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Crafting a Judicially Manageable Standard for Partisan Gerrymandering: Five Necessary Elements

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Crafting a Judicially Manageable Standard for Partisan Gerrymandering:
Five Necessary Elements

January 24, 2018

KEY WORDS: redistricting, partisan gerrymandering, voting rights, expert witness testimony,
partisan bias, partisan asymmetry

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3 Crafting a Judicially Manageable Test for Unconstitutional
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5 Partisan Gerrymandering: Five Necessary Elements
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11 **ABSTRACT**
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15 Beginning with a definition of gerrymandering, after a brief review of the evolution of the case
16 law on partisan gerrymandering, I propose five necessary elements of a test for when partisan
17 gerrymandering rises to the level of unconstitutionality: (a) a clear and severe injury involving a
18 disparate impact on a political party that serves as the vehicle for the expression of particular
19 ideas and values; (b) effects that can be expected to be durable; (c) effects that can be shown
20 NOT to be explicable either by features of the partisan electoral geography that impact all plans,
21 or by chance; (d) evidence that there exist one or more remedial plans that address the
22 constitutional violation while also satisfying, on balance, all relevant constitutional and statutory
23 criteria at least as well as the challenged plan; and (e) compelling direct or indirect evidence of
24 invidious partisan intent. I link these five elements to recent Supreme Court and district court
25 opinions about an appropriate standard for partisan gerrymandering.
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32 **KEY WORDS**
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35 Redistricting, partisan gerrymandering, judicial manageability, good government criteria,
36 partisan asymmetry, electoral responsiveness, neutral standards
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I. Introduction

Some of the most important decisions the Supreme Court will be making in 2018 involve redistricting, including a potentially seminal decision on a set of lower court cases up on appeal that will determine whether the Supreme Court's previous holding that partisan gerrymandering is justiciable¹ will actually have any teeth. Although I will discuss opinions by recent trial courts in partisan gerrymandering challenges, I deliberately do not focus on the factual specifics of these cases, or the credibility of particular expert witness testimony; nor do I take a position as to whether the case facts and the expert witness testimony are such that the court reached a correct decision in the case.² Instead, I examine the broader issues of providing an empirically and jurisprudentially grounded test for unconstitutional partisan gerrymandering that fully addresses the concerns about judicial manageability raised by the Supreme Court in past cases.

While redistricting has potentially far reaching implications for the partisan balance/partisan control in the U.S. House of Representatives and in a number of state legislatures, dealing with egregious partisan gerrymandering is not a partisan matter. Gerrymandering now benefits Republicans in more states than it benefits Democrats, but in the past the reverse has been true.³ Moreover, if we look at the partisan gerrymandering challenges

¹ *Davis v. Bandemer* 478 U.S. 109 (1986)

² There appears to be a near unanimous consensus among experts who have written on this topic that, for congressional districting, gerrymandering in the 2010 round was especially egregious in Michigan, North Carolina, Ohio, and Pennsylvania. There is also a strong but not unanimous consensus that Florida, Georgia, Indiana, Virginia and Wisconsin, also constituted partisan gerrymanders; and some reasons to be suspicious in another half dozen or so states. As noted above, in this essay I will not address the accuracy of such expert views with respect to any particular plan, but instead examine metrics by means of which the degree of egregiousness of gerrymandering might be measured.

³ Because gerrymandering occurs at and needs to be addressed at a state level, the issue of net national effects is of little or no legal relevance to the cases now before courts. But we can nonetheless acknowledge the fact that in 2011-12, Republicans had unified control of many more states than did Democrats, 22 to 11-- which meant that many more states had gerrymandering advantaging Republicans than gerrymandering in a pro-Democratic direction. In contrast, not only were gerrymanderers more constrained by concerns about possible law suits and politics less polarized, but in past decades Pro-Republican districting in Republican controlled states was more likely to be counter-balanced by pro-Democratic bias in states controlled by Democrats.

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3 presently (December 2017) before the Supreme Court, one from Wisconsin,⁴ one from
4 Maryland,⁵ the first challenges a legislative plan as a Republican-drawn partisan gerrymander,
5 the second challenges a particular congressional district as part of a Democrat-drawn partisan
6 gerrymander. In either case, it is the voters whose impact on electoral outcomes is minimized or
7 canceled out and whose associational rights are violated who are the losers.
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12 Egregious partisan gerrymandering discriminates against voters based upon their political
13 views. Partisan gerrymandering done with the modern tools of sophisticated computer-based
14 line drawing can “lock in” that discriminatory disparate impact for an entire decade, by creating
15 districts that are entirely or almost entirely non-competitive. In such non-competitive districts,
16 substantial changes in voter preference –even at the maximum magnitude we might reasonably
17 expect when we examine constituency level data from previous elections -- would lead to at most
18 a few changes in partisan control at the district level, and perhaps none at all. Indeed, in some
19 states, the existence of severely discriminatory gerrymandering, coupled with few or no
20 competitive constituencies, would make (lopsided) partisan control of a legislature or a
21 congressional delegation based on successful partisan gerrymandering impervious to change.
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31 McGann et al. (2016) show that the potential for egregious partisan gerrymandering is
32 greatest when you have unified partisan control of both branches of the legislature and of the
33 governorship. The proportion of states with such unified control was very high in the 2010 round
34 of redistricting, but is now even higher.⁶ Thus, if there is no legal check on partisan
35 gerrymandering, we have good reason to expect that the level of egregious gerrymandering will
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41 McGann et al. (2016) make a compelling case that the partisan gerrymandering we see in 2010
42 redistricting is, qualitatively as well as quantitatively, different level from what we have seen in
43 previous decades. They find (p. 97) that the level of partisan bias in the 2010 districting round
44 was approximately three times that in the 2000 round. In the bulk of the states, those where line
45 drawing is the responsibility of the legislature, consistent with previous research,
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48 ⁴ *Whitford v. Gill* (No. 15-cv-421-bbc, 2016 WL 6837229, W.D. Wisc., filed November 21,
49 2016).

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51 ⁵ *Benisek v. Lamone* (Civil No. JKB-13-3233 D. Maryland, filed August 24, 2017).

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54 ⁶ The imbalance in unified control of states has grown to a more than 4-1 Republican advantage
55 after the 2016 elections https://ballotpedia.org/State_government_trifectas
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3 be even worse in the 2020 round of redistricting than even the extraordinarily high level of
4 partisan gerrymandering we saw in some states in their 2010 redistricting.⁷
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7 The central claim in this paper is that, from a social science perspective, we should define
8 the concept of partisan gerrymandering in terms of five elements:
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- 11 **(a) a clear and severe injury involving a disparate impact on a political party that**
12 **serves as the vehicle for the expression of particular ideas and values;**
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14 **(b) effects that can be expected to be durable;**
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16 **(c) effects that can be shown NOT to be explicable either by features of the partisan**
17 **electoral geography that impact all plans, or by chance;**
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19 **(d) evidence that there exist one or more remedial plans that address the**
20 **constitutional violation while also satisfying, on balance, all relevant constitutional**
21 **and statutory criteria at least as well as the challenged plan; and**
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23 **(e) compelling direct or indirect evidence of (invidious) partisan intent,**
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27 In the remainder of this paper I will focus on the first three of these elements. These three
28 elements are derived from Equal Protection and First Amendment principles,⁸ and the social
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32 ⁷ I might also note that the U.S. redistricting practices have ranked it as the next to worst
33 offender among all the nations of the world holding reasonably free elections. Only Malaysia
34 scores worse. See 2102 Report of the Electoral Integrity Project, p. 18.
35 <https://www.electoralintegrityproject.com> (I am indebted to Professor Netina Tan for calling this
36 reference to my attention.)
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39 ⁸ See, e.g., *Vieth*, 541 U.S. at 314 (opinion of Kennedy, J.) (“First Amendment concerns arise
40 where a State enacts a law that has the purpose and effect of subjecting a group of voters or their
41 party to disfavored treatment by reason of their views. In the context of partisan gerrymandering,
42 that means . . . where an apportionment has the purpose and effect of burdening a group of voters’
43 representational rights.”); *Bandemer*, 478 U.S. at 124 (“[E]ach political group in a State should
44 have the same chance to elect representatives of its choice as any other political group.”).
45 Invidious partisan gerrymandering occurs when a political party intentionally redraws district
46 lines to give itself a durable electoral advantage over the party out of power—usually by
47 “packing” voters who affiliate with the opposing party into a few safe districts, or by
48 “cracking” them across multiple districts to dilute their voting power. See *Bandemer*, 478 U.S. at
49 117 n.6 (explaining “the familiar techniques of political gerrymandering”). In so doing, an
50 unconstitutional partisan gerrymander can discriminate against voters in their representational
51 rights because of their views and political associations in a way that cannot realistically be
52 ameliorated through the ordinary electoral process.
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3 sciences offer reliable, transparent, and manageable tools for measuring each. Because each of
4 the elements above reflects a different concept, it is important to recognize that no one number
5 tells it all. As for the need to demonstrate the potential for a remedy to the (claimed or
6 demonstrated) constitutional violation, without a remedy it is hard to see how there can be a
7 cause of action. And, to the extent that partisan intent needs to be proved, there is well
8 established jurisprudence in the racial gerrymandering cases and in other civil rights domains
9 that can be adapted.⁹ Moreover, when (long term) consequences can be shown to be foreseeable,
10 intent can be indirectly addressed via statistical evidence about the improbability that observed
11 outcomes can be attributed to chance. Accordingly my discussion of the intent element will be
12 brief.
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21 The approach to defining and measuring unconstitutional partisan gerrymandering given
22 above is designed to explicitly take into account the concerns expressed by Supreme Court
23 Justices in cases such as *Bandemer*, *Vieth*, and *LULAC*¹⁰ about the need to show that the
24 disparate effects of districting are likely to be durable as well as severe, and that they cannot be
25 explained simply by electoral geography or by chance. These latter two elements (the second
26 and third of the five elements above) can be measured by social science tools that were not
27 available (or at least not offered by plaintiffs) in the previous partisan gerrymandering cases that
28 made it to the Supreme Court.¹¹ By offering (a) a way to determine whether gerrymandering
29 effects could be expected to last a decade, and (b) a statistical test to rule out claims that the
30 observed partisan bias is due simply to chance or to the geographic distribution of partisan voting
31 strength, these new tools address two of the major concerns that led to various Justice's
32 questioning the potential for a manageable standard for partisan gerrymandering. These new
33 tools can be combined with measures of partisan bias/partisan asymmetry that five Justices in
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46 ⁹ At what point, if any, the legal burden shifts to defendants to show that the challenged plan's
47 objectionable features can be justified by legitimate (and compelling) state purposes is a legal
48 matter beyond the scope of this essay.
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51 ¹⁰ *Davis v. Bandemer*. 1986. 478 U.S. 109; *LULAC v. Perry*. 2006. 548 U.S. 399; *Vieth v.*
52 *Jubelirer*. 2004. 541 U.S. 267.
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54 ¹¹ *Davis v. Bandemer* 478 U.S. 109 (1986), *Vieth v. Jubelirer* 541 U.S. 267 (2004), and *LULAC v.*
55 *Perry* 548 U.S. 399 (2006)
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3 LULAC previously saw as a key element of any standard for unconstitutional partisan
4 gerrymandering, to form the bases for a multi-pronged legal standard for when disparate impact
5 rises to the level of unconstitutionality.
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9 In the next section, after briefly reviewing the history of partisan gerrymandering
10 litigation (ca December 2017), and offering a definition of gerrymandering, I will address how
11 the five elements of a test for unconstitutional partisan gerrymandering identified above can best
12 be defined and measured. The metrics I propose are ones explicitly or implicitly referenced in the
13 majority opinions in *Whitford v. Gill*¹² and *Common Cause v. Rucho*,¹³ arguably the two most
14 important recent trial court decisions about partisan gerrymandering. Then I will consider some
15 other legal issues, most importantly the question of whether the metrics I propose and the tools to
16 measure them I discuss allow for the creation of a judicially manageable standard for
17 unconstitutional partisan gerrymandering. I argue that such a standard can be defined in terms of
18 a set of necessary conditions whose components can be directly and reliably measured. In this
19 way, the standard will allow for judicial manageability both in restricting the set of cases that
20 could be litigated and in terms of the ability of courts to assess the relevant expert witness
21 evidence.
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52 ¹² *Whitford v. Gill* (No. 15-cv-421-bbc, 2016 WL 6837229, W.D. Wisc., filed November 21,
53 2016) about Wisconsin legislative districting
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55 ¹³ *Common Cause v. Rucho* (No. 1:16-CV-1164, M.D. N., filed January 9, 2018).
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II. Defining and Measuring Partisan Gerrymandering

A Brief History of Legal Challenges to Partisan Gerrymandering

Since 1986, when *Davis v. Bandemer* declared partisan gerrymandering to be justiciable and egregious gerrymandering to be potentially unconstitutional, there have been three decades of Supreme Court and lower court decisions directly responding to allegation of partisan gerrymandering. But, as of December 2017, there had never yet been a Supreme Court decision striking down a plan (or one or more districts) as an unconstitutional partisan gerrymander. In the cases that made it up for Supreme Court review, the Court majority asserted that it had failed to identify manageable standards to decide when a plan rises to the level of an unconstitutional partisan gerrymander. In the light of these negative decisions, it became the common wisdom among the legislators drawing the lines in the redistricting of the current decade that they could do what they liked re partisan gerrymandering as long as they satisfied one person, one vote standards and did not reduce the electoral success chances of African-Americans or other protected racial and ethnic groups.¹⁴ As a result of the Supreme Court's complete abdication of responsibility, the 2010 round saw partisan gerrymandering run amok in some states. Indeed, we even saw some redistricting authorities boasting about the fact that their plan was intended as a

¹⁴ Some academic authors (e.g., Grofman and King, 2007) took *LULAC* to be an open invitation to lower courts to respond to the request of Justices Souter and Ginsburg in *LULAC* that "further attention . . . be devoted to the administrability of such a criterion [partisan bias] at all levels of redistricting and its review." However, after 25 years in which no plan had ever been struck down as a partisan gerrymander despite the Court's holding that partisan gerrymandering was justiciable, most redistricting authorities in the 2010 round of redistricting saw *LULAC* as simply demonstrating that partisan gerrymandering claims were a dead letter, destined to fail. In fact, many lower courts confronted with a partisan gerrymandering challenge post-*LULAC* simply refused to consider the claim and asserted that, until the Supreme Court provided a standard to adjudicate the claim, their hands were tied. The decision in *LULAC* could also be seen as an invitation to litigants to develop a more sophisticated and multi-component test for unconstitutional gerrymandering that incorporated but was not limited to partisan bias. And that is indeed what has happened, but not till rather late in the 2010 redistricting period (see below).

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3 partisan gerrymander as a defense to claims that some districts in the plan had race as their
4 preponderant motive.¹⁵
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7 In the past few years there are some signs that the state of the case law about partisan
8 gerrymandering might be changing. In the 2010 redistricting round, Florida plans were struck
9 down on state law grounds,¹⁶ and federal courts have now found plans in Wisconsin¹⁷ and North
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16 ¹⁵ “After the three-judge court in *Harris v. McCrory*, 2016 WL 3129213, (M.D.N.C. Jun. 2, 2016)
17 found the challenged North Carolina congressional districts constituted a racial gerrymander,
18 “the North Carolina legislature drew new district lines, expressly eschewing reliance on any
19 racial data and declaring that they were engaged in a partisan gerrymander” (Hasen, 2018
20 forthcoming, draft p. 16). “As [North Carolina] Representative Lewis stated, ‘I acknowledge
21 freely that this would be a political gerrymander... [W]e want to make clear that we ... are going
22 to use political data in drawing this map. It is to gain partisan advantage on the map. I want that
23 criteria to be clearly stated and understood.... I’m making clear that our intent is to use — is to
24 use the political data we have to our partisan advantage.’” *Harris v. McCrory*, 16-666 (statement
25 of jurisdiction filed Aug. 3, 2016),
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28 <https://www.supremecourt.gov/search.aspx?filename=/docketfiles/16-166.htm>, cited in Hasen,
29 *Ibid.* As Hasen notes, the state drew 10 of 13 congressional districts to favor Republicans, in a
30 state where party registration is roughly even between Democrats and Republicans.
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32 ¹⁶ While, until *Whitford*, federal courts after *Davis v. Bandemer* had never found a single member
33 district plan to be an unconstitutional partisan gerrymander, in 2015 the Florida Supreme court
34 invalidated a Florida congressional map as a partisan gerrymander (*League of Women Voters of*
35 *Florida v. Detzner* 172 So. 3d 363 (Fla. 2015)). As a result of the ruling, eight congressional
36 districts were ordered to be redrawn, with spillover effects on other districts. An earlier
37 legislatively drawn remedy map was rejected as failing to fully address the constitutional
38 violations. Because the legislature was unable to agree on a new map a court drawn plan was
39 used in 2016, and one congressional seat changed hands. The Florida decision was based on state
40 rather than federal law, and the provisions of Florida’s constitution relied upon in the case were
41 very specific ones, added rather recently by citizen’s initiative, with language not duplicated in
42 most other state constitutions (language in Ohio’s constitution put there in 2015 via a citizen
43 initiative is a partial exception). While this particularity of the Florida case led me to believe that
44 state law-based challenges to partisan gerrymandering were unlikely to be successful, as of
45 January 22, 2018 the Pennsylvania state law challenge was successful. Moreover, some elements
46 of the Florida case may also prove adaptable to the federal context, especially with respect to
47 the standard for determining intent, the need for burden-shifting to defendants to justify the plan
48 if a clear violation is found, the question of whether an appropriate remedy involves overturning
49 a whole plan or only particular districts, and the amount of deference due the legislature in the
50 remedial phase once a violation is found.
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55 ¹⁷ *Whitford v. Gill* (No. 15-cv-421-bbc, 2016 WL 6837229, W.D. Wisc., filed November 21,
56 2016) about Wisconsin legislative districting
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3 Carolina¹⁸ to be unconstitutional partisan gerrymanders on federal law grounds. However,
4 another federal court found against a partisan gerrymandering challenges¹⁹, and a fourth stayed
5 proceedings challenging a Maryland congressional district as an unconstitutional partisan
6 gerrymander until the merits of the Wisconsin challenge had been resolved by the Supreme
7 Court.²⁰ As of December 2017, the first of these cases, *Whitford v. Gill* heard *sub nom Gill v.*

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14 ¹⁸ *Common Cause v. Rucho* (No. 1:16-CV-1164, M.D. N., filed January 9, 2018).

16 ¹⁹ *Agre v. Wolf* (Case 2:17-cv-04392-MMB Document 211 at p. 3, filed January 10, 2018). This
17 Pennsylvania challenge was brought under the Elections Clause Page 3 of Article I of the United
18 States Constitution. The majority opinion referred to the challenge as a “novel legal claim” and
19 rejected the claim.

21 Plaintiffs’ ambitious theory suffers from three fatal flaws. First, the Framers provided a
22 check on state power within the text of the Elections Clause, but it is a political one—
23 action by Congress. The language and history of the Clause suggest no direct role for the
24 courts in regulating state conduct under the Elections Clause. Second, the Elections
25 Clause offers no judicially enforceable limit on political considerations in redistricting.
26 Plaintiffs’ partisan blindness theory was long ago rejected by the Supreme Court, and for
27 good reason. The task of prescribing election regulations was given, in the first instance,
28 to political actors who make decisions for political reasons. Plaintiffs ignore this reality.
29 In fact, they ask the Court to enforce the supposed constitutional command by requiring
30 the Commonwealth of Pennsylvania to develop a new process that will somehow sanitize
31 redistricting by removing political influence. Courts cannot mandate new processes for
32 creating election regulations. The Elections Clause leaves that to state legislatures and to
33 Congress—bodies directly accountable to the people. Third, Plaintiffs’ Elections Clause
34 claim is an unjustifiable attempt to skirt existing Supreme Court precedent. Partisan
35 gerrymandering claims under the First Amendment and/or Equal Protection Clause are
36 justiciable, but a majority of justices have yet to agree on a standard. Despite the lack of
37 agreement, the justices favoring justiciability uniformly acknowledge that the courts
38 should not assume a primary role in redistricting. Out of concern for a healthy separation
39 from this most political of matters, the justices have proposed high bars for judicial
40 intervention. Contrary to that concern, Plaintiffs offer an Elections Clause theory that
41 invites expansive judicial involvement. Plaintiffs suggest that the Elections Clause offers
42 an easily manageable standard. What they really mean is that it offers a lower bar—an
43 easy path to judicial intervention. (*with internal citations omitted*)

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48 However, the *Rucho* court (slip opinion at 175-180 takes a much more expansive view of
49 the scope of the Elections Clause and finds that it, too, was violated in North Carolina’s
50 congressional redistricting.

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54 ²⁰ *Benisek v. Lamone* (Civil No. JKB-13-3233, D. Maryland, filed August 24, 2017). The
55 Benisek challenge is distinct from that in the other partisan gerrymandering challenges in three
56 ways. First it challenges only a single district not an entire plan, secondly it relies entirely on
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3 *Whitford*, a challenge to a legislative along with the Maryland case, involving a challenge to a
4 single congressional district are up on appeal to the Supreme Court, with the Wisconsin cases
5 already having had oral argument in 2017. There also has been a challenge to the Pennsylvania
6 congressional plan dismissed after trial by a federal court by a 2-1 vote in January 2018²¹ The
7 North Carolina and Pennsylvania federal cases are also likely to be appealed the Supreme Court,
8 and there is a Texas partisan gerrymandering challenge that, when a final order is issued at the
9 lower level, will certainly go up on appeal. Moreover, in a Pennsylvania congressional partisan
10 gerrymandering challenge brought under state law grounds, in which a trial magistrate made
11 findings of fact and a recommendation that the existing plan be upheld,²² the appeal to the
12 Pennsylvania Supreme Court resulted on January 22, 2018 in a victory for the plaintiffs in a 4-3
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24 First Amendment grounds, and thirdly, it argues, in effect, that all that is needed under the First
25 Amendment (as opposed to the 14th Amendment) is evidence of intent to achieve illegitimate
26 partisan ends by changing the partisan control of a district and evidence of success in that
27 endeavor. In the predecessor case to *Benisek, Shapiro v. McManus*, the Court specified a First
28 Amendment test for partisan gerrymandering in the form of proof of the three elements of intent,
29 injury, and causation.
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33 When applying First Amendment jurisprudence to redistricting, we conclude that, to state
34 a claim, the plaintiff must allege that those responsible for the map redrew the lines of his
35 district with the specific intent to impose a burden on him and similarly situated citizens
36 because of how they voted or the political party with which they were affiliated. In the
37 context of redistricting, this burden is the injury that usually takes the form of vote
38 dilution. But vote dilution is a matter of degree, and a *de minimis* amount of vote dilution,
39 even if intentionally imposed, may not result in a sufficiently adverse effect on the
40 exercise of First Amendment rights to constitute a cognizable injury. Instead, to establish
41 the injury element of a retaliation claim, the plaintiff must show that the challenged map
42 diluted the votes of the targeted citizens to such a degree that it resulted in a tangible and
43 concrete adverse effect. In other words, the vote dilution must make some practical
44 difference. Finally, the plaintiff must allege causation -- that, absent the mapmakers'
45 intent to burden a particular group of voters by reason of their views, the concrete adverse
46 impact would not have occurred.
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51 ²¹ *Agre v. Wolf* (Case 2:17-cv-04392, 04392-MMB, E.D. PA.; filed January 10, 2018).

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53 ²² *League of Women Voters v. Pennsylvania* (No. 261M.D.2017, Commonwealth Court of
54 Pennsylvania 2017).
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3 decision.²³ In looking to the future of partisan gerrymandering, the two most important legal
4 decisions²⁴ since *Bandemer* to date are, arguably, the district court opinions in *Whitford*, about
5 Wisconsin legislative plans, and *Common Cause v. Rucho*, about North Carolina congressional
6 districting because plaintiffs prevailed in each of these cases and each opinion offers a viable
7 theory of partisan gerrymandering and standards that could be adopted by the U.S. Supreme
8 Court.²⁵ The legal standards proposed in each case to resolve partisan gerrymandering
9 challenges are very similar to one another.

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12 Both the Wisconsin and the North Carolina opinions follow up on a suggestion of Justice
13 Kennedy in *Vieth v. Jubelirer* 541 U.S. 267 (2004) to consider partisan gerrymandering as
14 potentially violating First Amendment associational rights in addition to raising equal protection
15 issues under the Fourteenth Amendment. Both recognize that a defense to what would otherwise
16 be evidence of unconstitutional partisan gerrymandering can be based on a claim that the result
17 followed from a narrowly tailored and compelling legitimate state purpose. Both also directly
18 address previous Supreme Court concerns about judicially manageable standards. In particular,
19 they address issues about measuring the severity of the disparate effects, assessing the durability
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32 ²³ As of January 22, 2018, however, there was not an opinion in the case laying down the
33 grounds for the ruling. The legislature is being given the opportunity to offer a remedial plan
34 satisfying good government standards under a very tight timeline. It is possible that the decision
35 in this case will be appealed to the federal courts, though the grounds for such an appeal are not
36 clear.
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39 ²⁴ While the emphasis in this essay is on legal routes to combating gerrymandering, an
40 alternative route is to take redistricting authority away from the state and put it into the hands of
41 a redistricting commission. This route was taken in California, and there is widespread but not
42 universal agreement that the initiative led to a genuinely non-partisan redistricting in the first
43 decade that there was a commission-drawn plan used in the state. The Commission's
44 redistricting map was oriented toward good government concerns, with substantial public input,
45 and the Commission had a complex set of procedures involving a tripartite rather than merely
46 bipartite form of decision-making. However, this is a route that, for all practical purposes, is
47 available only in states that allow state-wide initiatives, and so its potential impact is limited.
48 Moreover, not all redistricting commissions operate in nearly as neutral or efficient a fashion as
49 that in California, and the membership of some commissions is little more than a disguised form
50 of partisan control (see e.g., the discussion in McDonald, 2004, and Miller and Grofman, 2011).
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53 ²⁵ As noted earlier, *Whitford* is the first time since the trial court decision in *Bandemer v. Davis* --
54 a decision reversed in *Davis v. Bandemer* -- that a federal court has held a single member district
55 plan to be an unconstitutional partisan gerrymander.
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3 of effects, ruling out the possibility that effects can be attributed to geography or chance, and
4 avoiding judgments based on evidence from at most a single election under the challenged plan.
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6 Moreover, in each, there is expert witness testimony that the judges draw upon in addressing
7 each of these concerns. Both also look closely at issues of intent, including consideration of the
8 process by which the plan was created and passed and geographic features of the plan that
9 grossly violate traditional districting criteria.
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14 In both cases the distinction between First Amendment and Fourteenth Amendment claims
15 appears to be more a legal distinction about how to frame constitutional bases of action than a
16 difference in how courts should go about looking for a violation of those rights.
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20 In *Whitford*, for example, the court majority asserted
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22 [T]he First Amendment and the Equal Protection clause prohibit a redistricting scheme
23 which (1) is intended to place a severe impediment on the effectiveness of the votes of
24 individual citizens on the basis of their political affiliation, (2) has that effect, and (3)
25 cannot be justified on other, legitimate legislative grounds.
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28 The *Whitford* court majority found:

29 The plaintiffs have established ... that the defendants intended and accomplished an
30 entrenchment of the Republican Party likely to endure for the entire decennial period.
31 They did so when the legitimate redistricting considerations neither required nor
32 warranted the implementation of such a plan.
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35 In *Common Cause v. Rucho*, the *Rucho* majority offered a three-pronged test requiring
36 plaintiffs to prove:
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38 (1) that the challenged districting plan was intended to favor or disfavor individuals or
39 entities that support a particular candidate or political party, (2) that the districting plan
40 burdened the political speech or associational rights of such individuals or entities, and
41 (3) that a causal relationship existed between the governmental actor's discriminatory
42 motivation and the First Amendment burden imposed by the districting plan.
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44 It held that:

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46 Partisan gerrymandering runs contrary to both the structure of the republican form of
47 government embodied in the Constitution and fundamental individual rights preserved by
48 the Bill of Rights. ... [P]artisan gerrymandering of congressional districts constitutes a
49 structural violation because it insulates Representatives from having to respond to the
50 popular will, and instead renders them responsive to state legislatures or political factions
51 thereof.
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53 It found that:
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3 Rather than seeking to advance any democratic or constitutional interest, the state
4 legislator responsible for drawing the 2016 Plan said he drew the map to advantage
5 Republican candidates because he “think[s] electing Republicans is better than electing
6 Democrats” (Ex. 1016, at 34:21–23). But that is not a choice the Constitution allows
7 legislative map drawers to make. Rather, “the core principle of [our] republican
8 government [is] that the voters should choose their representatives, not the other way
9 around.” *Ariz. State Leg.*, 135 S. Ct. at 2677 (internal quotation marks omitted).
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14 However, there does appear to one interesting difference between the two types of
15 claims. The *Rucho* majority held (slip opinion at p. 35) that because “the First Amendment
16 harms attributable to partisan gerrymandering are analogous to one-person, one-vote claims and
17 are not district specific, we conclude that partisan gerrymandering claims under the First
18 Amendment need not be asserted on a district-by-district basis.” This is important because some
19 cases, such as *Benisek*, offer a challenge limited to specific districts rather than to a plan as a
20 whole, and the issue of whether or not partisan gerrymandering challenges may offer statewide
21 evidence of effect is one of the issues at dispute in these cases. My own view on this point is
22 quite clear: in line with the definition of gerrymandering given above, partisan gerrymandering
23 claims are inherently state-wide, though it may often be the case that the necessary remedies are
24 district-specific. As the *Rucho* court (slip opinion, p. 37) noted about North Carolina, “in
25 drawing the 2016 Plan, the General Assembly sought to achieve a statewide partisan effect.”
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35 Among redistricting experts, it is matter of close to unanimous consensus that, if the
36 Supreme Court fails to draw on the lower court opinions in *Whitford v. Gill* and in *Common*
37 *Cause v. Rucho*) to specify a manageable standard, that failure spells finish to the potential for
38 legal action by federal courts to cure unconstitutional gerrymandering in this round of
39 redistricting. But worse, such a failure would also have a profound effect on the next decade’s
40 redistricting in unleashing still further unchecked instances of “partisan lust.”²⁶
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50 ²⁶ These were the views expressed by panelists in presentations at the Common Cause
51 Conference on Redistricting Reform, held at the Duke University School of Public Policy, March
52 2-3, 2017, attended by the present author. If the direct route to attacking partisan gerrymandering
53 is cut off, then that will leave only indirect routes such as attacking plans with partisan effects as
54 discriminatorily making use of population discrepancies or as making race a predominant
55 motive. Such indirect lines of attack are very limited in their potential applicability. Moreover, it
56 is extremely unlikely, even if such indirect attacks are successful, that the specific remedies
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There are, however, several reasons why *Whitford* and *Rucho* have the potential to be “game-changers” First the expert witness testimony in these cases offers new tools for assessing the magnitude and durability of gerrymandering that are responsive to previous Supreme Court concerns about manageability. As we demonstrate later, these tools were not available (or not offered) in previous partisan gerrymandering challenges that made their way to the Supreme Court. Second, the cases spell out new legal theories, including ones based on First Amendment jurisprudence. Third, the evidence relied on in *Whitford* includes actual outcomes in three elections. Thus, the decision about gerrymandering effects is not complicated by the issue of the degree of predictability of future elections under a new plan for which the court does not yet have previous electoral outcomes as a basis for assessment.

Defining a Gerrymander

What is gerrymandering? That is a deceptively simple question, but one which must be answered before we can begin to even think about unconstitutional partisan gerrymandering. The answer I give –one that is consistent with the views of most present-day social scientists who are specialists on districting is that:

Gerrymandering occurs when a districting plan creates a disparate treatment of the vote share of the minority and majority voting blocs in a way that penalizes the minority in its ability to translate its voting support into seats compared to what we might expect from a plan drawn on the basis of neutral principles.²⁷

Thus gerrymandering has two critical elements. It requires disparate impact, and it is to be measured relative to a baseline of a plan drawn on the basis of neutral principles. The definition above corrects an important misapprehension of the nature of gerrymandering which was once frequently asserted about legislatures using single seat plurality districts electing

imposed will actually cure the partisan gerrymandering that motivated the litigation but which was not actually the subject of the litigation.

²⁷ By the majority bloc I mean the party that is in control of the districting process.

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3 candidates by plurality; namely the misleading claim that, in such legislatures, gerrymandering is
4 merely a synonym for districting.²⁸
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10 *Defining Unconstitutional Partisan Gerrymandering: Five Key Elements*
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13 The definition given in the section above is a definition of gerrymandering, it is not a
14 definition of what constitutes unconstitutional gerrymandering. Not all disparate impact rises to
15 the level of unconstitutionality. For gerrymandering to rise to the level of unconstitutionality in
16 terms of the five elements of my proposed test, not only must it be shown that there is a disparate
17 impact, but the disparate impact must be shown to be substantial, and highly durable, and with
18 effects that cannot be explained by the nature of the electoral geography or by chance, and with
19 effects that can be shown to have been intended.²⁹ Moreover, of course, there must be one or
20 more feasible remedies for the unconstitutional disparate impact found.
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30 ²⁸ The paradigmatic claim of this supposed equivalence is found a 1968 book, Democratic
31 Representation: Reapportionment in Law and Politics (Oxford University Press) by Robert
32 Dixon, arguably America's then leading expert on redistricting. He asserted: "To be brutally
33 frank, whether or not there is a gerrymander in design, there normally will be some
34 gerrymandering in result, as a concomitant of all district systems of legislative elections. ... In a
35 functional sense it thus may be said that districting is gerrymandering." Knowing what we know
36 now, especially in terms of research both conceptual and empirical done over the past decade or
37 so, the statement above is misleading. Unfortunately, the academic literature on districting has
38 not always recognized this point. Indeed, I should be honest in noting that in my earlier writings,
39 the present author, too, has uncritically quoted Dixon's assertion above, especially in verbal
40 presentations. Still, I believe it is accurate to say that few if any knowledgeable social scientists
41 today would endorse Dixon's views from nearly five decades ago. Dixon wrote at a time when
42 the statistical properties of seats-votes relationships for plurality districts were not well
43 understood, e.g., he wrote prior to Tufte (1973) and the extensive literature that has followed. As
44 a guide to understanding the conditions needed to determine the existence of gerrymandering,
45 and especially whether or not that level of gerrymandering rises to the level of
46 unconstitutionality, this conflating of districting with gerrymandering cannot be the basis of a
47 constitutional standard. It fails to provide a truly functional test of the partisan (or racial, or
48 incumbency protecting) consequences of an adopted plan that distinguishes these consequences
49 in terms of disparate impact from what might have been expected from a plan drawn according
50 to neutral principles.
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55 ²⁹ While the term "natural gerrymandering" has been used for gerrymandering consequences
56 whose effects were not intended, it seems sensible to view unconstitutional partisan
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6 *Measuring disparate impact*
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9 The first element, *partisan asymmetry*, is based on the idea that a citizen's
10 representational rights must not turn on the party with which he chooses to affiliate. It looks to
11 see if there is a tangible and concrete injury in the form of disparate impact that could be the
12 basis for a claim of unconstitutional partisan gerrymandering. In short, it is a standard of
13 "neutral" treatment. This metric neither assumes nor requires that a political party is entitled to
14 any particular election outcome. Rather, partisan symmetry requires only that if we were to
15 "switch the names of the parties that received particular vote outcomes, the seat outcomes would
16 also switch."³⁰ Unlike a claim that a party is entitled to a specified outcome, such as a number
17 of seats proportionate to its vote share, an asymmetry standard requires only that the parties and
18 their supporters receive equal treatment—that they have equal *opportunity* to translate their votes
19 into representation.
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28 For example, imagine that the "Democratic Party receives an average of 55% of the vote
29 totals in a state's legislative district elections and, because of the way the district lines were
30 drawn, it wins 70% of the legislative seats in that state."³¹ This "one piece of evidence alone"
31 says nothing about whether any voters have been treated differently based on their political
32 views.³² That turns on whether the result would be different were the shoe on the other foot: If
33 the Republican Party would also have received 70% of the seats in an election in which
34 it garnered an average of 55% of the vote, then there is no disparate treatment.³³
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42 gerrymandering as necessarily involving intent, though this view is not shared by all social
43 science redistricting experts and will ultimately have to be resolved by the Supreme Court. We
44 have placed intent as the last of the five elements because it may be demonstrated indirectly from
45 some of the earlier elements.
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48 ³⁰ Grofman and King (2007).

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50 ³¹ *Id.*

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52 ³² *Id.*

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54 ³³ In a system of proportional representation (used in many European countries), seats are
55 awarded in proportion to overall many European countries), seats are awarded in proportion to
56 overall vote share—i.e., 55% of the statewide votes would garner about 55% of the legislative
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3 In fact, mere disproportionality between vote share and seat share does not evidence a
4 partisan gerrymander. The political science is clear: Winner-take-all, single-member district
5 elections—elections in which a plurality of the votes wins the district’s seat—do not produce
6 proportionate results, because “in practice they normally give a ‘bonus’ of varying sizes (above
7 proportionality) in seats to the party that wins a majority of the votes across a state.”³⁴
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11 The scholarly literature has overwhelmingly supported the concept of partisan
12 asymmetry as the basis for a definition of disparate partisan impact in electoral systems since at
13 least the late 1980s.³⁵ Measures of asymmetry not only reliably establish whether a map
14 provides an advantage to one party’s voters over another, they also identify the *degree* of the
15 advantage. Social scientists have developed multiple measures of partisan asymmetry that courts
16 and litigants can readily apply.
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22 One straightforward measure of partisan asymmetry is *partisan bias*. It “refers to the
23 degree to which a [map] deviates from partisan symmetry.” (Grofman & King, 2007, 10). For
24 example, if Party A would receive 60% of the seats with 50% of the statewide vote, but Party B
25 would receive only 40% of the seats with 50% of the statewide vote, there is a partisan bias of 20
26 percentage points favoring Party A. By multiplying the amount of bias by the number of seats in
27 the map, we can calculate approximately how many seats were impacted—e.g., assuming 100
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36 seats. “Proportional Representation,” *Encyclopedia Britannica* (2013 ed.),
37 <https://tinyurl.com/y6welcph>. As the above example illustrates, the symmetry standard requires
38 no such result. The symmetry standard “does not require proportionality but only that the
39 disproportionality be the same for both parties.” McGann et al (2016, 65-66).
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42 ³⁴ Grofman & King (2007, 22); see also Wang (2016b: 368-374).
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44 ³⁵ See Grofman & King, (2007, at p. 6 and footnotes 29-30). A number of experts in the field of
45 redistricting recently filed amicus briefs in *Gill v. Whitford*, No. 16-1161 (U.S. 2017). Almost
46 all take the view that partisan asymmetry is a key element of any partisan-gerrymandering claim
47 (e.g., Br. of Heather Gerken, et al., at 15-17; Br. of Political Geography Scholars, at 11). See
48 also Dahl (1956), Cain (1985), Campagna and Grofman (1990), Grofman, (1983), Niemi and
49 Fett (1986), Grofman, Koetzle and Brunell (1997), McGann et al (2015), and esp. Gelman and
50 King (1990, 1994). I would note that the concept of *partisan bias* (and the complementary
51 concept of *partisan responsiveness* in the form of the *swing ratio*) are first introduced in
52 something close to their modern form in Tufte (1973), but similar ideas can be found in earlier
53 statistical work as far back as the 1940s (see esp. Kendall and Yule, 1950).
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3 legislative seats, a 20-point bias would mean the disadvantaged party and its members lost the
4 opportunity to capture 20 seats.³⁶
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7 Where elections have occurred under the challenged map, one way to evaluate whether
8 the parties have like opportunity to translate seats into votes is to adjust their respective vote
9 shares district by district to see how they would fare if the tables were turned. Imagine Party A
10 won 70% of the seats after garnering 53% of the statewide vote, and Party B received 30% of the
11 seats with 47% of the statewide vote. To simulate the seat shares if instead Party B won 53%
12 of the statewide vote and Party A won 47% of the statewide vote, simply add 6 percentage points
13 (53%-47%) to Party B's vote share in each district and subtract 6 percentage points from Party
14 A's vote share in each district. Then tally up how many seats Party B would have won,
15 and calculate its percentage of total seats. If Party B, now simulated to receive about 53% of the
16 statewide vote, would not receive approximately 70% of the seats, bias is present.³⁷
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24 Another simple measure of partisan asymmetry is the mean minus median gap, which has
25 "well-defined mathematical properties."³⁸ It compares each party's actual
26 vote share in the median district to its average actual vote share across all districts. If a party's
27 median vote share is lower than its average vote share, asymmetry is at work. This is because
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32 ³⁶ The *efficiency gap* (McGhee, 2014, 2017; Stephanopoulos and McGhee (2015) has also been
33 proposed as a measure of partisan gerrymandering effects. Evidence about it was presented in
34 *Whitford v. Gill* and *Common Cause v. Rucho*, as well as in *League of Women Voters v.*
35 *Pennsylvania*. I have not made the *efficiency gap* one of my proposed metrics, since both
36 advocates and proponents of its use in gerrymandering cases agree that it measures something
37 distinct from *partisan asymmetry/partisan bias* a la Tufte (1973) I should also note that, though
38 the measure was favorably referenced, I do not believe that the expert witness testimony
39 presented about the *efficiency gap* in cases such as *Gill* and *Rucho*, was critical to the findings for
40 plaintiffs in these cases, since each case had other types of evidence presented about measures of
41 disparate partisan impact.
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44 ³⁷ Alternatively we could add just add three percentage points to party A's vote share in each
45 district to bring up Part A's vote share from 47% to 50% and subtract three percentage points
46 from party B's vote share in each district to bring down Part B's vote share from 53 % to 50%
47 and check to see if each party now receives 50% of the seats. If not, there is a bias in favor of
48 one of the parties. Of course, such a bias might be explicable by geographic factors or due to
49 chance, or it may only be temporary. Ruling out such possibilities is why we need a multi-
50 pronged test. And, as noted below, there are more sophisticated approaches to assessing partisan
51 bias that provide greater reliability. But the use of simple methods can allow a court an intuitive
52 check on the plausibility of expert witness testimony using more sophisticated methods.
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55 ³⁸ Wang (2016b, 372); see also Wang (2016a)
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3 “[b]y packing opposing voters into a small number of districts, the gerrymandering party holds
4 down the targeted party’s vote shares in many districts, which depresses the target party’s
5 median vote share, even while its average (mean) vote share is unchanged.”³⁹ This metric is
6 highly manageable for courts: “It focuses on two observable numerical facts”—the mean and the
7 median—“and subtracts one from the other.”⁴⁰ Like the more sophisticated measures of *partisan*
8 *bias*, the mean-median gap has well-established tests for statistical significance to assess the role
9 of chance in generating observed differences.⁴¹

15 There are more complex models of *partisan bias* available that, for example, draw on
16 data from at the entire shape of the seats-votes curve, do not assume uniform vote shifts across
17 all districts, take into account incumbency factors, and generate measures of statistical
18 significance—i.e., how confident we are that the observed bias is not due to chance, Such
19 measures also, distinguish between *partisan bias* and what is called *swing ratio*, the slope of a
20 seats-votes curve. And we would expect such measures to be presented by experts in cases
21 challenging partisan gerrymandering. But exploration of these more sophisticated measures is
22 beyond the scope of the present essay.⁴² Suffice it to note that these models are well established
23 in the political science literature, less complex in their mathematical underpinnings than methods
24 regularly used in racial gerrymandering cases (such as Gary King’s 1997 model of ecological
25 inference), and would easily pass a *Daubert* test (*Daubert v. Merrell Dow Pharmaceuticals*, 509
26 U.S. 579 (1993)).⁴³

37 ³⁹ Amicus Br. of Samuel S. Wang, *Harris v. Ariz. Indep. Redistricting Comm’n*, No. 14-232
38 (U.S. Nov. 2, 2015), at 4.

40 McDonald and Best (2015).

41 Wang (2016b, 372)

42 See Gelman and King (1990, 1994) and discussion in Grofman and King (2007: 10-13).

43 The *Rucho* court slip opinion at pp. 65-74 identifies numerous examples in which courts have
44 relied on statistical evidence. It notes (p.74): “Advances in statistical and empirical theory and
45 application, therefore, have the potential to allow parties, experts, and amici to provide courts
46 with more rigorous and probative evidence, thereby decreasing the risk that courts will render a
47 decision that later proves to have rested on an errant empirical analysis. Consequently, it makes
48 no practical or legal sense for courts to close their eyes to new scientific or statistical
49 methods.” (Also see discussion in *Rucho*, pp. 75-76, of the probative power of multipart
50 evidence.)

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3 That there are multiple metrics available is a feature, not a flaw, reflecting the cumulative
4 process of building scientific knowledge.⁴⁴ The metrics are fundamentally complementary.
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6 Some are more complex in their calculations than others; but they all seek to measure the same
7 thing: the magnitude of the disparate burden (if any) that a challenged map imposes on a political
8 party and its supporters.⁴⁵
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15 *Providing evidence that effects will be durable*

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17 The second element, lack of responsiveness, perhaps better referred to as durability of
18 effects, is distinct from *partisan bias*. Partisan bias can be high and yet fleeting, or it can be low
19 and yet long lasting. Looking at the expected duration of partisan effects allows us to screen out
20 cases where the political process can provide a remedy. The responsiveness element asks
21 whether the party out of power can alter its fate by persuading voters to support it in future
22 elections—i.e., whether a disparate partisan impact will endure throughout the decade following
23 redistricting or even beyond. If a map is responsive, then when voters change their allegiances,
24 their representation also changes, making judicial intervention unnecessary.
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35 ⁴⁴ An analogy from another domain of voting rights case law is pertinent. If we look at a term of
36 art such as *racially polarized voting*, whose determination is critical in most racial vote dilution
37 and racial gerrymandering cases, it turns out that there are multiple ways we might measure the
38 level of racial polarization in a given jurisdiction, including *homogeneous precinct analysis*
39 (Loewen, 1982), ecological regression (Grofman, Migalski and Noviello, 1985), and *ecological*
40 *inference* (King, 1997). The latest of these methods, *ecological inference*, has the best statistical
41 properties, but rests on much more mathematically complex foundations. Yet, when voting is
42 clearly racially polarized, when the appropriate data needed by each method is available, in the
43 hands of competent experts it really does not matter much which of these methods is used (Cf.
44 Grofman, 2000).
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48 ⁴⁵ As Gary King (personal communication, 2016) noted in comments on an earlier version of this
49 essay, when it comes to partisan asymmetry: “You can say that some methods are more
50 sophisticated and thus give considerably more precision and less error; others may be more
51 intuitive in how they are calculated; others are just different ways of doing the same thing; still
52 others do the same thing but present concepts in different ways that may be useful to understand
53 from yet other perspectives. We know more about how to estimate partisan bias than we ever
54 have, and the Justices can be confident that improvements will continue, and no massive changes
55 in the estimates will come from this process.”
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3 If a map is not responsive, then citizens' votes at the polls do not affect electoral
4 outcomes, showing that the politicians have chosen the voters, and not the other way around. In
5 that circumstance, we can expect partisan asymmetry to endure. When district lines freeze
6 outcomes in favor of one political view, opposition voters can be effectively "shut out" of the
7 political process.⁴⁶ Requiring that plaintiffs demonstrate that the map is not responsive to
8 changes in voter preferences ensures that courts do not intervene in the political process where it
9 can function properly. If a map does not persistently obstruct competition, voters' remedy lies at
10 the polls, not in the courts.
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17 The methods to demonstrate likely durability are quite straightforward. They require
18 experts to take historical levels of electoral tides into account and project the magnitude of
19 previous inter-election vote share shifts into the present districts. In so doing, we can estimate the
20 range of realistically possible election outcomes. With responsiveness, as with partisan bias,
21 while experts have access to very sophisticated prediction models, there are some
22 straightforward ways in which courts can use assess the credibility of expert witness testimony
23 about likely changes in outcomes. There are two simple questions for courts to ask. What is the
24 proportion of districts that are competitive? And, if inter-election shifts in vote shares (electoral
25 tides) are at their historical levels, in what proportion of the districts can outcomes be expected to
26 be stable? Responsiveness/durability is a function of the number of competitive seats in a map—
27 the districts most likely to shift hands with electoral tides (Brady and Grofman, 1991). Of course,
28 when multiple elections have occurred under the challenged map, there is little need to rely on
29 experts to assess responsiveness. If vote shares have changed, but seat shares have not, the
30 challenged map is showing a lack of responsiveness to electoral shifts.
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41 As Justice O'Connor noted in *Bandemer*, some gerrymanders could potentially be "self-
42 limiting," e.g., if map drawers "crack" voters across multiple districts to create margins of
43 victory so thin that they evaporate in future elections. 478 U.S. at 152. Grofman and Brunell
44 (2005) look for evidences of "dummymanders" in southern congressional redistricting in the
45 1990 round of redistricting. A *dummymander*, a term coined by A Wuffle (personal
46 communication, December, 1994), is a plan drawn by one party that ends up favoring the
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53 ⁴⁶ In an era of hyperpolarized politics, politicians are responsive to the views of their own
54 partisans and not to the electorate as a whole. See, e.g., Br. of Bipartisan Group of 65 Current
55 and Former State Legislators, *Gill v. Whitford*, No. 16-1161 (U.S. 2017), at 12—21.
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3 opposite party due to changing electoral tides that were not anticipated in the line drawing.
4 Grofman and Brunell find evidence of Democratic dummymandering in some Southern states.
5 However (a) there is good reason to believe that this phenomenon is very rare in the current era
6 of sophisticated computer redistricting, and (b) present day social science tools allow us to detect
7 “those cases in which a gerrymander... [was] attempted but ... not very well done. ...” Grofman
8 and King, 2007, 13).
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There are two clear explanations for why durability of gerrymandered outcomes is higher than in earlier decades. First, the newest, computer-driven redistricting now allows map drawers to make very precise refinements to district lines down to the census-block level. With this sophisticated new technology, map drawers can fashion maps that eliminate meaningful competition for most districts. McGann et al. (2016, 87) note: “[A]rmed with modern geographical information system software and an absence of judicial constraints, it is possible to engineer so much advantage that [a map can] satisfy both ... goals” of “seat maximization and incumbent protection.” Thus, generally speaking, gerrymandered victory margins are no longer so thin that they risk disappearing.⁴⁷ Second, political polarization of the electorate is increasing.⁴⁸ With fewer swing voters, there is less risk of a victory margin eroding over time.

Ruling out electoral geography and chance as explanations for the disparate impact

The approach that is most directly linked to the definition of partisan gerrymandering given at the beginning of this article requires us to look at a large number of computer generated “randomly drawn” plans that generate the requisite number of contiguous districts. Such plans would be generated using units of aggregation such as voting precincts or elements of census geography such as blocks or tracts, and are based on the actual electoral geography. In addition to contiguity, the computer can also be programmed to seek to satisfy other of the set of what are

⁴⁷ See e.g., Issacharoff and Nagler (2007: 1122). “[D]espite relative overall national parity between the parties in the post-War period, the districts held by each party tend to be more firmly in their control than ever before.”

⁴⁸ See e.g., Pew Research Center, *Political Polarization in the American Public*, available at <https://tinyurl.com/p4scahz> (last updated June 12, 2014) (“Republicans and Democrats are more divided along ideological lines—and partisan antipathy is deeper and more extensive—than at any point in the last two decades.”).

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3 often called “good government” criteria (see e.g., Grofman, 1985, Table 3) that put constraints
4 on districting.⁴⁹ These include criteria such as the one person, one vote standard, respect for
5 political subunit boundaries, and compactness – as variously measured (Niemi et al., 1990). The
6 computer can assess the extent to which each of these computer generated plans satisfies the
7 given criterion, and can also can assess information that would be relevant to determining
8 whether the plan violated Section 2 of the Voting Rights Act or the 14th Amendment.⁵⁰ The next
9 step is to compare the expected/projected partisan outcomes in the actual plan with the
10 distribution of partisan outcomes in the randomly drawn plans. But the relevant comparison is
11 not with the totality of such plans, but only with the subset of such plans that equal or surpass the
12 challenged plan with respect to the satisfaction of the constitutional and statutory criteria that are
13 deemed legally relevant.⁵¹
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23 By restricting ourselves to plans that are at least a good in good government terms as the
24 challenged plan, we have a direct way to implement the idea that gerrymandering is to be judged
25 relative to a baseline of what is actually feasible.⁵² If we generate a frequency distribution of
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30 ⁴⁹ A more current inventory of state provisions is found in Justin Levitt, Where Are the Lines
31 Drawn? In his blog, All About Redistricting, <https://tinyurl.com/aw3qgn5> (last visited Aug. 10,
32 2017). Grofman (2015) provides a list of the criteria that are commonly thought to fall into the
33 “good government” category and a brief discussion of tradeoffs among them in the context of
34 Virginia congressional redistricting.
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36 ⁵⁰ Such criteria have been embedded in state constitutions in states such as California or Florida
37 that have in the past decade or so passed initiatives affecting redistricting practices and some are
38 found in other state constitutions (see Table in Grofman, 1985) They are also found enumerated
39 in court cases where courts have drawn redistricting plans of their own in situations where they
40 have been forced to do so by the failure of states to remedy an unconstitutional districting in a
41 timely fashion (see e.g., Grofman, 2015).
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44 ⁵¹ However, another way in which a computer simulation of alternative plans can be relevant is
45 by using it to show that, when the computer is instructed to take good government criteria into
46 account, the plans that result satisfy those good government criteria (e.g., splitting of subunit
47 boundaries) to a far greater extent, on average, than does the challenged plan. Thus the
48 challenged plan cannot be justified by a claim that the partisan advantages it creates were
49 required by attentiveness to neutral and legitimate factors.
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52 ⁵² Because we are using the results of neutrally drawn plans based on the geography as our
53 baseline for comparison, we are implicitly allowing for biases in partisan outcome that may arise
54 from differential geographic concentration of partisan voting strength. Whether such
55 geographically induced biases should be addressed in the remedy if a plan has been held to be
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3 expected partisan outcomes in such comparable plans, based on outcomes in previous elections
4 projected into the new districts, then we can compare that distribution to the actual (or
5 projected) seat distribution in the challenged plan. If the partisan outcomes in the challenged plan
6 are far away from what would be expected in this subset of computer drawn plans, using
7 standard statistical criteria such as the two or three standards deviations test set that is widely
8 accepted in both the statistical and legal literature (see esp. *Castenada v. Partida* 430 U.S. 482
9 (1977); see also *Bazemore v. Friday*, 478 U.S. 385, 398-402 (1986)), then we have a direct
10 evidence that the disparate partisan impact in the challenged plan was not due to the electoral
11 geography in the jurisdiction or to chance.
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20 Due to “advance[s]” in the “field of information technology” (*Erfer v. Com*, 794 A.2d
21 325 at 333(2002)), vastly improved computing power permits experts to create hundreds (or even
22 millions) of computer-generated alternative maps. These computer-generated maps enable
23 experts to identify the precise quantum of disparate treatment that is “man-made”—the product
24 of deliberate efforts of the party in power to penalize the opposition—as distinct from the level
25 of disparity that may be produced by the effects of ordinary districting practices, concern to
26 avoid racial vote dilution, voters’ residential patterns, or chance. The work of Chen and Rodden
27 (2013, 2015) illustrates the methodology of computer based simulations of redistricting maps,⁵³
28 as does that of Cho and Liu (2016) and Cain et al. (2018). Both Professor Chen and Professor
29 Cho have provided expert witness testimony in recent partisan gerrymandering court cases, and
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39 unconstitutional we regard as entirely a legal question that remains to be resolved by courts, By
40 analogy with the racial gerrymandering cases the answer could be yes, in that packing of racial
41 populations are treated as a potential constitutional violation when that packing is intentional and
42 is “unnecessary” for the purposes of providing the protected group an “equal opportunity to elect
43 candidates of choice.” Compliance with supposed neutral criteria may lead to inadvertent
44 advantages to one party. There is some evidence that “political groups that tend to cluster (as is
45 the case with Democratic voters in cities [c]ould be systematically affected by what might be
46 called a ‘natural’ packing effect,” *Vieth*, 541 U.S. at 290 (plurality)—although new empirical
47 evidence indicates that this effect has been overstated. McGann et al. (2016, 135) assert:
48 “[G]eographic and demographic constraints (such as the urban concentration of Democratic
49 voters, the requirement to draw majority-minority districts, and the geographic sorting of voters)
50 cannot account for the level of partisan bias we observe, and certainly cannot account for the
51 increase in bias we observe between the 2000 and 2010 districting rounds.”
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55 ⁵³ See also Chen and Cottrell (2016).
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3 similar methodology was used by Professor Jonathan Mattingly who provided testimony in
4 *Rucho*.⁵⁴
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10 *Feasible remedy*
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12 Without a feasible remedy, there cannot be a cause for action. Thus, I am inclined to
13 think that the burden is on plaintiffs to offer to the court a plan that both remedies the injury and
14 satisfies constitutional and statutory standards to at least the same degree as the challenged plan.
15 That plan may not be the plan that the court adopts, and the court may choose to defer to the
16 legislature in redrawing lines to deal with the constitutional violation found, but there must be
17 evidence that a remedy is possible. However, in the present absence of a decision by courts
18 laying down clear standards for what counts as a violation, it seems reasonable to allow plaintiffs
19 to defer the offering of a remedy until after the finding of a constitutional violation.
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26 Once a plan has been held to be an unconstitutional partisan gerrymander, on the one
27 hand, plaintiffs might offer proposals for remedy that may actually tilt the partisan bias in the
28 other direction; while, on the other hand, when legislators are given a second bite at the apple,
29 legislators with partisan motivations will seek to minimize the partisan consequence of the
30 changes that they propose and/or only make cosmetic changes. From a social science perspective
31 the most important question about remedy is how far reaching it needs to be. Courts are going to
32 have to be attentive to how much change in a plan found unconstitutional will be required. For
33 example, if the estimated partisan advantage to one party had been four seats, is a proposed
34 remedy plan reducing that estimated advantage to three seats adequate?
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43 Here social science evidence can be very relevant. If evidence has been presented using
44 computer simulations of alternative plans and their expected partisan effects, such computer
45 simulations can help courts assess the range of expected outcomes under a neutral line drawing
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52 ⁵⁴ A rather different computer algorithm is discussed in Chikina, Frieze, and Pegden (2017).
53 This algorithm has been used by Professor Pegden in expert witness testimony in *League of*
54 *Women Voters v. Pennsylvania* about the results of his computer simulation of redistricting
55 plans.
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3 process.⁵⁵ Also, some of the computer generated plans whose partisan outcomes are not as
4 extreme as the challenged plan may, themselves, offer a feasible remedy. However, I do wish to
5 issue one very important note of caution. The computer simulations I have seen often freeze
6 existing majority minority districts in place so as to guarantee that the computer drawn plans
7 cannot be faulted for racial vote dilution. But, racial gerrymandering, resulting in the packing of
8 minority voters also results in the packing of Democratic-leaning voters as well, normally to an
9 even greater extent. Indeed, sometimes the racial gerrymandering is simply a means to a partisan
10 end. Thus, simulations that freeze existing majority minority districts in place may inadvertently
11 perpetuate a Republican gerrymander “inside” the simulated maps, and thus lead us to
12 misestimate the expected distribution of partisan outcomes under supposedly neutral line
13 drawing.⁵⁶ In this way the results of the simulation would underestimate the extent to which the
14 actual plan is a pro-Republican gerrymander. Moreover, in the remedy phase, failure to redraw
15 districts that have minority populations well in excess of what is needed to provide minority
16 communities with an equal opportunity to elect candidates of choice will simply perpetuate
17 partisan gerrymandering effects.
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30 Sometimes, courts may be in a situation where they have to craft the remedy, themselves,
31 perhaps via the appointment of a Special Master. Partisan gerrymandering, as defined above, is a
32 feature of a plan as a whole, but is achieved by devices such as packing and cracking in
33 particular districts.⁵⁷ My own experience in line drawing suggests strongly that remedying
34 partisan gerrymandering might be done by seeking to adjust boundaries in a relatively limited
35 number of districts, namely those where the cracking and/or packing have been most extreme.
36 Of course, in remedying packing or cracking in any given district, of necessity there will be
37 changes that “ripple” to affect adjacent districts. While the ripple effects of changes to remedy
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49 ⁵⁶ In some cases such unnecessarily packed majority-minority districts will be a heritage of plans
50 drawn by Democrats in earlier decades, but the perpetuation of the packing in a Republican
51 drawn plan can nonetheless contribute to a gerrymander that harms Democrats as a class.

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53 ⁵⁷ The two basic gerrymandering techniques for single seat plurality elections (Grofman, 1985)
54 are dispersal of minority voting strength (*cracking*) and concentration of minority voting strength
55 (*packing*). See also Owen and Grofman (1988).
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3 constitutional violations can be limited,⁵⁸ it is a legal issue about the extent to which any
4 deference must be paid to a plan that overall is so tainted by partisan bias that we could describe
5 it as originating from what we might call “partisan lust,” especially when such plans violate good
6 government criteria to an extent that would be inappropriate in a court-drawn plan. In particular,
7 it is a legal issue not yet resolved by courts about the extent to which any deference must be paid
8 to incumbency protection in such egregious partisan gerrymanders, since the achievement of
9 incumbent status is so inexorably tainted by the partisan nature of the map.
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18 *Ascertaining intent*

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21 In *Davis v. Bandemer*, when it declared partisan gerrymandering to be in principle
22 justiciable, the Supreme Court majority downplayed the importance of intent in determining
23 whether or not a plan was a partisan gerrymander. The Court majority thought that intent to
24 engage in partisan maximizing could be more or less taken for granted as a motivation if the
25 control of the redistricting process (and control of the governorship in states where the governor
26 possessed veto power over redistricting plans) was unified in the hands of a single party.⁵⁹ But,
27 in the subsequent *Shaw v. Reno*, 509 U.S. 630 (1993) line of jurisprudence, courts are forced to
28 draw conclusions about preponderant motive, and, under cases such as *Easley v. Cromartie*, 532
29 U.S. 234 (2001), it has become necessary for courts to distinguish partisan intent from racial
30 intent. Thus, it seems as if intent may well remain a necessary element of any trial on the merits
31 of a partisan gerrymandering claim and it, indeed, plays a key role in recent partisan
32 gerrymandering challenges.
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44 ⁵⁸ For example in *Personhuballah v. Alcorn*, a case that involved race related gerrymandering in
45 Virginia’s 3rd congressional district, the court-imposed remedy for a *Shaw*-type violation
46 necessarily made changes that impacted not just CD3 but also the four districts that immediately
47 touched CD3. Thus the remedy affected five districts, not just one. However, the changes were
48 minimal in three of the four of the districts that bordered CD3, and six of the eleven
49 congressional districts in the state were left completely untouched (Grofman, 2015).
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52 ⁵⁹ One Supreme Court Justice suggested in the oral argument in *Gill* that we require unified
53 control before a partisan gerrymandering challenge can be brought, since without unified
54 partisan control the majority party may find itself unable to pass an egregious partisan plan or
55 may see it vetoed by a governor of the opposite party.
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3 We have focused here on aiding courts in understanding the social-science tools for
4 isolating disparate partisan effects since, if the disparate burden on voters cannot be explained by
5 neutral factors, or compelling state purposes, or chance, then intentional partisan gerrymandering
6 can be inferred.⁶⁰ This is not, however, to say that non-statistical evidence of intent is irrelevant.
7 For example, even setting aside questions of legislative privileges, legislators' publicly available
8 statements can be evidence of an intent to maximize partisan advantage. So, too, can analyses of
9 the shifting of blocs of voters between districts to "pack" or "crack" particular groups, or the
10 disparate treatment of incumbents.⁶¹ Deviations from the ordinary legislative process, such as
11 secrecy, limited debate, or party-line voting⁶² in the enactment of the map are also clearly
12 relevant. And although invidious partisan gerrymanders can look visually "pretty" while still
13 maximizing partisan advantage, contorted district lines and disregard for traditional districting
14 criteria, even if not themselves illegal, are sure fire signals that some form of gerrymandering is
15 afoot.
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40 ⁶⁰ Cf. *Bazemore v. Friday*, 478 U.S. 385, 398-402 (1986) (using statistical analysis in Title
41 VII case to rule out potential neutral reasons for racial disparities in salaries).
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43 ⁶¹ "Hijacking" pairs incumbents of the same party in one district, ensuring that one will not be
44 reelected. "Kidnapping" removes a disfavored incumbent's core supporters from her district,
45 reducing her chances of reelection. ProPublica, "Redistricting, a Devil's Dictionary" (Nov. 2,
46 2011), <https://tinyurl.com/y9uuagw8>. I believe that A Wuffle is responsible for the coining of the
47 term "kidnapping." *Ceteris paribus*, incumbents generally garner more votes than other members
48 of the same party running in the same district (King and Gelman, 1991).
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51 ⁶² The absence of strict party-line voting should be viewed in context. Some incumbent
52 members of the disadvantaged party may have incentives to support a districting plan that affords
53 them (or friends on their side of the aisle) a safe legislative or congressional seat, or that creates a
54 congressional seat that they might run for in the future.
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III. Legal and Evidentiary Issues

New types of expert witness testimony critical to a holding of unconstitutional gerrymandering

In past work, I have argued that a standard for unconstitutional partisan gerrymandering should be based on the severity of partisan asymmetry. The five Justices who referenced partisan asymmetry in their opinions in LULAC (based largely on the discussion of that method in an Amicus Brief in the case by Gary King, Bernard Grofman and others), asserted that partisan asymmetry should be a component of any test for unconstitutional partisan gerrymandering, but they also made it clear that, standing alone, it is not enough.⁶³ As should be apparent from the discussion above, now, with the hindsight/insight gained in the more than a decade since that Amicus, I fully agree with that conclusion. In my view, proof of partisan asymmetry is not sufficient, but it is definitely necessary.

Here I have argued that, in addition to partisan asymmetry, a test for unconstitutional partisan gerrymandering also should include evidence about the expected durability of partisan bias, and evidence that allows us to rule out geographic and chance factors as explanations for the observed/projected disparate impact, i.e., it should require evidence of causation. In the previous sections I have identified social science tools that address each of these issues: measures of partisan bias to determine the severity of disparate impact in the challenged plan; use of data on past inter-election electoral tides and data on district level competitiveness in the challenged plan to assess the likely durability of the plan's partisan effects; and computer simulations of "randomly drawn" alternative plans to see how likely we would have found the extreme partisan outcomes observed in the challenged plan in plans that are just as good as the challenged plan with respect to traditional districting criteria.

⁶³ Justice Stevens, joined by Justice Breyer identified partisan asymmetry as "a helpful (though certainly not talismanic) tool," provided one recognizes that "asymmetry alone is not a reliable measure of unconstitutional partisanship." Justice Kennedy, joined by Justices Souter and Ginsburg) suggested that the standard would be applied only after at least one election has been held under the redistricting plan at issue.

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3 In the course of rejecting the plaintiffs' claims in *Bandemer*, *Vieth*, and *LULAC*, there are
4 strong signs that a potential majority of the Court would agree that partisan asymmetry, lack of
5 responsiveness, and causation are essential to a finding of unconstitutional partisan
6 gerrymandering claim.⁶⁴ But testimony in *Bandemer*, *Vieth*, and *LULAC* did not offer evidence
7 of all three of these critical elements. Indeed, *Bandemer* had none of them,⁶⁵ and in the other two
8 cases there was not clear evidence about more than one of the elements.⁶⁶ Furthermore, in all
9 three cases, plaintiffs failed to offer to the court a legal standard that incorporated all three
10 elements. Indeed, no plaintiffs came even close.⁶⁷ Thus, despite some thirty years of partisan
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19 ⁶⁴ “[U]nconstitutional acts of partisan gerrymandering must do what appellants’ sole-motivation
20 theory disavows: show a burden, as measured by a reliable standard, on the complainants’
21 representational rights” (*LULAC*, 548 U.S. at 418); plaintiffs failed to establish a standard under
22 which they were entitled to a majority of the seats, and that they failed to rule out “natural”
23 causes of packing (*Vieth*, 541 U.S. at 289-90 (plurality)); plaintiffs’ claims failed because
24 proportionality is not required and because “more than a showing of possibly transitory results”
25 is required (*Bandemer*, 478 U.S. at 129-130, 140)
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28 ⁶⁵ The primary evidence in *Bandemer* was that a single election had yielded slightly
29 disproportionate results. 478 U.S. at 134 (plurality). The *Bandemer* plaintiffs offered no evidence
30 of partisan asymmetry, lack of responsiveness or causation. Instead of partisan asymmetry, they
31 offered proportionality as their standard. But as Indiana’s expert witness in that case pointed out,
32 it is “totally fallacious ... that a discrepancy between vote share and seat share of more than a
33 few percentage points is proof of intentional gerrymandering.” (Grofman, 1985, 120). Nor did
34 the plaintiffs in *Bandemer* offer any evidence of lack of responsiveness, leaving un rebutted the
35 State’s contention that if the plaintiffs won even an “additional few percentage points ..., they
36 would have obtained a majority ... in both houses.” *Bandemer*, 478 U.S. at 135 (plurality).
37 Finally, plaintiffs failed to prove causation because their test left unaddressed the potential for
38 discrepancies in treatment caused merely by “natural advantages.” (Grofman, *supra*, at 120). See
39 also Grofman (1982).
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44 ⁶⁶ Of course, the fact that technology of computer simulated plans has only recently developed to
45 the point of being able to readily creating compelling evidence on the causality prong is an
46 obvious reason why no such evidence was offered in partisan gerrymandering cases previous to
47 the present decade.
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50 ⁶⁷ In *Vieth*, the plaintiffs took a somewhat different tack than the plaintiffs in *Bandemer*. They
51 argued for a two-pronged test: (1) a predominant intent to achieve partisan advantage, shown
52 through the subordination of neutral and legitimate criteria); and (2) a “totality of the
53 circumstances” determination that the map would have the effects of “thwart[ing] the
54 plaintiffs’ ability to translate a majority of votes into a majority of seats,” (*Vieth*, 541 U.S. at
55 284-87 (plurality)). The effects prong of this test focused on the wrong criteria: It claimed that a
56 party that won the majority of votes was entitled to a majority of seats, without establishing any
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3 gerrymandering redistricting litigation, courts can come afresh to the issue of crafting a judicial
4 standard, using a well-defined multi-pronged test, without having to worry about whether such a
5 standard conflicts with past precedents.
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8 In this context I would point out that *Whitford* is the first case before the Supreme
9 Court in which the trial record offered evidence of each of the first three necessary elements
10 (asymmetry, durability, and causation), as well as evidence on intent and remedy. Moreover, I
11 also find such evidence on all five elements in the trial record in *Common Cause v. Rucho*. And I
12 believe it is also present in the trial record of *League of Women Voters v. Pennsylvania*. Of
13 course, that evidence on each of these points was provided in each of these cases is not the same
14 thing as saying that the evidence provided was complete and reliable or that it was strong enough
15 to support a finding a constitutional violation.⁶⁸ Let me also again emphasize that elements such
16 as asymmetry, durability, and causation are distinct. One can have partisan bias that is severe
17 but not durable, or durable but not intended, or intended by not durable, etc. In my view, each of
18 the five prongs proposed above must be separately shown to hold.
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29 *differential* treatment of voters based on their political views and associations. The case was
30 decided on a motion to dismiss, and because no election had taken place under the challenged
31 plan, the plaintiffs' claim of adverse effects rested solely on an allegation that, in the future, they
32 would be deprived of a majority of Pennsylvania's congressional seats, despite achieving a
33 majority of the statewide vote. *Id.* at 272-73, 287. The plurality asserted that the effects claim
34 reduced to a claim of proportional representation, similar to the proportionality test rejected in
35 *Bandemer*. *Id.* at 288. And of course, there was no evidence of durability or causation offered. In
36 *LULAC*, the district court did hear limited expert evidence regarding partisan asymmetry that
37 examined how many seats each party would win if, hypothetically, each obtained 50% of the
38 statewide vote (548 U.S. at 466-68, Stevens, J., concurring in part and dissenting in part). But,
39 plaintiffs abandoned this evidence by the time they got to the Supreme Court. Instead, their
40 theory of the case was that the sole motive for the Texas legislature's decision to engage in mid-
41 decennial redistricting was to reap partisan advantage. *Id.* at 416-17 (opinion of Kennedy, J.). In
42 other words, plaintiffs' theory depended only on intent. In fact, plaintiffs argued that "courts
43 need not inquire about, nor parties prove, *the discriminatory effects* of partisan gerrymandering.
44 *Id.* at 417 (emphasis added).
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49 ⁶⁸ While I will not discuss the specific expert witness conclusions, what cannot be disputed is
50 that the evidence presented at trial in these cases involved multiple experts and a multi-
51 component approach that reflects advances in social science knowledge that have occurred in
52 the decade since *LULAC* about how to measure gerrymandering, as well as incorporating
53 technological advances in our ability to use the computer to generate alternative plans.
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6 *moving from the identification of required elements to the specification of a legal standard: an*
7 *incremental approach*
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10 I propose to distinguish metrics from standards. Metrics for partisan gerrymander tell us
11 what electoral features to measure; standards tell us when the measurements provided by expert
12 witnesses about these various plan features take us from “politics as usual” to unconstitutionality.
13 Metrics tend to come from the social sciences; standards tend to come from courts. Above we
14 have identified well established social science methods that will allow us to rather precisely
15 specify metrics for disparate impact, and durability, and a straightforward way to use computer
16 simulations to assess causation.
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22 I propose that courts craft a standard for unconstitutional partisan gerrymandering that
23 draw on these metrics in ways that parallel how courts have dealt with metrics provided by social
24 scientists in other voting rights contexts, such as one person, one vote and racial vote dilution.
25 While no single number tells it all, the five pronged approach identifies the numerical,
26 geographic and historical information that is needed -- evidence that can straightforwardly be
27 presented by experts and readily evaluated by courts. In situations where legislatures are doing
28 the line drawing, politics will always play a role in the establishment of congressional and
29 legislative boundaries, but that we need also ask whether those considerations “though generally
30 permissible, were applied in an invidious manner or in a way unrelated to any legitimate
31 legislative objective” *Vieth*, 541 U.S. at 307 (Kennedy, J., concurring). In other words, did
32 “politics” go “too far” in infringing upon fundamental associational and representational rights?
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42 The available social-science tools are well-suited to be used to specify what counts as a
43 violation and what counts as a remedy. Re violation, for example, courts could require the
44 plaintiffs to establish that at least one seat now lost to partisan gerrymandering could have a
45 different partisan outcome in a remedial plan satisfying traditional redistricting criteria to the
46 same or greater extent than the challenged plan.⁶⁹ Such an approach is consistent with the
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52 ⁶⁹ Courts may, however, wish to set a higher threshold for partisan gerrymandering cases than
53 the Supreme Court did for racial gerrymandering cases. Also, the magnitude of the disparate
54 impact threshold chosen might vary with the number of seats in the legislature or the
55 congressional delegation at issue.
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3 Supreme Court's approach in Section 2 voting rights challenges, where the third prong of the
4 *Thornburg v. Gingles* test requires plaintiffs to demonstrate that a remedial plan would provide at
5 least one additional single member district with a geographically compact minority population
6 large enough to address the voting rights violation found.⁷⁰ In this context I note that (a) most
7 measures of asymmetry can be translated into a percentage or number of seats in a plan affected
8 by partisan bias, and (b) computer simulations using projected elections allow for estimating
9 partisan impact in terms of expectations about partisan seat balance. Alternatively, re the amount
10 of disparate impact needed to distinguish lawful politics as usual from unconstitutional egregious
11 partisan gerrymandering, the Court could use historical data to identify a threshold amount of
12 bias that is atypical or egregious (*Cf. Brown v. Thomson*, 462 U.S. 835, 842 (1983): "Our [one-
13 person-one-vote] decisions have established ... that a [state legislative] apportionment plan with
14 a maximum population deviation under 10% falls within this category of minor deviations" that
15 are generally not actionable).

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17 Similarly, if we look to specifying what is needed to find a violation, for causation,
18 courts might rely on jurisprudence in other civil rights arenas that look to evidence of statistical
19 patterns that are two or more standard deviations outside the norm. And, when we look to
20 evidence of durability, we can assess the likelihood that an existing partisan balance would be
21 perpetuated based on projections using historical patterns of electoral tides and evidence on
22 levels of competitiveness in the present districts. Finally, re intent, courts already regularly assess
23 intent in a variety of constitutional and statutory setting and can readily examine the history of
24 line drawing.

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26 Of course, it is not enough to operationalize standards to identify unconstitutional
27 partisan gerrymandering if these standards cannot be use to provide both internal and external
28 judicial manageability. By *external judicial manageability*, I mean the development of an easy to
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48 ⁷⁰ In *Bartlett v. Strickland*, 556 U.S. 1 (2009), in a plurality opinion, the Supreme Court
49 tightened the *Gingles* standard by requiring an initial showing that there existed a remedy plan
50 with at least one additional district in which the minority group constituted a majority of the
51 citizen voting age population. However, districts with a lower minority population may yet be
52 ones that present the minority community with an equal opportunity to elect candidates of
53 choices. Moreover, the packing of minority populations to an unnecessary extent can also be
54 evidence of racial gerrymandering and usually has partisan consequences as well.
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3 apply litmus test to screen out frivolous partisan gerrymandering challenges in a way that will
4 dramatically limit the cases that actually require a trial on the merits. By *internal judicial*
5 *manageability* I mean standards that have two important properties. First they can be clearly and
6 consistently applied to reach decisions. Second, they should be such that competent expert
7 witnesses reviewing quantitative data will provide similar or near identical results, so that once
8 courts have set legal thresholds the legal conclusions from that statistical evidence will follow in
9 a straightforward fashion.
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16 One example of both external and internal manageability in voting rights jurisprudence,
17 is the three-pronged test laid down in *Thornburg v. Gingles* 478 U.S. 30 (1986). Its standard of
18 multiple required elements screens out frivolous lawsuits, and the metrics it makes use are
19 precise enough and have well developed statistical tools for their measurement that competent
20 experts will make similar estimates.
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25 The approach to partisan gerrymander advocated here, specifying *necessary elements* of
26 any standard to be used to determine what constitutes an unconstitutional partisan gerrymander,
27 could be used to generate a test for unconstitutional partisan gerrymandering inspired by the
28 structure of (though largely substantively different from) the three-pronged test for vote dilution
29 laid down in *Thornburg v. Gingles* (1986). Like the *Thornburg* test it is based on a set of
30 *necessary conditions*. Like the *Thornburg* test it proposes metrics that are well defined in the
31 social science literature -- ones whose measurement is something competent experts can provide.
32 Thus, I believe it, too, satisfies both internal and external criteria of manageability. Each of its
33 parts (a) is relatively simple and can be explained intuitively in terms that any intelligent lay
34 person could understand (especially with use of maps and graphs),⁷¹ (b) is conceptually distinct,
35 (c) fits into a theoretical whole that satisfies our common sense understanding about what it is
36 that we are trying to prove, and (d) has statistical elements that themselves to the eventual
37 development of something like bright line legal thresholds. Moreover, rather than get into the
38 rather murky domain of fairness, it offers criteria based on neutral treatment.
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52 ⁷¹Not only are the three concepts of partisan asymmetry, durability and causation relatively
53 intuitive, but the methods for measuring them more transparent than the statistical methods that
54 courts routinely rely on in Voting Rights Act cases to infer how racial minorities vote. See
55 generally Grofman (2000).
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3 But once the courts have accepted concepts such as partisan asymmetry, durability, and
4 causation as critical to a finding of unconstitutional gerrymandering, the Court need not adopt a
5 mechanistic test, especially at the outset. Rather, the precise contours and evidentiary proofs
6 required can be fleshed out on a case-by-case basis—with the benefit of insights gained from
7 experience, the aid of competent experts, and the “crucible of adversarial testing on which
8 [courts] usually depend.” *Maslenjak v. United States* (137 S. Ct. 1918, 1931, 2017: Gorsuch, J.,
9 concurring). Indeed, that is how the jurisprudence has evolved with respect to every other
10 justiciable redistricting claim.⁷²

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12 For example, one-person-one-vote “jurisprudence, ... evolved through case-specific
13 challenges.” (*Holt*, 38 A.3d at 741; *id.* at 738-42). First, the U.S. Supreme Court held such claims
14 justiciable in *Baker v. Carr*, 369 U.S. 186 (1962). Then, in *Reynolds v. Sims*, 377 U.S. 533
15 (1964), it announced “the two concepts of ‘one person, one vote’ and the ‘equal population
16 principle,’” *Holt*, 38 A.3d at 740—without specifying which of various proposed metrics would
17 be used to evaluate compliance with that standard.⁷³ Instead, it allowed “[l]ower courts [to] work
18 out more concrete and specific standards for evaluating state legislative apportionment schemes
19 in the context of actual litigation.” *Reynolds*, 377 U.S. at 578. The standards and specific proofs
20 required in Voting Rights Act and racial-gerrymandering claims also evolved in the same
21 incremental fashion—as they have in antidiscrimination law more broadly. *See* Br. of Heather
22 Gerken, et al., *Gill v. Whitford*, No. 16-1161 (U.S. 2017), at 8-12. In all of these contexts, experts
23 developed multiple different metrics for analyzing whether the judicially pronounced standard

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⁷² The history of voting rights jurisprudence can largely be viewed as a movement from cases whose facts paint them as “horribles” to ones whose case facts are such that the “correct” result is far less obvious. Litigation, by and large, leads to incremental change in the law, and greater specificity, but there can be tectonic shifts, as when something like a bright line test (such as the three prongs of *Gingles*) replaces or supplements a less precise test such as one based on the “totality of the circumstances.” (Grofman, 1992)

⁷³ In the one person, one vote, and racial vote dilution the history of litigation can be seen as taking us from decisions about metrics (e.g., *total population deviation* versus *average population deviation* versus *minimum population needed to control a majority of the districts*), to decisions about standards. In particular, over a set of cases, the Supreme Court clarified how the standard for “one person, one vote” compliance is different for state legislatures than for Congress.

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3 was met; in none did courts pronounce at the very outset that a particular mathematical tool or
4 threshold was required.⁷⁴
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51 ⁷⁴“Clear and compelling evidence” is the standard proposed by Judge Baylson in his dissenting
52 opinion in the challenge to Pennsylvania’s congressional districts, *Agre v. Wolf* (Case 2:17-cv-
53 04392-MMB E.D. PA.; Document 213, filed January 10, 2018; slip op. at page 6), and while far
54 from precise, such a standard might be a starting point if, in using it, courts were to also to
55 identify the concepts /metrics that specify the relevant evidence.
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V. Discussion

There are three metrics derived from social science methods that we propose as critical to a finding of unconstitutional partisan gerrymandering: partisan asymmetry as a measure of disparate impact, effect durability, and statistical evidence based on simulated maps that can demonstrate that the observed partisan effects are not due to geographic or chance factors and the deviations from good government districting criteria could have been avoided. No one element is dispositive. Rather, each of these three discrete elements must be assessed separately. The first element, partisan asymmetry, considers whether and to what degree voters' representational rights have been burdened. The second, lack of responsiveness, considers whether the ordinary political process is able to provide a remedy. And the third, causation, ensures that disparate effects that can be explained as the result of neutral factors or of chance are not treated as unconstitutional. Rather, only invidious, intentional discrimination is actionable. Moreover, these metrics are not based on an abstract notion of fairness akin to a requirement that seat share equal the party's share of the overall vote. Rather they offer a standard of *neutral treatment* of the parties in allocating representational rights.

The ideas in this paper are very closely related to the approaches taken in *Whitford* and in *Rucho*. What I have sought to do is to lay out, from a social science perspective, both the relevant metrics that were central to the empirical findings in these opinions and the relevant social science tools for estimating these metrics, so as to demonstrate manageability. If a multi-pronged standard for partisan gerrymandering were to be adopted based on the metrics and methods discussed in this essay, courts will be able to apply it coherently and consistently across cases, to distinguish and identify those egregious partisan gerrymanders that go above and beyond normal politics to invidiously target opposition voters for unequal treatment.⁷⁵ I very much hope that courts will seize upon these ideas as a path out of the present morass. Otherwise, politicians will have every incentive to wield the technological advances in computer-based

⁷⁵ Any disparate burden on voters is measured relative to the baseline created by neutral factors (single-member, winner-take-all elections; compliance with constitutional requirements and the Voting Rights Act; the actual residential patterns of the electorate; map-drawing practicalities like contiguity and a respect for local subdivisions and communities of interests, and a preference for compact districts).

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3 districting and statistical assessment of future electoral outcomes to craft ever more egregious
4 partisan gerrymanders. Judicial abdication would ensure that officials are selected by the self-
5 dealing maps they enact, rather than elected by the people they ostensibly serve—locking into
6 place electoral advantages that are, for all practical purposes, impervious to changes by the
7 electorate.⁷⁶
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42 ⁷⁶ Moreover, failing to deal with partisan gerrymandering will not substantially reduce the
43 redistricting litigation coming to the courts. As long as they have no way to address egregious
44 partisan gerrymandering, litigants will seek to address pernicious and likely to be durable
45 partisan gerrymanders by bringing other sorts of challenges, including ones brought under a
46 *Shaw v. Reno* standard. Until the Supreme Court grasps the nettle of specifying a test for
47 unconstitutional partisan gerrymandering, present voting rights case law is flawed because it (a)
48 allows legislators to claim intentional and even egregious partisan gerrymandering as their
49 predominant motive as a way to escape racial gerrymandering claims under *Shaw*, thus forcing
50 complex trials that hinge on accusations of racial motive, (b) allows line drawers to use racial
51 gerrymandering to achieve partisan ends in such a fashion that, even if the racial
52 gerrymandering is reduced by remedy brought about by a *Shaw*-type lawsuit, this may still leave
53 untouched all or most of the partisan effects of the plan, and (c) there can be partisan effects of
54 line drawing *not* tied to race, which will go legally unchallenged/unchallengeable.
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