Thinking Apolitically about Gerrymandering

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ABSTRACT

In popular opinion surveys, a majority of Americans express strong concerns about gerrymandering. These concerns are well founded insofar as gerrymandering undermines the perceived fairness of legislative representation and is expected to contribute to political polarization and "leapfrog" representation. Purported remedies for gerrymandering that aim to balance the interests of competing political parties are unlikely to be satisfactory or enduring. The US Supreme Court, in *Rucho v. Common Cause,* recently confirmed that the US Constitution protects individual voting rights against discrimination but does not guarantee or even suggest that political alliances are entitled to proportional representation. Moreover, reforms aiming to balance the effects of redistricting upon opposing political parties would fail to address potentially critical adverse consequences of gerrymandering, such as political self-segregation and polarization. In contrast to reform frameworks based on political balancing, much constitutional, legislative, and judicial history supports the simpler principle that legislative districts should be reasonably compact. Congress's constitutional power to make or alter the rules for congressional elections is undisputed. Accordingly, enacting a federal law that limits the irregularity of legislative district shapes would represent a more promising and apolitical approach to gerrymandering reform, as well as one more likely to provide stability, predictability, and reduced risk of capricious judicial intervention, than an approach based on balancing the interests of political parties.

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Keywords: gerrymandering, redistricting, compactness, representation, polarization, gerrymandering reform, Congress, districts, elections, mapmaking, Rucho, G score

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Gerrymandering, or distorting legislative district lines for the purpose of electoral advantage, is a political tactic about which Americans persistently express concerns. In one recent poll, 73 percent of respondents said it was "very concerning" if, through gerrymandering, "politicians get to choose their own voters instead of the voters choosing them." Similarly, 71 percent said it was "very concerning" if skewed district lines mean that "politicians are nearly guaranteed to win their election" and thus "they don't need to pay close attention to their constituents."[1] While some advocacy organizations have framed gerrymandering reform in partisan terms—for example, as a means of criticizing an opposing party and facilitating the drawing of district lines more hospitable to their own side—opposition to gerrymandering is nevertheless expressed by large majorities of American voters irrespective of political affiliation.[2]

This study begins by examining whether gerrymandering is a pressing public policy problem requiring a remedy and concludes that Americans share a stake in constraining the practice, irrespective of whether they belong to a majority or a minority political party. The identification of an optimal remedy, however, depends on how one defines the gerrymandering problem. This study concludes, for reasons detailed throughout the text, that the gerrymandering problem is most usefully defined in terms of the irregularity of legislative district shapes rather than in terms of political interests. The study then evaluates various possible processes by which reforms might be implemented, settling on federal legislation as the best option among the alternatives.

1. Lake Research Partners and WPA Intelligence, "Partisan Redistricting—New Bipartisan National Poll," September 11, 2017, p. 4, https://campaignlegal.org/sites/default/files/memo.CLCPartisan Redistricting.FINAL_.2.09082017%20%28002%29.pdf.
2. National Democratic Redistricting Committee, "About the NDRC," accessed July 3, 2019, https://democraticredistricting.com/about/; Lake Research Partners and WPA Intelligence, "Partisan Redistricting."

Gerrymandering can be, and is, practiced with legislative districting at various levels of government, including federal (affecting US congressional districts) and state (affecting state legislative districts). Although this study will present illustrative examples of both federal-level and state-level districting, reform options will be discussed primarily in relation to US congressional districts, for multiple reasons. One reason is that Congress's authority to modify existing rules for drawing congressional district lines is undisputed. A second reason is that in certain key respects, current restrictions on state legislative district shapes are tighter than they are for congressional districts: for example, 37 states require their state legislative districts to be reasonably compact, whereas only 18 states require this of congressional districts.[3] This situation suggests that reforms at the federal level would be more effective in restraining gerrymandering.

The extent to which gerrymandering is a pressing public policy problem depends on its real and perceived effects. A predominant concern expressed about gerrymandering is that it potentially undercuts the fairness of representation in the US national Congress as well as in state legislatures. To the extent that districting produces legislative representation that appears to deviate markedly from voter preferences statewide, the perceived legitimacy of that representation is undermined. Americans especially resent representational outcomes that appear to depart significantly from the established constitutional principle of "one person, one vote," or that seemingly disenfranchise voters.[4] Even where legislative mapmakers have done nothing illegal, unethical, or unconstitutional, public perceptions that distorted district boundaries may warp public policy decisions can also undermine essential public trust in representative bodies. In this light, limiting gerrymandering has been viewed as an imperative to "restrain existing establishments from gathering too much power unto themselves" relative to individual voters.[5]

Gerrymandering has been present in the United States since the founding of the republic, and there is no consensus about how much of this seemingly inevitable practice constitutes too much.[6] Both Congress and the Supreme Court

3. Justin Levitt, "Where Are the Lines Drawn?," *All about Redistricting* (Loyola Law School), accessed July 3, 2019, http://redistricting.lls.edu/where-state.php#compactness.

4. For a history of Supreme Court cases affirming the "one person, one vote" principle, see L. Paige Whitaker, "Congressional Redistricting: Legal and Constitutional Issues," Congressional Research Service, September 22, 2015.

5. Walter Olson, "Politicians, Voters and Gerrymandering," Cato Policy Report (Cato Institute), January/February 2018.

6. Rucho v. Common Cause, No. 18-422, slip op. at 3 (U.S. June 27, 2019). See also Vieth v. Jubelirer, 541 U.S. 267, 344 (2004); Nina Totenberg, "Partisan Gerrymandering: How Much Is Too Much?," National Public Radio, October 3, 2017. Many voices argue that the current extent of gerrymandering

have long held that gerrymandering is or should be prohibited to the extent that it clearly violates the constitutional principle of "one person, one vote."[7] But beyond this general principle, gerrymandering's critics have struggled to demonstrate and measure particular adverse outcomes of gerrymandering, such as whether and to what extent it renders political candidates' behavior more polarized, less responsive to general-election voters, or both. These are among the effects expected to follow from the drawing of district maps to confer political advantage, but the available evidence does not point to a firm conclusion about gerrymandering's role in causing them.

Nevertheless, the mere anticipation of such consequences introduces fundamental questions about whether and how gerrymandering is of concern wherever it is effective. To the extent that gerrymandering achieves political advantage, it reduces the chances that the districting party's candidate will lose a general election, both in an absolute sense and relative to the risk of that candidate's losing a primary challenge (the latter scenario being an adverse outcome for the candidate but not necessarily for the districting party). Primary challenges to incumbents in successfully gerrymandered districts should also become more attractive to potential challengers, owing to the increased likelihood of the districting party's nominee prevailing in the subsequent general election.

Gerrymandering should be expected furthermore to reduce officeholders' incentives to reach policy agreements with elected officials of an opposing political party, because of these officeholders' reduced need to appeal to cross-party voters in a general election, combined with their increased need to appeal to their own party's electors in a potentially contested primary. Taken together, these various incentives reward candidates for adhering to positions favored by a plurality of their own party and deter candidates from accommodating the concerns of those who disagree, especially the concerns expressed by members

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is undesirable and is likely to grow worse. For example, in a brief of *amici curiae* in the US Supreme Court's *Gill v. Whitford* case, a group of political science professors argued that "in future redistricting cycles, mapmakers will be able to leverage recently developed techniques for simulating hypothetical maps in order to achieve particular goals" and that in view of this increased gerrymandering power, the US Supreme Court should "create a doctrinal space where lower courts could consider advanced social science to provide objective, verifiable and reliable measures of partisan bias in maps." Brief of Amici Curiae Political Science Professors in Support of Appellees and Affirmance at 29, 32, Gill v. Whitford, 138 S. Ct. 1916 (2018) (No. 16-1161).

7. For a discussion of the Supreme Court's repeated affirmations of this principle, see Whitaker, "Congressional Redistricting," 2. For congressional history, see the text of various federal apportionment acts—for example, the 1901 Apportionment Act, requiring that congressional districts "contain as nearly as practicable an equal number of inhabitants." 56th Cong., Cong. Rec. 734, Session II, Ch. 93 (January 16, 1901).

of other parties. Irrespective of the relative merits of such policy positions, one expected result of gerrymandering is therefore increased polarization of elected officials of opposing parties.

All this suggests that, to the extent that gerrymandering is successfully practiced, it should maximize the electoral value of a candidate's appeal to a plurality of his or her own party's voters, while minimizing the electoral value of appealing to independent or opposition-party voters. This in turn should also render it less likely that an elected official's political positioning reflects average sentiments in his or her legislative district; instead, the official's positioning likely more closely reflects a plurality view within one party or another. This tendency in and of itself could be regarded as a flaw in electoral procedure, for—as Bill James has noted—such a tendency "gives an opening to someone or something who has a strong appeal to a limited number of people."[8]

From this analytical vantage point, gerrymandering should be expected not only to reinforce any underlying trends toward partisan polarization, but also to result in so-called leapfrog representation: a phenomenon whereby whenever an incumbent is replaced by a new officeholder, the newly elected officeholder does not reflect the views of the district any more closely than the previous incumbent did, but is instead just as distant from them—though possibly in a different ideological direction.[9] The point of this concern is not that the opinions of the political center are necessarily superior on policy grounds to opinions viewed as being to the right or to the left, but rather that an electoral process producing leapfrog representation is unlikely to meet the preferences of a critical mass of general-election voters, at the same time that it bypasses the interests of the median voter.[10] Academic research observes such leapfrog representation in US elections.[11]

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8. Bill James, *The Bill James Historical Baseball Abstract* (New York: Free Press, 2001).

9. Joseph Bafumi and Michael C. Herron, "Leapfrog Representation and Extremism: A Study of American Voters and Their Members in Congress," *American Political Science Review* 104, no. 3 (August 2010): 519.

10. Gene Grossman and Elhanan Helpman, "Identity Politics and Trade Policy" (Center for Economic Policy Research Discussion Paper 13367, London, October 2, 2018).

11. Joseph Bafumi and Michael Herron, for example, found that

> members of Congress are more extreme than their constituents. . . . When a congressional legislator is replaced by a new member of the opposite party, one relative extremist is replaced by an opposing extremist. . . . We see evidence of leapfrog representation in states and House districts and in the aggregate as well: the median member of the 109th House was too conservative compared to the median American voter, yet the median of the 110th House was too liberal. Thus, the median American voter was leapfrogged when the 109th House transitioned to the 110th.

Bafumi and Herron, "Leapfrog Representation and Extremism."

Various studies, however, attribute phenomena such as partisan polarization and leapfrogging primarily to causes other than gerrymandering.[12] Calculations by Stanford University political scientist Simon Jackman found that party affiliation was the primary determinant of voting records in the 113th US Congress, whereas the tilt of the congressional district had a relatively smaller effect.[13] An earlier study by Princeton University's Nolan McCarty during the George W. Bush administration reached qualitatively similar conclusions, although it showed some correlation between Congress members' voting records and the tilt of their districts, beyond the degree attributable to party affiliation alone.[14] Similar conclusions have been reached concerning voting patterns in state legislatures.[15] Also, as Andrew Prokop has noted, "the [US] Senate isn't gerrymandered at all," and yet it too has become more polarized in recent years.[16] Political polarization is apparently not driven by gerrymandering alone.

American politics may be becoming increasingly polarized for a wide variety of reasons, and gerrymandering need not be the leading contributor to be a problematic one. It is unsurprising if party affiliation is the primary determinant of a legislator's ideology, because differences of political philosophy are, after all, a primary reason political parties exist. Hence, studies showing that more of the ideological differences between legislators arise from party affiliation than from the tilts of their districts do not necessarily suggest that gerrymandering isn't fueling some of the increased partisan polarization.

To the extent that gerrymandering feeds polarization, psychological research suggests that such polarization may be self-reinforcing.[17] For reasons

12. It is beyond the scope of this paper to examine the various theories that have been advanced to explain increasing political polarization in the United States. The Pew Research Center publishes regular studies of the scope and manifestations of such polarization, accessible on its "Political Polarization" topic page, https://www.pewresearch.org/topics/political-polarization/. US Senator Ben Sasse (R-NE) has published a book, *Them: Why We Hate Each Other—and How to Heal* (New York: St. Martin's, 2018), theorizing that the collapse of other community bonds has facilitated the rise of intensified partisan attachments in their place. An opposing view is offered by the *New Yorker*'s Osita Nwanevu in "Ben Sasse's Unconvincing Diagnosis of American Partisanship," November 5, 2018. There are more theories about the phenomenon than this study can adequately treat.

13. John Sides, "Gerrymandering Is Not What's Wrong with American Politics," *Washington Post*, February 3, 2013.

14. Sides, "Gerrymandering Is Not What's Wrong with American Politics."

15. Boris Shor and Nolan McCarty, "The Ideological Mapping of American Legislatures," *American Political Science Review* 105, no. 3 (August 2011): 530–51.

16. Andrew Prokop, "Does Gerrymandering Cause Political Polarization?," *Vox*, November 14, 2018.

17. Various studies document the "echo chamber" effect, in which persistent exposure to primarily like-minded viewpoints renders individuals less open to seeing the merits of opposing views and less able to accurately identify the factual basis for decision-making. Nicholas DiFonzo, "The Echo-Chamber Effect," *New York Times*, April 22, 2011.

that will be elaborated upon later in this paper, this phenomenon renders it especially important not to misperceive gerrymandering as something that only one political party does to another, but instead to recognize that gerrymandering can be practiced jointly and cooperatively by two or more parties. Such bipartisan or multiparty gerrymandering would have the same adverse polarizing and echo-chamber effects as gerrymandering practiced for the benefit of one party alone. This reality highlights the limited utility of certain proposed measures for identifying gerrymandering, such as the "efficiency gap" and "party asymmetry," which will be discussed at greater length later in this study.

If increasing political polarization is harmful and if, as many suggest, it is reflected and reinforced by Americans self-segregating according to their political views, then gerrymandering is additionally problematic to the extent that it rewards such segregation.[18] This concern applies equally to proposed remedies for gerrymandering. That is to say, a supposed remedy is no remedy at all if it creates incentives for or rewards residential self-segregation along political lines by making it easier for political alliances to prevail without regard to how much they segregate themselves from the rest of American society. More beneficial reforms would avoid incentives for voters to self-segregate according to their political views.

Correlation is not causation, but it is clear that US politics have become more intensely polarized at the same time that analysts are seeing increased evidence of one of gerrymandering's effects that is expected to exacerbate polarization: namely, increased competitiveness in congressional primary contests relative to general elections. A comparison of congressional election results in 2004 and 2016 is illustrative of the trend.[19]

Table 1 compares the number of US congressional races that this study deems to have been "more competitive" in the primaries than in the general election in 2004 to the number in 2016. For the purposes of this study, a primary election is deemed more competitive than the general election if the winning candidate (a) received a lower percentage of votes in the primary than in the

18. Bill Bishop, *The Big Sort: Why the Clustering of Like-Minded America Is Tearing Us Apart* (New York: Mariner Books, 2009).

19. Federal Election Commission, "Federal Elections 2004: Election Results for the U.S. President, the U.S. Senate and the U.S. House of Representatives," May 2005; Federal Election Commission, "Federal Elections 2016: Election Results for the U.S. President, the U.S. Senate and the U.S. House of Representatives," December 2017. The years 2004 and 2016 were chosen for this study because 2016 is the most recent congressional election year for which the Federal Election Commission has published detailed results in Excel, and 2004 is the earliest election year for which the Excel data are readily available on the commission's website.

TABLE 1. NUMBER OF US CONGRESSIONAL DISTRICTS MORE COMPETITIVE IN PRIMARY THAN GENERAL ELECTION

	2004	2016
Primary/nominating process more competitive than general election	41	81

Note: For both elections, there were 435 districts in total.

general election and (b) won the primary by a smaller percentage margin than the general election. As can be seen, over this time period there has been a substantial shift of competitiveness from the general election season to the primary season, such that in 2016 roughly twice as many candidates faced their tougher competition in primary season as did so in 2004.

Table 2 lists the specific districts for which the primary or nominating process was more competitive than the general election, in 2004 and in 2016. The data exhibit a trend that is at the very least consistent with increasingly effective gerrymandering. Specifically, the data show that intraparty primary contests are becoming more competitive relative to general elections; this shift tends toward polarization by increasing the electoral value of a candidate's appeal to a plurality of his or her own party's voters, while decreasing incentives to accommodate the concerns of independent or opposition-party voters. This competitive trend is also reflected in rising voter turnout during primary season, although general election turnout remains substantially higher.[20]

It is unclear, however, how much gerrymandering is contributing to this trend. The trend is especially visible in states such as Illinois, which is indeed among the most gerrymandered states according to criteria to be discussed later in this study. In 2004, Illinois had only one congressional district that was more competitive in the primary than in the general election, but this number rose to four by 2016—and two of these districts (the fourth and seventh districts) were among the most irregularly shaped congressional districts in the nation. But the primary season also became relatively more competitive in states such as California (where congressional districts are drawn by a citizens' commission rather than by the state legislature),[21] Washington (where especially irregular districts are shaped largely by naturally irregular coastal boundaries), and Wyoming (where the lone congressional district consists of the entire state).

20. Drew Desilver, "Turnout in This Year's U.S. House Primaries Rose Sharply, Especially on the Democratic Side," Pew Research Center, October 3, 2018.
21. California Citizens Redistricting Commission, "Background on Commission," CA.gov, accessed July 3, 2019, https://wedrawthelines.ca.gov/commission/.

TABLE 2. LIST OF US CONGRESSIONAL DISTRICTS MORE COMPETITIVE IN PRIMARY THAN IN GENERAL ELECTION

State	2004 (numbers are district designations)	2016 (numbers are district designations)
Alabama	6	1, 4
Alaska	—	—
Arizona	6, 8	4, 5
Arkansas	—	—
California	3, 37, 38	1, 2, 5, 8, 17, 22, 23, 28, 29, 42, 44, 45, 46
Colorado	—	—
Connecticut	—	—
Delaware	—	—
Florida	3, 4, 9, 14, 23	1, 2, 4, 5, 9, 11, 19, 24
Georgia	6, 8, 13	3, 9, 14
Hawaii	—	—
Idaho	—	—
Illinois	7	2, 4, 7, 15
Indiana	—	1, 3, 9
Iowa	—	—
Kansas	—	1
Kentucky	5	1, 5
Louisiana	—	—
Maine	—	—
Maryland	1	4, 8
Massachusetts	8, 9	5, 7
Michigan	7	1, 10, 13
Minnesota	—	—
Mississippi	—	—
Missouri	3	1, 8
Montana	—	—
Nebraska	1	—
Nevada	—	—
New Hampshire	—	—
New Jersey	—	—
New Mexico	—	—
New York	—	5, 7, 13, 15
North Carolina	5, 10	9, 12, 13
North Dakota	—	—
Ohio	6	8
Oklahoma	2	1, 2, 3
Oregon	—	—
Pennsylvania	5, 9, 13, 15	2, 9, 13

Rhode Island	—	—
South Carolina	1	1
South Dakota	—	—
Tennessee	—	4, 6, 8
Texas	1, 3, 9, 10, 11, 25, 28	4, 8, 16, 19, 27, 29, 30, 32, 33
Utah	3	—
Vermont	—	—
Virginia	8	2
Washington	—	2, 5, 9, 10
West Virginia	—	—
Wisconsin	4	3
Wyoming	—	0

In sum, partisan polarization is increasing, and gerrymandering should be expected to contribute to this trend—but thus far the evidence about how much it has done so is inconclusive, or is open to conflicting interpretations, or suggests that other societal factors are more significant. This does not imply, however, that gerrymandering reform should not be a focus of those concerned about divisive political trends. Indeed, it could be argued that, to the extent that other societal factors fuel partisan polarization, it becomes even more important that gerrymandering not worsen these divisions and that legislative district lines be drawn to mitigate these trends where possible.

While it is natural that gerrymandering draws negative attention from partisans who believe their political interests have been adversely affected, it would be a mistake to conclude that one's interest in limiting gerrymandering should be solely or primarily a function of one's political attachments. A state majority party that controls legislative districting has multiple reasons to accept limits on both real and perceived gerrymandering. First, today's majority may be tomorrow's minority. This is one reason why US Senate procedures contain so many protections of minority party interests: they shield a future Senate minority as they do today's. Second, a majority party may pay a political price if there is a widespread perception that its terms in office and its policy decisions have been unfairly secured. Third, as mentioned earlier, gerrymandering is not strictly something that one party does to another, but rather something in which opposing parties can readily cooperate for purposes such as protecting their respective spheres of political power, minimizing intraparty dissension, and retaining their most influential incumbent officeholders. In this light, it is more useful to think of gerrymandering as a point of tension between voters and district mapmakers than as a matter to be settled simply by redistributing power between political

parties, whether under the auspices of a bipartisan commission or through any similar process-based reform. Fourth, in order that the ideal of gerrymandering reform not devolve into a crass jostle for partisan power, it is essential that it not be pursued on the basis of a particular party's desire for electoral gains. Eliminating such partisan interests from reform's objectives should help to mitigate a districting party's reluctance to accept restraints on the practice. And fifth and finally, a failure to properly define and limit unacceptable gerrymandering creates a void into which the judiciary may step with a controversial and divisive intervention. Indeed, there have been aggressive efforts to invite the US Supreme Court to define the limits of partisan gerrymandering, despite the fact that the court has repeatedly noted the pitfalls of attempting to do so.[22] As this paper will further detail, the US Constitution explicitly empowers Congress to override problematic congressional districting by the states, and thus it would represent a substantial failure of the intended constitutional process for the job of defining excessive partisan gerrymandering to be assumed by the courts.

For all of these reasons, majority and minority political parties alike share a common interest in addressing the burgeoning controversy over gerrymandering—to combat the growth of voter cynicism, to properly define the criteria for determining when gerrymandering is problematic, and to establish explicit, fair, and standardized limits on its exercise. This study is intended to inform such efforts.

DEFINING THE GERRYMANDERING PROBLEM

For as widespread a concern as gerrymandering is, it is remarkable that there is no clear consensus about how to define it. The *American Heritage Dictionary* defines a gerrymandered district as "one whose boundaries are very irregular due to gerrymandering"; *gerrymandering*, in turn, is defined with reference to giving "one party an unfair advantage in elections."[23] As this study will document, many commonly employed definitions of gerrymandering make reference only to the partisan advantage received, not to the district boundary's irregularity. This study concludes that these two considerations—shape irregularity and partisan advantage—are fundamentally different and separable, and further that the problem of gerrymandering is most usefully defined in terms of the irregularity of

22. Rucho v. Common Cause, No. 18-422, slip op. at 17 et seq. (U.S. June 27, 2019); see also Vieth v. Jubelirer, 541 U.S. 267 (2004).
23. *The American Heritage Dictionary of the English Language*, 5th ed., s.v. "gerrymander," accessed July 3, 2019, https://ahdictionary.com/word/search.html?q=gerrymander.

district boundaries. By contrast, defining the gerrymandering problem in terms of partisan advantage is far less useful, and can even be counterproductive, when considering reforms.

Many advocates, however, conceive of gerrymandering reform primarily in terms of balancing the interests of political parties. Scholars with the Brennan Center for Justice measure gerrymandering by analyzing how different national popular vote shares in congressional elections translate into different numbers of Democrats and Republicans in the US Congress.[24] The Princeton Gerrymandering Project similarly detects gerrymandering "by comparing a party's statewide vote strength to the number of Congressional seats it wins," a measure that requires no attention to the irregularity of district shapes.[25] Duke mathematics professor Jonathan Mattingly has published a blog post titled "Gerrymandering Is Not about Oddly Shaped Districts" to the website for the Quantifying Gerrymandering research group. Mattingly advocates for measures of gerrymandering that focus on the number of seats won by each party.[26] Unsurprisingly, advocacy initiatives with political origins have also tended to focus on the balance of partisan representation as the measure of success for gerrymandering reform.[27]

One metric often cited by those taking the above vantage point is the so-called efficiency gap. The efficiency gap is essentially the difference between opposing parties' "wasted" votes (i.e., votes cast for a losing party's candidate, or votes cast for a party's victorious candidate above and beyond those necessary to win the election) divided by the total number of votes cast. The larger the efficiency gap, the greater the perceived advantage received by one party via the drawing of district boundaries. The efficiency gap metric was devised by Nicholas Stephanopoulos and Eric McGhee, and it has been cited in numerous scholarly articles, court cases, and press articles, including in the work of noted political scientist Simon Jackman, as well as in arguments before the Supreme

24. Laura Royden, Michael Li, and Yurij Rudensky, "Extreme Gerrymandering & the 2018 Midterm" (Brennan Center for Justice at New York University School of Law, New York, 2018).
25. Princeton Gerrymandering Project, "Wondering How the Tests Work?" accessed July 3, 2019, http://gerrymander.princeton.edu/info/. A recent *Washington Post* column also reflects this common conception, measuring gerrymandering in terms of the relationship between a statewide popular vote and the number of US House seats won by each party. Christopher Ingraham, "One State Fixed Its Gerrymandered Districts, the Other Didn't. Here's How the Election Played Out in Both," *Washington Post*, November 9, 2018.
26. Jonathan Mattingly, "Gerrymandering Is Not about Oddly Shaped Districts," *Quantifying Gerrymandering*, January 30, 2018.
27. Edward-Isaac Dovere, "Barrack Obama Goes All In to Fight Gerrymandering," *The Atlantic*, December 20, 2018.

Court, in reform advocacy publications such as those of the Brennan Center for Justice, and in countless opinion publications.[28]

The efficiency gap measure was offered by advocates as an answer to the Supreme Court's observation in *Vieth v. Jubelirer* (since repeated in *Rucho v. Common Cause*) that there was no clear, workable standard by which the court could determine when partisan gerrymandering had become excessive to the point of being impermissible.[29]

But while the efficiency gap metric attracted supporters, its flaws were also quickly noted. Sam Kean observed in *The Atlantic* that reliance on the efficiency gap could lead to various counterintuitive and unsatisfying conclusions, including the misinterpretation of perfectly proportional representation as gerrymandering in favor of the minority party and also the attribution to gerrymandering of any representational imbalances that may simply be rooted in geographically uneven distributions of different parties' voters.[30] The Supreme Court found unanimously in *Gill v. Whitford* that because efficiency gap calculations only produce average or aggregate measures, they "do not address the effect that a gerrymander has on the votes of particular citizens" and are therefore not useful in determining whether individual citizens' voting rights have been violated.[31]

A more fundamental problem with the efficiency gap metric, however, was that it implicitly assumed that the goal of gerrymandering reform is to achieve symmetry in the treatment of opposing political parties. The following paragraphs review some pitfalls of that approach.

The long history of federal congressional districting law, as expressed first in the US Constitution and later throughout several decades of congressional

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28. Nicholas Stephanopoulos and Eric McGhee, "Partisan Gerrymandering and the Efficiency Gap," *University of Chicago Law Review* 82 (2014): 831–900; Simon Jackman, "Assessing the Current North Carolina Districting Plan" (Expert Report, Rose Institute of State and Local Government, Claremont McKenna College, March 1, 2017); Common Cause v. Rucho, 248 F. Supp. 3d 780 (2018); Gill v. Whitford, 138 U.S. 1916, 1925 (2018); Eric Petry, "How the Efficiency Gap Works," Brennan Center for Justice, n.d., https://www.brennancenter.org/sites/default/files/legal-work/How_the_Efficiency_Gap_Standard_Works.pdf; Darla Cameron, "Here's How the Supreme Court Could Decide Whether Your Vote Will Count," *Washington Post*, October 4, 2017.

29. Vieth v. Jubelirer, 541 U.S. 267, 278–279 (2004); Rucho v. Common Cause, No. 18-422, slip op. at 22 (U.S. June 27, 2019). Ironically, the Maptitude mapping software sometimes employed by legislative district mapmakers also calculates estimates of a proposed districting plan's efficiency gap "based on historical election results," presumably for the very purpose of facilitating partisan advantage. Caliper Mapping and Transportation Software Solutions, "Caliper Mapping and Transportation Glossary," July 3, 2019, https://www.caliper.com/glossary/what-is-the-efficiency-gap-measure.htm.

30. Sam Kean, "The Flaw in America's 'Holy Grail' against Gerrymandering," *The Atlantic*, January 26, 2018.

31. Gill v. Whitford, 585 U.S. 1916, 1922 (2018).

apportionment acts and Supreme Court cases, consistently indicates that fair districting is much more a function of geography than it is a matter of balancing the interests of political parties. Indeed, the US Constitution, as well as the long subsequent history of congressional and judicial consideration of gerrymandering, is largely indifferent to the fates of political parties, and appropriately so.

While it is beyond the scope of this study to provide a thorough history of the subject, it is fair to say that the framers of the US Constitution conceived its relevant purposes here as protecting the rights of individuals and of states, in addition to advancing the common national interest, while at the same time they tended to view the prospect of powerful political parties with distaste, if not abhorrence. John Adams once wrote, "There is nothing which I dread so much as a division of the republic into two great parties." He went on to describe this outcome as the "greatest political evil" that might arise under the US Constitution.[32] George Washington devoted long passages of his Farewell Address to warning against the dangers of promoting party factions, contrasting nefarious factional activity with the more desirable goals of preserving individual rights and advancing the national good. In just one of the address's many sentences on the subject, Washington argued that "the common and continual mischiefs of the spirit of party are sufficient to make it the interest and duty of a wise people to discourage and restrain it."[33] To approach gerrymandering reform with the objective of protecting political parties' interests, or of minimizing the inefficiency of partisan campaigns, would be a considerable departure from these founders' intentions that the Constitution protect the interests of individuals, states, and the nation rather than those of political parties.

The wording of the US Constitution, as it does on many subjects, provides only very general guidance on how legislative districts should be drawn. It declares that the manner of choosing US senators and representatives "shall be prescribed in each State by the legislature thereof," although importantly, the US Congress "may at any time by law make or alter such regulations."[34] As scholars such as Thomas Mann have pointed out, this constitutional language does not require the creation of distinct and geographically contiguous congressional districts. It allows, theoretically, for the establishment of a proportional representation system in which a particular party or viewpoint receives a number of seats

32. Charles Francis Adams, ed., *The Works of John Adams, Second President of the United States: With a Life of the Author* (Boston: Little, Brown and Company, 1854).
33. Avalon Project, Lillian Goldman Law Library, Yale Law School, "Washington's Farewell Address 1796," accessed June 21, 2019, http://avalon.law.yale.edu/18th_century/washing.asp.
34. U.S. Const. art. I, § 3.

in Congress proportional to the fraction of those in a particular state supporting that viewpoint on election day.[35] Had systems of proportional representation been adopted by states or Congress after the ratification of the Constitution, map-based districting and gerrymandering would never have arisen as issues.

But despite the fact that the Constitution allowed for US representatives to be chosen in a manner that would have obviated partisan gerrymandering, subsequent congressional apportionment acts enacted over many years explicitly and repeatedly did each of the following: (a) required that US representatives be selected to represent geographical districts rather than proportionally representing differing political viewpoints, (b) implicitly permitted partisan gerrymandering, and (c) on multiple occasions sought to limit the irregularity of congressional district shapes through a "compactness" requirement. Accordingly, future efforts to control gerrymandering in a manner safely grounded in longstanding American consensus would focus on limiting the irregularity of district boundaries, a characteristic that can be objectively measured, rather than on divining and circumscribing the extent to which these boundaries may reflect mapmakers' political intentions.[36]

Historical federal requirements that districts be contiguous and compact have been interpreted as "an attempt to forbid the practice of the gerrymander."[37]

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35. Thomas E. Mann, Sean O' Brien, and Nate Persily, "Redistricting the United States Constitution," Brookings Institution, March 22, 2011.

36. The federal 1842 Apportionment Act specified that members of Congress "shall 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." 27 Cong. Ch. 47, June 25, 1842, 5 Stat. 491. The 1901 Apportionment Act was also explicit on these as well as a few additional points: Representatives "shall be elected by districts composed of contiguous and compact territory and containing as nearly as practicable an equal number of inhabitants. The said districts shall be equal to the number of the Representatives to which such State may be entitled in Congress, no district electing more than one Representative." 56 Cong. Ch. 93, January 16, 1901, 31 Stat. 733. This language was essentially repeated in the 1911 Apportionment Act. Apportionment Act of 1911, Pub. L. No. 62-5, 37 Stat. 13 (1911). After an intervening period in which states had latitude to create multimember congressional districts, a federal mandate that districts elect only one representative was enacted in 1967 and remains in force today. Nicolas Flores, "A History of One-Winner Districts for Congress" (undergraduate thesis, Stanford University, n.d.), available at http://archive.fairvote.org/library/history/flores/district.htm.

The principles underlying these apportionment acts are clear: representational fairness was to be achieved by having each district contain roughly the same number of people, as well as by contiguousness and compactness requirements ensuring that individuals included within the same congressional district lived reasonably close to each other. The contiguousness, compactness, and equal-population requirements of those apportionment acts are no longer explicitly detailed in current federal law, which contains scaled-back requirements—including a requirement that representatives be elected from geographical districts, with "no district to elect more than one Representative." 2 U.S.C. § 2c (1967).

37. Rucho v. Common Cause, No. 18-422, slip op. at 10 (U.S. June 27, 2019) (quoting Elmer Cummings Griffith, *The Rise and Development of the Gerrymander* (Chicago: Scott, Foresman and Company, 1907)).

At the same time, however, it is important to understand that these same apportionment acts implicitly allowed a certain amount of political advantage through districting. After all, as John Mackenzie has noted, "Gerrymandering depends on a heterogeneous geographic distribution of political interests, and only occurs in elections by district rather than at-large."[38] Congress thus could have ended the practice of gerrymandering by requiring that states choose representatives on the basis of a method (such as proportional representation) other than carving themselves into geographically distinct districts. Federal lawmakers did not do so. Instead they implicitly allowed a degree of gerrymandering for political advantage, although this was sometimes constrained by compactness requirements.

The US Constitution guarantees that one person's vote is as good as another's, but this does not imply that when multiple people combine their preferences with respect to various issues, each such combination must also be treated equally.[39] Voting is, per prevailing constitutional interpretation, an individual right rather than a collective right. Accordingly, the Constitution does not require that representation be proportional to the prevalence among the population of every viewpoint, affiliation, organization, or political party.

The US Supreme Court has held that gerrymandering on the basis of certain inherent individual characteristics—such as race—is unconstitutional in that it violates the "one person, one vote" principle, but that gerrymandering to achieve partisan political advantage is not in and of itself such a violation.[40] Although in *Davis v. Bandemer* the court held that claims of political gerrymandering were justiciable, the plurality also held that prior Supreme Court cases "clearly foreclose any claim that the Constitution requires proportional representation or that legislatures in reapportioning must draw district lines to come as near as possible to allocating seats to the contending parties in proportion to

38. John Mackenzie, *Gerrymandering and Legislator Efficiency* (Newark, DE: University of Delaware, February 2010).

39. The principle of "one person, one vote" has been advanced by many instances of federal law requiring that each congressional district have nearly the same population, as well as by judicial decisions. As noted previously, multiple federal apportionment acts explicitly required that districts have nearly equal populations. In addition to the 1901 and 1911 apportionment acts previously cited, the 1872 federal apportionment act contained similar language. The US Supreme Court later decided, in *Wesberry v. Sanders*, that "while it may not be possible to draw congressional districts with mathematical precision, that is no excuse for ignoring our Constitution's plain objective of making equal representation for equal numbers of people the fundamental goal for the House of Representatives." Wesberry v. Sanders, 376 U.S. 1, 18 (1964). The court found further that representatives chosen per the Constitution "'by the People of the several States' means that, as nearly as is practicable, one man's vote in a congressional election is to be worth as much as another's." *Wesberry*, 376 U.S. at 7.

40. The 1965 Voting Rights Act also effectively forbids drawing district lines so as to dilute the power of individuals' votes on the basis of race.

what their anticipated statewide vote will be."[41] In *Vieth* the court's ruling plurality was even more emphatic on this point, while holding instead that political gerrymandering was nonjusticiable: "The Constitution provides no right to proportional representation. . . . It guarantees equal protection of the law to persons, not equal representation in government to equivalently sized groups. It nowhere says that farmers or urban dwellers, Christian fundamentalists or Jews, Republicans or Democrats, must be accorded political strength proportionate to their numbers."[42] The court again reaffirmed this view in *LULAC v. Perry*, stating that the argument that political gerrymandering presumptively violates constitutional equal protection and First Amendment guarantees was "not convincing."[43] And most recently, in *Rucho*, the court again repeated this conclusion in strong and unambiguous terms: "Partisan gerrymandering claims invariably sound in a desire for proportional representation. . . . The Founders certainly did not think proportional representation was required. . . . Unable to claim that the Constitution requires proportional representation outright, plaintiffs inevitably ask the courts to make their own political judgment about how much representation particular political parties *deserve*—based on the votes of their supporters—and to rearrange the challenged districts to achieve that end. But federal courts are not equipped to apportion political power as a matter of fairness, nor is there any basis for concluding that they were authorized to do so."[44]

The Supreme Court's *Vieth* decision provides an ample summary of reasons why balancing political party interests is not a sound basis for limiting gerrymandering, as well as why the judiciary should not be recruited to make this attempt. First, partisan outcomes may be asymmetric for reasons other than gerrymandering. "Whether by reason of partisan districting or not, party constituents may always wind up 'packed' in some districts and 'cracked' throughout others. . . . Consider, for example, a legislature that draws district lines with no objectives in mind except compactness and respect for the lines of political subdivisions. Under that system, political groups that tend to cluster . . . would be systematically affected by what might be called a 'natural' packing effect."[45]

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41. Davis v. Bandemer, 478 U.S. 113, 130 (1986).
42. Vieth v. Jubelirer, 541 U.S. 267, 288 (2004).
43. League of United Latin Am. Citizens v. Perry, 548 U.S. 399, 417 (2006).
44. Rucho v. Common Cause, No. 18-422, slip op. at 16–17 (U.S. June 27, 2019).
45. Vieth v. Jubelirer, 541 U.S. 267, 289–290 (2004). "Fairness," the ruling plurality in Vieth continued, is not "a judicially manageable standard. . . . Some criterion more solid and more demonstrably met than that seems to us necessary to enable the state legislatures to discern the limits of their districting discretion, to meaningfully constrain the discretion of the courts, and to win public acceptance for the courts' intrusion into a process that is the very foundation of democratic decisionmaking." *Vieth*, 541 U.S. at 291.

The fact that the consequences of such districting are imbalanced for different political parties does not create a basis for judicial intervention.

All of this indicates that if congressional districts are drawn to be both geographically contiguous and reasonably compact, then unequal treatment of political parties, whether intended or not, is not a sufficient basis for invalidating district lines. This conclusion renders problematic such reform approaches as those taken in the Fair Maps Act of 2018, introduced in the US Senate, which would have prohibited any congressional districting plan drawn by a state legislature that had either the purpose or the effect of "unduly favoring or disfavoring any political party," while at the same time creating a presumption in favor of any plan drawn by a nonpartisan or bipartisan districting commission.[46] This approach is problematic in multiple respects, including (as will be discussed later in this study) the presumption that a districting plan drawn by an independent commission is superior to one drawn by a state legislature. But more relevantly here, the language of the bill departs from the historical consensus described above when it declares that state mapmakers may pursue "geographic contiguity and compactness" only to the extent that this does not result in any political party being favored or disfavored. This language reverses the historical priority given to the compactness of congressional districts, requiring that the compactness principle give way to the interests of political parties rather than the other way around.

Even those who focus on the political or partisan effects of gerrymandering tend to acknowledge that irregularity of shape rather than partisan imbalance is the telling sign of when gerrymandering has become problematic. In *Bandemer*, Justice Lewis Powell argued that the courts should address political gerrymandering but cited "the shapes of voting districts and adherence to established political subdivision boundaries" as the "most important" factors to guide "judges who test redistricting plans against constitutional challenges."[47] Justice John Paul Stevens in *Vieth* wrote about a variety of issues associated with gerrymandering, yet he also noted that among well-settled principles "is the understanding that a district's peculiar shape might be a symptom of an illicit purpose in the line-drawing process," a point he repeated in various ways throughout his dissent.[48] In *North Carolina v. Covington* as well, which held congressional

46. Fair Maps Act of 2018, S. 3123, 115th Cong. (2018).
47. Davis v. Bandemer, 478 U.S. 109, 173 (1986).
48. Stevens also noted that "Justice Powell pointed to the strange shape of districts . . . and he included in his opinion maps that illustrated the irregularity of the district shapes." Vieth v. Jubelirer, 541 U.S. 267, 322 (2004) (Stevens, J., dissenting). Stevens cited the *Shaw* line of cases to the effect

district maps unconstitutional because of racial gerrymandering, the court relied on the "circumstantial evidence" of the districts' irregular shapes where it could not document a discriminatory intent of district mapmakers.[49]

These persistent references to the irregularity of district shapes as the signature of gerrymandering, even among those primarily concerned with gerrymandering's political effects, are not confined to the Supreme Court.[50] Even the Princeton Gerrymandering Project, which largely uses a party-based definition of gerrymandering, nevertheless explains popular concerns about the practice with reference to geography in its introductory video. The narrator asks, "Why is it that I am here and I am in one district, and if you go one mile in any direction from where I am, it's a different district? What is that?"[51] Thus, however much these advocates seek to define gerrymandering in terms of balancing the interests of political parties, there seems to be no satisfactory method for identifying, explaining, and therefore reforming gerrymandering that is not ultimately based on descriptions of legislative district shapes.

Some hypothetical illustrations may be useful to better understand why partisan affiliation alone cannot provide a reliable basis for analyzing gerrymandering. Imagine for simplicity's sake a perfectly rectangular state divided into perfectly regular legislative (in this example, state legislative) districts. Imagine, too, that voters are considering the alternatives of a proposed state flag that is purple and a proposed state flag that is green, with each preference symbolized by a circle of that color. If the voters are fairly regularly distributed throughout the state with the proportions shown in figure 1, and if they vote for their representatives solely on the basis of this issue, then the purple faction would command 60 percent of the popular vote yet elect 100 percent of the state representatives.

Thus, even without engaging in any gerrymandering at all, the majority party would receive far more seats in the legislature than it would receive under

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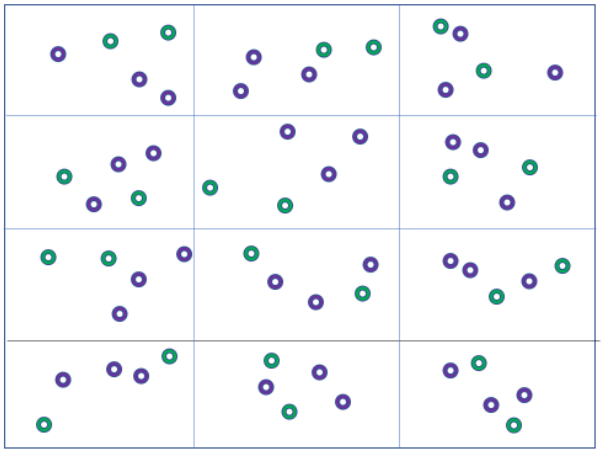
that "reapportionment is one area in which appearances do matter," including "the shape of challenged districts . . . in assessing the constitutionality of majority-minority districts." *Vieth*, 541 U.S. at 323 (Stevens, J., dissenting). Stevens also wrote, "We have explained that 'traditional districting principles,' which include 'compactness, contiguity, and respect for political subdivisions,' are 'important not because they are constitutionally required . . . but because they are objective factors'" in assessing whether impermissible gerrymandering has occurred. *Vieth*, 541 U.S. at 335 (Stevens, J., dissenting) (internal citations omitted).

49. North Carolina v. Covington, 138 S. Ct. 2548, 2553 (2018).

50. An article by Christopher Ingraham in the *Washington Post* contained visual illustrations of these districts, accompanied by measures of their geometric irregularity, to quantify the degree of gerrymandering. Christopher Ingraham, "America's Most Gerrymandered Districts," *Washington Post*, May 15, 2014.

51. Egan B. Jimenez, "Princeton Gerrymandering Graduate Policy Workshop," Princeton Gerrymandering Project, video, 4:59, accessed July 4, 2019, http://gerrymander.princeton.edu/.

FIGURE 1. GEOMETRICALLY REGULAR DISTRICTS WITH AN EVENLY DISTRIBUTED MAJORITY AND MINORITY

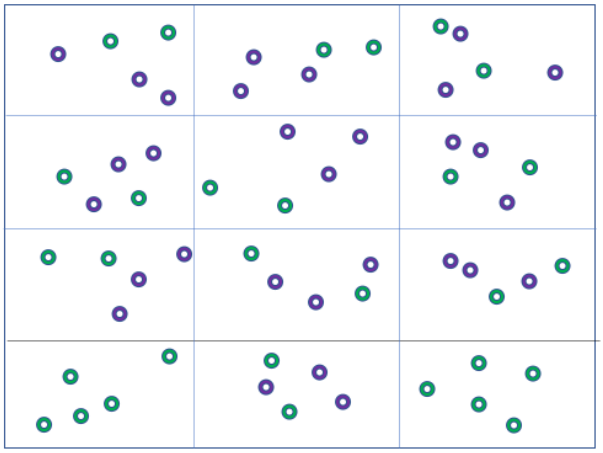


a district-less proportional representation system or under a system where districts were required to be drawn pursuant to the principle of party symmetry or proportionality. As Justice Stephen Breyer noted in his dissent in *Vieth*, in a state with a sufficiently large population, "districts assigned so as to be perfectly random in respect to politics would translate a small shift in political sentiment, say a shift from 51% Republican to 49% Republican, into a seismic shift in the makeup of the legislative delegation."[52] Indeed, district mapmakers in the above example would not be able to reduce the "efficiency gap" between the purple and green factions to zero without deliberately warping—indeed, gerrymandering—legislative district lines to achieve a targeted political purpose, in this case proportional representation.

Imagine a similar state, but with a fifty-fifty split between those preferring a purple flag and those preferring a green one, with the green-flag supporters clustered in the southwest and southeast corners of the state. In this situation, illustrated in figure 2, the purple faction would elect ten representatives and the green faction only two, despite each constituting 50 percent of the state's voters. Would this representational imbalance indicate gerrymandering? Clearly not, despite a substantial efficiency gap and a gross asymmetry in legislative representation. In this case, the efficiency gap results not from gerrymandering but from the uneven geographical distribution of voting factions, and in particular from the self-packing of the green faction.

52. Vieth v. Jubelirer, 541 U.S. 267, 359 (2004) (Breyer, J., dissenting).

FIGURE 2. GEOMETRICALLY REGULAR DISTRICTS WITH PARTIES OF EQUAL STRENGTH BUT WITH ONE PARTY PACKED



Indeed, under a district-based system, it would be impossible to attain proportional representation of the green and purple viewpoints in the state legislature without creating legislative districts far more irregularly shaped than those shown in figure 2. Of all the maps that might possibly be drawn, many more of them than not would result in the purple faction commanding a majority in the state legislature, meaning that the interests of the green party could only be protected by drawing a statistically unlikely map to accomplish a deliberate political purpose. In other words, the efficiency gap illustrated above would not be eliminated by preventing gerrymandering, but rather by practicing it.

Nor do the manifestly compact districts depicted in figure 2 disenfranchise the individuals who prefer a green flag, for indeed the same districting plan would favor those individuals if and once they happen to change their minds to prefer a purple flag. In other words, at most it could be argued that the districting scheme shown in figure 2 disadvantages a particular political opinion—not the individual who holds it. And, per the Supreme Court in *Rucho*, a political opinion is not in itself constitutionally entitled to proportional representation.[53]

However, it is not precisely correct to say—even in this illustrative case—that the political opinion in favor of a green flag has been disadvantaged by the districting. The opinion has instead been disadvantaged by the clustering of individuals who hold it within certain confined regions of the state. This is significant, for even in his dissent from the *Vieth* decision, Justice David Souter recognized

53. Rucho v. Common Cause, No. 18-422, slip op. at 16 (U.S. June 27, 2019).

that a plaintiff challenging a district's lines would need to show evidence of gerrymandering in the form of a district's "draconian shape."[54] In other words, it does not constitute actual gerrymandering if the mere residential concentration of one party's voters provides an electoral advantage to another political party.

Where districts consist of regular polygons, neither the US Constitution nor equity considerations suggest that they must be twisted into "draconian" shapes in order to achieve a desired political result, whether the targeted result is to achieve proportional representation or to balance the legislative power of political parties. Some analysts do take the opposite view, that "too much of a focus on compactness tends to produce districts with a high degree of heterogeneity in terms of demography, socioeconomic status, and ideology, which, in turn . . . reduces effective representation."[55] But it is not the job or the obligation of district mapmakers to counteract the self-packing of a political party's adherents into a narrowly confined geographical region. Requiring district shapes to be distorted in the service of partisan balance contradicts the spirit of many US congressional and state apportionment acts enacted across the decades, which have emphasized geographical compactness as a central objective of the districting system.

As long as US legislatures consist of members who represent geographical districts, balances of power within these legislatures will not automatically

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54. Souter stated that a plaintiff challenging a district's lines "would need to show that the district of his residence . . . paid little or no heed to those traditional districting principles whose disregard can be shown straightforwardly: contiguity, compactness, respect for political subdivisions, and conformity with geographic features like rivers and mountains." Souter continued, "To make their claim stick, they would need to point to specific protuberances on the draconian shape that reach out to include Democrats, or fissures in it that squirm away from Republicans." Vieth v. Jubelirer, 541 U.S. 267, 347–48, 349 (2004) (Souter, J., dissenting).

55. Peter Miller and Bernard Grofman, "Redistricting Commissions in the Western United States," *UC Irvine Law Review* 3, no. 3 (2013): 659–60 (summarizing the argument of Nicholas Stephanopoulos, "Our Electoral Exceptionalism," *University of Chicago Law Review* 80 (2013): 821–22). Miller and Grofman elaborate,

> Some scholars conclude compactness is a safeguard against most sorts of intended foul play with district lines. 'The diagnostic mark of the gerrymander is the noncompact district.' The noted political geographer Richard Morrill concurs: '[W]hat is suspect are extreme, egregious and convoluted irregularities which are not justified and probably cannot be. Why is extreme irregularity *prima facie* suspect? Why else would anyone go to the considerable effort?' Lowenstein and Steinberg, on the other hand, assert in no uncertain terms that 'there is no basis for the assumption that oddly shaped districts are signs of "gerrymandering" . . . [so] what basis can there be for the a priori assertion that the purposes of those who drew the lines were necessarily improper?' And Stephanopoulos goes even further in arguing that compactness may have undesired consequences. He asserts that too much of a focus on compactness tends to produce districts with a high degree of heterogeneity in terms of demography, socioeconomic status, and ideology, which, in turn—in his view—reduces participation, reduces effective representation, and increases polarization. [Internal citations omitted.]

replicate the distribution of preferences among the voting population. If majority and minority views are randomly distributed throughout a state (as in figure 1), then regular, compact districts will tend to result in the minority view being underrepresented relative to its prevalence in the population. While protecting minority opinions may be a worthy goal, it cannot be the basis for gerrymandering reform, for it simply replaces gerrymandering advantaging a majority with gerrymandering advantaging a minority.

An implicit purpose of a geographical districting system is to ensure that representatives are elected by voters who live relatively near one another. This purpose is fundamentally distinct from that of a proportional representation system, where the implicit goal is instead to ensure that particular viewpoints are proportionally represented. Within a geographical districting system, the more appropriate method of limiting gerrymandering is to limit the irregularity of district shapes rather than to limit the asymmetric treatment of political parties. The latter method risks making district shapes more irregular rather than less.

A final but especially important point with respect to relying on any measure of differential partisan treatment is that, in the absence of compactness requirements, such an approach (whether employed by a commission or by any other redistricting body) is unresponsive to the public concerns about partisan gerrymandering summarized earlier in this study. This is because it would permit the continuation of gerrymandering, provided that the gerrymandering is practiced by multiple political parties—for example, by permitting a geometric irregularity advantaging one party in one district to be offset by a geometric irregularity advantaging a different party in another district. Such multiparty gerrymandering would still permit legislative districts to be highly irregular in shape. It would also still allow incumbents in safe districts to be less responsive to their voters. It would further the current trend of primary elections becoming more competitive relative to general elections, contributing to political polarization and to leapfrog representation. And crucially, it would rescue political parties from any electoral disadvantage that would otherwise result from segregating themselves within confined regions of a state by requiring that district lines be adjusted to compensate parties for their self-segregation.

Such rewarding of self-segregation would in turn likely exacerbate political polarization by lessening routine contact between individuals of opposing views and by reducing the need for political parties to persuade those who do not already agree with their positions. In contrast, requiring that legislative districts be relatively regular in shape gives political parties an incentive to compete for

the votes of individuals currently belonging to other parties and residing in different regions of a state; this competition should operate against polarization.

For all these reasons, gerrymandering is not best defined as an imbalance in the treatment of political parties. It is better defined as the warping of legislative district shapes, which can be constrained by limiting the allowable irregularity of district shapes.

REMEDIES

If and after one concludes that curtailing gerrymandering is an urgent public policy priority, identifying specific remedies remains a challenge. The FiveThirtyEight website's gerrymandering project series notes several different ways the districting challenge could be posed: "Should districts be drawn to be more compact? More conducive to competitive elections? More inclusive of underrepresented racial groups? Should they yield a mix of Democratic and Republican representatives that better matches the political makeup of a state? Could they even be drawn at random?" Reflecting the multiplicity of available approaches to the problem, the FiveThirtyEight team tried their hands at drawing districts according to a number of criteria, including "making the partisan breakdown of states' House seats proportional to the electorate," promoting "highly competitive elections," and making districts "compact while splitting as few counties as possible," to name a few.[56]

As I concluded in the previous section, good and apolitical mapmaking rules would promote the compactness of legislative districts while steering far clear of judgments about optimal political outcomes. This approach not only avoids the inconsistency of fighting one set of politically engineered outcomes through the imposition of another, it also holds the promise of solutions that are more sustainable because they are indifferent to political party interests, as well as more clearly defined for the purposes of judicial interpretation.

In their dissents from the *Vieth* decision, Justices Stevens and Souter acknowledged that the Supreme Court had not agreed upon standards for assessing political gerrymandering. Souter stated that "the issue is one of how much [gerrymandering] is too much, and we can be no more exact in stating a verbal test for too much partisanship than we can be in defining too much race consciousness when some is inevitable and legitimate."[57] More recently in *Rucho*, the

56. David Wasserman, "Hating Gerrymandering Is Easy. Fixing It Is Harder," *FiveThirtyEight*, January 25, 2018.
57. *Vieth*, 541 U.S. at 344 (Souter, J., dissenting).

court opined that "any standard for resolving [partisan gerrymandering] claims must be grounded in a 'limited and precise rationale' and be 'clear, manageable and politically neutral.'" Ultimately, the court concluded that "there are no legal standards discernible in the Constitution for making such judgments."[58] But this barrier becomes easily surmountable when the focus is shifted from politics to geography. An objective, well-defined standard for determining when a district's shape has become too "peculiar" (to use Justice Stevens's previously quoted term) would eliminate the need for justices to make hazy determinations about "how much is too much" political advantage.

Daniel Polsby and Robert Popper have stated, "The diagnostic mark of the gerrymander is the noncompact district."[59] Richard Morrill relies on a rhetorical question to explain the focus on shape more fully: "What is suspect are extreme, egregious and convoluted irregularities which are not justified and probably cannot be. Why is extreme irregularity *prima facie* suspect? Why else would anyone go to the considerable effort?"[60] These insights further buttress the view that gerrymandering can be most efficiently and fairly constrained simply by placing clearly defined limits on the irregularity of district shapes.[61]

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58. Rucho v. Common Cause, No. 18-422, slip op. at 15, 19 (U.S. June 27, 2019).
59. Daniel Polsby and Robert Popper, "The Third Criterion: Compactness as a Procedural Safeguard against Partisan Gerrymandering," *Yale Law Review and Policy Review* 9 , no. 2, Article 6 (1991): 302.
60. Miller and Grofman, "Redistricting Commissions," 660, quoting Richard L. Morrill, "Redistricting, Region, and Representation," *Political Geography Quarterly* 6, no. 3 (1987), 249.
61. Arguing against this view are other voices recommending alternative approaches to reforming districting. Chris Wilson of *Time* has advocated increasing the number of seats in the US House of Representatives, in part to combat gerrymandering by making it more difficult "to divide and conquer nearly as effectively":

> I strongly suspect that roughly doubling the number of representatives in a state would [be] a glorious nightmare for the Gerrymandering crowd. The dark art of district-hacking includes many tricks, but it often boils down to dividing urban regions like a pizza to minimize their voting power. A pizza can have any number of slices, of course, but populations don't organize themselves in quite such neat circles. There would simply need to be too many districts in too small a geographic area to divide and conquer nearly as effectively. Or, in the alternative case where one tries to pack as many unfriendly voters into as few districts as possible, more districts means a larger proportion of gimmes to the opposing party. Which is not to say that the evil genius of Gerrymandering would be defeated outright, but a larger number of districts would also make the practice considerably more obvious when courts get involved." Chris Wilson, "How to Fix the House of Representatives in One Easy, Radical Step," *Time*, October 15, 2018.

But, in contrast with Wilson's argument, increasing the number of seats in Congress would instead render it easier to gerrymander to political advantage, for reasons well explained by John Mackenzie: "In the two-party case, as the number of districts gets large, the minority party with A% of total voters could theoretically gerrymander districts to win up to 2A% of the seats (e.g., a 26% minority party could eke out wins in up to 52 of 100 districts and gain political control); alternately, a 51% majority party could gerrymander districts to win all the seats." Mackenzie, *Gerrymandering and*

Some scholars have questioned the utility of compactness requirements in constraining gerrymandering. Micah Altman suggests that "altruistic" motives, such as "maintaining the competitiveness of districts, and minimizing the 'bias' of the [districting] plan" may call for deviating from compactness.[62] But distinguishing good from bad motives is not so easy for individuals, for legislatures, or for courts; one person's attempt to more fully enfranchise the disadvantaged may be another person's partisan power grab. Federal law cannot fairly determine whether and when a districting plan is sufficiently altruistic to justify highly irregular district shapes. And furthermore, while Altman writes skeptically of compactness requirements in general, he nevertheless recognizes that "electoral manipulation is much more severely constrained by high compactness than by moderate compactness."[63]

For the above reasons, a simple rule of thumb limiting the irregularity of congressional district shapes would also limit the scope for gerrymandering and would not inject partisan objectives. But what should that rule of thumb be? According to legal scholar Justin Levitt's data site, 37 states "require their [state] legislative districts to be reasonably compact," suggesting that there are potentially dozens of preexisting standards and definitions from which a federal standard could be drawn.[64] Montana's constitution, for example, requires that each district consist of "compact and contiguous territory."[65] But while several states

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Legislator Efficiency. Increasing the number of seats in Congress, at least in the absence of compactness requirements, would thus make partisan gerrymandering both more possible and more likely.

To quickly glean this principle, imagine a state such as Delaware, which currently has only one congressional district. If Delaware's congressional representation were increased to two or three, it would be relatively easy for the state's minority party, assuming the party is unencumbered by compactness requirements, to draw a district map that would ensure it would prevail in one out of two congressional districts, and quite possibly even two out of three. The greater the number of districts, the greater the latitude for a mapmaking party to redistrict to its electoral advantage.

Still other election reform initiatives have focused on allowing for ranked-choice voting or the creation of multimember districts, or both. This could be thought of as a step in the direction of proportional representation, although at the district level rather than at the state level. An aim of ranked-choice voting, like other alternative reform approaches discussed earlier in this paper, would be for the balance of legislative representation to more closely reflect the balance of political opinion statewide. Accordingly, the discussion earlier in this study of the pitfalls associated with that goal would apply to ranked-choice voting as well. Nothing in the US Constitution forbids ranked-choice voting or the creation of multimember districts, but its adoption would be a departure from the historical consensus on how the US Congress, at least, should be constituted.

62. Micah Altman, "Modeling the Effect of Mandatory District Compactness on Partisan Gerrymanders," *Political Geography* 17, no. 8 (1998): 993.

63. Altman, "Modeling the Effect of Mandatory District Compactness," 1004.

64. Levitt, "Where Are the Lines Drawn?"

65. Montana Districting and Apportionment Commission, "Congressional and Legislative Redistricting Criteria," May 28, 2010, https://leg.mt.gov/content/Committees/Interim/2011-2012/Districting/Other-Documents/1124RWFA-corrected-criteria-updated-2011.pdf.

require the pursuit of compactness in their legislative districting, few provide precise or specific definitions.[66]

Mackenzie asserts that legislative districts should comprise "simple polygons with reasonable geometric compactness," and goes on to discuss several possible indices for measuring such compactness.[67] Christopher Ingraham, writing in the *Washington Post*, also quantifies gerrymandering via "compactness scores," "determined by the ratio of the area of the district to the area of a circle with the same perimeter."[68] Altman compares the area of a district to "the area of the smallest possible box that contains it," a measure developed pursuant to a standard then in force in Iowa and Michigan.[69] Peter Miller and Bernard Grofman offer a calculation of a district's compactness as

$$\frac{4\pi \times \text{area}}{\text{perimeter}^2}$$

They note that, in effect, this formula normalizes the area of a district relative to a circle with the same perimeter; in other words, a perfect circle would have a Miller-Grofman compactness score of exactly 1, while more irregular districts would have smaller scores.[70]

Maptitude mapping software calculates "nine measures of compactness," which can be used to "assess or defend the districts in a plan," explaining that "a district that is not compact may be considered gerrymandered."[71] These measures include those developed by Schwartzberg, Ehrenburg, Polsby and Popper, and several other measures. Many of them compare a district's perimeter to its area; others compare a district's area to that of a circle; others simply compare the total perimeters of alternative district plans; others compare east-west to north-south distances within a district; and still others compare the population within a district to that surrounding it.[72] Levitt notes that "scholars have proposed more than 30 measures of compactness."[73]

66. Altman, "Modeling the Effect of Mandatory District Compactness," 995.
67. Mackenzie, *Gerrymandering and Legislator Efficiency*.
68. Ingraham, "America's Most Gerrymandered Districts."
69. Altman, "Modeling the Effect of Mandatory District Compactness," 995.
70. Miller and Grofman, "Redistricting Commissions," 661.
71. Caliper Mapping and Transportation Software Solutions, "Caliper Mapping and Transportation Glossary," accessed July 4, 2019, https://www.caliper.com/glossary/what-are-measures-of-compactness.htm.
72. Caliper Mapping and Transportation Software Solutions, "Caliper Mapping and Transportation Glossary."
73. Levitt, "Where Are the Lines Drawn?"

TABLE 3. RATIOS OF PERIMETER SQUARED TO AREA FOR REPRESENTATIVE SHAPES

Shape	Ratio of perimeter^2 to area
Circle	12.57
Square	16
2 × 1 rectangle	18
Equilateral triangle	20.79
4 × 1 rectangle	25
10 × 1 rectangle	48.4

While no measure of compactness is inherently superior, simply calculating the ratio of the square of a district's perimeter to its area has the virtues of conceptual simplicity and obvious applicability. The higher this ratio, the more irregular the district's shape. Some representative ratios are shown in table 3.

A circle, the most regular of all possible shapes, has a ratio of 12.57. A 10 × 1 rectangle has roughly the complexity of a typical current congressional district. It is quite irregular in the sense that it is far longer than it is wide, but also highly regular in the sense that its boundaries are perfectly straight.

While such simple measures of compactness are useful, they are nevertheless incomplete measures of gerrymandering to the extent that they ignore natural state boundaries. For example, the perimeters of districts in states with jagged coastal lines will necessarily be quite long, even without any gerrymandering. Similarly, state mapmakers have no control over borders with other states, which can also contribute to the irregularity of legislative district shapes.

Mackenzie corrects for this with an adjustment for the portion of a congressional district over which district mapmakers have no control: his paper "improves upon the raw complexity index by distinguishing artificial from natural district boundaries and scaling the raw compactness measure by the proportion of the perimeter that is politically-drawn."[74] He calls the adjusted score for shape complexity the "gerrymandering score" or "G score." Mackenzie calculates the most gerrymandered congressional districts in the 110th Congress as defined by their G scores. Twenty-one of the districts, roughly 5 percent of the total, exhibited G scores above 150. The 40 most gerrymandered districts in the 110th Congress all had G scores of 123 or greater.

A simple, intuitive, and apolitical reform to limit gerrymandering would amend existing federal apportionment law to require that each district's G score—that is, the ratio of the square of its perimeter to its area, times the proportion of

74. Mackenzie, *Gerrymandering and Legislator Efficiency*.

its boundary that is politically drawn—be no higher than a defined number. Per Mackenzie, if this number had been 150 at the time of the 110th Congress, roughly 5 percent of districts would have failed the test, necessitating that they, as well as their adjacent congressional districts (at least), be redrawn. The more stringent G score limit of 125 would have rendered roughly 8 percent of the 110th Congress's congressional districts illegal.

It may be useful to examine specific districts of the 115th Congress to get a sense of how such a limit might apply to current congressional districts. In the 115th Congress, 40 districts had a ratio of 150 or more of the squares of their perimeters to their areas. However, a good number of these, including, for example, Washington's 2nd district and Louisiana's 1st district, owe much of their irregularity to jagged coastlines. I estimate that 21 of these districts have G scores in excess of 150, the same number Mackenzie calculated for the 110th Congress. These 21 districts are shown in table 4.

Texas's 18th congressional district (shown in figure 3) provides an example of the degree of irregularity that would be eliminated if federal law limited congressional districts' G scores so that they may not exceed 150. The 18th district was relatively compact during earlier decades, but in 1992 it acquired a highly irregular shape and still has one today.[75] Because Texas's 18th district's ratio is 152, only very minor adjustments to its boundary would be required to comply with a G score limit of 150.

Because a G score limit of 150 would leave in place many highly irregular districts, policymakers may wish to consider a tighter standard. A maximum G score of 125 would still render fewer than 10 percent of congressional district boundaries illegal (though redrawing these districts would also alter the boundaries of their adjacent districts, at minimum). Colorado's 1st congressional district, with a G score of 128, provides a visual example of the degree of irregularity that would trip a limit set at 125: see figure 4.

To inform the possibility that policymakers consider Colorado's 1st district on the acceptable side of irregularity but Texas's 18th on the unacceptable side, figures 5 and 6 present two districts of intermediate degrees of irregularity. Texas's 29th district (figure 5) has a G score of 140, while Illinois's 5th district (figure 6) has a G score of 135.

75. Texas Legislative Council, "Texas Congressional Districts, 1972 Elections," September 5, 2008, https://tlc.texas.gov/redist/pdf/congress_historical/c_1972.pdf; Texas Legislative Council, "Texas Congressional Districts, 1992–1994 Elections and 1996 Primary Elections," September 5, 2008, https://tlc.texas.gov/redist/pdf/congress_historical/c_1992_1996P.pdf.

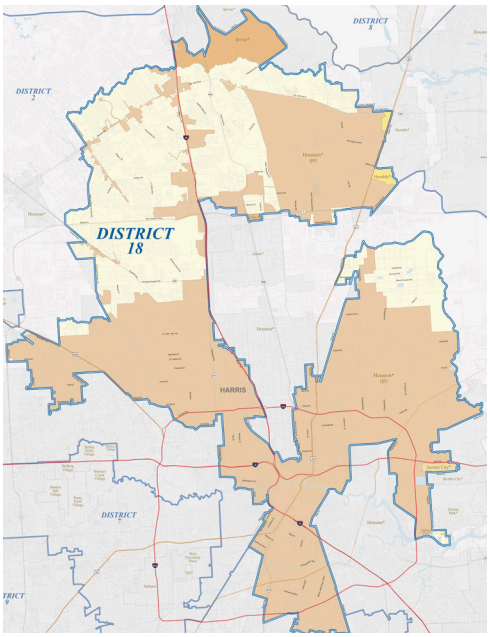
TABLE 4. MOST GERRYMANDERED DISTRICTS IN THE 115TH CONGRESS

115th congressional district	Ratio of perimeter^2 to area
Maryland 3rd	460
Maryland 2nd	411
Ohio 9th	379
Pennsylvania 7th	309
Texas 33rd	269
Illinois 4th	244
Texas 35th	226
Louisiana 2nd	214
Ohio 3rd	213
Maryland 6th	172
New York 10th	172
Louisiana 6th	170
Pennsylvania 13th	169
Massachusetts 7th	167
Ohio 11th	166
Texas 2nd	165
Pennsylvania 1st	160
Illinois 7th	160
Pennsylvania 17th	159
Pennsylvania 6th	155
Texas 18th	152

Note: Pennsylvania's districts in the 115th Congress, including the 13th, were struck down by the Pennsylvania Supreme Court in January 2018. CBS News, "Pennsylvania Supreme Court Strikes Down State's Congressional Districts," January 23, 2018, https://www.cbsnews.com/news/pennsylvania-supreme-court-strikes-down-states-congressional-districts-gerrymandering/.

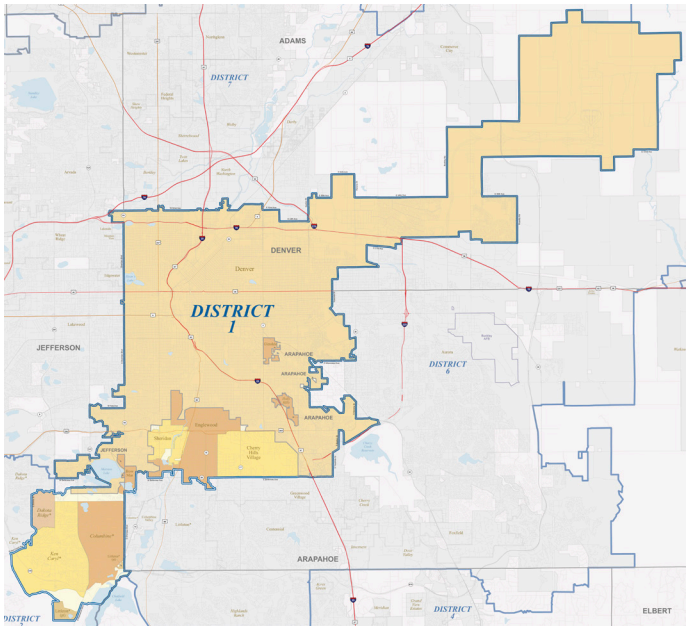
Depending on the districting plans in place at the time, a G score limit between 150 and 125 could directly render roughly 5–8 percent of current congressional districts illegal, forcing state governments to alter these districts' boundaries (as well as the boundaries of adjacent districts). With states as highly gerrymandered as Maryland, however, any such binding limit would almost certainly require redrawing congressional district lines for the entire state. Specifically, a G score limit of 150 would nullify the boundaries of Maryland's 3rd, 2nd, and 6th districts, whereas a limit of 125 would affect its 4th, 7th, and 8th districts as well. There is nothing inherently significant about the choice to render 8 percent rather than 5 percent of districts illegal nationwide, other than the normative judgment about when the irregularity of congressional district shapes reflects excessive gerrymandering.

FIGURE 3. TEXAS'S 18TH CONGRESSIONAL DISTRICT



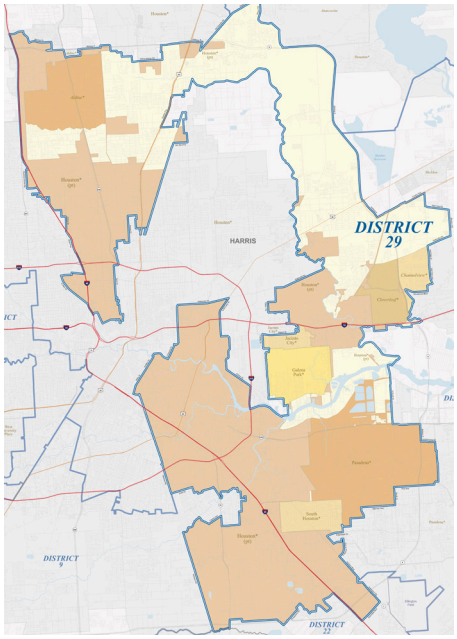
Note: District boundaries are those in effect for the 115th Congress of the United States (January 2017–2019).
Source: US Census Bureau, MAF/TIGER database (TAB10), https://www2.census.gov/geo/maps/cong_dist/cd115/cd_based/ST48/CD115_TX18.pdf.

FIGURE 4. COLORADO'S 1ST CONGRESSIONAL DISTRICT



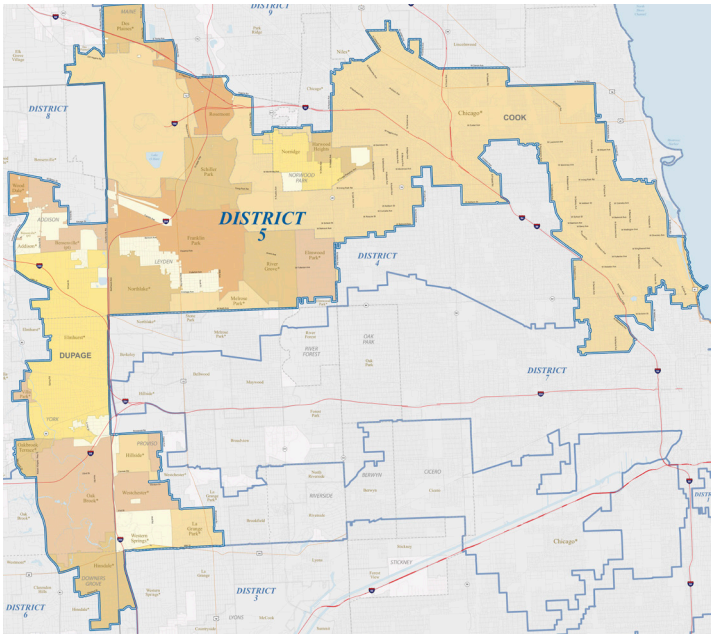
Note: District boundaries are those in effect for the 115th Congress of the United States (January 2017–2019).
Source: US Census Bureau, MAF/TIGER database (TAB10), https://www2.census.gov/geo/maps/cong_dist/cd115/cd_based/ST08/CD115_CO01.pdf.

FIGURE 5. TEXAS'S 29TH CONGRESSIONAL DISTRICT



Note: District boundaries are those in effect for the 115th Congress of the United States (January 2017–2019).
Source: US Census Bureau, MAF/TIGER database (TAB10), https://www2.census.gov/geo/maps/cong_dist/cd115/cd_based/ST48/CD115_TX29.pdf.

FIGURE 6. ILLINOIS'S 5TH CONGRESSIONAL DISTRICT



Note: District boundaries are those in effect for the 115th Congress of the United States (January 2017–2019).
Source: US Census Bureau, MAF/TIGER database (TAB10), https://www2.census.gov/geo/maps/cong_dist/cd115/cd_based/ST17/CD115_IL05.pdf.

Gerrymandering flourishes most where states lack district compactness requirements. According to Levitt, 18 states have some kind of compactness requirement for congressional districts, and the list of most-gerrymandered districts from table 4 notably draws exclusively from states that do not: Maryland, Ohio, Pennsylvania, Texas, Illinois, Louisiana, New York, and Massachusetts.[76] Not one state with a compactness requirement contains a congressional district with a G score exceeding 150, indicating that such compactness requirements are generally successful where they exist. Were the federal government to adopt a limiting G score standard, the effects of such a reform would be concentrated on the states where gerrymandering is currently most practiced.

This study's discussion of a possible federal standard based on the G score enables comparisons with earlier research conducted by Mackenzie.[77] Another possible metric is to normalize the G score by dividing it by 4π (roughly 12.57), which is the G score of a perfect circle. A district's normalized G score would therefore express how much more irregular the district (adjusted for the portion of the boundary over which mapmakers have no discretion) is than a circle. For example, a district with a G score of 125.7 would have a normalized G score of 10. A district with a G score of 150.8 would have a normalized G score of 12. A federal limit set at a normalized G score of 10–12 would accordingly capture roughly 5–8 percent of current congressional districts, assuming that legislators were comfortable with writing the transcendental number π into federal election law.

It is clearly within Congress's power to enact a compactness requirement, for several preceding federal apportionment acts have contained one, and such a power is expressly delegated to Congress under the Constitution. As previously discussed, one option is to simply require in federal law that congressional districts be compact, as previous federal apportionment and several state apportionment acts have done, without attempting to define compactness more precisely. Leaving compactness undefined, however, creates a substantial risk that it will be controversially interpreted, either in judicial decision or executive-branch enforcement.

If legislators wish to be more precise, they could select any of the 30 definitions of compactness cited by Levitt, employ a standard such as Michigan's (comparing the area of a district to that of a surrounding box), or select a different standard. The G score (or normalized G score) is attractive for this purpose, because of the intuitive simplicity of relating a district's area to its perimeter and

76. Levitt, "Where Are the Lines Drawn?"
77. Mackenzie, *Gerrymandering and Legislator Efficiency*.

because the G score adjusts for the portion of the district boundary determined by natural boundaries or state lines. Such adjustments are philosophically consistent with other features of state apportionment laws, many of which require additionally that district mapmakers follow local political boundaries where possible, such as county or town lines. Because state requirements for respecting local political boundaries are more common than compactness requirements, it is less important to include such guidance in federal law.[78] In any case, regardless of whether federal lawmakers decide that the G score is the best method for ensuring compactness, they have a wide variety of options available to limit the irregularity of congressional districts, all of which are securely grounded in long-standing principles of apportionment law.

In sum, if indeed the noncompact district is the "diagnostic mark" of gerrymandering, the simplest and most apolitical solution to the gerrymandering problem is simply to limit the irregularity of congressional districts' shapes. This section has reviewed various methods for doing so. The next section of this study will examine processes available for implementing such reforms.

REFORM PROCESS

The process by which gerrymandering might be limited is a question largely separable from the substance of reform. The Brennan Center for Justice has celebrated the fact that there is public support for several state ballot initiatives designed to combat gerrymandering.[79] These initiatives, however, vary widely in the processes they would employ. Some would guarantee the involvement of two or more political parties in the redistricting process; others would delegate legislative redistricting from state legislatures to other bodies such as independent commissions or, in Missouri's case, a "state demographer."[80]

78. Levitt, "Where Are the Lines Drawn?"

79. Peter Miller and Brianna Cea, "Everybody Loves Redistricting Reform," Brennan Center for Justice, December 5, 2018, https://www.brennancenter.org/blog/everybody-loves-redistricting-reform.

80. Brennan Center for Justice, "Overview: Missouri Redistricting Reform Proposal," October 12, 2018, http://www.brennancenter.org/sites/default/files/legislation/Clean-Missouri-initiative-petition.pdf. Missouri's demographer would be instructed to define gerrymandering in terms of political parties' efficiency gap by calculating "the total number of wasted votes for each party," and thereupon develop a map to "ensure the difference between the two parties' total wasted votes, divided by the total votes cast for the two parties, is as close to zero as practicable." As this study has documented, such an approach would not necessarily reduce gerrymandering, and could even introduce gerrymandering where it might not otherwise occur, in order to address a particular party's interest.

There are several processes theoretically available for achieving systematic gerrymandering reform. These include (a) a US constitutional amendment to explicitly forbid or limit the practice, (b) a district compactness requirement imposed in federal apportionment law, (c) state-by-state adoption of separate compactness requirements, (d) the delegation of redistricting responsibility from state legislatures to independent commissions or other entities, and (e) actions by the judicial branch to impose limits. These are all methods by which the irregularity of legislative districts could be limited. Note that this list does not include avenues for accomplishing different goals, such as balancing opposing political parties' electoral interests, for the reasons detailed earlier in this study.

There are various advantages to process approach (b)—that is, amending federal apportionment law to include a specific compactness requirement, such as a limit for the maximum allowable gerrymandering score of each congressional district. Among the more obvious advantages is that it is much easier to enact a change to federal apportionment law than it is to amend the US Constitution. Enacting a federal law would also produce more reliable and consistent outcomes than attempting to enact similar measures state by state. Indeed, one of the reasons certain states have especially gerrymandered congressional districts is that their legislatures have consciously avoided legislation to restrict gerrymandering.

Beyond these practical considerations, a primary reason for resolving the gerrymandering issue with a change to federal law is that it is the mechanism envisioned in the US Constitution. The Constitution's Elections Clause states specifically that "Congress may make or alter" regulations for the elections of US Representatives.[81] And indeed, as this study has reviewed, Congress has in the past used this authority to include district compactness requirements in multiple apportionment acts. It would be a relatively simple matter, both procedurally and substantively, for the federal government to enact a more specific compactness requirement that limits the irregularity of each congressional district's shape.

In the *Rucho* decision, the US Supreme Court declined to rule against perceived partisan gerrymandering in part because the Constitution specified Congress as the entity to constrain such practices. It is difficult to justify judicial intervention to constrain partisan gerrymandering if Congress has chosen not to do so. The *Rucho* majority noted that the framers of the Constitution were quite familiar with the practice of gerrymandering and stated, "The Framers

81. U.S. Const. art. I, § 4.

gave Congress the power to do something about partisan gerrymandering in the Elections Clause. . . . The avenue for reform established by the Framers, and used by Congress in the past, remains open."[82] In other contexts, even supporters of judicial intervention have agreed with this fundamental point. For example, in the majority opinion in *Arizona State Legislature v. Arizona Independent Redistricting Commission*, Justice Ruth Bader Ginsburg noted that "the dominant purpose of the [Constitution's] Elections Clause . . . was to empower Congress to override state election rules."[83]

In its earlier *Bandemer* decision, the Supreme Court held that partisan gerrymandering claims were justiciable but rejected the argument that partisan gerrymandering was itself a constitutional violation. In *Rucho*, the court noted the absence of a constitutional standard for striking down partisan gerrymandering, noted as well Congress's power to limit such gerrymandering if it chose, and concluded that political gerrymandering was nonjusticiable. Irrespective of one's view on whether political gerrymandering claims should be justiciable, this argument could be neatly resolved if Congress exercised its power to define and to limit gerrymandering. This would in turn obviate the need for nebulous, subjective value judgments by courts about how much partisan gerrymandering is permissible and would thereby forestall further divisive controversy over the appropriate role of the judiciary in this arena.

An oft-promoted alternative to federal legislation is to deputize ostensibly independent bipartisan or nonpartisan state redistricting commissions to prevent gerrymandering. The commission approach has been pursued by several states, with the electorates of several others endorsing the concept in various ballot initiatives.[84] H.R. 1, introduced in the 116th Congress, takes this approach: it would have states delegate their legislatures' redistricting responsibilities to an "independent redistricting commission" that would be forbidden to draw a map "to favor a political party" (notably, the bill fails to impose any requirement for compactness).[85] But there are several reasons why federal legislation to

82. Rucho v. Common Cause, No. 18-422, slip op. at 32–33 (U.S. June 27, 2019).
83. Ariz. State Legis. v. Ariz. Indep. Redistricting Comm'n, 135 U.S. 2652, 2672 (2015). Similarly, in a brief of *amicus curiae* filed in *Husted v. A. Philip Randolph Institute*, the Constitutional Accountability Center, while arguing in favor of Supreme Court intervention, also noted that the Constitution granted this power of intervention explicitly to Congress. Brief of Constitutional Accountability Center as Amicus Curiae in Support of Respondents, Husted v. A. Philip Randolph Inst. at 7, 9, 13–14, 138 S. Ct. 1833 (2018) (No. 16-980).
84. Miller and Cea, "Everybody Loves Redistricting Reform."
85. For the People Act of 2019, H.R. 1, 116th Cong. (2019).

place well-defined limits on gerrymandering would be preferable to empowering state-level commissions to do the job.

Redistricting commissions are unlikely to provide a satisfactory or lasting solution to the gerrymandering problem. In the first place, it remains questionable whether state legislatures may constitutionally delegate these powers to a commission. The Constitution specifies that election processes are to be determined "in each state by the legislature thereof." Chief Justice Roberts dissented strongly in *Arizona* to the effect that the Constitution does not permit such power to be delegated to a commission, referring to the majority's permissive interpretation as a "magic trick" that "has no basis in the text, structure, or history of the Constitution."[86] It would hang gerrymandering reform on a weak and narrow thread indeed to rely on multiple independent commissions, invested with their powers only on the basis of hotly contested constitutional authority, to accomplish it. Indeed, some speculate that the Supreme Court may eventually consider reversing the *Arizona* decision that permitted redistricting by commission.[87] Regardless, deputizing commissions to do the work of gerrymandering reform state by state would share a downside with other approaches discussed in this paper, in that its success would hinge upon unpredictable and potentially reversible court rulings.

Moreover, it is unclear that nonpartisan, bipartisan, or multiparty commissions, even if purportedly independent, would draw maps that are less gerrymandered than maps drawn by legislatures. Partisan individuals do not shed their partisan biases merely by joining a commission, which at best can be constructed to limit and balance partisanship among its members rather than to eliminate it. As previously noted, H.R. 1 in the 116th Congress contains no compactness requirement in its redistricting reform provisions and thus leaves the door open to highly gerrymandered districts, provided that district maps as a whole do not tend to favor one political party more than others. Such commission-drawn maps would fully permit bipartisan gerrymandering for the purpose of protecting incumbents, while placing no new restraints on trends toward increasing political segregation and polarization. Moreover, Miller and Grofman "find only very limited evidence that commissions, on balance, are better able than legislatures to produce compact, competitive districts that respect the boundaries of

86. Ariz. State Legis. v. Ariz. Indep. Redistricting Comm'n, 135 S. Ct. 2652, 2677–78 (2015) (Roberts, C.J., dissenting).
87. Richard L. Hasen, "The Supreme Court Could Make Gerrymandering Worse," *The Atlantic*, January 7, 2019.

counties and places in the states."[88] What the commissions are able to accomplish, these authors find, is to "consistently deliver district maps on time, and without litigation," though as the *Arizona* case demonstrates, they don't always deter litigation. In sum, commissions may be more likely to satisfy the competing demands of opposing political parties and thereby pave a smoother path to bipartisan acceptance, but they do not necessarily draw better or less gerrymandered maps.

Irrespective of who draws district maps, the absence of clear, uniform legislative guidance to limit gerrymandering creates an ongoing temptation to invite the judiciary to supply this guidance. For example, in a bipartisan group of US representatives' recent brief of *amici curiae* in *Rucho*, the authors argued that "the cycles of extreme partisan gerrymandering are self-perpetuating" and that "this Court has a crucial role to play in fixing the problem."[89] But, as this paper has explained, such judicial intervention is unlikely to produce standards for districting that are widely accepted around the nation and across political parties. By contrast, a federally legislated standard could provide the stability and predictability that would be lacking in an environment of dueling and unpredictable judicial rulings.

As but one example of such unpredictability, consider the recent redrawing of legislative district lines in Pennsylvania, when new district maps were drawn up by the state supreme court over the objections of the state legislature and were later upheld by the US Supreme Court.[90] These actions subjected Pennsylvania voters to considerable uncertainty about how their congressional representatives would be chosen. The disruption could have been avoided if clear compactness guidelines had existed in federal law, enabling the state legislature to draw the district maps in a manner that minimized the risk of judicial intervention. The dynamics in Pennsylvania offer a prototypical example of why state legislative majorities and minorities alike have a shared stake in gerrymandering reform: the minority has an interest in protection against the majority's power to draw grossly skewed maps for the purpose of partisan advantage, while the majority has an interest in guarding against unwanted, unpredictable, or capricious judicial interventions.

88. Miller and Grofman, "Redistricting Commissions," 637.
89. Brief for Bipartisan Group of Current and Former Members of the House of Representatives as Amici Curiae in Support of Appellees at 6, Rucho v. Common Cause, No. 18-422 (U.S. June 27, 2019).
90. Richard Wolf, "Supreme Court Rejects Pennsylvania Republicans' Fight over Maps for U.S. House," *USA Today*, March 19, 2018.

CONCLUSION

In sum, long-expressed public concerns as well as predictable adverse consequences of gerrymandering are both potent reasons to constrain the practice. How gerrymandering is defined and constrained, however, matters a great deal. Much recent interest in gerrymandering has focused problematically on recruiting courts to intervene in order to protect the interests of political parties, a project that lacks a sound constitutional basis and was always likely to backfire. Judges should not require district mapmakers to consider political criteria such as partisan interests, proportional representation of different voting blocs, or electoral competitiveness. All such criteria are highly subjective and manipulable, and they would foster worsening political polarization and self-segregation, possibly undermining broader acceptance of gerrymandering reform. Such partisan emphasis also distracts from the opportunity to eliminate the worst gerrymandering practices more straightforwardly, through Congress exercising its legislative authority in a manner that is both practical and widely recognized as constitutional. Amending federal apportionment law as envisioned in the Constitution's Elections Clause offers a more promising avenue to stability and societal acceptance than does a solution imposed by judicial intervention or by deputizing purportedly independent commissions. Federal legislation to guarantee a minimum standard of compactness for congressional districts, an authority Congress has exercised in the past and many states exercise now, would provide neutrality, clarity, and stability; would concentrate its effects on the most gerrymandered states; would build on a firm foundation in constitutional, legislative, and judicial history; and would likely mitigate future political segregation and polarization.

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