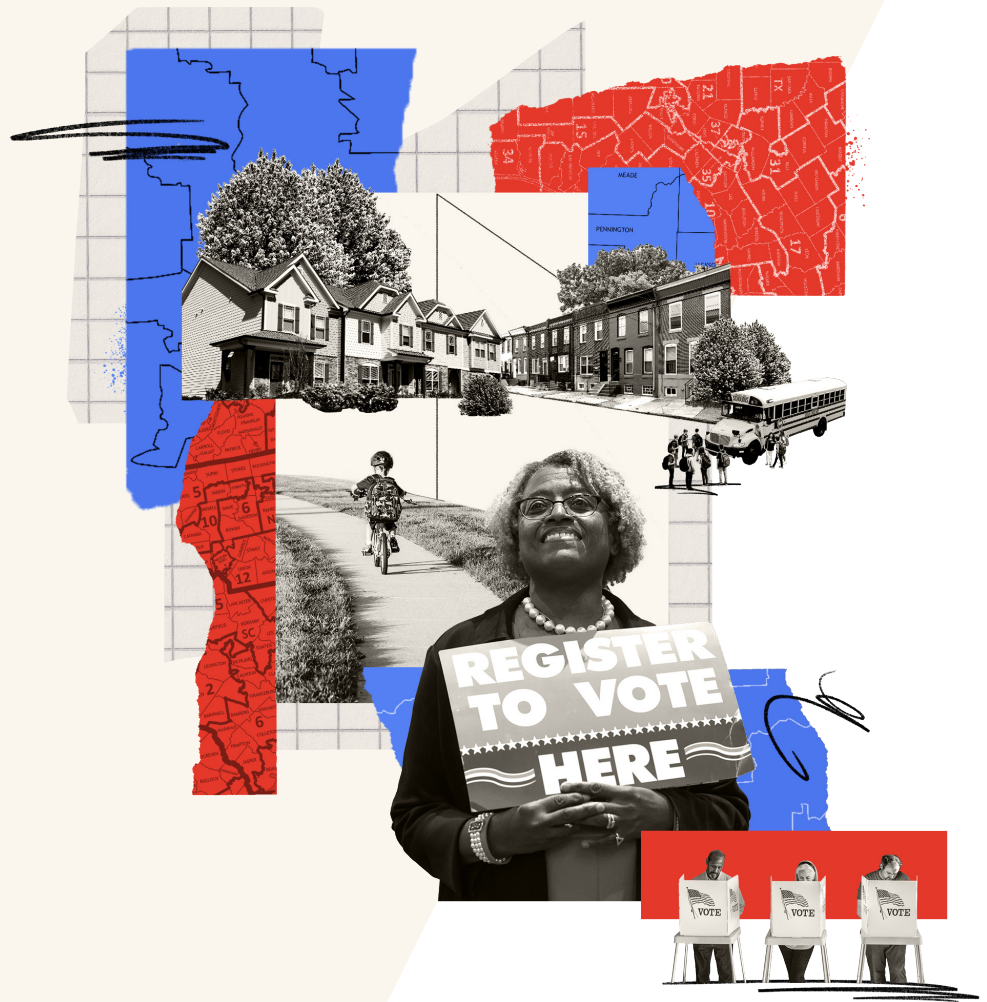


When Maps Don't Matter

How proportional representation
can end the redistricting wars

Grant Tudor, Farbod Faraji, and Cyrena Kokolis

JULY 2026



Protect Democracy is a nonpartisan nonprofit organization dedicated to preventing American democracy from declining into a more authoritarian form of government.

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As long as single-member districts remain intact, efforts like independent redistricting will continue to fall short.

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By minimizing “wasted votes,” proportional representation makes manipulating maps prohibitively difficult.

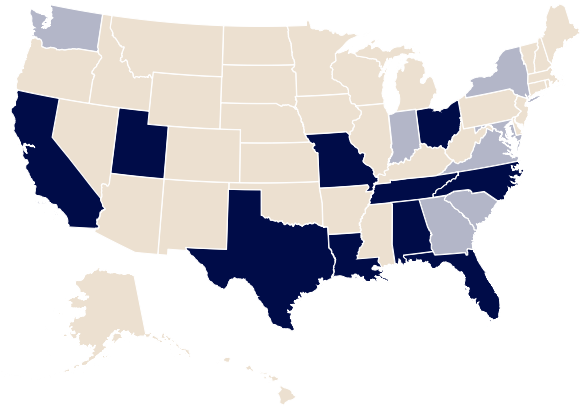
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Key Takeaways

Gerrymandering is only getting more frequent.

Parties are increasingly moving beyond the ten-year census cycle to pursue mid-cycle redistricting, emboldened by recent rollbacks such as the 2026 Supreme Court ruling in *Louisiana v. Callais*. Redrawing maps for political gain ahead of most congressional elections may soon be the norm.



Source: National Conference of State Legislatures

In the current U.S. electoral system, location largely determines whose votes matter.

Single-member districts allow mapmakers to exploit “wasted votes.”

Votes cast for a losing candidate as well as votes for the winner beyond what was needed to win are known as “wasted votes.” By efficiently distributing their own supporters to win by comfortable but narrow margins, while concentrating or dispersing opponents, partisan mapmakers can convert a modest electoral advantage into an outsized seat advantage — or even a minority into a majority.



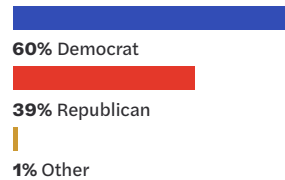
Geographic sorting produces similar distortions to gerrymandering.

Americans increasingly cluster by partisan affiliation — Democrats near Democrats and Republicans near Republicans. This means single-member districts can generate lopsided outcomes in U.S. House delegations even when maps are impartially drawn. Research suggests that nationally, geographic sorting may now do more to skew electoral outcomes than deliberate gerrymandering. Eliminating every intentional gerrymander would leave much of the distortion in congressional elections intact.

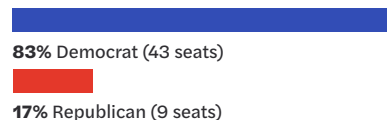
Anti-gerrymandering efforts that preserve single-member districts leave the deeper problem intact.

Measures such as independent redistricting commissions or proposed bans on partisan gerrymandering may reduce deliberate partisan manipulation, but they don't fix the underlying system that enables gerrymandering or the distortions associated with geographic sorting. Even impartially drawn maps can yield highly nonproportional outcomes, leaving large portions of the electorate without representation commensurate with their share of the vote. As long as single-member districts remain intact, the impact of current reforms will be limited.

2024 CALIFORNIA STATEWIDE VOTE



CONGRESS MEMBERS ELECTED



An independent redistricting commission drew California's 2024 maps.

Proportional representation sharply mitigates the effects of both gerrymandering and geographic sorting.

Proportional systems minimize “wasted votes” — the raw material of gerrymandering.

Proportional systems use multi-member districts instead of single-member districts and allocate seats in proportion to votes received. This minimizes the wasted votes that make packing and cracking possible. Votes contribute to representation regardless of where those casting them are geographically concentrated, dramatically impairing the ability of district boundaries — or the party drawing them — to distort electoral outcomes.

Manipulating multiparty landscapes is too complex.

Proportional representation also tends to foster multiparty competition, since the threshold of support needed to win any one seat is reduced. With more parties contesting elections, would-be gerrymanderers are deprived of the predictable two-party landscape that makes electoral engineering easier.

Introduction

PARTISAN GERRYMANDERING IS DEEPLY UNPOPULAR among Americans. The notion that politicians can pick their voters has long been perceived as antidemocratic.¹ Democracy, in principle, implies a meaningful choice.

Gerrymandering is the manipulation of district boundaries to advantage a political party, protect incumbents, or dilute the voting power of a partisan or racial group. The term “gerrymander” was coined to deride the perceived corruption of the practice, mocking a salamander-shaped district drawn to protect the Democratic-Republican party of Massachusetts Governor Elbridge Gerry in 1812.² Since then, gerrymandering has not only persisted as a chronic ailment of our democracy, but has reached a fever pitch.

“ The increasing extremity, frequency, and unpopularity of gerrymandering elevates the importance of root-cause reform that would eliminate the problem at its source.

While gerrymandering was once primarily pursued following each constitutionally mandated population census, both major parties are now aggressively pursuing mid-cycle redistricting.³ The legal landscape has also shifted in ways likely to accelerate this trend and limit options for mitigating its most pernicious effects.⁴ Recent Supreme Court decisions, especially *Louisiana v. Callais* (2026), have narrowed the circumstances under which majority-minority districts may be required under Section 2 of the Voting Rights Act, one of the very few remaining checks on the power of legislatures

Electoral Systems Primer:

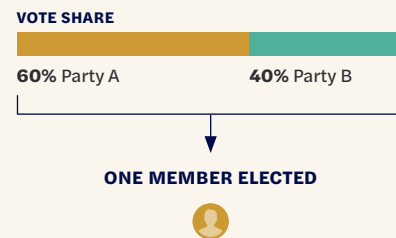
Winner-Take-All vs. Proportional Representation

Translating Votes to Seats

Electoral systems are the methods by which votes cast are translated into electoral outcomes. In 2024 Republicans won roughly 78 percent of Indiana’s U.S. House seats — seven of nine — by winning 58 percent of the statewide vote. Democrats in neighboring Illinois, meanwhile, won roughly 82 percent of the state’s House seats with 53 percent of the vote. This conversion of votes to seats is the work of an electoral system, which generally comes in one of two broad types.

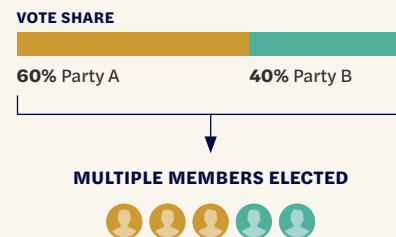
Winner-Take-All

Under winner-take-all, seats are allocated to winners on a plurality or majority basis, such that a single party captures every seat available within a district. Winner-take-all systems typically use single-member districts: for instance, a candidate securing 60 percent of the vote is awarded 100 percent of the available seats.* A single winner “takes all.”



Proportional Representation

Under proportional representation, seats are allocated to parties according to their share of the vote. Proportional systems generally use multi-member districts: for instance, in a five-seat district, a party securing 60 percent of the vote is typically awarded three seats, or 60 percent.† Electoral systems differ substantially, even within these broad classes; there are as many systems as there are countries with elections.⁵ Nonetheless, the use of multi-member districts to generate roughly proportional results distinguishes most varieties of proportional representation from winner-take-all.



* Winner-take-all systems do not always use single-member districts. Some use multi-member districts elected on an at-large or “bloc voting” basis, where voters can select as many candidates as there are seats available and the highest vote-getters win. Because the majority group can typically capture every seat in the district, bloc voting systems generally produce outcomes that are even less proportional than single-member districts. See, e.g., Barbara Berry and Thomas Dye, *The Discriminatory Effects of At-Large Elections*, *Florida State University Law Review* 7, no. 1 (1979).

† For more examples of how proportional systems allocate seats within multi-member districts, see Steven Taylor, *Trapped in a Two-Party System*, *Protect Democracy and New America* (March 2025) at 22–24.

to gerrymander.* The increasing extremity, frequency, and unpopularity of gerrymandering elevates the importance of root-cause reform that would eliminate the problem at its source.

The persistence of the issue in the U.S. is largely a consequence of its winner-take-all electoral system — one that relies on single-member districts, which are uniquely susceptible to gerrymandering.

While other democracies suffer from some degree of gerrymandering, for most the issue is minimal because most elect their lawmakers through proportional representation:⁶ a type of electoral system that makes gerrymandering prohibitively difficult.⁷ Adopting proportional representation for U.S. House elections would dramatically limit the ability to gerrymander. Proportional representation reduces the effectiveness of the practice by allocating seats within a multi-member district proportionally by vote share, making district lines much less consequential. Proportional representation would not require a constitutional amendment. The single-member district system exists because Congress created it.⁸ Congress can replace it the same way.⁹

Although current reforms such as independent commissions can help to constrain the partisan manipulation of maps, they will continue to be limited in their impact if single-member districts are preserved. Because gerrymandering is a symptom of the U.S. electoral system itself, as long as Americans elect their lawmakers in single-member districts, the risk of gerrymandering will persist.

This report first examines the two related reasons for electoral distortions in congressional elections: the mechanics of gerrymandering used to generate lopsided results, as well as the phenomenon of geographic sorting that produces the same. Second, it reviews why existing tools used to blunt gerrymandering have been limited in their effectiveness. Finally, it examines how proportional representation makes the practice prohibitively difficult: the system's properties that impair a mapmaker's ability to engineer distortions in the first place.

The exercise of drawing the boundaries of any single-member district is an invitation to reward friends and disadvantage foes. But even absent nefarious intent, line-drawing of any kind in winner-take-all systems is bound to find itself ensnared in partisan wrangling and accusations of unfairness. "All redistricting is gerrymandering," wrote the political scientist Robert Dixon in 1968.¹⁰ One solution — the one selected by most democracies today — is to take the power out of the maps.

* Prior to *Callais*, the Supreme Court's decision in *Rucho v. Common Cause* (2019) further altered the incentives surrounding redistricting by holding that claims of partisan gerrymandering present nonjusticiable political questions under federal law. As a result, federal courts no longer review congressional or legislative maps for partisan gerrymandering. In some states, state courts have likewise declined or lost authority to review partisan gerrymandering claims under state law. These developments have reduced judicial constraints on aggressive redistricting and have also likely encouraged mid-decade redistricting efforts.

Two Problems of Location

MOST AMERICANS LIVE IN DISTRICTS where the outcome is effectively predetermined and where substantial shares of votes do not meaningfully affect representation.¹¹ Gerrymandering is in part to blame, particularly as the practice accelerates in frequency, breadth, and severity. However, because of geographic sorting, states where gerrymandering is effectively absent still feature persistently lopsided electoral outcomes. The below reviews the mechanism — “wasted votes” — that both makes gerrymandering possible and generates distortions from geographic sorting.

Cracking and Packing

Gerrymandering works by “cracking” and “packing” voters into districts based on voters’ likely choices. Effective partisan gerrymanderers distribute supporters efficiently across as many districts as possible while arranging opponents in ways that minimize their ability to win seats — either by concentrating them in a small number of districts (“packing”) or dispersing them across many (“cracking”) or doing both in combination.*

Packing and cracking are both strategies that exploit “wasted votes.” In a single-member district, only the votes needed to secure first place determine the result. Votes cast for losing candidates, as well as votes cast for winning candidates in excess of what is necessary to win, do not otherwise affect outcomes. These votes are commonly referred to as “wasted.” Gerrymandering exploits this dynamic by structuring districts so that one party’s supporters are consistently positioned just above the threshold needed to win — *minimizing* wasted votes — while the opposing party’s voters are either spread too thin to prevail or concentrated in districts where their victories are overwhelmingly lopsided — *maximizing* wasted votes.

To illustrate, say that the electorate in a given state tends to vote 60 percent for Party A and 40 percent for Party B. If the state has five U.S. House seats, Party A might be reasonably expected to win three seats and Party B two. But the two parties’ voters are

* This discussion focuses on partisan gerrymandering, where district lines are manipulated based on residents’ partisan affiliation or voting patterns. But gerrymandering can involve the cracking and packing of any identifiable group. Racial gerrymandering in the U.S. has long contributed to the chronic underrepresentation of racial minorities. See, e.g., Michael Li, *Gerrymandering Explained*, Brennan Center for Justice (May 14, 2026). Unlike partisan gerrymandering, which the Supreme Court has treated as nonjusticiable under federal law since 2019 as per its ruling in *Rucho v. Common Cause*, racial gerrymandering and racial vote dilution are subject to constitutional and statutory limits. For decades, the Voting Rights Act was interpreted to require or permit the creation of majority-minority districts under certain circumstances in order to preserve minority voting power. Recent Supreme Court decisions, including *Louisiana v. Callais*, have narrowed those protections and generated substantial concern about their future scope. For a discussion of how proportional representation could help preserve minority representation, see Nicholas Stephanopoulos, *Proportional Representation and the Voting Rights Act*, Protect Democracy and New America (Aug. 12, 2024).

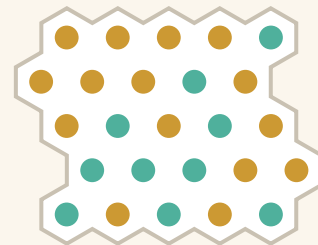
How Gerrymandering Works: Exploiting Wasted Votes

Understanding Wasted Votes

Partisan gerrymandering involves the strategic use of what are known as “**wasted votes**” — any votes cast for losing candidates, as well as those cast for victors in excess of what’s needed to win. By drawing district lines to minimize wasted votes for one party while maximizing them for the other, gerrymanderers can orchestrate outcomes disproportionate to the actual votes cast.

An “impartial” five-district map of the region shown should result in three members from Party A and two from Party B. But manipulating wasted votes can shift that outcome.

● PARTY A VOTERS ● PARTY B VOTERS



VOTE SHARE

60% Party A

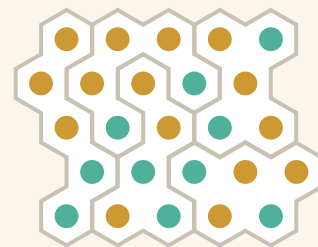
40% Party B

EXPECTED REPRESENTATION



Cracking

“Cracking” refers to drawing lines that spread opposition voters across multiple districts to render them a minority in each. Say our sample region includes an urban area where Party B’s support is largely clustered. Instead of grouping those supporters together, Party A might use cracking to create five districts that each contain a small slice of the city. Party B’s voters would fall short in every district, turning their votes into wasted votes for losing candidates and allowing Party A to win all five seats with 60% of the vote.

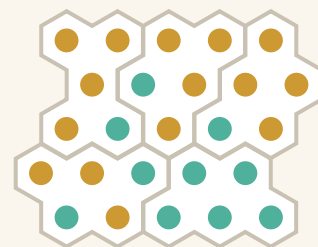


MEMBERS ELECTED



Packing

When the number or distribution of opposition voters means they can’t be completely shut out through “cracking,” gerrymanderers can use “packing.” Party A’s mapmaker might draw lines that concentrate an overwhelming share of Party B’s supporters into one district, generating wasted votes through large surpluses. Remaining Party B voters will be outnumbered by Party A voters in the four other districts. This delivers four seats to Party A — still more than would be proportionate to their share of the vote.



MEMBERS ELECTED



unlikely to be evenly distributed throughout the state. This provides gerrymanderers with an opportunity to exploit voter geography in order to manipulate outcomes.

When gerrymanderers engage in “cracking,” they draw district lines that spread opposition voters across multiple districts, rendering them a political minority in each. With our five-seat state, a cluster of Party B’s supporters might be concentrated in an urban area. One map could form a district encompassing that area, such that Party B supporters elect a representative of their choice. But through “cracking,” mapmakers could instead draw a map with five districts that each include one slice of the city. That would divide Party B’s urban voters, causing them to fall short of the winning threshold in every district. As a result, Party A is able to secure all five House seats, despite having support from only 60 percent of voters. 60 percent of the vote translates into 100 percent of the seats.

Sometimes, the number of opposition voters is too great to be completely cut out of representation. Where “cracking” alone is not feasible, gerrymanderers can employ “packing.” To advantage Party A, a gerrymanderer draws lines that concentrate an overwhelming share of Party B’s supporters into a single district — a far greater share than would be necessary to win. Any Party B voters not included in that district would be outnumbered by Party A voters in the four others. This delivers four seats to Party A and one for Party B — another nonproportional result.

Whether through packing or cracking, the effect is the same: manipulating wasted votes produces lopsided outcomes such that a party’s share of seats is incommensurate with its share of votes. Gerrymanderers can arrange a state’s voters into different configurations of single-member districts to produce radically different outcomes. It is possible, in other words, to engineer nonproportionality. However, nonproportional outcomes — where a party secures more seats than its vote share would warrant — are not always engineered. Deliberate map manipulation is part of a more complex picture of how political geography can skew outcomes in single-member districts.

Geographic Sorting

Gerrymandering distorts the translation of votes into seats, often producing large numbers of “safe” districts in the process,¹² among other effects.* But electoral distortions are the result of more than just gerrymandering.

Americans are more geographically clustered by partisanship today than at any point since the Civil War.¹³ This partisan segregation extends across a range of places with varying population densities.¹⁴ And although research is inconsistent as to whether

* Gerrymandering also erodes other indicators of representation and accountability. Research has shown that gerrymandering reduces voter turnout, makes voters in such districts less likely to visit the office of their member of Congress, and makes members who represent such districts less likely to participate in town halls with their constituents. Daniel Jones et al., *Partisan Gerrymandering and Turnout*, *Journal of Law and Economics* 66, no. 3 (Aug. 2023); David Niven et al., *Are Individuals Harmed by Gerrymandering? Examining Access to Congressional District Offices*, *Social Science Quarterly* 102, no. 1 (Jan 2021); Nadine Gibson and Aaron King, *The Promise and Peril of Constituent Interactions: The Determinants of Town Hall Participation Among Members of Congress*, *Legislative Services Quarterly* 49, no. 4 (Nov. 2024).

Americans *deliberately* move to live among people who share their political views, the impact is the same regardless: those of similar beliefs and voting patterns tend to increasingly live closer to each other.¹⁵

As party polarization has accelerated and voters have increasingly concentrated according to partisan leanings, geographic sorting has become increasingly determinative of electoral outcomes.¹⁶ Consider one pattern across some of the country's urban and suburban areas. Voters who lean Democratic tend to cluster in larger urban areas. When district lines are drawn, these voters end up *de facto* "packed" into legislative districts where their numbers dwarf those of voters who lean Republican. In adjacent suburban districts, on the other hand, Republican voters are more likely to have comfortable rather than overwhelming advantages outside of urban areas. The result can resemble maps produced through intentional partisan gerrymandering.¹⁷

Single-member districts are uniquely sensitive to this sorting. When there is only one seat to win, a party either clears the winning threshold or it doesn't — and any votes beyond the threshold are wasted. The result is a systematic inefficiency: one party piles up surplus votes in its strongholds while the other wins more districts by comfortable but not extravagant margins. No manipulation is required to produce this outcome. Research suggests that nationally, geographic sorting may now do more to skew electoral outcomes than deliberate gerrymandering.¹⁸ Even if every deliberate gerrymander were eliminated, much of the distortion in electoral outcomes would remain.

Current Reforms Have Limits

THE SHARP ESCALATION IN GERRYMANDERING during the 2010 redistricting cycle — concentrated in states under one-party control — pushed several states to adopt redistricting reform.¹⁹ Those reforms sought to wrest redistricting power away from state lawmakers, with approaches ranging from committees of statewide elected officials, as in Ohio, to independent redistricting commissions, as in Michigan and Colorado.²⁰

But while these reforms may limit exclusive partisan control of the redistricting process and make progress on producing more impartial maps, their impact is constrained.²¹ In some cases, the limitation may be one of design or implementation. An independent commission can only eliminate deliberate partisan bias if it is genuinely independent and effective and loophole-free laws are followed in both spirit and letter. In the best of times, those criteria are a tall order.* In our times, states are changing laws and discarding reforms altogether when political leaders perceive the stakes of noninterference to be too high.²²

But the limitations run deeper. Even where states have arguably eliminated intentional gerrymandering, lopsided results persist because of the wasted votes generated by geographic sorting. In 2024, Democrats won roughly 83 percent of California’s U.S. House seats with 60 percent of the vote. Its maps were drawn by an independent commission that had rendered gerrymandering all but nonexistent.²³ But because many California Republicans live distributed across regions dominated by Democratic voters, an independent commission’s best efforts have not been enough to secure them representation commensurate with their total numbers. If voters do not live near enough to other like-minded voters, they cannot be drawn into a compact, contiguous district, so they remain unable to elect a candidate of their choice.

In Massachusetts, no Republican is represented among the state’s nine U.S. House seats — despite Republicans regularly winning roughly one-third of the statewide vote.²⁴ Yet this result is not attributable to intentional gerrymandering. As researchers conclude, given the state’s voter geography, not a single legally valid districting plan exists that would enable Republicans to elect a single representative of their choice.²⁵

* According to one analysis, three of seven independent commissions studied still produced maps with substantial partisan bias compared to a large sample of alternative map options. Robin Best et al., *Do Redistricting Commissions Avoid Partisan Gerrymanders?*, *American Politics Research* 50, no. 3 (Dec. 2021). Another found that redistricting maps produced by independent commissions reduced competition for incumbents in ways similar to maps drawn by political actors. John Henderson et al., *Gerrymandering Incumbency: Does Nonpartisan Redistricting Increase Electoral Competition?*, *Journal of Politics* 80, no. 3 (May 2018). For more on the dynamics of partisan interference into independent commissions, see Marilyn Thompson, *The Failed Promise of Independent Election Mapmaking*, *ProPublica* (Jan. 18, 2024).

Geographic Sorting: Distortions Without Gerrymandering

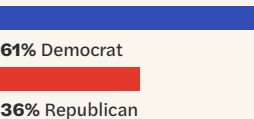
A Question of Location

Even in states where the maps are not intentionally gerrymandered, single-member districts can lead to markedly nonproportional electoral outcomes. This is due to **geographic sorting** — the way voters supporting different parties are distributed across a region. When like-minded voters are concentrated geographically, it makes it easier to carry a particular district. But if they are widely dispersed it can be impossible to win a majority anywhere.

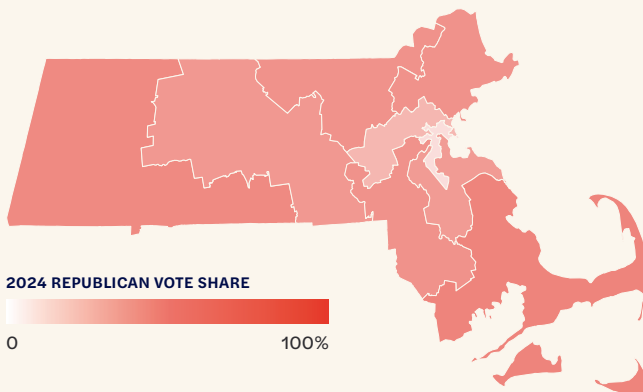
Massachusetts

About one-third of voters in Massachusetts vote Republican, yet because they are so spread out, no legal map can elect a Republican to Congress.

2024 STATEWIDE VOTE



CONGRESS MEMBERS

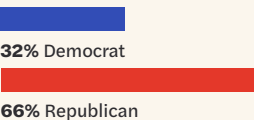


We use statewide presidential vote to indicate partisan lean, as several 2024 Congressional races in Massachusetts and Oklahoma were uncontested by the minority party. **Source:** The Downballot

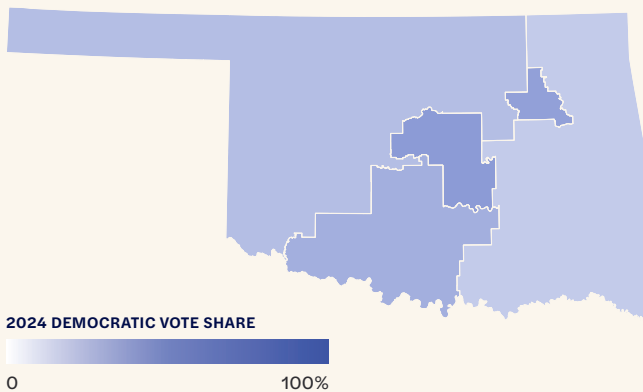
Oklahoma

Similarly, about one-third of voters in Oklahoma support Democrats, yet they are too distributed to reach the majority threshold in any district.

2024 STATEWIDE VOTE



CONGRESS MEMBERS



These disadvantages cut both ways from one state to the next. In states like Oklahoma, where roughly one-third of the electorate regularly votes Democratic, even fairly impartial district maps would almost certainly yield an all-Republican five-member congressional delegation because Democratic support is too dispersed statewide.

Similar trends are observable in other democracies with winner-take-all elections. The United Kingdom, which uses independent “boundary commissions” to draw districts, experiences relatively little controversy over partisan gerrymandering. Yet its elections still routinely produce lopsided outcomes. In the 2024 general election, the Labour Party won roughly one-third of the national vote but secured nearly two-thirds of the seats in the House of Commons.²⁶ There, as here, even when district boundaries are drawn impartially, single-member districts remain highly sensitive to the geographic distribution of voters.

Redistricting reform proposals that would mandate independent commissions represent a meaningful improvement over partisan mapmaking. But research suggests they would leave the deeper problem intact. Studies demonstrate how even maps drawn under neutral criteria produce systematic partisan bias, generated not by manipulation but by the geographic distribution of voters.²⁷ More recent proposals to “ban” partisan gerrymandering face similar constraints.²⁸ Such bans target the deliberate manipulation of maps but do not solve for the sorting of voters by partisan affiliation that can systematically advantage Democrats in some jurisdictions and Republicans in others.

The extreme sensitivity of single-member districts to voter geography continues to skew electoral outcomes both in heavily gerrymandered states *and* in states with more impartially drawn maps. Even when redistricting is carried out with the best of intentions and largely free of partisan interference, there is a ceiling to what current reform options can deliver — as long as reform operates on the single-member district model.

Proportional Systems Inhibit Gerrymandering

GEOGRAPHIC SORTING, GERRYMANDERING, and the underlying logic of wasted votes render the prospects of fair maps bleak. But none of these dynamics are inevitable.

Recall the basic logic of a single-member district. A party that wins 60 percent of the vote wins the single seat available. Which is to say, 60 percent of the vote translates into 100 percent of available seats. It can also do the same with a more modest vote share: for example, in a three-way race, a party winning 40 percent of the vote can also win the single seat available, converting 40 percent of the vote into 100 percent of the seats. Under winner-take-all, this conversion tends to deliver more representation to the winning party than its support would suggest.

Proportional systems operate by a different logic: seats are allocated in proportion to each party's share of the vote. Under proportional representation, 60 percent of the vote would translate into roughly 60 percent of seats — instead of 100 percent. Proportionality is made possible by using multi-member districts rather than single-member districts. In an eight-seat district, for example, a party winning 60 percent of the vote would typically carry five seats. In Massachusetts, if Republicans secured one-third of the vote, they would likely win three of the state's nine U.S. House seats instead of none.²⁹

Fundamentally, proportional systems make the opportunity for meaningful representation universal, rather than contingent on where a voter lives. In single-member districts, small shifts in where voters are located can dramatically swing outcomes: drawing just five to ten percent of Party B's supporters out of a district is typically sufficient to render it "safe" for Party A. But under proportional representation, those same votes continue to translate into commensurate representation regardless of where they are located. Proportional representation breaks the link between geography and representation — mainly by minimizing wasted votes.

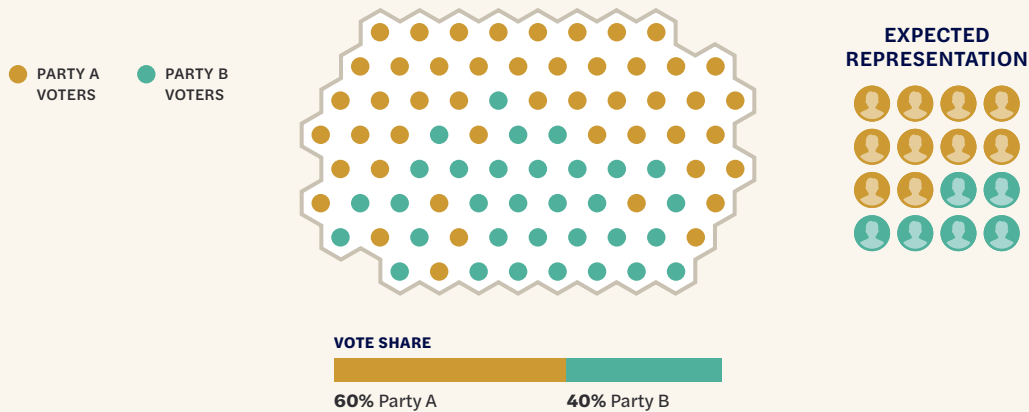
Minimizing "Wasted Votes"

Recall that wasted votes come in two types. The first are votes cast for a losing candidate: every vote that went to the second-place finisher accomplished nothing in a winner-take-all contest. The second, less obvious category is surplus votes: votes cast for the winning candidate beyond what was needed to win. If a candidate wins 60 percent of the vote in a single-member district, many of those votes were unnecessary. The candidate would have won with 50 percent plus one; the extra votes have no additional impact.

Gerrymandering in Today's Single-Member Districts

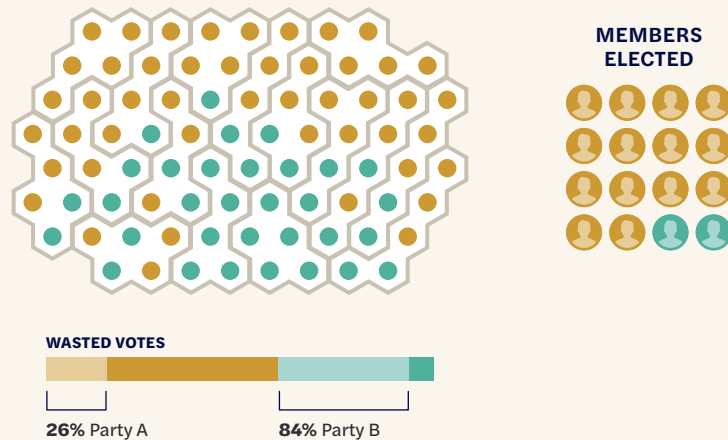
The Mapmaker's Advantage

Let's say 60% of voters in a state typically vote for Party A and 40% vote for Party B. The state elects 16 lawmakers, so we'd expect ten members from Party A and six from Party B. But if Party A is in charge of drawing district lines, they can significantly shift those numbers.



The Result

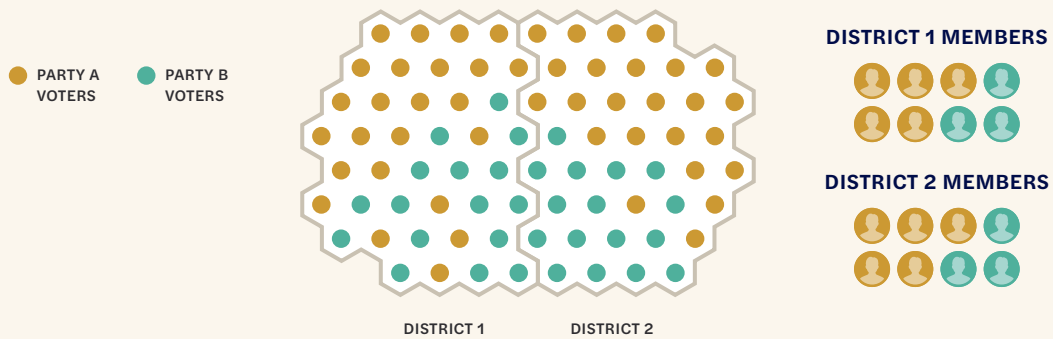
Using both “cracking” and “packing” to draw 16 single-member districts, Party A is able to limit Party B's representation to just two seats. The vast majority of Party B's votes are wasted in this gerrymandered map.



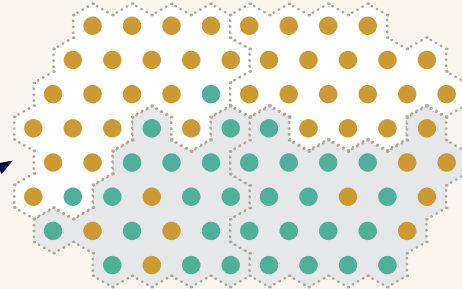
How Gerrymandering Fails Under Proportional Representation

The Attempt

Imagine a state elects its lawmakers proportionally with eight-member districts. Party A receives 60% of votes in both Districts 1 and 2, so it holds five seats in each. But Party A wants to redistrict to maximize its seats.



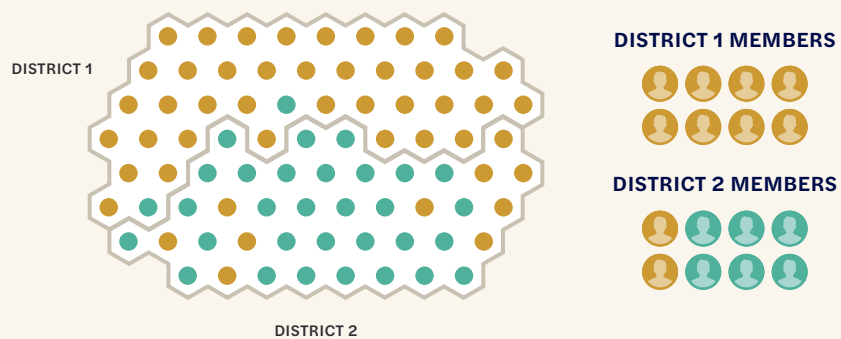
Party A's mapmakers redraw District 1 lines to exclude almost all of Party B's voters ...

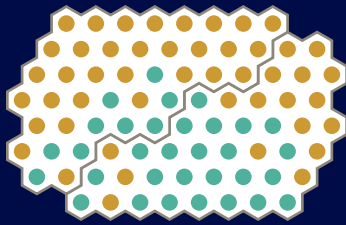


... and swap them for more Party A support from District 2.

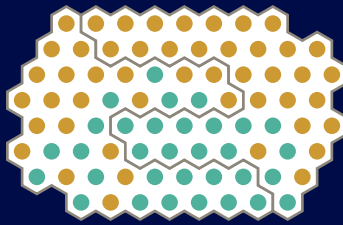
The Result

Party A gains three seats in the new District 1, but this is offset by the three seats lost in District 2. Party B's representation has simply moved along with its voters.

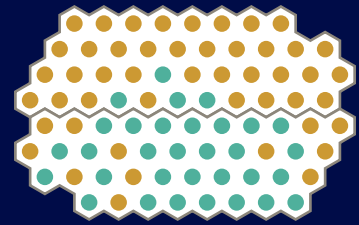




1

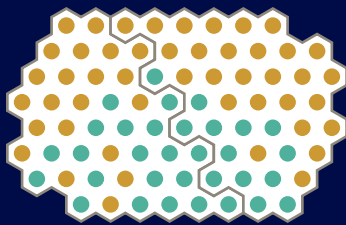


2



3

With proportional representation, district lines don't really matter.



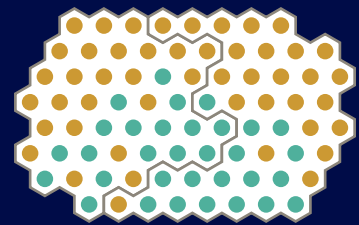
4

No matter how they're drawn, these
eight-member districts all produce electoral
outcomes matching the vote share within
a margin of five percent.

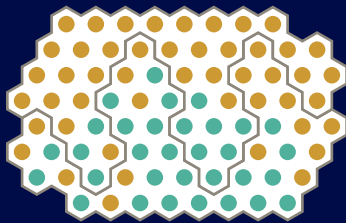
EXAMPLES
1-2



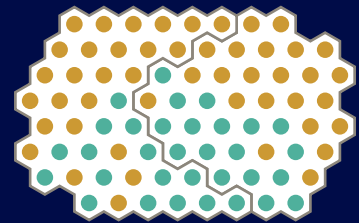
EXAMPLES
3-13



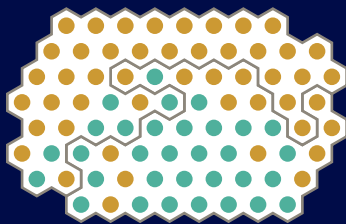
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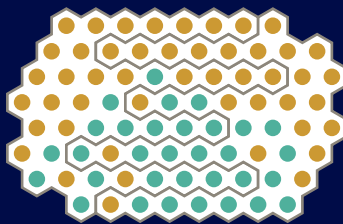
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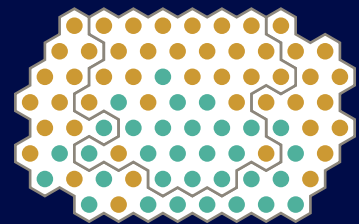
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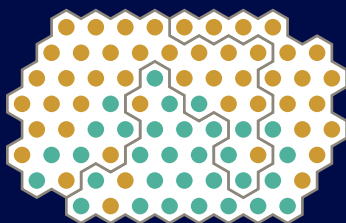
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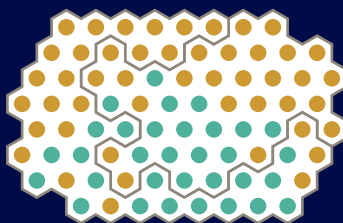
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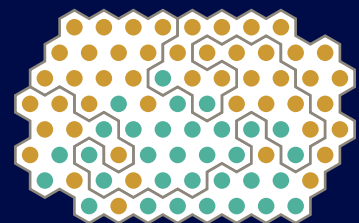
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11



12



13

The gerrymanderer is, in essence, an engineer of this waste. By packing opponents into a few districts, gerrymanderers ensure they pile up enormous surpluses there instead of spreading that support somewhere useful. By cracking opponents across other districts, they consistently fall just short of a majority, producing nothing but losing votes. Their own party's voters, meanwhile, are distributed to win district after district by comfortable but not extravagant margins, minimizing both surplus and loss. The result is a systematic asymmetry: one party's votes translate efficiently into seats, while the other party's votes are either squandered in blowout wins or bled out in close losses.

Proportional representation minimizes this dynamic. If a party wins 40 percent of the vote in a district, it will generally secure roughly 40 percent of seats. Votes that would otherwise be wasted in a single-member system instead translate into representation. Packing and cracking depends on the ability to engineer wasted votes; but if wasted votes themselves are largely diminished, so, too, is the ability to gerrymander. This means the gerrymanderer's core toolkit is sharply constrained.

“ Packing and cracking depends on the ability to engineer wasted votes; but if wasted votes themselves are largely diminished, so, too, is the ability to gerrymander.

To see exactly how, suppose Party A controls redistricting. Party B's voters happen to be concentrated in one corner of a multi-member district that proportionally elects eight representatives. In an attempt to gerrymander, Party A redraws the map, carving that concentration of Party B's voters out and moving them into the adjacent multi-member district of the same size. What happens? Party B's voters simply carry their proportional weight into their new district. If they were earning roughly three of the eight seats in the old district, they will earn roughly three seats in the new one instead — or more, if Party B already had supporters there.

By moving Party B's supporters into the neighboring district while pulling in more of its own, Party A may indeed have secured itself more seats in its initial district, perhaps capturing the three seats Party B might have occupied. But Party B's removed vote

share will still work to capture a proportional share of seats in the neighboring district instead. Either way, Party B's share of the vote continues to translate into a commensurate share of seats, regardless of where district lines fall. The gerrymanderer has reshuffled the map but the basic arithmetic remains unchanged.

Contrast this with what the same maneuver achieves in single-member districts. Suppose Party B holds 40 percent support in a region covered by eight single-member districts. Its voters are geographically concentrated — packed, whether by accident or by prior design, into three districts, where Party B wins with roughly 80 percent of the vote. The remaining five districts break heavily for Party A. Party A holds five seats and Party B three. Party A redraws the map, cracking Party B's stronghold and distributing its voters evenly across all eight districts. Each district now contains roughly 40 percent Party B voters. That 40 percent is a loss — in every district. Party B's seat share drops from three to zero, despite its vote share remaining unchanged. The same geographic surgery that accomplished nothing under proportional representation has, under winner-take-all, converted 40 percent of the vote into zero percent of the seats.

The More Seats, the Less Gerrymanderable

Not all proportional systems are the same. Some feature modest multi-member districts while some feature much larger ones. Up to a point, these differences in size matter. As the number of winning candidates per district increases — what political scientists refer to as “district magnitude” — the ability to manipulate outcomes decreases. In simple terms, the more seats elected in each district, the less power district lines have to shape outcomes.

The reason comes back to wasted votes. Recall that gerrymandering works by engineering an asymmetry: one party's votes are made to count efficiently while the other party's votes are wasted. In a single-member district, the gerrymanderer has only one threshold to work with — just over 50 percent — and that simplicity lends itself to easy manipulation. If a gerrymanderer can draw a district where Party A reliably clears 50 percent and Party B reliably falls short, every single one of Party B's votes is wasted.

But as district magnitude increases, that single, decisive threshold splinters into many smaller ones.³⁰ In a three-seat district, a party needs roughly 25 percent of the vote to reliably earn a seat — meaning a party with 40 percent support will dependably garner one seat and another with 60 percent support takes the remaining two. Already the gerrymanderer's room to maneuver has shrunk: manufacturing a district where one party earns no representation at all requires pushing them below 25 percent, which is a much harder feat than pushing them below 50 percent. Move to an eight-seat district, and the threshold drops to roughly 11 percent. At that level, almost no realistic distribution of voters can be pushed below it. Gerrymandering is most effective when it can convert substantial levels of support into far fewer seats than that support would suggest. As district magnitude increases, that outcome becomes progressively harder

The ability to gerrymander gets more difficult as district magnitude rises

Drawing districts where one party receives just over 50 percent of the vote is fairly easy. But when that threshold is almost 90 percent it becomes very difficult to keep others from winning seats.

NUMBER OF SEATS	MINIMUM VOTES NEEDED TO WIN EVERY SEAT
1 Seat	50% + 1
2 Seats	67% + 1
3 Seats	75% + 1
4 Seats	80% + 1
5 Seats	83% + 1
6 Seats	86% + 1
7 Seats	88% + 1
8 Seats	89% + 1

to engineer.* The more seats a district contains, the more precisely votes are converted into representation and the less room exists for manipulation.

Where district magnitude is low — such as in systems with only two or three seats per district — some opportunities for strategic boundary drawing remain. But as magnitude increases, those opportunities diminish rapidly.† As district magnitude rises, particularly beyond five or so seats, the capacity to meaningfully distort outcomes declines sharply.³¹ Higher district magnitudes work to better immunize a district against gerrymandering.³²

Proportional representation does not eliminate all opportunities for electoral manipulation. Actors may still influence outcomes through formal vote thresholds, malapportionment, and other mechanisms. But comparative research consistently finds that proportional systems dramatically reduce the capacity of district boundaries themselves to generate the severely distorted outcomes now commonplace in American elections.³³

* This assumes seats are allocated proportionally within multi-member districts. Under winner-take-all forms of multi-member districting, such as “bloc voting,” increasing district magnitude does not lower effective representation thresholds but instead is likely to amplify electoral distortions.

† In some proportional systems, especially those that include statewide or national seat allocation, any distortions produced at the district level are further corrected in the overall distribution of seats. Pippa Norris, *Choosing Electoral Systems: Proportional, Majoritarian and Mixed Systems*, International Political Science Review 18, no. 3 (Jul. 1997) at 304.

Manipulating Multiparty Landscapes Is Too Complex

An additional obstacle faces the would-be gerrymanderer under proportional representation. The examples above assume a two-party race: Party A and Party B. But proportional systems typically generate multiparty competition;³⁴ and multiparty races can confound gerrymanderers even more.³⁵

In a two-party race, a gerrymanderer's job is relatively straightforward: there is one threshold to clear and two parties to track. These straightforward variables allow a gerrymanderer to predict outcomes somewhat reliably. But add a third party, and prediction becomes harder. Now the gerrymanderer has to ask: what if that additional, smaller party has a good cycle and pulls more votes than expected? Where do those votes come from: Party A's supporters or Party B's? And exactly how many from each? Or, instead of three parties, consider five, or even more, each with changing margins from one election to the next, each gaining or losing voters from other parties. Multiparty activity introduces substantial uncertainty.

Gerrymandering requires being able to engineer an outcome in advance, predicting how votes will translate into seats. But across a more complex and fluid party landscape, it becomes significantly harder to engineer reliable outcomes through district design. Multipartyism complicates attempts at manipulation even further.

Conclusion

IT IS, IN FACT, POSSIBLE to make line-drawing a mostly inconsequential exercise — to dramatically lower the stakes of drawing congressional districts. We know this because we can see it: most democracies experience far lower levels of district-based partisan manipulation than the U.S.

The reason is not because most democracies have more virtuous mapmakers or better laws. They do not depend on complex legislation to anticipate every future abuse. Nor do they need to engage in sophisticated, technocratic debates over which model produces the most authentically neutral maps. And by and large, they do not depend on their courts. Most democracies instead use a proportional electoral system.

“ The dramatic reduction in gerrymandering under proportional representation is a structural consequence of the electoral system itself.

The dramatic reduction in gerrymandering under proportional representation is a structural consequence of the electoral system itself. Gerrymandering exploits the wasted vote potential of single-member districts; removing the ability to manipulate wasted votes constrains gerrymandering at the source. Try as they might, gerrymanderers will find it prohibitively difficult — often, impossible — to draw any group of voters out of representation.

The gerrymander’s power depends on the system that enables it. Proportional representation offers a reform path that does not merely constrain gerrymandering, but defangs it.

Notes

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- 4 Alicia Bannon, *The Aftermath of Callais*, State Court Report (May 7, 2026).
- 5 Norris, *Choosing Electoral Systems* at 302–304.
- 6 Daniel Pemstein et al., *The V-Dem Measurement Model: Latent Variable Analysis for Cross-National and Cross-Temporal Expert-Coded Data*, V-Dem (2022); Cory Struthers, Yuhui Li and Matthew Shugart, *National and District Level Party Systems Datasets*, Harvard Dataverse (2018).
- 7 Ferran Martinez i Coma and Ignacio Lago, *Gerrymandering in comparative perspective*, Party Politics 24, no. 2 (Apr. 12, 2016).
- 8 Uniform Congressional District Act. Pub. L. No. 90–196, § 2c, 81 Stat. 581.
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- 10 Robert G. Dixon, Jr., *Democratic Representation: Reapportionment in Law and Politics*, Oxford University Press (1968) at 462.
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- 16 Lee Drutman, “Where We Have Been: The History of Gerrymandering in America” in *What We Know About Redistricting and Redistricting Reform*, New America (Sept. 19, 2022).
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- 19 Laura Royden and Michael Li, *Extreme Maps*, Brennan Center for Justice (May 9, 2017).
- 20 Drutman, *What We Know About Redistricting and Redistricting Reform*.

- 21 Christopher Warshaw, Eric McGee, and Michal Migurski, *Districts for a New Decade — Partisan Outcomes and Racial Representation in the 2021–22 Redistricting Cycle*, *Publius: The Journal of Federalism* 52, no. 3 (Summer 2022).
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- 35 Coma and Lago, *Gerrymandering in Comparative Perspective* at 100.



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