

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WISCONSIN

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WILLIAM WHITFORD, et al.,

Plaintiffs,

v.

Case No. 15CV421

GERALD NICHOL, et al.,

Defendants.

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**DEFENDANTS' BRIEF IN SUPPORT OF SUMMARY JUDGMENT**

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The Court should grant summary judgment to the defendants. The plaintiffs' proposed standard fails to measure whether "too much" partisanship entered into the districting process and fails to heed Justice Kennedy's call for "great caution" and a "limited and precise" rationale for judicial intervention.

The core of the plaintiffs' case relies on an "efficiency gap" standard that measures a redistricting plan compared to a hypothetical world in which there is no efficiency gap. But that world does not exist. Recent court-drawn Wisconsin plans enacted using neutral districting criteria come with a pro-Republican efficiency gap as a natural occurrence. The alleged gaps under Act 43 in the 2012 and 2014 elections, which the plaintiffs contend are so large as to show presumptive unconstitutionality, are remarkably similar to the gaps experienced in 2000, 2004, and 2006 under the most recent court-drawn plan. This shows that the efficiency

gap is a flawed way to measure partisanship in the districting process; the “gap” that purports to show partisan intent appears when there is no partisan intent.

Indeed, the plaintiffs’ own experts reveal that Wisconsin has merely experienced the same trend as the rest of the country—a pro-Republican efficiency gap that emerged in the mid-1990s and increased over time. This is a natural effect of the residential pattern of voters, not gerrymandering, and explains why Wisconsin has seen large efficiency gaps in favor of Republicans even under maps drawn with no partisan intent.

Further, the plaintiffs’ standard demands court intervention to a degree unimagined by Justice Kennedy in *Vieth v. Jubelirer*, 541 U.S. 267 (2004). Under Plaintiffs’ evidence, one out of every three plans since 1972 surpasses the proposed threshold for presumptive unconstitutionality of a 7% gap in the first election after redistricting. And one out of every three plans has a 10% efficiency gap at some point over the plans’ existence. This broad sweep shows the measure is flawed and not actually detecting extreme partisan gerrymandering.

Especially in light of these deficiencies, the plaintiffs have not overcome the “significant challenges in prevailing on their claims” that this Court recognized in its motion to dismiss ruling. (Dkt. 43:2.) The flaws in the plaintiffs’ statistical approach are compounded by their attempt to shift the burden once the gap reaches a certain point. This Court should reject the burden-shifting framework proposed because it is contrary to the basic idea that Plaintiffs bear the burden to make out a

full prima facie case, which is especially important when it comes to court intervention in redistricting—a task entrusted to the political branches.

Neither Justice Kennedy’s concurrence in *Vieth* nor any other authority supports the plaintiffs’ approach. Such drastic intrusion into the districting process cannot be supported by a standard based on the non-existent constitutional right for political parties to “to translate their popular support into legislative representation with approximately equal ease.” (Dkt. 31:18.) Because their proposed test fails under *Vieth*, this case should be dismissed at summary judgment as a matter of law.

## FACTS

This brief begins with a detailed examination of the efficiency gap and the plaintiffs’ expert reports. It then outlines the undisputed facts relating to elections that have occurred in Wisconsin in the 1990s, the 2000s, and in 2012 and 2014 under the current plan, and then provides context explaining why Wisconsin and the country as a whole saw efficiency gaps begin to favor Republicans in the mid-1990s, a trend that continues to the present day.

### **I. The efficiency gap in general**

The efficiency gap is central to the plaintiffs’ proposed legal standard. The plaintiffs claim that the efficiency gap measures “wasted votes,” defined as all votes cast for a losing candidate (which it counts as “cracking”) and all votes cast for a winning candidate in excess of the number needed to prevail (which it counts as “packing”). (PFOF ¶ 1.) The concept of the efficiency gap comes from an article

written in 2014 by Eric McGhee in Legislative Studies Quarterly and an article written by McGhee and Nicholas Stephanopolous in the University of Chicago Law Review. (PFOF ¶ 2.)

The plaintiffs have submitted reports by two expert witnesses, Kenneth Mayer and Simon Jackman, relating to the efficiency gap. Mayer relied on the formulas and methods outlined in the Chicago Law Review article in determining the efficiency gap. (PFOF ¶ 3.) Jackman also relied on the method outlined in the Chicago Law Review and was not familiar with the efficiency gap before being retained to work on this case. (PFOF ¶ 4.)

The plaintiffs have relied on two different versions of the efficiency gap. One is a district-by-district calculation in which the wasted votes cast for each party's candidates are added and "the difference between the parties' respective wasted votes" is then "divided by the total number of votes cast." (PFOF ¶ 5.) Mayer's report involves this type of calculation, although discovery has shown that he did not calculate the wasted votes that were actually cast in the 2012 election.

The plaintiffs also use a different method, which they have dubbed a "shortcut" for calculating the district-by-district version of the efficiency gap. (PFOF ¶ 6.) In order for this shortcut to equate with the district-by-district calculation, one needs to assume that there were an equal number of votes cast in each district. (PFOF ¶ 7.) Jackman's report involves this type of calculation of the efficiency gap.

## II. Mayer's report

### A. Mayer's calculation of the efficiency gap for Wisconsin in 2012

While Mayer performs district-by-district calculations related to the 2012 Assembly elections in Wisconsin, he does not tabulate the number of "wasted votes" that were cast in that election. Instead, Mayer has created a regression model with eight variables that generates "predicted Democratic and Republican votes [which] are model estimates of what the votes would have been if the race was contested and when there was no incumbent running." (PFOF ¶ 8.)

Mayer's model predicts the Assembly vote share for Democratic and Republican candidates in each ward using regressions based on the ward's total voting age population, total black voting age population, total Hispanic voting age population, President Obama's vote share, Mitt Romney's vote share, whether there is a Democratic incumbent, whether there is a Republican incumbent, and the county of the ward. (PFOF ¶ 9.) Mayer explains his model as follows:

The regression model used to predict Assembly vote totals takes the standard form of

$$Y_i = \alpha + \beta X_i + \varepsilon_i,$$

where  $Y_i$  is the dependent variable in ward  $i$ ,  $X_i$  is a set of independent variables in ward  $i$ , and  $\alpha$ ,  $\beta$ , and  $\varepsilon_i$  are parameters estimated as a function of the variables. The full model is:

$$\begin{aligned} \text{Assembly} \\ \text{Vote}_i &= \alpha + \beta_1 \text{Total VEP}_i + \beta_2 \text{Black VEP}_i + \beta_3 \text{Hispanic VEP}_i \\ &+ \beta_4 \text{Democratic} \\ &\quad \text{Presidential Vote}_i + \beta_5 \text{Republican} \\ &\quad \text{Presidential Vote}_i \\ &+ \beta_6 \text{Democratic} \\ &\quad \text{Incumbent}_i + \beta_7 \text{Republican} \\ &\quad \text{Incumbent}_i + \sum_{j=1}^{71} \gamma_j \text{County}_j + \varepsilon_i \end{aligned}$$

(PFOF ¶ 10.)

Mayer used only the 2012 election results in his model; it does not rely on the results of any other elections. (PFOF ¶ 11.)

Mayer's model does not show the actual wasted votes that were cast in the 2012 election. For example, in District 1, Mayer predicts that the Republican candidate would win 16,628 votes and the Democratic candidate would win 16,235 votes. (PFOF ¶ 12.) This generates 197 wasted votes for the Republicans and 16,235 wasted votes for the Democrats. (PFOF ¶ 13.) In the actual 2012 election, the Republican won with 16,993 votes and the Democrat lost with 16,124 votes. (PFOF ¶ 14.) In the actual election, there were thus 435 wasted votes for the Republicans and 16,124 wasted votes for the Democrats. (PFOF ¶ 15.)

Mayer's model predicts a significant number of seats incorrectly. He admits his model predicts two seats incorrectly (PFOF ¶ 16), but the model actually predicts five seats incorrectly (four predicted to be won by Democrats that were actually won by Republicans and one the other way). (PFOF ¶ 17.) The following table summarizes the errors, with predicted winners and actual winners in bold.

District	Mayer Dem. votes	Mayer Rep. votes	Actual Dem. Votes	Actual Rep. votes
50	<b>12,467</b>	12,326	11,945	<b>12,326</b>
51	<b>14,173</b>	13,048	10,577	<b>10,642</b>
68	<b>13,663</b>	13,005	12,482	<b>13,758</b>
70	12,211	<b>14,387</b>	<b>13,518</b>	13,374
72	<b>14,294</b>	13,895	14,029	<b>14,138</b>

(PFOF ¶¶ 18–27.)<sup>1</sup> Republicans won 60 seats in the 2012 Assembly elections (PFOF ¶ 29), yet Mayer’s model predicts only 57 Republican wins. (PFOF ¶ 30.) Mayer does not correct his model for what actually happened in the election; instead, he counts the wasted votes based on what his model predicts should have happened. (PFOF ¶ 31.)

For his model, Mayer admits in his report that “the average absolute error in the vote margin is 1.49%.” (PFOF ¶ 32.) However, the admitted rate is incorrect because the calculation assumes only two errors in the prediction of seats rather than the actual five. (PFOF ¶ 33.)

Mayer’s model of Act 43 contains 42 districts with at least a 50% Democratic baseline. (PFOF ¶ 34.) His model contains 17 seats that have a baseline between 50–55% Republican. (PFOF ¶ 35.) The following table shows these districts ordered from the least Republican to most Republican.

<b>District</b>	<b>Mayer Baseline Rep. %</b>
93	50.2%
1	50.6%
67	51.6%
29	52.2%
88	52.3%
4	52.3%
49	52.5%
27	52.7%
42	53.0%
26	53.3%
62	53.9%
31	54.1%
70	54.1%

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<sup>1</sup> Defendants use the GAB’s official election results because Mayer agrees that these numbers are “authoritative.” (PFOF ¶ 28.)

40	54.2%
28	54.6%
30	54.7%
21	54.9%

(PFOF ¶¶ 36-52.)

Mayer did not produce a model to predict the results of the 2014 election either under the current plan or his Demonstration Plan. (PFOF ¶ 53.)

**B. Mayer's use of the model produced for the legislature by Professor Gaddie**

Mayer also offers an opinion of the efficiency gap using an analysis done by Professor Ronald Keith Gaddie, who assisted the legislature in the districting process. The plaintiffs' claim that Gaddie's model forecast the eventual efficiency gap of the 2012 election, *see, e.g.*, Compl. ¶ 36, but Gaddie did not calculate an efficiency gap because the efficiency gap did not emerge until 2014. And Gaddie's analysis did not estimate the number of votes that would be cast in each district, which is an essential element of calculating Mayer's version of the efficiency gap. (PFOF ¶ 54.)

Mayer derives a "Gaddie" efficiency gap by plugging Gaddie's percentages for the Republican and Democratic vote into Mayer's regression model for estimating the results of Act 43. (PFOF ¶ 55.) Mayer made one error in translating Gaddie's data. Gaddie predicted the 86th District would have 55.08% Republican vote share, but Mayer uses 48.38%. (PFOF ¶ 56.) Mayer incorrectly repeated the Republican percentage for the 85th District (48.38%) in the 86th District. (PFOF ¶ 57.)



While the plaintiffs' claim that Gaddie's model forecasts the eventual efficiency gap of the 2012 election (PFOF ¶ 58), this is largely an accident. Gaddie's model predicts the incorrect winner in seven races in the 2012 election (7.1% of seats). The following table summarizes predicted winners and actual winners in bold:

District	Gaddie R%	Actual 2012 R%
49	49.59%	<b>54.19%</b>
51	46.23%	<b>51.85%</b>
68	49.38%	<b>52.39%</b>
70	<b>50.73%</b>	49.65%
75	<b>52.18%</b>	48.85%
94	<b>51.91%</b>	39.38%
96	46.40%	<b>59.52%</b>

(PFOF ¶¶ 59 – 72)

The model likewise predicts the incorrect winner in six races in the 2014 election, undercounting five Republican wins.

District	Gaddie R%	Actual 2014 R%
49	49.59%	<b>61.38%</b>
51	46.23%	<b>47.48%<sup>2</sup></b>
68	49.23%	<b>52.82%</b>
85	48.38%	<b>50.19%</b>
94	<b>51.91%</b>	45.94%
96	46.40%	<b>58.91%</b>

(PFOF ¶¶ 73-77, 80-87)

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<sup>2</sup> The Republican won in District 51 with less than 50% of the vote because an independent candidate won 5.25% of the vote. (PFOF ¶ 78.) When calculated as a percentage of the two-party vote, the Republican won with 50.15%. (PFOF ¶ 79.)

### C. Mayer's Demonstration Plan

Mayer creates an alternative plan, called the Demonstration Plan. (PFOF ¶ 88.) Mayer calculates an efficiency gap based on his regression model as applied to the Demonstration Plan. (PFOF ¶ 89.) Mayer's regression model is based on the specific conditions of the 2012 election—something which the drafters of Act 43 could not have known in 2011. (PFOF ¶ 90.)

While the plaintiffs contend the Demonstration Plan is roughly equivalent to Act 43 in terms of population deviation, compactness, number of municipal splits, and Voting Rights Act compliance, Mayer was unwilling to say that his plan was superior to Act 43, particularly when it came to keeping communities of interest together, which he said was “a very loose and subjective standard that can be difficult to do.” (PFOF ¶ 91.)

Mayer predicts that his Demonstration Plan would yield 51 Democratic seats and 48 Republican seats under 2012 conditions, which would still produce a gap of 62,414 wasted votes and a 2.20% efficiency gap in favor of Republicans. (PFOF ¶ 92.) Mayer achieves this result by creating seventeen districts that are 50%–55% Democratic under his model. (PFOF ¶ 93.) Below is a table showing these districts, ordered from the least Democratic to the most Democratic.

<b>Demonstration Plan District</b>	<b>Predicted Dem. Vote %</b>
49	50.3%
92	50.5%
86	50.7%
96	51.5%
91	51.7%
81	51.8%
40	51.9%

42	51.9%
67	51.9%
71	52.1%
20	52.3%
29	52.3%
51	52.6%
64	52.8%
54	53.4%
57	53.4%
2	54.1%

(PFOF ¶¶ 94-110.) These baselines were determined using the 2012 election environment (PFOF ¶ 111), in which Jackman calculates Democrats won 51.4% of the statewide vote. (PFOF ¶ 112.) Mayer did not create a model to show how these districts would have performed in the 2014 election environment (PFOF ¶ 113), in which Democratic vote share fell 3.4% down to 48.0%. (PFOF ¶ 114.)

### III. Jackman's Report

#### A. Jackman's version of the efficiency gap

As noted above, Jackman calculates a version of the efficiency gap, which he shortens to *EG*, that assumes an equal number of votes are cast in each district. (PFOF ¶ 115.) Jackman's report and the plaintiffs' filings are therefore incorrect when they suggest that this version of the efficiency gap assumes districts of "equal population" because the number relevant to "wasted votes" is the number of *votes*, not the number of residents in a district. (PFOF ¶ 116.)

Wisconsin does not have equal turnout across districts. (PFOF ¶ 117.) In Wisconsin's 2012 Assembly elections, the turnout in individual districts varied from just over 8,000 votes in District 8 to over 37,000 votes in District 14. (PFOF ¶ 118.) In Wisconsin's 2014 elections, the turnout in individual districts varied from

approximately 6,400 votes in District 8 to over 31,400 votes in District 23. (PFOF ¶ 119.)

After making the assumption of equal turnout, Jackman's efficiency gap is calculated using statewide vote shares and seat shares: "the average (over districts) of the Democratic share of the two-party vote" corresponds "to the Democratic share of the state-wide two-party vote," which Jackman refers to as  $V$ . (PFOF ¶ 120.) The efficiency gap is then calculated by comparing the seat share the party won, which Jackman refers to as  $S$ , to the seat share expected under a zero-efficiency gap environment: "For any given observed  $V$ , the hypothesis of zero efficiency gap tells us what level of  $S$  to expect." (PFOF ¶ 121.)

The hypothesis of zero efficiency gap "implies that *if the efficiency gap is zero*, we obtain a particular type of seats-votes curve," which is "is linear through the 50-50 point with a slope of 2." (PFOF ¶ 122.) This means that "each additional percentage point of vote share for party A generates *two* additional percentage points of seat share." (PFOF ¶ 123.) For example, 51% vote share should result in 52% seat share, 52% vote share should result in 54% seat share, 53% vote share should result in 56% seat share, and so on. (PFOF ¶ 124.)

Jackman claims that the efficiency gap is an "excess seats" measure based on "the party winning more seats than we'd expect given its vote share ( $V$ ) and if wasted vote rates were the same between the parties." (PFOF ¶ 125.) The efficiency gap is observed by comparing "how far the observed  $S$  lies above or below the orange

line in Figure 4” of his report, which represents the seat share called for by the zero efficiency gap hypothesis. (PFOF ¶ 126.) His Figure 4 shows the following:

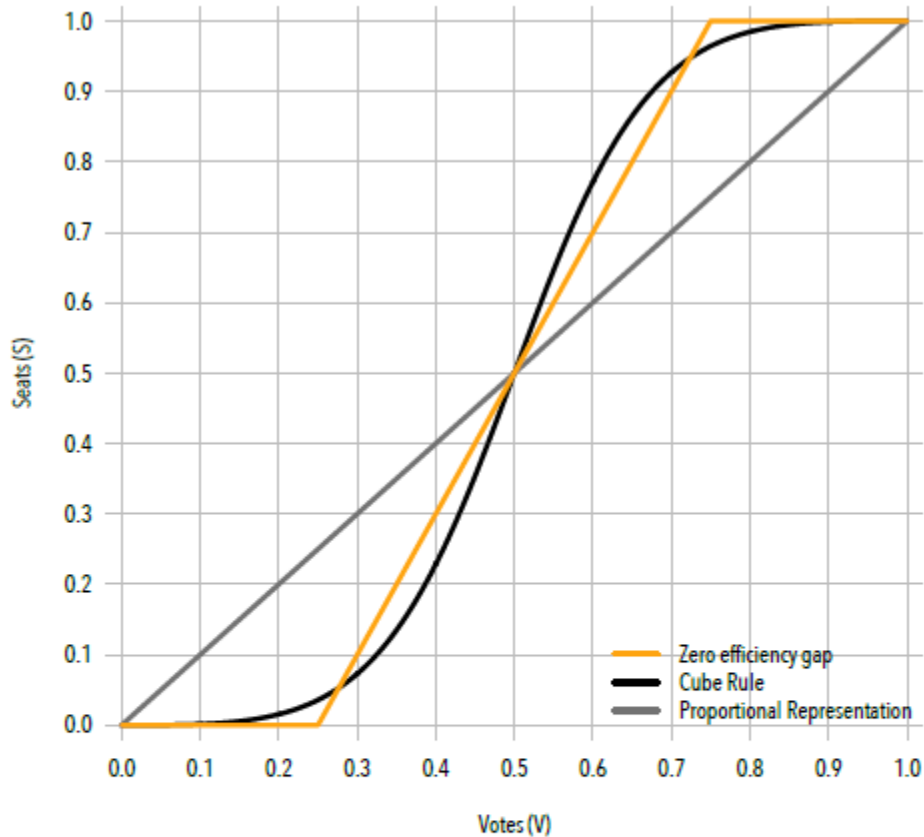


Figure 4: Theoretical seats-votes curves. The  $EG = 0$  curve implies that (a) a party winning less than  $V = .25$  jurisdiction-wide should not win any seats; (b) symmetrically, a party winning more than  $V = .75$  jurisdiction-wide should win all the seats; and (c) the relationship between seat shares  $S$  and vote shares  $V$  over the interval  $V \in [.25, .75]$  is a linear function with slope two (i.e., for every one percentage point gain in vote share, seat share should go up by two percentage points).

(PFOF 124.)

This framework is illustrated by the hypothetical election from paragraph 50 of the plaintiffs’ complaint (and cited in this court’s decision on the motion to dismiss) of 5 districts each with 100 voters. Party A wins three districts by 60 votes

to 40 votes, and Party B wins two districts by 80 votes to 20 votes. (Compl. ¶ 50.) Party B obtained a vote share of 56% (280 of 500 votes) and a seat share of 40% (2 of 5). The zero efficiency gap hypothesis calls for 56% vote share to translate into a 62% seat share. (PFOF ¶ 127.) These elections result in a 22% efficiency gap—the difference between the 62% expected seat share and the 40% actual seat share.

Jackman rounds his efficiency gap calculations to the nearest percent (or .01 as decimal) based on his comfort with “digits of precision.” (PFOF ¶ 128.)

## **B. Jackman’s historical analysis**

Jackman calculates the efficiency gap for 786 state legislative elections that occurred from 1972 to 2014. (PFOF ¶ 129.) He computes the  $V$  (two-party vote share for the Democratic candidates) and  $S$  (seat share for Democrats) in each election. (PFOF ¶ 130.) The  $EG$  is then calculated using the process described above that compares the actual seat share obtained against the seat share called for by the zero efficiency gap hypothesis. (PFOF ¶ 131.)

### **1. Determining seat share**

Seat share is straightforward—it is the percentage of seats won by Democratic candidates—with one caveat. If a seat is won by a third-party candidate that is not a Republican or a Democrat, then this seat is disregarded. (PFOF ¶ 132.) For example, if one independent won a Wisconsin Assembly seat, the seat share would be calculated using 98 seats, rather than the full 99 seats.

## **2. Determining vote share**

Unlike Mayer, Jackman calculates vote share using the actual votes cast in an election rather than a regression model that predicts the votes that would have been cast if no incumbents had run. (PFOF ¶ 133.) Like Mayer, Jackman adjusts the raw vote totals by imputing vote shares for uncontested races, which he finds are 38.7% of races. (PFOF ¶ 134.) Jackman uses two different methods for imputing vote shares depending on the type of data available. (PFOF ¶ 135.) In one, Jackman “relied on a modeling procedure that used presidential vote tabulated by state legislative district from the most temporally proximate presidential election” when such data became available in the 2000s. (PFOF ¶ 136.) When such data were not available, Jackman models results by “interpolating unobserved Democratic votes shares given (1) previous and future results for a given district; (2) statewide swing in a general election; and (3) the change in incumbency status of a given district.” (PFOF ¶ 137.)

## **3. Uncertainty in Jackman’s calculations**

The presence of imputed vote totals leads to uncertainty in Jackman’s calculation of vote share, which “generates uncertainty in determining how far each point lies above or below the orange, zero efficiency gap benchmark.” (PFOF ¶ 138.) Thus, Jackman expresses his *EG* calculations as “point estimates” with lines indicating a 95% level of confidence. (PFOF ¶ 139.) Jackman has less confidence in the “point estimate” of his *EG* as the number of uncontested seats increases. (PFOF ¶ 140.)

**4. Jackman finds a trend in the efficiency gap favoring Republicans over time**

Jackman finds that “[t]he distribution of *EG* measures trends in a pro-Republican direction through the 1990s, such that by the 2000s, *EG* measures were more likely to be negative (Republican efficiency over Democrats).” (PFOF ¶ 141.) Jackman finds this by plotting the efficiency gap of each plan in each year from lowest to highest (from most favorable to Republicans to least) and then calculating the *EG* of the 25th percentile plan, the median plan and the 75th percentile plan. (PFOF ¶ 142.)

The efficiency gap of the median plan has been negative (favorable to Republicans) since the mid-1990s. (PFOF ¶ 143.) The most favorable median toward Democrats since 2000 was in 2010. (PFOF ¶ 144.) The 25th percentile has been below 5% since the mid-1990s and even approached 7% in 2004, 2010, and 2012. (PFOF ¶ 145.) The 75th percentile has been below 5% since the mid-1990s and has hovered between 1% and 2% since 2000. (PFOF ¶ 146.)

Jackman’s calculation of the “the probability that a given efficiency gap number from a given election year is positive or negative” also shows a trend in favor of Republicans. (PFOF ¶ 147.) He finds that in every election year since 1996, more plans have had negative efficiency gaps than positive ones. (PFOF ¶ 148.) In 2006, 75% of plans produced a negative efficiency gap while only 25% of plans produced a positive efficiency gap, with similar results in 2000 and 2012. (PFOF ¶ 149.) Since 1996, the best year for the Democrats was 2010, in which there was a 50-50 probability of a plan being negative. (PFOF ¶ 150.)



The trend in favor of Republicans is echoed in the Stephanopolous and McGhee law review article, which found that “the trend has been from a modest edge for Democrats in the 1970s (1.32%) and 1980s (1.27%), to ever larger advantages for Republicans in the 1990s (-1.17%), 2000s (-2.01%), and 2012 (-3.48%).” Stephanopolous & McGhee, 82 U. Chi. L. Rev. at 872.

**5. Jackman’s proposed threshold for presumptive unconstitutionality**

Jackman opines that a plan that has an efficiency gap of 7% in the first election after redistricting should be presumptively unconstitutional. (PFOF ¶ 151.) In determining that number, the key fact Jackman considers is whether the *EG* would flip sign throughout the course of the plan; *i.e.* whether a plan would change from negative to positive or vice versa. (PFOF ¶ 152.) In his report, he opines that “[i]t is especially important that we assess the durability of the sign of the *EG* measure.” (PFOF ¶ 153.)

**a. Jackman’s determination of the 7% threshold**

Jackman’s analysis focuses on determining a threshold for the *EG* in the first election under a plan from which he could be confident that the sign of the plan would not change. (PFOF ¶ 154.) He chooses to look at the first election in the plan because he “tried to put [himself] in the shoes of litigants” who would have to “intervene early before we’ve seen much data all from the plan, the election results the plan is throwing off.” (PFOF ¶ 155.)

Jackman first calculates the proportion of plans that produced an efficiency gap in excess of a particular threshold in the first election and then calculated the

proportion of the plans in each subclass that produced an election with an efficiency gap of the opposite sign. (PFOF ¶ 156.)<sup>3</sup> Jackman does two calculations, one for the entire set of elections since 1972 and then another for elections since 1991.

For all plans since 1972, Jackman finds that 36% of all plans produced an efficiency gap of 7% or greater in the first election: 18% on the positive side and 18% on the negative side. (PFOF ¶ 158.) Since 1991, 34% of all plans produced an efficiency gap greater than 7% in the first election: 22% produced a gap of at least -7% and 12% percent produced a gap of at least +7%. (PFOF ¶ 159.)

For all plans since 1972, Jackman finds that 18% of plans that had an *EG* of at least -7% go on to produce an election with a positive *EG*. (PFOF ¶ 160.) He finds that 40% of plans that produce an *EG* of at least +7% in the first election go on to produce an election with a negative *EG*. (PFOF ¶ 161.) Since 1991, Jackman finds that 18% of plans that produce an *EG* of at least -7% in the first election go on to produce an election with a positive *EG*. (PFOF ¶ 162.) He finds that 60% of plans that produce an *EG* of at least +7% in the first election go on to produce an election with a negative *EG*. (PFOF ¶ 163.)

**b. Jackman finds negative *EGs* are more common and more likely to be durable**

Jackman finds that elections favoring Republicans in the first election are much more common than those favoring Democrats. (PFOF ¶ 164.) Jackman says that “we seldom see a plan in the 1990s or later that commence with a large-pro

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<sup>3</sup> Jackman’s figures use red and blue squares spaced at each half percent (.005). (PFOF ¶ 157.) For example, there is a dot at 0.5% (.005), 1%, (.001), 1.5% (.0015), and so on.

Democratic efficiency gap.” (PFOF ¶ 165.) In fact, the probability that the first election has an efficiency gap greater than 5% “is only about 11%.” (PFOF ¶ 166.) In contrast, negative efficiency gaps “are much more likely under the first election in post-1990 plans: almost 40% of plans open with  $EG < -.05$  [-5%] and about 20% of plans open with  $EG < -.10$  [-10%].” (PFOF ¶ 167.)

Based on the discrepancy between the likelihood of sign change between negative and positive efficiency gaps, Jackman concludes that “pro-Democratic efficiency gaps seem much more fleeting than pro-Republican efficiency gaps.” (PFOF ¶ 168.) A Democratic advantage is “not a durable feature” whereas a Republican advantage “tends to be a more durable feature of a plan.” (PFOF ¶ 169.) This trend becomes “even more pronounced in the analysis that focuses on recent decades.” (PFOF ¶ 170.)

**c. Jackman’s confidence in his threshold**

To determine his confidence in a threshold, Jackman set out to determine the proportion of plans “if left undisturbed, would go on to produce a sequence of  $EG$  measures that lie on the same side of zero as the threshold.” (PFOF ¶ 171.) Jackman finds that a 7% threshold acceptable because “at that threshold, 96 percent of plans are either not tripping that threshold or if they are, they’re continuing to produce efficiency gaps on that side of zero.” (PFOF ¶ 172.) As noted above, one third of all plans trip Jackman’s threshold. He thinks this number is acceptable because these plans are unlikely to change sign. (PFOF ¶ 173.)

**d. Jackman's findings when not focused solely on a plan's first election**

Jackman finds that “plans with at least one election” of an efficiency gap of 7% or greater “are reasonably common.” (PFOF ¶ 174.) In addition, an *EG* of 7% or greater “is not a particularly informative signal with respect to the other elections in the plan.” (PFOF ¶ 175.) Jackman finds that 53% of plans since 1972 have one election with an *EG* of 7% or greater, with 29% of plans having a gap of -7% or greater and 25% of plans having a gap of +7% or greater. (PFOF ¶ 176.) When looking at plans since 1991, 47% of plans have had at least one election with an *EG* greater than 7%, with 38% of plans having an election with a gap of -7% or greater and 19% of plans having an election with an gap of +7% or greater. (PFOF ¶ 177.)

In fact, Jackman's analysis shows that an *EG* of 10% is not that uncommon. Since 1972, 33% of plans have had an election with an *EG* of 10% or higher, with 18% having an election with a gap of -10% and 15% having an election with an gap of +10%. (PFOF ¶ 178.) When looking just at elections since 1991, 35% of plans have had an election with an *EG* of at least 10%, with 24% of plans having had an election with a gap of -10% and 11% of plans having had an election with a gap of +10%. (PFOF ¶ 179.)

**e. Jackman's findings on plans that unambiguously favor one party**

Jackman found that 17 of the 141 plans for which he could calculate three or more efficiency gaps (12%) were “*utterly unambiguous* with respect to the sign of the efficiency gap,” *i.e.*, that even the confidence level bar did not cross over to the other

sign. (PFOF ¶ 180.) Of these seventeen plans, sixteen of them were favorable to the Republicans and only one was favorable to the Democrats. (PFOF ¶ 181.)

Jackman does not analyze whether these plans were partisan districting in the sense of one party controlling the districting process. (PFOF ¶ 182.) When one considers this fact, only seven of seventeen plans featured unified partisan control over the districting process. (PFOF ¶ 183.) In fact, one of the “utterly unambiguous” plans was the Wisconsin 2002 Plan put in place by the federal court in *Baumgart v. Wendelberger*, No. 01-C-0121, 2002 WL 34127471, at \*1 (E.D. Wis. May 30, 2002), *amended*, 2002 WL 34127473 (E.D. Wis. July 11, 2002). (PFOF ¶ 184.)

Further, the sign of the efficiency gap does not necessarily correlate to control of the state legislature. In five of the seven plans enacted under unified party control, the party in control of the state house changed despite the fact that the efficiency gap stayed as the same sign. (PFOF ¶ 185.)

**6. Jackman’s calculations of the efficiency gap following the 2010 round of redistricting**

Jackman calculated *EGs* for the 2012 and 2014 elections for 39 states. (PFOF ¶ 186.) Fifty-one point estimates were negative (65.4%) while twenty-seven were positive (34.6%). (PFOF ¶ 187.) In eighteen states (46%), both point estimates were negative. (PFOF ¶ 188.) Included among this eighteen were Minnesota, Missouri, New York, and Kansas. (PFOF ¶ 189.)

#### **IV. Facts related to elections in Wisconsin**

##### **A. Districting following the 1990 census**

Following the 1990 census, a panel of three federal judges drew Wisconsin's legislative districts. *Prosser v. Elections Bd.*, 793 F. Supp. 859, 862 (W.D. Wis. 1992). The court used parts of two plans submitted in the case, one by Republicans and one by Democrats, and “preserve[d] their strengths, primarily population equality and contiguity and compactness, and avoid[ed] their weaknesses.” *Id.* at 870. This court-drafted plan, referred to as the “1992 Plan,” was in effect for the 1992, 1994, 1996, 1998, and 2000 elections.

##### **B. Districting following the 2000 census**

Following the 2000 census, another three-judge panel drew Wisconsin's legislative districts. *Baumgart*, 2002 WL 34127471, at \*1. The court drew its plan “in the most neutral way it could conceive—by taking the 1992 reapportionment plan as a template and adjusting it for population deviations.” *Id.* at \*7. The court found that “Wisconsin Democrats tend to be found in high concentrations in certain areas of the state, and the only way to assure that the number of seats in the Assembly corresponds roughly to the percentage of votes cast would be at-large election of the entire Assembly[.]” *Id.* That court-drafted plan, referred to as the “2002 Plan,” was in effect for the 2002, 2004, 2006, 2008, and 2010 elections.

##### **C. Assembly election results under the two court-drawn plans**

In elections held under the 1992 and 2002 Plans, the Republicans failed to win control of the Assembly two times: in 1992 and 2008. (PFOF ¶ 190.) The results

of those elections are summarized in the following chart, with the party in control in bold.

Year	Rep. Seats	Dem. Seats	Ind. Seats
1992	47	<b>52</b>	
1994	<b>51</b>	48	
1996	<b>52</b>	47	
1998	<b>55</b>	44	
2000	<b>56</b>	43	
2002	<b>58</b>	41	
2004	<b>60</b>	39	
2006	<b>52</b>	47	
2008	46	<b>52</b>	1
2010	<b>60</b>	38	1

(PFOF ¶¶ 191-200.) Under the court-drawn plans, the Democrats never achieved a seat total above 52 seats. (PFOF ¶¶ 191-200.)

#### D. Jackman’s findings on the Wisconsin’s efficiency gaps

When Jackman analyzed each Wisconsin Assembly election since 1972, he found that Wisconsin’s *EG* has ranged from +2% (in 1994) to -14% (in 2012). (PFOF ¶ 201.) Disregarding results from the current plan, the lowest *EG* was -12% (in 2006). (PFOF ¶ 202.) Thus, the most favorable *EG* towards Democrats since 1972 has been 2%, which notably occurred in 1994 when the Republicans gained control of the Assembly. (PFOF ¶ 203.)

Specifically, Jackman finds that “Wisconsin has recorded an unbroken run of negative *EG* estimates from 1998 to 2014.” (PFOF ¶ 204.) The last positive *EG* was the 2% from 1994. (PFOF ¶ 205.) With respect to the 2002 Plan, Jackman calculates an average efficiency gap of -8%, with -12% as the most favorable year to Republicans and -4% as the most favorable year to Democrats. (PFOF ¶ 206.)

A summary of Jackman's efficiency gap calculations for elections under the 1992 and 2002 Plans is contained in the following table with numbers rounded to the nearest quarter of a percent.

<b>Year</b>	<b>Dem. <i>V</i></b>	<b>Implied <i>S</i> under Zero <i>EG</i></b>	<b>Actual <i>S</i></b>	<b><i>EG</i></b>
1992	52.25%	54.5%	52.5%	-2%
1994	48.25%	46.5%	48.5%	+2%
1996	48.75%	47.5%	47.5%	0%
1998	51%	52%	44.5%	-7.5%
2000	49.75%	49.5%	43.5%	-6%
2002	49.5%	49%	41.5%	-7.5%
2004	50%	50%	40%	-10%
2006	54.75%	59.5%	47.5%	-12%
2008	54%	58%	53%	-5%
2010	46.5%	43%	39%	-4%

(PFOF ¶¶ 207-216.)

#### **E. The 2008 and 2012 elections**

In 2008, the Democrats won control of the Assembly for the first time since 1992. (PFOF ¶ 219.) Senator Obama carried Wisconsin with 56.22% of the total vote (and 57.05% of the two-party vote). (PFOF ¶ 220.) Assembly Democrats ran about two points behind Obama in the two-party vote. (PFOF ¶ 221.)

In the November 2010 election, however, Republican candidates won the Governor's office, a majority in the State Senate and retook the majority in the Assembly. (PFOF ¶ 222.) Scott Walker won the Governor's office with 52.25% of the total vote (52.9% of the two-party vote). (PFOF ¶ 223.) Republicans won 60 seats in the Assembly. (PFOF ¶ 224.) Republicans secured 53.5% of the two-party vote share. (PFOF ¶ 225.)



The complaint lists 20 districts as having been won by Democratic candidates in the 2008 election that have allegedly been cracked by the current plan. (PFOF ¶ 226.) However, in the 2010 elections prior to the current plan, the Republicans won eight of these districts (Districts 2, 5, 26, 42, 68, 72, 88, and 93), and an independent won one (District 25). (PFOF ¶ 227.)

**F. The 2012 and 2014 elections**

Following their wins in the 2010 elections, the Republican legislature and Governor passed Act 43, which laid out the new Assembly Districts. *See* 2003 Wisconsin Act 43. With the exception of a change to two districts made by a federal court under the Voting Rights Act, *Baldus v. Wisconsin Government Accountability Board*, 849 F. Supp. 2d 840, 854-58 (E.D. Wis. 2012), Act 43 governed the 2012 and 2014 Assembly elections.

On June 5, 2012, Governor Walker survived a recall attempt with 53.08% of the vote (53.4% of the two-party vote). (PFOF ¶ 228.)

In November 2012, President Obama won Wisconsin in the presidential election with 52.83% of the total vote (53.5% of the two-party vote). (PFOF ¶ 229.) Wisconsin's Democratic candidates for the Assembly again ran about two points behind the President's vote share. Jackman calculates that Democrats had a two-party vote share of 51.4%. (PFOF ¶ 230.)

In November 2014, the Republicans increased their control of the Assembly by winning 63 seats, equating to a 63.6% seat share. (PFOF ¶ 231.) Jackman calculates that Republicans' two-party vote share was 52%. (PFOF ¶ 232.)

The following chart contains a summary of Jackman's *EG* calculations for the 2012 and 2014 elections.

<b>Year</b>	<b>Dem. V</b>	<b>Implied S under Zero <i>EG</i></b>	<b>Actual S</b>	<b><i>EG</i></b>
2012	51.4%	52.8%	39.4%	-13.4%
2014	48.0%	46.0%	36.4%	-9.6%

(PFOF ¶¶ 217-218.)

#### **V. Reasons why the efficiency gap favors Republicans**

Jackman notes a trend of districting plans favoring Republicans in converting statewide vote totals into legislative seats, beginning in the mid-1990s and continuing to the present day. He also found that beginning in the mid-1990s negative efficiency gaps have become more common than positive efficiency gaps, that the median *EG* has been more favorable to Republicans, that the 25th percentile plan is more favorable to the Republicans than the 75th percentile plan is favorable to Democrats, and that positive *EGs* are fleeting occurrences while negative *EGs* are durable. (PFOF ¶¶ 164-170.) Jackman measures the results, but he provides no explanation for the trends he sees.

The defendants' experts, Professor Nicholas Goedert of Lafayette University and elections analyst Sean Trende of RealClearPolitics.com, explain why these trends have occurred. Simply put, the nature of the Republican and Democratic coalitions has shifted over time to one in which Democrats have become ever more concentrated in large urban areas that are naturally packed with wasted votes,

while Republican support is more geographically spread out and thus more easily translated into legislative seats.

**A. Recent developments in political science show Democrats are disadvantaged by geography**

Both Goedert and Trende rely on recent work by political scientists Jowei Chen of the University of Michigan and Jonathan Rodden of Stanford University. (PFOF ¶ 233.) Chen and Rodden have found “that in many states, Democrats are inefficiently concentrated in large cities and smaller industrial agglomerations such that they can expect to win fewer than 50% of the seats when they win 50% of the votes.” Jowei Chen and Jonathan Rodden, *Unintentional Gerrymandering: Political Geography and Electoral Bias in Legislatures*, 57 *Quarterly Journal of Poli. Sci.* 239, 239 (2013) (attached as Exhibit 112 to the Declaration of Brian P. Keenan). Chen and Rodden “used automated districting simulations” that created randomized districts in the State of Florida, the results of which show “a strong relationship between the geographic concentration of Democratic voters and electoral bias favoring Republicans.” *Id.* at 240. In fact, Chen and Rodden found that for Florida their “two simulated districting procedures are unable to produce a single districting plan that is neutral or pro-Democratic in terms of electoral bias.” *Id.* at 257. In an analysis of fifteen other states, they found that “[a]verage bias in favor of Republicans is substantial — surpassing 5% of legislative seats — in around half the states for which simulations were possible.” *Id.* at 262.

Trende analyzes the differences in the election results in 1996 and 2012 in the West South Central region of the country, made up of Texas, Oklahoma,

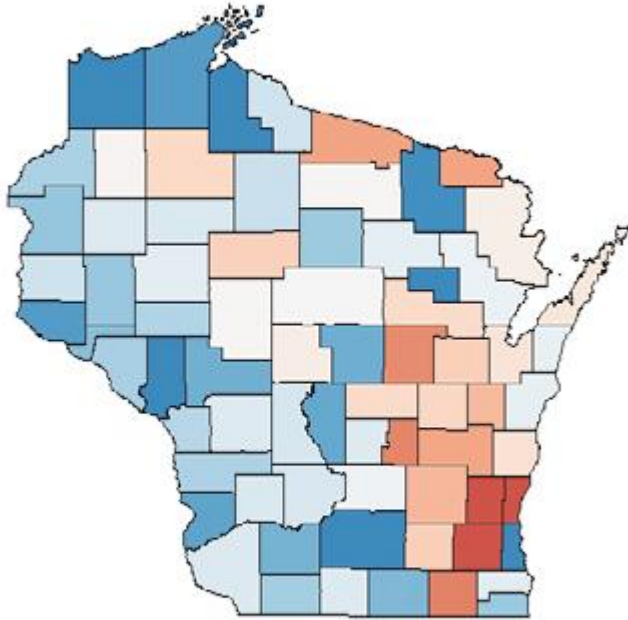
Arkansas, Louisiana, Alabama, Mississippi, Tennessee, and Kentucky, to provide an example of the Democrats' increased clustering. (PFOF ¶ 234.) In 1996, President Clinton's "support in the region was geographically dispersed, which allowed him to carry around 54 percent of the Congressional districts in the region." (PFOF ¶ 235.) In 2012, however, Obama's "coalition shrank geographically" with Obama winning "only 23 percent of the Congressional Districts in the region, with Democrats winning 39 percent of the seats. The latter number fell to 26 percent in 2010." (PFOF ¶ 236.)

**B. Democrats are becoming more concentrated in Wisconsin**

Trende also calculates the Partisan Index (PI) of each county in Wisconsin in 1996 and 2012 as a way to show the change in the partisan makeup of the state. (PFOF ¶ 237.) The Partisan Index compares the share of the two-party vote in a jurisdiction compared to the national share of the vote (PFOF ¶ 238); thus it is a way to "control for national effects, and compare results across elections." (PFOF ¶ 239.) Trende color codes each county with red for pro-Republican PI and blue for pro-Democratic PI, with darker colors indicating stronger PIs. Using PI is a good comparison for 1996 and 2012 because Wisconsin "was almost identically as Democratic in 2012 as it was in 1996." (PFOF ¶ 240.)

The Democratic Party's support in 1996 was broad-based throughout the state, as shown by the 1996 map of County PI.

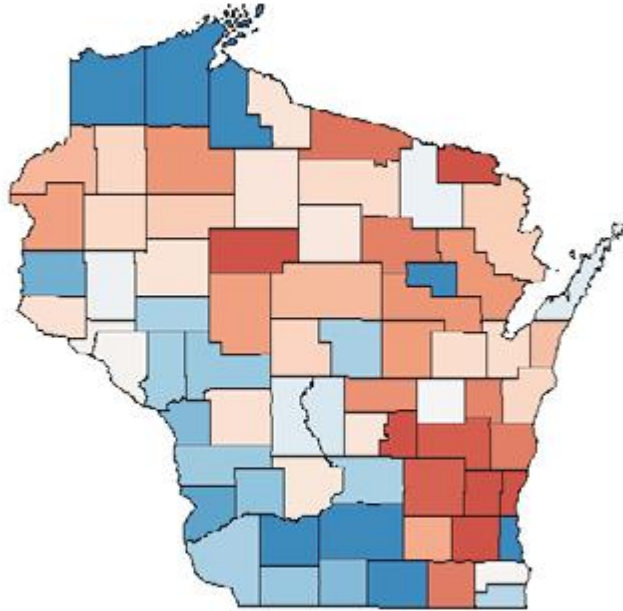
## Wisconsin County PI 1996



(PFOF ¶ 241.)

By 2012, however, the story was different. While “the state was almost identically as Democratic in 2012 as it was in 1996, only 27 counties retained a Democratic lean in the latter year, or just 37.5 percent of the state. Moreover, these counties were geographically concentrated, in the southwestern portion of the state, in the far northwest, and in Milwaukee.” The 2012 map is as follows:

## Wisconsin County PI 2012



(PFOF ¶ 242.)

From 1996 to 2012, Republican support spread throughout much more of the state and Democratic support became more concentrated in its strongholds. (PFOF ¶ 243.) In 1996, Clinton won Milwaukee, Dane, and Rock Counties with 64% of the two-party vote but still managed to carry the rest of the state with 52% of the vote, a difference of twelve percent. (PFOF ¶ 244.) In 2012, Obama received more support in Milwaukee, Dane, and Rock Counties—69% of the vote—but lost the rest of the state by 47% to 53%, a difference of twenty-two percent. (PFOF ¶ 245.)

## STANDARD OF REVIEW

This case is unusual in that a summary judgment motion usually tests whether there is a genuine issue of material fact as to whether a claim meets the applicable legal standard. *See* Fed. R. Civ. P. 56(a). In this case, however, there is no governing legal standard; the legal standard itself is the issue in dispute between the parties. The Court should grant summary judgment to the defendants because the undisputed facts, including the facts contained in the plaintiffs' expert reports, show that the plaintiffs' proposed standard is neither a judicially discernible nor judicially manageable standard for judging partisan gerrymandering claims. Because the plaintiffs propose the same standard for measuring a claim under the Fourteenth Amendment and the First Amendment, both claims fail for the same reasons.

## ARGUMENT

The plaintiffs' standard does not satisfy Justice Kennedy's supposition that "some limited and precise rationale" could emerge "to correct an established violation of the Constitution in some redistricting cases," *Vieth*, 541 U.S. at 306 (Kennedy, J., concurring), nor does it answer the question of "how much [partisanship] is too much." *Id.* at 298 (plurality). The plaintiffs' "zero efficiency gap hypothesis" assumes as a starting point that efficiency gaps are zero absent partisan intent. But that is not accurate, especially in Wisconsin. It does not measure how much partisanship was involved in the districting process because it assumes all differences are caused by gerrymandering when the undisputed facts

show that, both in Wisconsin specifically and in the country as a whole, significant differences in partisan outcomes are present independent of partisan intent.

The “efficiency gap” (or “*EG*”) does not measure “how much is too much” because disparate outcomes in favor of Republicans occur in the absence of partisan intent. For example, under the two court-drawn plans in Wisconsin, Democrats won the Assembly in only two elections, Wisconsin had a negative efficiency gap favoring Republicans every year from 1998 to 2010, and there was an average efficiency gap of -8% favoring Republicans under the court-drawn 2002 plan, including years with gaps comparable to those under Act 43. Yet the plaintiffs propose that the Act 43 plan should be judged on how it compares to a hypothetical zero efficiency gap baseline, even though that baseline is not consistent with the real world or with plans drawn by disinterested federal judges using only traditional districting principles.

The efficiency gap likewise does not provide a “limited and precise rationale” for court intervention in the districting process. *Vieth*, 541 U.S. at 306 (Kennedy, J., concurring). The plaintiffs’ threshold of a 7% *EG* in the first election would have swept in one-third of all districting plans enacted since 1972. Further, over one-third of plans have had at least one election with an *EG* of 10% or greater in at least one election. Perhaps this broad sweep would be acceptable if it were to remedy “an established violation of the Constitution,” *id.* at 306 (Kennedy, J., concurring), but it does not. There is no constitutional right to a districting plan that provides a seat share matching the zero efficiency gap hypothesis. The plaintiffs’ proposed



threshold is based on an estimate of whether a plan will change sign (*i.e.*, flip to an advantage to the other party) at some point in its existence. But, likewise, there is no constitutional right to an *EG* that flips signs.

For Wisconsin in particular, a positive *EG* plan (favoring Democrats) is extremely unlikely when the highest observed *EG* under the court-drawn plans was 2% in 1994 and even the plaintiffs' Demonstration Plan presents a negative *EG* favoring Republicans in a good election year for Democrats.

**I. The plaintiffs' proposed standard does not provide a way for a court to determine "how much is too much."**

The efficiency gap provides no way to determine when ordinary consideration of politics in the redistricting process has crossed into a constitutional violation. The efficiency gap measures the disadvantage a party faces in turning its statewide vote share into the seat share called for by the zero efficiency gap hypothesis, but this disadvantage is caused by a myriad of circumstances that go well beyond partisan intent in the districting process. The undisputed facts, including the plaintiffs' own evidence, show that Wisconsin Democrats face a significant disadvantage in converting statewide vote share into legislative seats under plans drawn with no partisan intent. Thus, the "standard for deciding how much partisan dominance is too much," *League of United Latin American Citizens (LULAC) v. Perry*, 548 U.S. 399, 420 (2006) (plurality), cannot be judged by comparing Wisconsin to a zero efficiency gap hypothetical that neutral plans do not even meet.

This shortcoming is not saved by the plaintiffs' incorporation of an intent element or their attempt to shift the burden to the defendants. The Court should

not allow the plaintiffs, who bear the burden of proving a law is unconstitutional, to shift the job of “sail[ing] successfully between the Scylla of administrability and the Charybdis of non-arbitrariness” to the defendants. *See Radogno v. Ill. State Bd. of Elections*, No. 1:11-CV-04884, 2011 WL 5868225, at \*5 (N.D. Ill. Nov. 22, 2011).

**A. Wisconsin is not a zero efficiency gap state even under plans drawn by disinterested mapmakers with no partisan intent.**

The plaintiffs’ proposed standard fails because it does not measure Wisconsin’s plan against a plan that would be produced under “comprehensive and neutral principles for drawing electoral boundaries.” *Vieth*, 541 U.S. at 306-07 (Kennedy, J., concurring). Instead, the efficiency gap measures Wisconsin’s plan against an ideal world in which a party should receive 2% of seat share for every 1% of vote share over 50%. What is missing from the plaintiffs’ case is a legally sufficient reason why that measure should be constitutionalized.

Wisconsin’s current plan is completely consistent with real-life examples of neutral districting. Under the two court-drawn plans, the efficiency gap ranged from +2% to -12%. (PFOF ¶ 246.) The most recent court-drawn plan had an average efficiency gap of -8%, which ranged from -4% to -12%. (PFOF ¶ 247.) In fact, “Wisconsin has recorded an unbroken run of negative *EG* estimates from 1998 to 2014.” (PFOF ¶ 204.) The most favorable *EG* for Democrats since 1972 was the 2% observed in 1994, a year in which the Republicans actually gained control of the Assembly for the first time in many years. (PFOF ¶ 203.)

The *EGs* observed in 2012 and 2014 based on Act 43 are not outliers when compared with the 2002, 2004, and 2006 elections under the court-drawn 2002 Plan.

<b>Year</b>	<b>Dem. V</b>	<b>Implied S under Zero EG</b>	<b>Actual S</b>	<b>EG</b>
2002	49.5%	49.0%	41.5%	-7.5%
2004	50%	50%	40%	-10%
2006	54.75%	59.5%	47.5%	-12%
2012	51.4%	52.8%	39.4%	-13.4%
2014	48.0%	46.0%	36.4%	-9.6%

(PFOF ¶¶ 212-214, 217-218.) In 2002, the Democrats won 41 seats with almost 50% of the vote. In 2004, the Democrats captured 39 seats on 50% of the vote. The result in 2004 under the court plan is similar to the result in 2012 under Act 43, where Democrats captured 39 seats on a slightly higher vote share of 51.4%. Indeed, in 2006 under the court plan, the Democrats received a higher vote share than in either 2012 or 2014, yet were still denied a majority of seats. Thus, using the plaintiffs' own measures, the Act 43 results are entirely consistent with neutral plans and not outliers showing a constitutional violation.<sup>4</sup>

The historical gaps in favor of Republicans under neutral plans are not properly accounted for by the plaintiffs' proposed standard for their constitutional test. The plaintiffs propose that being 7% over the idealized zero baseline should be sufficient evidence of gerrymandering to meet their burden. But if the plaintiffs' test

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<sup>4</sup> What the plaintiffs' idealized baseline also misses is variability based on real-world circumstances that change from election to election. For example, in 2008, the Democrats were able to win a majority of seats on a lesser vote share than they received in 2006, winning 52 seats on 54% of the vote. This drove the efficiency gap down to -5%. The Republican surge in 2010 then reduced Democrats to 39 seats on 46.5% of the vote, but this drove down the efficiency gap another point to -4%. No one can know what will happen in the current plan if we see an election along the lines of 2008 or 2010. The current plan has only seen one election with a 51.4% Democratic vote share and one with a 52% Republican vote share. (PFOF ¶¶ 230-232.)

and threshold were interpreted based on the real-world—where the baseline actually corresponded to the gap under a neutral plan—then Act 43 passes muster. The average pro-Republican gap under the most recent court-drawn plan was -8%. (PFOF ¶ 206.) The largest efficiency gap that the plaintiffs allege under Act 43 is 13.4% (PFOF ¶ 217), which is within 7% of the neutrally-occurring average of -8%. It should follow that Wisconsin’s plan is legal even under the plaintiffs’ metric.

Based on their Demonstration Plan, the plaintiffs may contend that Wisconsin is not naturally biased against Democrats. But that Plan is irrelevant because the large negative *EGs* under court-drawn plans are irrefutable evidence that application of neutral districting principles *can* lead to large disparate outcomes in converting votes to seats.

In any event, the Demonstration Plan actually shows the natural disadvantage faced by Democrats. Tellingly, even with every motivation to reach the opposite result, the plan still shows an efficiency gap of -2.2% in favor of Republicans. Further, even that gap is likely underestimated and is certainly variable. The Demonstration Plan has 51 Democratic seats, but it may understate Republican wins given that Mayer’s model (on which the Plan is based) under-predicted Republican wins under Act 43. It only predicted 57 of the actual 60 Republican wins. Further, in his Demonstration Plan, Mayer reduced the efficiency gap by drawing districts that would be narrow Democratic wins in an election with 51.4% Democratic vote share; fifteen of these districts are 53.4% or less Democratic. Given that he has cut things so close, if Democrats lost 3.4% of vote share, as in

2014, all of the close districts would be in jeopardy and many of them would likely be lost. With any additional Democratic losses, even the Demonstration Plan's efficiency gap will grow ever more negative in favor of Republicans.

**B. Most states in the country are not zero efficiency gap states.**

Jackman's report shows that Wisconsin's experience mirrors the country as a whole. Wisconsin began to show negative efficiency gaps in the mid-1990s. With respect to the entire country, Jackman found that "[t]he distribution of *EG* measures trends in a pro-Republican direction through the 1990s, such that by the 2000s, *EG* measures were more likely to be negative." (PFOF ¶ 248.) The median plan has been negative (meaning pro-Republican) since the mid-1990s and the 25th percentile has been below 5% since the mid-1990s and even approached 7% in 2004, 2010, and 2012. (PFOF ¶ 249.) Meanwhile, the 75th percentile has favored Democrats by a much smaller margin of 1% to 2%. (PFOF ¶ 250.) Further, in every election year since 1996, more plans have had negative efficiency gaps than positive ones, with about 75% of plans producing a negative efficiency gap in 2000, 2006, and 2012. (PFOF ¶ 251.) Wisconsin experienced its highest negative efficiency gaps in 2000 (-7.5%), 2006 (-12%), and 2012 (-13%). The academic literature on which the plaintiffs' case is based (by Stephanopolous and McGhee) likewise finds a trend from Democrats towards "Republicans in the 1990s (-1.17%), 2000s (-2.01%), and 2012 (-3.48%)." Stephanopolous & McGhee, 82 U. Chi. L. Rev. at 871.

The trend is explained by the simple fact that "political groups that tend to cluster (as is the case with Democratic voters in cities) would be systematically

affected by what might be called a ‘natural’ packing effect.” *Vieth*, 541 U.S. at 290 (plurality). Sean Trende’s maps and analysis summarized in the background above show the Democratic Party’s growing concentration over time, which has resulted in a reduced ability to translate a statewide vote percentage into legislative seats. (PFOF 234-245.) This is an unavoidable consequence of districting that the efficiency gap miscounts as intentional gerrymandering. The zero efficiency gap standard actually calls for Republican districting bodies to district in a way that assists Democrats in countering the “natural packing” effect.

This phenomenon points to two related problems with the efficiency gap. First, it shows that the gap will change over time. Such changeability is something that, standing alone, should dissuade a court from adopting the measure as a constitutional standard. Second, the way it is changing is important: in Wisconsin and nationally, the efficiency gap has increasingly favored Republicans. A test is unworkable when it conflates a national demographic trend with a gerrymander in a particular instance.

For example, Jackman calculates large negative efficiency gaps in both 2012 and 2014 in Kansas (over 10% average), New York (over 10% average), Missouri (slightly under 10% average), and Minnesota (5-6% average). Yet these were not partisan gerrymanders. Kansas’s districts were drawn by a federal court. *Essex v. Kobach*, 874 F. Supp. 2d 1069, 1093-94 (D. Kan. 2012). New York’s plan was signed into law by its Democratic Governor. *Favors v. Cuomo*, 881 F. Supp. 2d 356, 360 (E.D.N.Y. 2012). Missouri’s districts were drawn by a bipartisan commission

appointed by its Democratic governor. *Johnson v. State*, 366 S.W.3d 11, 16 (Mo. 2012). Minnesota's districts were drawn by a panel appointed by the Chief Justice of the Minnesota Supreme Court. *Hippert v. Ritchie*, 813 N.W.2d 374, 376 (Minn. 2012).

Indeed, some of the problems with the plaintiffs' proposal are apparent when viewing a recent redistricting case in Illinois. In *Radogno*, a three-judge panel observed that political gerrymandering claims remain "unsolvable' based on the absence of any workable standard for addressing them." *Radogno*, 2011 WL 5868225, at \*2. That case involved a challenge to an alleged Democratic gerrymander. The challenge failed even though the plaintiffs "identified factors that are, for the most part, reasonably objective and measurable." *Id.* at \*4. The panel explained that the factors did not get at the fundamental problem with political gerrymandering cases:

it's hard to see how this particular six-factor test is implied by the requirements of the Equal Protection Clause, which as we have noted tolerates some degree of partisanship in redistricting. If judicial adjudication of political gerrymandering were just a matter of isolating a set of factors, even *objective* factors, that inhere in the redistricting context and suggest that partisan considerations played a substantial role, courts would have solved this problem long ago.

*Id.* The court found that no such set of factors existed that would allow it to discern partisan considerations. Here, the efficiency gap does not supply what was missing in *Radogno* because it measures things that are not gerrymandering.

Notably, the *Radogno* challenge was to a pro-Democratic gerrymander. But, based on the Jackman efficiency gap method, Illinois had a *Republican*-leaning

efficiency gap in one election and the other election showed only a narrow Democratic *EG* advantage. (PFOF 257.) This shows the efficiency gap is not measuring what it purports to measure. Partisan intent was present in *Radogno*, but Illinois presents as a neutral or Republican-leaning plan. This is because the efficiency gap does not detect gerrymandering as traditionally understood—ignoring traditional criteria for partisan advantage. Because the efficiency gap measures a collection of circumstances, including natural political geography, it cannot be the solution to the intractable problem of partisan gerrymandering claims.

**C. The plaintiffs’ intent element does not save their standard.**

In the motion-to-dismiss briefing, the plaintiffs argued that Wisconsin’s court-drawn 2002 Plan, even though it surpasses their proposed threshold, was constitutional because their test includes an intent prong. But this misses the point. The neutral 2002 Plan lays bare that the efficiency gap measure and threshold do not actually measure gerrymandering.

The fact that Wisconsin presents significant pro-Republican efficiency gaps when districted by neutral bodies shows that using an idealized zero efficiency gap as the starting point is wrong. Starting at the assumption of a zero *EG* fails to measure the extent to which political classifications “were applied in an invidious manner or in a way unrelated to any legitimate legislative objective.” *Vieth*, 541 U.S. at 307 (Kennedy, J., concurring). If a high efficiency gap is present when districting was done with no partisan intent, the presence of a high efficiency gap cannot evince a departure from a “legitimate legislative objective.”



The intent element does not solve this problem. If the intent is simply *some* intent to benefit the districting party or disadvantage the other party, then “[a]s long as redistricting is done by a legislature, it should not be very difficult to prove that the likely political consequences of the reapportionment were intended.” *Davis v. Bandemer*, 478 U.S. 109, 129 (1986). Under this version of intent, it will always be present whenever the political branches district and so it is meaningless as an element. As the three-judge panel in *Radogno* observed: “The crucial theoretical problem is that partisanship will *always* play *some* role in the redistricting process. As a matter of fact, the use of partisan considerations is inevitable; as a matter of law, the practice is constitutionally acceptable.” *Radogno*, 2011 WL 5868225, at \*2.

If the intent element calls for a more searching inquiry, then the standard fails under *Vieth*. The *Vieth* plurality and Justice Kennedy both rejected a standard that incorporated a “predominant intent” standard that attempted to measure the relative importance of partisan considerations compared to other districting principles. 541 U.S. at 284-86 (plurality); *id.* at 308 (Kennedy, J., concurring). The court held that “the ‘predominant motivation’ test . . . all but evaporates when applied statewide.” *Id.* at 285 (plurality). It simply is impossible to determine the relative weight of partisan intent compared to “other goals—contiguity, compactness, preservation of neighborhoods, etc.—*statewide*.” *Id.*

Of course, one wonders why the plaintiffs think a legislature needs to district so as to minimize the efficiency gap but courts are free to ignore it. If it is truly a constitutional requirement that “both major parties should be able to translate their

popular support into legislative representation with approximately equal ease” (Dkt. 31:18), then even courts that are called upon to district should be using the efficiency gap in drawing their plans so as to not violate that right. Courts have never considered this factor because it is not based in the Constitution.

**D. The burden-shifting framework is fundamentally unfair and exacerbates the flaws in the proposed “efficiency gap” test.**

The plaintiffs’ attempt to avoid the problems with a gerrymandering lawsuit by claiming that all they need show is intent (which is always present) together with the statistical test and threshold they have tailored. They then wash their hands of all the other intractable problems by saying the burden should then shift. That cannot be right. They invoke the one-person, one-vote cases and their rebuttable presumption of unconstitutionality, but that framework cannot be grafted onto their theory here. It puts the cart before the horse.

In the one-person, one-vote cases, the Court *first* established the constitutional right, leaving the specifics of the test to be developed later. The Court held that the Equal Protection Clause required “that the seats in both houses of a bicameral state legislature must be apportioned on a population basis.” *Reynolds v. Sims*, 377 U.S. 533, 568 (1964). The court did not establish a hard limit for population deviation because “it is a practical impossibility to arrange legislative districts so that each one has an identical number of residents, or citizens, or voters.” *Id.* at 577. With a firm understanding of the constitutional principle at issue, courts could analyze the claims to establish a working test.

In contrast, the plaintiffs here are trying to establish the constitutional right based on a statistical method. But the courts developed a numerical test in the one-person, one-vote cases *after* the constitutional standard of equal population had been established. They did not use a rule of 10% population deviation to come to the conclusion that vote dilution was unconstitutional; they used the principle of equal population to determine that 10% was an acceptable amount of population deviation. The plaintiffs reverse this order and use the efficiency gap calculation to establish the very existence of a constitutional violation. The Court should not accept this circular reasoning, particularly when the *Vieth* Court recognized that the one-person, one-vote cases “have no bearing upon this question, neither in principle nor in practicality.” 541 U.S. at 290 (plurality opinion).

Likewise, the Court should not allow the plaintiffs to push the problem of defining a judicially manageable standard on defendant state officials. Courts rightfully approach partisan gerrymandering claims “with great caution” because courts “risk assuming political, not legal, responsibility for a process that often produces ill will and distrust.” *Vieth*, 541 U.S. at 306-07 (Kennedy, J., concurring). The plaintiffs therefore have the burden of justifying court intervention into a process specifically entrusted to the political branches, not the other way around. The plaintiffs attempt to turn the inquiry on its head.

Indeed, the proposed burden-shifting makes the flaws in the proposed efficiency gap measure even more concerning. The plaintiffs want to shift the burden based on a method and threshold that they themselves have selected. In

states like Wisconsin with a natural efficiency gap, it is much easier to shift the burden onto the state to justify a plan, as opposed to a state without the same natural groupings of voters (or as in Illinois, a similar grouping of voters districted by the other party). A test that affects different states differently based on natural demographics, based on a metric that changes over time based on demographics, makes no sense as a constitutional test. This is not what Justice Kennedy had in mind when he discussed using “great caution” when formulating a possible future approach.

**II. The plaintiffs’ proposed standard is not a “limited and precise” rationale for correcting “an established violation of the Constitution in some redistricting cases.”**

The plaintiffs’ proposed standard would require courts to rule on a large number of state legislative districting plans, which is precisely the opposite of Justice Kennedy’s call for a “limited and precise” rationale that should be exercised with “great caution.”

**A. The plaintiffs’ standard is not “limited and precise.”**

The plaintiffs’ proposed standard would encompass a strikingly high number of state legislative plans. Thirty-six percent of plans fail Jackman’s standard of a 7% *EG* in the first election following redistricting. (PFOF ¶ 252.) Even upping this standard to a 10% *EG* in the first election sweeps in about 18% of plans. (PFOF ¶ 253.) A standard that finds unconstitutional gerrymandering in one plan out of three, or even one plan out of five, is not a “limited and precise” test for partisan gerrymandering.

In fact, Jackman's calculations based on the first election in a plan understate the amount of judicial involvement that will be required. Jackman did not focus on the first election for any particular reason in political science, but rather merely because he assumed plaintiffs would want to challenge a plan after the first election. (PFOF 155.) The *EG* observed in the first election is not a magic indicator of future election results; it is just one data point. A plan will produce a range of results depending on election conditions, as is seen with Wisconsin's 2002 Plan that produced *EGs* of -7.5%, -10%, -12% -5%, and -4%. (PFOF 212-216.) If the 2004 and 2006 *EGs* had presented themselves first (-10% and -12%, respectively), then the 2002 Plan would have appeared to be identical to the current plan, which Plaintiffs claim is "one of the worst partisan gerrymanders in modern American history." (PFOF ¶ 254.) If the 2008 and 2010 elections had occurred first, then the Plan would escape court scrutiny, yet would actually be capable of producing larger *EG* numbers under different election conditions. This reveals an underlying arbitrariness to the plaintiffs' methods and choices when proposing their standard.

The plaintiffs' standard could sweep in a huge number of plans depending on what type of election occurs in the first election of the cycle. Jackman finds that 53% of plans since 1972 have at least one election with an *EG* of 7% or greater. (PFOF ¶ 176.) He likewise finds that 33% of plans have had at least one election with an *EG* of 10% or higher, which grows to 35% when looking at elections since 1991. (PFOF ¶¶ 178-179.) Adopting the plaintiffs' standard would therefore invite a

“substantial intrusion into the Nation’s political life.” *Vieth*, 541 U.S. at 306 (Kennedy, J., concurring).

To make matters worse, the criteria Jackman used to calculate his 7% threshold has no basis in the Constitution. Jackman’s threshold is based on whether a plan is likely to change sign during its existence (*i.e.*, flip from negative to positive or vice versa). He is 95% confident in his threshold because he is confident that the 36% percent of plans implicated will not change sign over their existence. The plaintiffs, however, have never explained why unconstitutional gerrymandering should be decided by whether a plan will change sign. Jackman’s own research shows that pro-Republican negative efficiency gaps are durable, which is borne out by Wisconsin’s experience under the 1992 and 2002 Plans. Jackman himself found that the plan in place in Wisconsin immediately before the current plan, enacted by completely neutral decision-makers, was unambiguously negative. His constitutional threshold expects Republican lawmakers to enact a plan that will turn positive for Democrats—something that has not happened in Wisconsin since 1994 (including eight elections conducted under court-drawn plans).

Once laid bare, the plaintiffs’ plan plainly cannot be a constitutional standard. It is not limited (it sweeps in a high number of plans) or precise (it detects natural trends well beyond gerrymandering, much less extreme gerrymandering that might justify limited court intervention).

**B. This substantial intervention is not related to correcting established constitutional violations.**

Plaintiffs' imprecise and expansive test is doubly problematic because it does not address a violation of the Constitution. There is no constitutional right to a small efficiency gap. It is a measure of proportionality, which is something the Supreme Court has rejected as a constitutional right.

The plaintiffs have maintained that the efficiency gap does not call for one-for-one proportional representation. That is true as far as it goes. But the zero efficiency gap hypothesis actually calls for hyper-proportional representation. Each 1% increase in vote share is expected to translate into an additional 2% in seat share. This hyper-proportionality, if anything, makes their standard less tenable under *Vieth* than one-for-one proportionality.

The *Vieth* Court rejected a standard based on whether a party was thwarted in “translat[ing] a majority of votes into a majority of seats,” 541 U.S. at 286-87 (plurality), because “this standard rests upon the principle that groups (or at least political-action groups) have a right to proportional representation.” *Id.* at 288 (plurality). The plurality held that

the Constitution contains no such principle. It guarantees equal protection of the law to persons, not equal representation in government to equivalently sized groups. It nowhere says that farmers or urban dwellers, Christian fundamentalists or Jews, Republicans or Democrats, must be accorded political strength proportionate to their numbers.”

*Id.* Justice Kennedy agreed that “the standards proposed . . . by the parties before us” were “either unmanageable or inconsistent with precedent or both.” *Id.* at 308

(Kennedy, J., concurring). There simply is no constitutional right for parties to be able to translate their statewide support into legislative seats with equal ease.

If the Constitution does not require proportional representation, then it surely does not require that electoral systems deliver hyper-proportional representation in which each 1% vote share above 50% yields 2% additional seat share, as called for by the orange line in Figure 4 of Jackman's report.

**III. The plaintiffs have not satisfied Justice Kennedy's concerns with partisan symmetry expressed in *LULAC*.**

The plaintiffs have relied heavily on Justice Kennedy's statement in *LULAC* that he would not "altogether discount[]" the utility of partisan symmetry "in redistricting planning and litigation." 548 U.S. at 420 (plurality). The plaintiffs' case, however, has not addressed Justice Kennedy's concerns about dealing in a "hypothetical state of affairs" and speculating about "where possible vote-switchers will reside." *Id.*

Mayer's entire report is based on a "hypothetical state of affairs" in which votes are not counted as they were cast, but as they would have been cast in the hypothetical world in which there were no incumbents and each district was contested. (PFOF ¶ 8.) His model incorrectly picks the winning candidate in 5% of races even when he knows the results of the actual 2012 elections. (PFOF ¶¶ 17-30.) His opinions on his Demonstration Plan are likewise a counterfactual "hypothetical state of affairs" using a regression model to predict the results of an election that never happened.



Further, the efficiency gap is subject to wide swings based on “vote switchers” who swing close elections. Very small swings in statewide vote share (as small as a few hundred votes) can change seat share by several percentage points. The efficiency gap treats losing these close races as systemic bias against a party when, in reality, they represent voters’ choices to support specific candidates for various reasons.

Thus, the proposed test runs headlong into Justice Kennedy’s admonishments. It does not solve the problems in other redistricting cases but rather adds to them. It should be rejected for these additional reasons.

**A. The plaintiffs’ case is based on a counter-factual, not actual votes cast.**

Justice Kennedy’s tepid support of partisan symmetry in *LULAC* surely does not envision courts invalidating plans based on election results that did not actually happen but were generated by a regression model. The plaintiffs have not presented any evidence of the number of wasted votes that were actually cast in either the 2012 or 2014 Assembly elections. Instead, they have offered Mayer’s “prediction” of the 2012 votes that would have been wasted had no incumbents run and had each party contested every seat. This is an interesting exercise in political science, but it is clearly an analysis of a “hypothetical state of affairs.” *LULAC*, 548 U.S. at 399 (plurality). In fact, Mayer counts these hypothetical votes as “wasted” even if his model predicted the incorrect winner of the Assembly seat. (PFOF ¶ 31.)

Further, the assumptions that Mayer uses in his hypothetical state of affairs ignore an important political reality: the power of incumbency. Mayer assumes no

incumbents, which is not an unreasonable thing to do when determining the underlying partisan makeup of a district. But it does not reflect reality in that (1) incumbents did run in the 2012 elections and (2) Republicans disproportionately benefitted from the incumbency advantage because they had a 60-seat majority. Thus, contrary to Justice Kennedy's warning, the plaintiffs have offered statistics based on counterfactuals and hypotheticals.

In addition, the Court cannot have confidence that Mayer's regression model even accurately predicts what would happen in the "hypothetical state of affairs" it is supposed to predict (whether for Act 43 or the Demonstration Plan) given the number of errors the model produces when predicting the 2012 election. His model incorrectly predicts five seats—five percent of seats—and undercounts Republican success by three seats—a three percent error in seat share. (PFOF ¶¶ 17-30.) A three-seat swing in Wisconsin can change the efficiency gap by 3%, which is nearly half the way to presumptive unconstitutionality under Plaintiffs' standard.

And, even in Mayer's counterfactual world, the plaintiffs do not provide all the relevant calculations that arise in that world. They omit (1) a calculation of what the efficiency gap under Act 43 would have been in the 2014 election had no incumbents run and every seat been contested and (2) a prediction of what the efficiency gap would have been under the Demonstration Plan in the 2014 election. The 2014 election results were available for Mayer to develop a regression model, but he ignored them. Apparently, the plaintiffs were not interested in predicting the Demonstration Plan's efficiency gap in an election in which Republicans won 52% of

the vote for Governor and Assembly. Especially since the plaintiffs bear the burden, one can only assumed the results of such an analysis would not have supported their theory.

Jackman's research is likewise based on a counterfactual—that an equal number of votes were cast in each district. (PFOF ¶ 5.) This is not a valid assumption in Wisconsin (PFOF ¶¶ 118-119) or in the nation as a whole. Similarly, his seats-vote curve is explicitly based on the hypothetical of the “zero efficiency gap hypothesis,” which as noted above, has no basis in reality. Likewise, his calculations are “point estimates” with confidence intervals to account for his imputations in uncontested races. (PFOF ¶¶ 138-140.)

**B. The efficiency gap is sensitive to the results in close races decided by “vote switchers.”**

The efficiency gap's focus on statewide vote shares means that it is highly sensitive to variation based on close elections. These races are decided by numbers of votes that are inconsequential to the statewide vote share, but they decidedly affect seat share. Justice Kennedy's concern with vote-switchers thus is not accounted for in the plaintiffs' test.

In *Vieth*, the Court approvingly quoted the proposition that “[t]here is no statewide vote in this country for the . . . state legislature. . . . Political parties do not compete for the highest statewide vote totals or the highest mean district vote percentages: They compete for specific seats.” 541 U.S. at 289 (plurality) (quoting Lowenstein & Steinberg, *The Quest of Legislative Districting in the Public Interest: Elusive or Illusory*, 33 UCLA L. Rev. 1, 59-60 (1985)). Seat share is not tied to

statewide vote share. This understanding underlies Justice Kennedy's statement in *LULAC* that "[t]he existence or degree of asymmetry may in large part depend on conjecture about where possible vote-switchers will reside." 548 U.S. at 420. This speculative and changeable aspect of the plaintiffs' measure is yet another flaw.

The recent Wisconsin elections illustrate this effect. In 2012, the Republicans won five seats (Districts 1, 26, 50, 72 and 93) with no more than 51.3% of the total vote. (PFOF ¶ 255.) The margin of victory across all of these races was about 3,200 votes, each less than 900 votes and one at only 109 votes (District 93). (PFOF ¶ 256.) Thus, more than 5% of seat share was determined by 0.1% of vote share. In part, the large efficiency gap was caused by the Democrats' inability to win these close races. Had they won all of these races, the efficiency gap would have fallen by a dramatic 5% (and would have fallen 1% for any seat won).

Perhaps the Democratic candidates would have won these seats if the election had a slightly larger Democratic tide (as in 2006 or 2008); perhaps they could have won them if they ran different candidates, emphasized different issues, or spent more money on the races. Whatever the reasons the Democrats lost these races, a large "degree of asymmetry" was produced by their failure to win over a sufficient number of "vote switchers" who live in these districts. *See LULAC*, 548 U.S. at 420 (plurality).

The changeable and uncertain aspects of politics, especially in close races, have significant impacts on the efficiency gap. That makes the gap an unreliable measure of real-world gerrymandering and one that fails to draw a constitutionally

mandated line. For this and the various other reasons discussed, the plaintiffs' proposed use of the efficiency gap does not solve the problems in gerrymandering cases. It should be rejected.

### CONCLUSION

The Court should grant summary judgment to the Defendants because the plaintiffs' standard is not a judicially discernible or judicially manageable test for judging partisan gerrymandering claims.

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