

Algorithmic Redistricting Amendment

Calvin Coolidge, the 30th President of the United States from 1923-1929 once said, “To live under the American Constitution is the greatest political privilege that was ever accorded to the human race.” The U.S. Constitution was written in 1787, and now nearly two and a half centuries later, it still outlines the fundamental structure of the current government and guarantees certain rights including the right for citizens to vote. However, voter participation, diversity in political ideas, and fairness of elections are under attack due to gerrymandering. I am proposing an amendment to the U.S. Constitution to combat this: an amendment requiring state legislatures to create mathematical algorithms that would determine the drawing of new district lines.

During the Constitutional Convention, the Connecticut Compromise created a bicameral legislature containing the Senate and House of Representatives. The compromise allocated two senators for each state and a number of representatives based on each state’s population.

Article 1, Section 2 of the U.S. Constitution requires that a census be conducted every 10 years to count the number of residents in the United States. After each census, states must redraw congressional district lines to account for changes in population, diversity, and depending on each state’s laws, other factors as well. According to Article 1 of the U.S. Constitution, each state legislature is in charge of drawing the congressional district lines.

Since each state legislature is in charge of drawing new districts for their state, it is easy for redistricting to become a victim of gerrymandering. Gerrymandering is the manipulation of the drawing of districts in order to have the results of elections favor the controlling party of the state legislature. By drawing district lines into unusual and uneven sections, the controlling party of a state can significantly influence the results of a congressional election by grouping voters together so that districts will more likely vote a certain way. Legislators commonly do this by “cracking” or “packing”. Cracking is dividing up similar voters into different districts, in order to reduce their voting power.

Packing is cramming similar voters into a small number of districts, so their voting power is dominant only in those few districts, and nowhere else.

The word “gerrymander” was created in March 1812 in Massachusetts. The Massachusetts State Legislature at that time was controlled by Republicans, and they drew the new congressional districts to benefit the Republican Party and Gerry, its Republican Governor. The Boston Gazette created a political cartoon comparing the twisted squiggly-shaped districts to a salamander, and named it after the governor, the “Gerry-mander”.

Some may say that gerrymandering is not an issue in our country because there are laws in place that restrict it to some degree. In 1964, the Supreme Court ruled in *Reynolds vs. Sims* that the Equal Protection Clause of the 14th Amendment applies to redistricting by requiring voting districts within a state to have equal populations (National Conference of State Legislatures). Also, the Voting Rights Act of 1965 encourages diversity of races and ethnicities within a district and prohibits districts that might silence or lessen the power of minority voters. These laws both help to contain gerrymandering relating to population and minority packing and cracking, but does not fully prevent it.

There are multiple cases of districts drawn within the last couple of years that are undeniably gerrymandered through cracking or packing. In 2020 (before the new districts were drawn from the 2020 census) in the Dallas-Fort Worth area of Texas, there were 5 solid Republican districts, 2 solid Democratic, and 5 swing districts (Beckwith and Niquette). The new 2022 map created 9 solid Republican districts, 3 solid Democratic districts, and no swing districts (refer to Image 1 below). While the number of solidly Democratic districts increased by 1, the number of swing districts fell from 5 to zero. In the 2020 map (before the new map was drawn), District 24 was a toss-up swing district. However, in 2022, District 24 is now solidly Republican, because state representatives on the redistricting committee, packed the Democratic votes from District 24 into District 33. District 33 now starts above Arlington, thinly snakes around a part of Republican

District 25, and takes the Democratic votes that were previously in District 24. This shape is unusual, not geometric, and is clearly packing Democratic votes into the already Democratic District 33, so that Republicans can have a better chance at winning District 24. The map clearly exhibits gerrymandering by packing Democratic votes into 3 districts, which eliminated the swing districts.

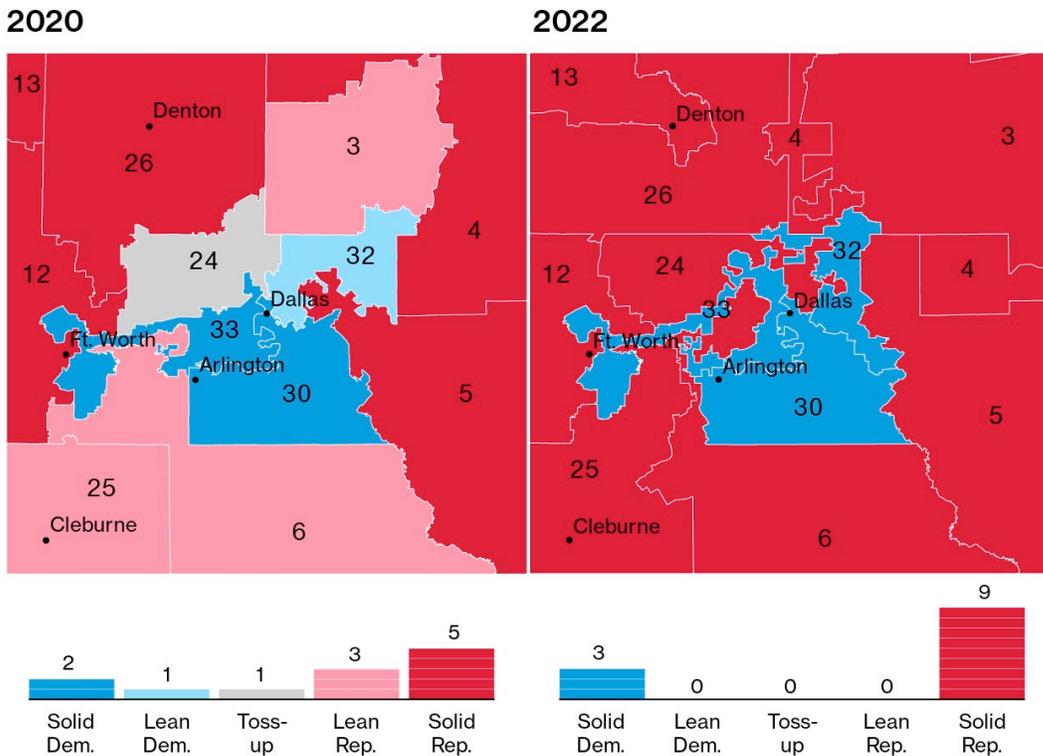
Image 1: Dallas-Fort Worth Congressional Districts in 2020 vs. 2022 - Packing Example

Further from center

Fewer Dallas-Fort Worth area congressional districts will be competitive after redistricting takes effect

Cook House Race Ratings

■ Solid Dem. ■ Lean/Likely Dem. ■ Toss-up ■ Lean/Likely Rep. ■ Solid Rep.



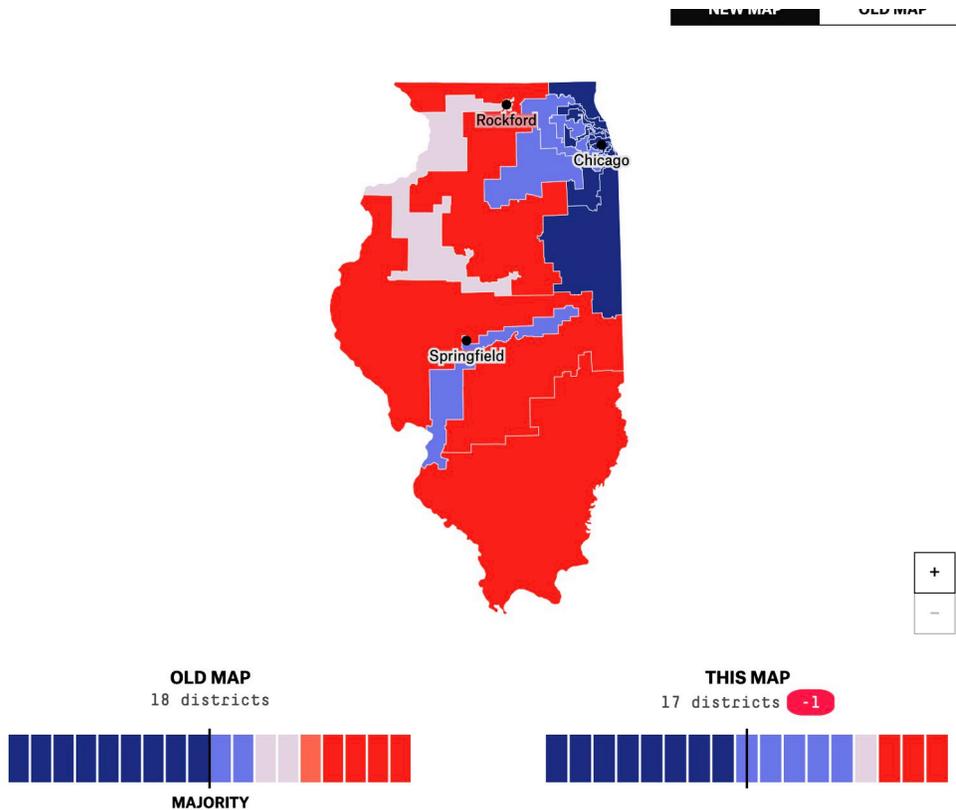
Sources: Cook Political Report, All About Redistricting

Bloomberg

It is not just Republicans that are guilty of gerrymandering; Democrats do it too! In Democratic-controlled Illinois, districts are drawn to combine Democratic-leaning cities and suburbs with Republican-leaning small towns and rural areas over 100 miles away in

order to “crack” the Republican votes and lessen their influence in elections (Image 2) (FiveThirtyEight). So, even though Republicans won 41% of the votes in Illinois during the 2020 Presidential Election, Republicans will now only likely win only 3 of 17 congressional seats if the same 2020 voting patterns are repeated. For example, in the image below, the new 2022 Illinois Congressional District map, the light blue district with Springfield in the middle stretches from Urbana to the northeast, to the edge of St. Louis to the southwest about 170 miles away. This district is cracking Republican votes in rural Illinois, by placing them with Democratic votes from Urbana and Springfield, creating a likely Democratic district and drowning the Republican votes. Additionally, this district is neither compact nor geometric. As these examples show, despite laws in place to help lessen gerrymandering, politicians propose and pass highly gerrymandered districts that exhibit “cracking” and “packing”.

Image 2: Illinois 2022 Congressional District Map - Cracking Example - Large Red Districts and Many Small Blue Districts



Gerrymandering is a serious threat to fair elections because it manipulates the result of an election in order to support a certain party's goals, instead of portraying the popular vote of the state's citizens. For example, between 2012 and 2016, the total population of Michigan cast 51% of votes to Democratic candidates for the House of Representatives. However, due to uneven and oddly drawn districts, only 35% of the Democratic candidates were elected in the state (Tausanovitch). Additionally, California drew up its new district map this year, which created 44 safe Democratic districts, with only 5 safe Republican districts and 3 competitive and Republican-leaning districts. So, Republicans will likely win approximately 15.4% of the congressional seats in California, even though 33.7% of California residents voted Republican in 2020 (WSJ Editorial Board). For roughly 18.3% of California residents- over 7 million people- their votes will likely not make a difference due to the districts they reside in. This is a threat to fair elections, because the outcomes are not representative of how the whole population of a state is voting, and it decreases voter participation.

Since gerrymandering creates congressional districts that tend to lock into one party, it makes it more likely that the same party will remain in control and perpetuate a cycle of the same party locking into power. According to Josh Huder, a senior fellow at Georgetown University's Governmental Affairs Institute, approximately 130/435, or 30%, of seats in the House of Representatives were competitive in the 1950's; now only about 48/435, or 11% of seats are competitive (Riccardi). For example, during the 2020 election, only 13/435 congressional seats switched parties. These statistics demonstrate that despite the Voting Rights Act of 1965, which some people claim prevents gerrymandering, in reality gerrymandering still occurs and has actually worsened since 1965. I believe the decrease in competitive seats due to gerrymandering is bad for our country because it reduces and in some cases even eliminates competition, and has the ability to skew election results before the elections occur.

Having fewer competitive districts and more one-party dominated districts often result in the primary basically becoming the general election in districts. Candidates are then incentivized to appeal to those who tend to vote in primaries- typically voters with more radical ideas. Most often, these candidates will be elected if they appeal to the radical vote, and once elected, they feel pressure to make good on the promises they made during their campaigns, thus leading to political polarization.

As the majority in each party become more radical, the ability to compromise and work together declines. It is important for our representatives to be able to work together to address the issues of the nation in a unified fashion. Additionally, diversity of ideas will likely decrease, because each side will want to band together and not disagree with their fellow party members, since they likely will not be able to work with the other side. Gerrymandering in general, but especially in congressional districts, is dangerous, because it creates political polarization among the representatives and hurts the House's policymaking abilities as a whole.

To promote more fair elections where a greater proportion of voters' votes can make a difference within their districts and to prevent further political polarization, I believe that Congress and the state governments should pass an amendment to the Constitution that mandates states to redraw districts using automated redistricting.

Automated redistricting is using mathematical algorithms to draw new districts every 10 years. These algorithms can create thousands of possible district options within a state, containing equal population, political fairness, competition, etc. There are currently sources online and available to the public such as <http://autoredistrict.org/> that exemplify how an algorithm can create congressional districts that would result in elections being more accurate in reflecting how the electorate of a state is voting.

I propose that automated redistricting takes several factors into account. The first is equal population, required by the Supreme Court's interpretation of the Equal Protection

Clause. Second, algorithms should assure that districts are compact, which means the people in each district should live relatively close together and not spread apart. Third, districts should be geometric and have even shapes. These three elements would help assure that minority votes are not being cracked, packed, or silenced.

Admittedly, even addressing all three of the factors above (population equity, compactness and geometric shapes) in an algorithmic redistricting program could still generate some degree of bias in the program. The program's bias, though, would create a more fair and more representative district than legislators' natural human bias likely would.

Critics of automated redistricting claim that algorithms often are too biased, because humans are still telling the algorithm what to focus on. Instead, they advocate for independent redistricting commissions. Independent redistricting commissions are groups of citizens, chosen by the state legislatures to draw new district lines. They are based on the idea that voters should decide how districts are drawn and who represents them, not the politicians.

While independent redistricting commissions may lessen the chance of gerrymandering by politicians, it does not eliminate gerrymandering. Individual citizens and voters still have biases and preferences for political parties and certain candidates, so the commissions may still try to manipulate districts to give their party an advantage in elections. Washington Post commenter Mitch Beales wrote, "It seems to me that an 'independent panel' is about as likely as politicians redistricting themselves out of office. This is the 21st Century. How hard can it be to create an algorithm to draw legislative districts after each census?" (Ingraham). A strong example of how independent commissions can still be infiltrated by bias is New York State, which recently adopted a bipartisan independent redistricting committee in an attempt to prevent any manipulation of new district lines to give a party the advantage. The Republicans and Democrats within the commission could not agree on one map, so they split into two separate commissions.

The Democratic and Republican commissions each submitted a district proposal to the Democratic-controlled legislature. However, the legislature rejected both proposals, and two weeks later they are still unable to reach an agreement (as of the writing of this paper). New York is an example of an independent redistricting commission failing, because the human bias is still present and makes it difficult for the commission to come to an agreement on a map (Wilson). Algorithms are superior to independent redistricting committees, because algorithms may be constructed to minimize biases and create more fair district boundaries.

It is important that Congress begins the process of considering this amendment on algorithmic redistricting sooner rather than later. Due to the 2020 census, the states are in the process of finalizing the redrawing of their congressional district lines. Citizens and politicians all over the country are becoming enraged over their opposing political party's gerrymandering. Now is the time to prepare for the 2030 census, to ensure that the redrawing of districts will be fair and compact.

Former Democratic Presidential Candidate Bernie Sanders once said, "The U.S. Constitution is an extraordinary document. In my view, it should not be amended often." It seems as though many politicians agree with Sanders, given that the most recent amendment ratified was in 1992, 30 years ago. However, requiring algorithmic redistricting must be an amendment, as it cannot be a bill/law. In Article 1, Section 4 of the Constitution, the Framers stated that the structure of elections for the House of Representatives is created and run by the state legislatures. Due to this, if Congress passed a bill requiring states to create and use algorithmic redistricting, the law would be struck down by the Supreme Court on the basis of its violating Article 1 of the U.S. Constitution. So, the only way for this to be implemented, is to create and pass a new amendment to the Constitution.

Critics may say that the push to federalize election law is wrong, as it is a states issue. However, I believe that districts locking into one party and the increase of political

polarization are serious issues that need to be addressed, so creating this amendment is justifiable and warranted. Despite laws in place that attempt to prevent gerrymandering, districts are still being drawn in odd and uneven shapes that are very obviously gerrymandered.

An amendment requiring states to create algorithms that would draw new district lines would greatly benefit our country by increasing voter participation. When citizens believe that their vote is important and could make a difference in an election, they are naturally more likely to participate in elections. Voting is an important way for citizens to voice their support and choose politicians who they want representing them, so it is very important that voter participation increases rather than decreases. Increasing voter participation will decrease radicalization, because voter participation increases diversity in background and ideas, instead of simply pushing one extreme side if the current trends continue and more districts' elections are determined in their primaries. This amendment would better prevent gerrymandering due to drawing of non-compact and unusually shaped districts, and the cracking and packing of one political party's voters and minorities. Gerrymandering is an important issue that Congress should address now in order to ensure more fair and representative elections after the 2030 census and beyond.

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