Electoral Matters, and the subsequent creation of the independent Australian Electoral Commission. The Committee and the Commission work closely together to implement the will of Parliament in the electoral field and have effected changes like the printing of party affiliations on ballot papers, and the introduction of party financing laws. Despite this cooperation, the Commission has the sole charge of redistricting, as the Australian Parliament has no power to reject or amend the final maps.

Australia's implementation of an independent Commission that is able to work outside of the Australian Parliament, with no requirements of seeking legislature approval for final maps, has proven to be effective in redistricting efforts, as there has been no recorded instance of gerrymandering since the electoral system has switched to a PR, single transferable vote system. There have been some cases of malapportionment, or the adoption of different electoral quotas for different regions for cases of equality (making sure that there are not districts being over or underrepresented). While there has been some partisan asymmetry because of malapportionment, it was the result of a specific quota system and not the rigging of district boundaries to favor a political party (gerrymandering). Aside from these instances, there has been no attempts of gerrymandering, successful or otherwise, in the Australian system.

While it is unlikely that the U.S. will switch to a single-transferable vote system or any variation of PR, Americans could take one vital lesson from Australia, a lesson also learned from Ireland: the role of independent redistricting commissions in producing equitable district maps with no gerrymandering. Australia has had no instances of partisan asymmetry or gerrymandering under this system. States like New York, Iowa, and Washington (see Section III) already use independent redistricting commissions in the U.S. Even with the requirement of legislature approval for final maps, these states have some of the lowest partisan asymmetry levels in the U.S. If these commissions were to be free of legislature approval, thus removing any partisan influence from the redistricting process, this perhaps could improve partisan bias measures even further. Given the fact that there are already independent commissions in parts of the United States, the implementation of independent redistricting commissions in all fifty states would be a more manageable and realistic step towards redistricting reform over an electoral change to PR, while still seeking the sort of gerrymandering-free redistricting process that Australia has established.

Similarly to the U.K. redistricting system, the "independent" committee in Germany must answer to the legislature for map approval. The EDC puts forward map proposals to the Bundestag, but the Bundestag is not required to accept any of the proposals. As a result of this power, the Bundestag has not been receptive to many of the EDC's recommendations on redrawing district or state lines, and only accepts the redistricting changes that are mandated by law. The fact that it has the power to do this should be a source of concern for partisan bias and gerrymandering in electoral maps. This concern is only amplified when also considering the issue of surplus seats in Germany (surplus seats being given to certain states because of population growth). This issue has contributed to unequal districts, but just below the 33 percent

mandatory limit so the Bundestag doesn't have to intervene. The EDC has spoken out against this, as this rule compromises their effort at equitable redistricting, but until that electoral rule changes, there is nothing that they can do to stop its implementation in redistricting. Despite the ultimate control of redistricting by the Bundestag, there has been no partisan asymmetry or gerrymandering in Germany. This is largely due to the legal requirements set in place for redistricting, but there is still room for potential partisan asymmetry.

Germany's redistricting system of an independent commission requiring legislature approval to enact final electoral maps is very similar to the redistricting process in some U.S. states. As was analyzed in New York, Iowa, and Washington (see Section III), the independent redistricting commissions have the responsibility of drawing state district maps, but it is up to the state legislature to accept or reject them. Germany has had no recorded issues with partisan asymmetry or gerrymandering with this system, but its success has not been replicated in the U.S. Looking into Iowa redistricting system specifically, a system that has been praised as the "gold standard" for American redistricting (see Section III), the independent redistricting commission (LSA) drafts maps but it is up to the state legislature to accept or reject them. Furthermore, it can draft up to three maps before the state legislature takes over redistricting, giving the legislature power to reject three maps for the sake of getting to draw the maps themselves (although it is worth noting that this has not been done yet). Iowa received a B grade from the Princeton Consortium, with present partisan bias in its district maps. The Iowa redistricting process, while under a different electoral system, shares similarities with how Germany redistricts, but has more issues with gerrymandering and partisan bias. Thus, implementing this across America would ultimately fail to solve the issue of gerrymandering.

While Hungary has implemented a redistricting system that the U.S. should not and legally cannot implement, it is worth noting that the two systems produce very similar levels of gerrymandering, more so than any other country analyzed. After Viktor Orban was elected and became head of the Fidesz-KDNP party, which has since become a supermajority in the National Assembly, the district boundaries were changed and cemented into Hungarian law. The district boundaries break up the areas in Hungary where the opposition party-alliance voters have traditionally been strongest and scatter those voters over Fidesz-majority districts. Hungary has been declared a "backsliding democracy" and "electoral autocracy" by organizations like the European Parliament and Freedom House, with an electoral system in which elections technically occur but respect for democratic norms is no longer present. Given the international backlash against the electoral actions of Hungary, it is perhaps surprising that the gerrymandering it produces is comparable to the United States, a country praised for its emphasis on democracy and freedom for its citizens.

The level of gerrymandering seen in Hungary can only be matched by certain states in the U.S., as was seen in the analyses of Texas and Ohio (see Section III for analysis), as well as in the grades given by the Princeton Consortium to other states (see Table 2). While gerrymandering levels are similar, there are important differences between the redistricting systems of both countries that must be addressed. First, American redistricting responsibility is given to the individual states, so producing maps with a dominant party across the whole nation (as seen in Hungary) is much more difficult to implement. Second, no American state can legally cement district boundaries into law as Hungary has done. Despite these differences, there are other similarities between the redistricting systems of Hungary and states with gerrymandering

issues in the U.S. The two main similarities between these redistricting systems are noncompact districts, and the state legislature (or National Assembly) assuming control over redistricting.

As seen in the figures and maps incorporated in this thesis (see Figures 4-6), the district shapes enacted in electoral maps are often not compact. In making districts noncompact, communities are often separated or packed together into one district, so they become a minority voice in the election process. This was seen in Ohio and Texas, where the Republican party drew district boundaries that cut through strongly democratic communities, as well as in Hungary, where the ideological left parties were spread out to make the Fidesz party dominant in every district.

The drawing of noncompact district boundaries was allowed to happen in both countries because the legislatures were given the primary responsibility of redistricting. With no independent body to check their partisan influences in redrawing district boundaries (or cementing them into law, as Hungary did), the politicians in the state legislatures and National Assembly are given excessive power to shape the districts to their will. In Hungary this has been a clearer process, with the Fidesz party taking over the legislature, instituting a supermajority, gerrymandering the district maps, and then cementing them into law with no significant political opposition to challenge them. While the Supreme Court does interfere in cases of gerrymandering occasionally, it is only for racial gerrymandering, so states like Ohio and Texas are allowed to continue gerrymandering as long as the majority in the state legislature continues to hold onto power and redraw the district maps in its favor.

There are no elements of Hungarian redistricting that the U.S. should implement if it wants to prevent gerrymandering. However, cross-analyzing Hungary with the U.S. is still important in seeing how Americans can learn from Hungary's shortcomings to redistrict more

equitably. By seeing where Hungary and the U.S. have similar redistricting practices and electoral map results, Americans can implement changes (perhaps guided by other countries analyzed in this thesis, like Ireland and Australia) to begin redistricting without partisan bias and live up to its title as a fully representative democracy.

Section VI: Conclusions

The purpose of this thesis was to ascertain the significance of gerrymandering in the electoral system today and to understand if critics of gerrymandering in the U.S. were correct that it poses a profound political problem, a problem that contradicts democratic values, by taking a cross-national, comparative view of different electoral systems and seeing if gerrymandering is present. Furthermore, the presence of gerrymandering within an SMD electoral system and the lack of gerrymandering under a PR electoral system were also examined to determine if there was any correlation between these factors.

When looking at the six different U.S. states chosen for analysis, it became clear that regardless of the level of gerrymandering present, the redistricting systems were each fundamentally flawed. However, depending on the structure of the redistricting system, more specifically how much partisan involvement was allowed, the levels of gerrymandering and partisan bias varied.

Iowa's renowned independent redistricting commission still must seek approval from the state legislature before enacting final maps. After three rejected maps, the Iowa Supreme Court steps in to redraw the maps. While three rejections have never occurred, it leaves the door open for further partisan redistricting beyond the power that the state legislature already has approving or rejecting maps. In Michigan, the Independent Citizens Redistricting Commission has proven ineffective in combating gerrymandering, as it has persisted in the form of geographic (county) splits that cut across communities. County splits have been correlated with voter information costs when it comes to knowing who candidates are. In these states, redistricting commissions are beholden to the state legislature, and perhaps as a result they struggle with gerrymandering and partisan biases in electoral maps.

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Ohio and Texas blatantly give their state legislatures the power to redistrict, with no pretense of an independent commission. Politicians, then, are allowed to redraw the district boundaries for their own elections, which is inherently unfair to the voters whose voices are diluted for having different political opinions. In both Ohio and Texas, if the state legislature fails to pass a map plan, the backup Commission steps in to redistrict. However, the Commission is made up of mostly, if not entirely, politicians, so it could easily lead to further partisan gridlock. This has not occurred, as both Ohio and Texas have strong Republican majorities that are supported by gerrymandered maps, but it remains a possibility in future redistricting efforts. In both Texas and Ohio, the responsibility of redistricting is kept exclusively among partisan bodies, with no intervention from independent or non-partisan groups, which is deeply problematic for gerrymandering. These factors explain how Ohio and Texas have some of the worst cases of gerrymandering not only in the United States but in the world.

Even the states that received an A from the Princeton Consortium did not have redistricting systems that effectively prevent gerrymandering. New York has no partisan bias in redistricting, but legislative leaders in New York directly appoint eight of the ten members of the Hybrid Commission. Furthermore, like Iowa, the maps that the Hybrid Commission draws must be approved by the state Legislature. If the Commission's maps are rejected twice then the Legislature can enact its maps. While this rejection has not happened, it opens the door for partisan bias beyond the influence that the state Legislature already receives in nominating members to the Hybrid Commission.

The case of Nebraska is certainly an outlier to the general pattern of independent redistricting commissions producing maps with less partisan bias and gerrymandering than maps produced by the state legislatures. In Nebraska, the state Legislature oversees redistricting and

requires only a simple majority to pass a redistricting plan. This is concerning, because if there a majority party in the Legislature, then it will be easy to pass gerrymandered maps under this system. It may have produced equitable maps in this last redistricting cycle, but depending on who is elected to the state legislature and thus gains control over redistricting, the chances of gerrymandering in Nebraska are higher than in other states due to the lack of independent oversight over direct partisan control of drawing district boundaries.

The general pattern to be extracted from the analysis of these six states is that the less partisan control there is over redistricting, the lower the levels of gerrymandering are in the resulting electoral maps. New York, Iowa, and Michigan represented some of the best electoral maps in America (see Table 2 for grades of all 50 states). While they weren't perfect, they were less partisan than maps produced by Ohio and Texas, which were completely drawn and enacted by the state legislatures. Nebraska is an exception to this pattern, as the state legislature conducted redistricting but produced equitable, "A-grade" maps. However, it appears to be the only exception of all 50 states in America. This pattern was also apparent in the cross-national comparative analysis (see Section V), which shows the power of removing redistricting from the hands of politicians for whom the elections stand to benefit.

While there was no concrete correlation between SMD and gerrymandering, or PR and a lack of gerrymandering, there were certainly consistent patterns that emerged from the research. It has become apparent that countries that use a variation of a PR electoral system, combined with an independent (sometimes non-partisan) redistricting commission have caused less gerrymandering historically than countries that use first-past-the-post, SMD systems and allow the national (or state) governments to conduct redistricting.

Each of the three countries in this study that use an SMD electoral system (the U.S., U.K., and France) also had issues with gerrymandering. As was discussed in Section IV, this occurrence is not entirely a coincidence. Political science scholars and electoral experts have identified the SMD system is uniquely suited to gerrymandering because, with only one representative being chosen per district and parties competing under "winner-take-all-rules," the stakes are much higher when it comes to securing a majority in the state (or national) legislature. In most states in the U.S., as well as the U.K. and France, the state/national legislature has the first opportunity to complete the redistricting process, with no intervention from other governmental bodies (like federal courts) except in circumstances like racial gerrymandering (in the U.S.) or if new maps aren't enacted in time.

While the U.S., U.K., and France all conduct elections under an SMD system, they do not share relative levels of gerrymandering. The U.S. has significantly more gerrymandering across the country, followed by France and then the U.K. Looking at France first, the Constitutional Council is appointed by the French president, National Assembly, and Senate and thus could be subject to some partisan bias. However, the appointment of the redistricting body by politicians is somewhat checked by the multiparty system that France has. Most of these parties form two major coalitions in the National Assembly, but when it comes to redistricting having more individual parties voice their opinions allows for less of a majority opinion dictating how district boundaries are to be drawn. Comparing France's multiparty system to the two parties present in every U.S. state legislature, it seems that having more voices with different opinions can prevent more gerrymandering from occurring. By removing the possibility of a single party having a majority in the legislature (and thus having majority control over redistricting), gerrymandering in France has been somewhat limited by the presence of numerous parties.

The U.K. has lower levels of gerrymandering than either France or the U.S. This is largely due to the use of independent boundary commissions to draw district lines. However, as was explained earlier in this thesis, these independent boundary commissions must answer to Parliament for approval of maps. This redistricting system is a bit of a double-edged sword. On one hand, gerrymandering in the U.K. occurs because the commissions must answer to the state legislature, which can accept or reject maps, as well as offer suggestions for what the next map should look like (perhaps making suggestions that benefit the majority). On the other hand, Parliament cannot draw the district maps even after rejecting the commissions' maps multiple times, so the independent commissions still retain some power in preventing partisan influence from being enacted within the maps. Furthermore, like France, the U.K. is a multiparty system, so more voices in Parliament can prevent a single-party majority from assuming control and exerting influence in redistricting, as seen in the U.S. These factors perhaps explain why gerrymandering is present in the U.K.'s enacted maps, but to a lesser extent than France or the U.S.

Even the U.S. states with the lowest levels of gerrymandering do not have perfect redistricting systems. The state with the lowest level of gerrymandering (according to the Princeton Consortium – see Table 2) is Washington, but its redistricting system is not free from flaws as the independent commission's maps must be approved by the state legislature (like the U.K. system). The two states with low asymmetry that were analyzed in Section III were New York and Nebraska. New York's independent Hybrid Commission is appointed by politicians in the state legislature, which increases the chances of partisan bias in redistricting (like France). In Nebraska, the state legislature oversees redistricting, which can also produce extreme partisan asymmetry (as seen in Ohio and Texas – see Section III) depending on the integrity of the

politicians in the legislature. From the redistricting data from the U.S., U.K., and France, it seems that the presence of a two-party system that only elects one representative per district incentivizes gerrymandering and partisan bias that is difficult to mitigate.

While each of these three countries struggles with gerrymandering, other countries around the world have constructed electoral and redistricting systems that combat the undemocratic features of gerrymandering. Interestingly, all these countries that redistrict "well" (meaning that there is no partisan asymmetry) do so under a PR system. Ireland and Australia are prime examples of this. While there was an attempt at gerrymandering in Ireland in the 1970s, the action caused such outrage that there was almost immediate electoral change that has produced equitable maps ever since. Australia has never had recorded a case of attempted or successful gerrymandering in electoral maps. What do these countries have in common? Independent redistricting commissions enact electoral maps without approval from the national legislature. American states like New York, Iowa, and Washington (see Section III) use independent redistricting commissions, but they require approval from the state legislature for final maps. Even with the legislature approval requirement, these states have some of the lowest partisan asymmetry levels in the U.S. It is unrealistic to argue that the U.S. could switch to a PR electoral system, but if it were to follow Ireland and Australia's example and implement independent redistricting commission that does not need legislature approval to enact maps, then perhaps it can more effectively combat the undemocratic features of gerrymandering that it is currently suffering from.

Under the mixed-member PR system, some representatives are elected by SMD rules while others are elected under PR rules. Related to this issue, or perhaps because of it, some countries that use SMD do struggle with gerrymandering, albeit at lower levels than the U.S.,

U.K., or France. Similarly to the U.K., the "independent" redistricting committee in Germany must answer to the legislature for map approval. The EDC proposes maps to the Bundestag, but the Bundestag is not required to accept any of the proposals. In fact, the Bundestag has only been recorded accepting the redistricting changes that are mandated by law. Combined with its distribution of surplus seats that contribute to unequal district sizes, at first glance Germany's redistricting system seems to invite gerrymandering and partisan asymmetry in its electoral maps. However, gerrymandering does not result from either of these issues. This is perhaps due to the integrity of politicians in the Bundestag, or more likely due to the struct redistricting laws that Germany has in place which is not present in the U.S. Apart from the one-person, one-vote standard and the Equal Protection Clause of the 14th Amendment of the Constitution, U.S. states are not legally required to add any additional redistricting requirements (and states like Texas have chosen not to add any requirements, resulting in extreme partisan asymmetry in electoral maps). While Germany has no issues with gerrymandering, states like New York and Iowa (see Section III) use a similar system of redistricting but have visible partisan bias and gerrymandering present in their maps. It seems that while the redistricting systems are very similar, the difference in the electoral system plays a role in the levels of gerrymandering present in electoral maps.

While Germany appears to have no issues with gerrymandering or partisan asymmetry, Hungary was just the opposite. In fact, the levels of gerrymandering in Hungary only have one other rival in the world: the United States. To be more specific, the U.S. in its entirely does not match the levels of gerrymandering seen across Hungary. More accurately, certain states like Ohio, Texas, and North and South Carolina (see Table 2 for more state examples, given a D or less by the Princeton Consortium). This differentiation is mostly because in Hungary, the

National Assembly oversees redistricting, whereas in the U.S., the states oversee conducting redistricting. This makes it so that producing maps with a dominant party across the whole nation is much more difficult to implement in the U.S. Another key difference between the two countries' redistricting systems is that no American state can legally cement district boundaries into law as Hungary has done.

However, despite these differences, there are important similarities between the redistricting systems of Hungary and states with gerrymandering issues in the U.S. The two main similarities between these redistricting systems are noncompact districts, and the state legislature (or National Assembly) assuming control over redistricting. Making districts noncompact is conducive to gerrymandering because it often separates or packs together certain communities, so they become a minority voice in the election process. This was seen in Ohio and Texas, as well as in Hungary, where the communities that historically supported "left" parties were spread out to make the Fidesz/Republican party dominant across districts. The ability of noncompact districts to be incorporated into electoral maps is because, in both Hungary and the U.S., the legislatures have the primary responsibility of redistricting. Whether it be the fact that the national (or state) legislature is directly in charge of drawing electoral maps (seen in Hungary, as well as in Ohio and Texas), or independent commissions must seek approval from the state legislature before final maps can be enacted (seen in New York and Iowa), the legislature has a strong hand in the process of determining district boundaries. These similarities between the U.S. and Hungary are key to understanding the high prevalence of gerrymandering in both countries and can perhaps guide America away from following the footsteps of a backsliding democracy.

In the words of former Ohio Senator Nina Turner, "Redistricting reform is one of the most important issues we can tackle."[211] The U.S. has been touted by many as one of the greatest, most powerful democracies in the world. However, the U.S. has also been touted as a national example of political corruption in redistricting. To regain its reputation in redistricting and become truly representative of all its citizens, the issue of gerrymandering must be eradicated, and the process of redistricting must be given more respect and recognition in the American political system. Former governor of Michigan John Engler has said that "Redistricting is one of the purest actions a legislative body can take."[212] Unfortunately, this purity has been corrupted by politicians in state legislatures who value political advantage over the will of the people. However, there is hope for a better future. By following the example of countries like Ireland and Australia, America can move down a path towards true representation by allowing people, not politicians, to choose their next leaders in Congress. This process starts with redistricting, and the time for change is now.

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