WILLIAM WHITFORD, et al.,
Plaintiffs,
v.

Case No. 15-CV-0421
GERALD NICHOL, et al.,
Defendants.

## PROPOSED FINDINGS OF FACT IN SUPPORT OF DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

Defendants Gerald Nichol, et al., by their attorneys, respectfully submit their Proposed Findings of Fact in Support of Defendants' Motion for Summary Judgment.

1. 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"). (Compl. © 5.)
2. 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. (Compl. - 47.$)$
3. Mayer relied on the formulas and methods outlined in the Chicago Law Review article in determining the efficiency gap. (Mayer Dep. 37.) ${ }^{1}$
4. 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. (Jackman Dep. 11-12.) ${ }^{2}$
5. One is a district-by-district calculation in which the wasted votes cast for each party's candidates are added and then "the difference between the parties' respective wasted votes" is then "divided by the total number of votes cast." (Compl. ब 5.)
6. The plaintiffs also use a different method, which they have dubbed a "shortcut" for calculating the district-by-district version of the efficiency gap. (Dkt. 31:24 n.8.)
7. In order for this shortcut to equate with the district-bydistrictcalculation, one needs to assume that there were an equal number of votes cast in each district. (Jackman Dep. 21-22.)
8. Mayer does not tabulate the number of "wasted votes" that were cast in the 2012 Assembly elections. Instead, Mayer 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 and if the race was

[^0]contested and when there was no incumbent running." (Mayer Report 10-11; Mayer Dep. 63.) ${ }^{3}$
9. 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, the vote share for Obama, the vote share for Romney, whether there is a Democratic incumbent, whether there is a Republican incumbent, and the county of the ward. (Mayer Report 10-11.)
10. Mayer relies on this model:

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

$$
\mathrm{Y}_{i}=\alpha+\beta \mathbf{X}_{i}+\varepsilon_{i},
$$

where $\mathrm{Y}_{i}$ is the dependent variable in ward $i, \mathrm{X}_{i}$ 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:

$$
\begin{gathered}
\text { Assembly }=\alpha+\beta_{1} \text { Total VEP }_{i}+\beta_{2} \text { Black VEP }_{i}+\beta_{3} \text { Hispanic VEP }_{i} \\
\qquad \begin{array}{c}
\text { Vote }
\end{array} \\
\quad+\beta_{4} \begin{array}{c}
\text { Democratic }_{\text {Presidential Vote }}^{i}
\end{array}+\beta_{5} \text { Republican } \\
+\beta_{6} \text { Desidential Vote }_{i} \\
\text { Incumbent }_{i}+\beta_{7} \text { Republican }_{\text {Incumbent }_{i}}+\sum_{j=1}^{71} \gamma_{j} \text { County }_{j}+\varepsilon_{i}
\end{gathered}
$$

(Mayer Rep. 10-11)

[^1]11. Mayer only used the 2012 election results in his model; it does not rely on the results of any other elections. (Mayer Dep. 62-63.)
12. 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. (Mayer Rep. 50.)
13. This generates 197 wasted votes for the Republicans and 16,235 wasted votes for the Democrats. (Mayer Rep. 50.)
14. In the actual 2012 election, the Republican won with 16,993 votes and the Democrat lost with 16,124 votes. (GAB 2012 Fall General Election Results at 8.) ${ }^{4}$
15. In the actual election, there were 435 wasted votes for the Republicans and 16,124 wasted votes for the Democrats. (GAB 2012 Fall General Election Results at 8.)
16. Mayer admits his model predicts two seats incorrectly (Mayer Rep. 25)
17. Mayer's model actually predicts five seats incorrectly (four predicted to be won by Democrats that were actually won by Republicans and one the other way). (Mayer Rep.51)
18. In Mayer's prediction, the Democrats would win District 50 with 12,467 votes over the Republican's 12,326 votes. (Mayer Rep. 51.)

[^2]19. In the actual election, the Republicans won District 50 with 12,842 votes to the Democrat's 11,945 votes. (GAB 2012 Fall General Election Results at 20.)
20. In Mayer's prediction, the Democrats would win District 51 with 14,173 votes over the Republican's 13,048 votes. (Mayer Rep. 51.)
21. In the actual election, the Republicans won District 51 with 10,642 votes to the Democrat's 10,577 votes. (GAB 2012 Fall General Election Results at 20.)
22. In Mayer's prediction, the Democrats would win District 68 with 13,663 votes to the Republican's 13,005. (Mayer Rep. 51.)
23. In the actual election, the Republicans won District 68 with 13,758 votes to the Democrat's 12,482 votes. (GAB 2012 Fall General Election Results at 25.)
24. In Mayer's prediction, the Republicans would win District 70 with 14,387 votes to the Democrat's 12,211 votes. (Mayer Rep. 51.)
25. In the actual election, the Democrats won District 70 with 13,518 votes to the Republican's 13,374. (GAB 2012 Fall General Election Results at 25.)
26. In Mayer's prediction, the Democrats would win District 72 with 14,294 votes to the Republican's 13,895. (Mayer Rep. 51.)
27. In the actual election, the Republicans won District 72 with 14,138 to the Democrat's 14,029. (GAB 2012 Fall General Election Results at 26.)
28. Defendants use the GAB's official election results because Mayer agrees that these numbers are "authoritative." (Mayer Dep. 25.)
29. Republicans won 60 seats in the 2012 Assembly elections (Compl. ब 1)
30. Yet Mayer's model predicts only 57 Republican wins. (Mayer Dep. Ex. 5 at 3.$)^{5}$
31. 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. (Mayer Dep. 87-88.)
32. For his model, Mayer admits that "the average absolute error in the vote margin is $1.49 \%$." (Mayer Rep. 25.)
33. The admitted average error rate is incorrect because the calculation assumes only two errors in the prediction of seats rather than the actual five. (Mayer Rep. 24-25.)
34. Mayer's model of Act 43 contains 42 districts with at least a $50 \%$ Democratic baseline. (Mayer Rep. 41, Fig. 12.)
35. His model contains 17 seats that have a baseline between $50-55 \%$ Republican. (Mayer Rep. 41, Fig. 12.)
36. Mayer's model predicts that District 93 in Act 43 would have 50.2\% Republican vote share. (Mayer Dep. Ex. 5 at 3.)
37. Mayer's model predicts that District 1 in Act 43 would have $50.6 \%$ Republican vote share. (Mayer Dep. Ex. 5 at 1.)

[^3]38. Mayer's model predicts that District 67 in Act 43 would have 51.6\% Republican vote share. (Mayer Dep. Ex. 5 at 2.)
39. Mayer's model predicts that District 29 in Act 43 would have $52.2 \%$ Republican vote share. (Mayer Dep. Ex. 5 at 1.)
40. Mayer's model predicts that District 88 in Act 43 would have 52.3\% Republican vote share. (Mayer Dep. Ex. 5 at 3.)
41. Mayer's model predicts that District 4 in Act 43 would have $52.3 \%$ Republican vote share. (Mayer Dep. Ex. 5 at 1.)
42. Mayer's model predicts that District 49 in Act 43 would have 52.5\% Republican vote share. (Mayer Dep. Ex. 5 at 2.)
43. Mayer's model predicts that District 27 in Act 43 would have 52.7\% Republican vote share. (Mayer Dep. Ex. 5 at 1.)
44. Mayer's model predicts that District 42 in Act 43 would have 53.0\% Republican vote share. (Mayer Dep. Ex. 5 at 2.)
45. Mayer's model predicts that District 26 in Act 43 would have 53.3\% Republican vote share. (Mayer Dep. Ex. 5 at 1.)
46. Mayer's model predicts that District 62 in Act 43 would have 53.9\% Republican vote share. (Mayer Dep. Ex. 5 at 2.)
47. Mayer's model predicts that District 31 in Act 43 would have 54.1\% Republican vote share. (Mayer Dep. Ex. 5 at 1.)
48. Mayer's model predicts that District 70 in Act 43 would have 54.1\% Republican vote share. (Mayer Dep. Ex. 5 at 2.)
49. Mayer's model predicts that District 40 in Act 43 would have 54.2\% Republican vote share. (Mayer Dep. Ex. 5 at 2.)
50. Mayer's model predicts that District 28 in Act 43 would have $42.6 \%$ Republican vote share. (Mayer Dep. Ex. 5 at 1.)
51. Mayer's model predicts that District 30 in Act 43 would have 54.7\% Republican vote share. (Mayer Dep. Ex. 5 at 1.)
52. Mayer's model predicts that District 21 in Act 43 would have 54.9\% Republican vote share. (Mayer Dep. Ex. 5 at 1.)
53. Mayer did not produce a model to predict the results of the 2014 election either under the current plan or his Demonstration Plan. (Mayer Dep. 104.)
54. Professor Ronald Keith Gaddie did not calculate an efficiency gap because the efficiency gap did not emerge until 2014 and Gaddie's document 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. (Mayer Dep. 81.)
55. Mayer derives "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. (Mayer Dep. 79-80.)
56. 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\%. (Mayer Dep. Ex. 7, Ex. 8; Mayer Report 53.) ${ }^{6}$

[^4]57. Mayer incorrectly repeated the Republican percentage for the 85 th District (48.38\%) into the 86th District. (Mayer Dep. Ex. 8 at 3; Mayer Report 53.)
58. Plaintiffs claim that Gaddie's model forecast the eventual efficiency gap of the 2012 election. (Compl. ब| 36.)
59. In District 49, Gaddie's model shows a Republican vote percentage of 49.59\%. (Mayer Dep. Ex. 7.)
60. The actual Republican vote percentage in District 49 in 2012 was 54.19\%. (GAB 2012 Fall General Election Results at 20.)
61. In District 51, Gaddie's model shows a Republican vote percentage of 46.23\%. (Mayer Dep. Ex. 7.)
62. The actual Republican vote percentage in District 51 in 2012 was 51.85\%. (GAB 2012 Fall General Election Results at 20-21.)
63. In District 68, Gaddie's model shows a Republican vote percentage of 52.39\%. (Mayer Dep. Ex. 7.)
64. The actual Republican vote percentage in District 68 in 2012 was 52.39\%. (GAB 2012 Fall General Election Results at 25.)
65. In District 70, Gaddie's model shows a Republican vote percentage of 50.73\%. (Mayer Dep. Ex. 7.)
66. The actual Republican vote percentage in District 70 in 2012 was 49.65\%. (GAB 2012 Fall General Election Results at 25.)
67. In District 75, Gaddie's model shows a Republican vote percentage of 52.18\%. (Mayer Dep. Ex. 7.)
68. The actual Republican vote percentage in District 75 in 2012 was 48.85\%. (GAB 2012 Fall General Election Results at 26.)
69. In District 94, Gaddie's model shows a Republican vote percentage of 51.91\%. (Mayer Dep. Ex. 7.)
70. The actual Republican vote percentage in District 94 in 2012 was 39.38\%. (GAB 2012 Fall General Election Results at 31.)
71. In District 96, Gaddie's model predicts a Republican vote percentage of 46.40\%. (Mayer Dep. Ex. 7.)
72. The actual Republican vote percentage in District 96 in 2012 was 59.52\%. (GAB 2012 Fall General Election Results at 31.)
73. The model likewise predicts the incorrect winner in six races in the 2014 election, undercounting five Republican wins. (Mayer Dep. Ex. 7.)
74. In District 49, Gaddie's model predicts a Republican vote percentage of 49.59\%. (Mayer Dep. Ex. 7.)
75. The actual Republican vote percentage in District 49 in 2014 was 61.38\%. (GAB 2014 Fall General Election Results at 20.) ${ }^{7}$
76. In District 51, Gaddie's model predicts a Republican vote percentage of 46.23\%. (Mayer Dep. Ex. 7.)
77. The actual Republican vote percentage in District 51 in 2014 was 47.48\%. (GAB 2014 Fall General Election Results at 20.)

[^5]78. The Republican won in District 51 with less than $50 \%$ of the vote because an independent candidate won $5.25 \%$ of the vote. (GAB 2014 Fall General Election Results at 20.)
79. When calculated as a percentage of the two-party vote, the Republican won with $50.15 \%$. (GAB 2014 Fall General Election Results at 20.)
80. In District 68, Gaddie's model shows a Republican vote percentage of 49.23\%. (Mayer Dep. Ex. 7.)
81. The actual Republican vote percentage in District 68 in 2014 was 52.82\%. (GAB 2014 Fall General Election Results at 24.)
82. In District 85, Gaddie's model shows a Republican vote percentage of 48.38\%. (Mayer Dep. Ex. 7.)
83. The actual Republican vote percentage in District 85 in 2014 was 50.19\%. (GAB 2014 Fall General Election Results at 28.)
84. In District 94, Gaddie's model shows a Republican vote percentage of 51.91\%. (Mayer Dep. Ex. 7.)
85. The actual Republican vote percentage in District 94 in 2014 was 45.94\%. (GAB 2014 Fall General Election Results at 30.)
86. In District 96, Gaddie's model shows a Republican vote percentage of 46.40\%. (Mayer Dep. Ex. 7.)
87. The actual Republican vote percentage in District 96 in 2014 was 58.91\%. (GAB 2014 Fall General Election Results at 30.)
88. Mayer creates an alternative plan, called the Demonstration Plan. (Mayer Rep. 35, Fig. 8.)
89. Mayer calculates an efficiency gap based on his regression model as applied to the Demonstration Plan. (Mayer Rep. 45.)
90. 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. (Goedert Rep. 16-17.) ${ }^{8}$
91. 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." (Mayer Dep. 116-17.)
92. Mayer predicts that his Demonstration Plan would yield 51 Democratic seats and 48 Republican seats, which would still produce a gap of 62,414 wasted votes and a $2.20 \%$ efficiency gap in favor of Republicans. (Mayer Rep. 46.)
93. Mayer achieves this result by creating seventeen districts that are 50\%-55\% Democratic under his model. (Mayer Dep. Ex. 10.) ${ }^{9}$
94. In Mayer's Demonstration Plan, District 49 has a $50.3 \%$ predicted Democratic vote percentage. (Mayer Dep. Ex. 10 at 2.)

[^6]95. In Mayer's Demonstration Plan, District 92 has a $50.5 \%$ predicted Democratic vote percentage. (Mayer Dep. Ex. 10 at 3.)
96. In Mayer's Demonstration Plan, District 86 has a $50.7 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 3.)
97. In Mayer's Demonstration Plan, District 96 has a $51.5 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 3.)
98. In Mayer's Demonstration Plan, District 91 has a $51.7 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 3.)
99. In Mayer's Demonstration Plan, District 81 has a $51.8 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 3.)
100. In Mayer's Demonstration Plan, District 40 has a $51.9 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 2.)
101. In Mayer's Demonstration Plan, District 42 has a $51.9 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 2.)
102. In Mayer's Demonstration Plan, District 67 has a $51.9 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 2.)
103. In Mayer's Demonstration Plan, District 71 has a $52.1 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 2.)
104. In Mayer's Demonstration Plan, District 20 has a $52.3 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 1.)
105. In Mayer's Demonstration Plan, District 29 has a $52.3 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 1.)
106. In Mayer's Demonstration Plan, District 51 has a $52.6 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 2.)
107. In Mayer's Demonstration Plan, District 64 has a $52.8 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 2.)
108. In Mayer's Demonstration Plan, District 54 has a $53.4 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 2.)
109. In Mayer's Demonstration Plan, District 57 has a $53.4 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 2.)
110. In Mayer's Demonstration Plan, District 2 has a $54.1 \%$ predicted Democrat vote percentage. (Mayer Dep. Ex. 10 at 1.)
111. These predicted vote percentages were determined using the 2012 election environment. (Mayer Dep. 62-63.)
112. Jackman calculates Democrats won $51.4 \%$ of the statewide vote. (Jackman Dep. 117.)
113. Mayer did not create a model to show how these districts would have performed in the 2014 election environment. (Mayer Dep. 104.)
114. In the 2014 election environment Democratic vote share fell $3.4 \%$ down to $48.0 \%$. (Jackman Dep. 117.)
115. Jackman calculates a version of the efficiency gap, which he shortens to $E G$, that assumes there were an equal number of votes are cast in each district. (Jackman Dep. 21-22.)
116. 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. (Jackman Dep. 21-22.)
117. Wisconsin does not have equal turnout across districts. (2012 GAB Fall Election Results at 10-11; 2014 GAB Fall General Election Results at 11, 14.)
118. 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. (2012 GAB Fall General Election Results at 10-11.)
119. 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 . (2014 GAB Fall General Election Results at 11, 14.)
120. Using the assumption of equal turnout, Jackman's efficiency gap is calculated using statewide vote shares and seat shares because "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 $V$. (Jackman Rep. 16-17.) ${ }^{10}$
121. 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 zeroefficiency gap environment: "For any given observed $V$, the hypothesis of zero efficiency gap tells us what level of $S$ to expect." (Jackman Rep. 19.)

[^7]122. 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. . (Jackman Rep. 17.)
123. "Each additional percentage point of vote share for party A generates two additional percentage points of seat share." (Jackman Rep. 17.)
124. 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. This is represented by the orange line in Figure 4 below.


Figure 4: Theoretical seats-votes curves. The $E G=0$ 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 $V=.75$ jurisdistion-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).
(Jackman Rep. Fig. 4.)
125. 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." (Jackman Rep. 3.)
126. 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. (Jackman Rep. 19 \& Fig. 4.)
127. The zero efficiency gap hypothesis calls for $56 \%$ vote share to translate into a $62 \%$ seat share. (Jackman Rep. 17.)
128. Jackman rounds his efficiency gap calculations to the nearest percent (or . 01 as decimal) based on his comfort with "digits of precision." (Jackman Dep. 119.)
129. Jackman calculates the efficiency gap for 786 state legislative elections that occurred in from 1972 to 2014. (Jackman Rep. 19.)
130. Jackman computes the $V$ (two-party vote share for the Democratic candidates) and $S$ (seat share for Democrats) in each election. (Jackman Rep. 19-20.)
131. The $E G$ 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. (Jackman Rep. 19.)
132. In determining seats share, if a seat is won by a third-party candidate that is not a Republican or a Democrat, then this seat is disregarded. (Jackman Dep. 43.)
133. 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. (Jackman Rep. 20.)
134. Like Mayer, Jackman adjusts the raw vote totals by imputing vote shares for uncontested races, which he finds are $38.7 \%$ of races. (Jackman Rep. 22.)
135. Jackman uses two different methods for imputing vote shares depending on the type of data available. (Jackman Dep. 48.)
136. 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. (Jackman Dep. 49-50.)
137. 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." (Jackman Rep. 29.)
138. 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." (Jackman Rep. 32.)
139. Jackman expresses his $E G$ calculations as "point estimates" with lines indicating a 95\% level of confidence. (Jackman Dep. 24; Jackman Rep. 32.)
140. Jackman has less confidence in the "point estimate" of his $E G$ as the number of uncontested seats increases. (Jackman Dep. 62.)
141. Jackman found that " $[t]$ he distribution of $E G$ measures trends in a pro-Republican direction through the 1990s, such that by the 2000s, $E G$ measures were more likely to be negative (Republican efficiency over Democrats)." (Jackman Rep. 44.)
142. 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 $E G$ of the 25 th percentile plan, the median plan and the 75 th percentile plan. (Jackman Rep. 45, Fig. 20; Jackman Dep. 65-68.)
143. The efficiency gap of the median plan has been negative (favorable to the Republicans) since the mid-1990s. (Jackman Rep. 45, Fig. 20; Jackman Dep. 69.)
144. The most favorable median toward Democrats since 2000 was in 2010. (Jackman Rep. 45, Fig. 20.)
145. The 25 th percentile has been below $5 \%$ since the mid-1990s and even approached 7\% in 2004, 2010, and 2012. (Jackman Rep. 45, Fig. 20.)
146. The 75 th percentile has been below $5 \%$ since the mid-1990s and has hovered between 1\% and $2 \%$ since 2000. (Jackman Rep. 45, Fig. 20.)
147. 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. (Jackman Dep. 70; Jackman Rep. 46, Fig. 21.)
148. He finds that in every election year since 1996, more plans have had negative efficiency gaps than positive ones. (Jackman Rep. 46, Fig. 21.)
149. 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. (Jackman Rep. 46, Fig. 21; Jackman Dep. 71.)
150. Since 1996, the best year for the Democrats was 2010, in which there was a 50-50 probability of a plan being negative. (Jackman Rep. 46, Fig. 12.)
151. Jackman opines that a plan that has an efficiency gap of 7\% in the first election after redistricting should be presumptively unconstitutional. (Jackman Rep. 66.)
152. In determining that number, the key fact Jackman considered was whether the $E G$ would flip sign throughout the course of the plan; i.e. whether a plan would change from negative to positive or vice versa. (Jackman Dep. 106.)
153. In his report, he opines that "[i]t is especially important that we assess the durability of the sign of the $E G$ measure." (Jackman Rep. 53.)
154. Jackman's analysis focuses on determining a threshold for the $E G$ in the first election under a plan from which he could be confident that the sign of the plan would not change. (Jackman Dep. 96-97.)
155. He chose 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." (Jackman Dep. 96.)
156. Jackman first calculated 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. (Jackman Rep. 60-61, Fig. 29.)
157. Jackman's figures use red and blue squares spaced at each half percent (.005). (Jackman Dep. 103.)
158. 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. (Jackman Rep. 61, Fig. 29.)
159. 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\%. (Jackman Dep. 115; Jackman Rep. 62, Fig. 30.)
160. For all plans since 1972, Jackman finds that $18 \%$ of plans that had an $E G$ of at least $-7 \%$ go on to produce an election with a positive $E G$. (Jackman Rep. 61, Fig. 29.)
161. He finds that $40 \%$ of plans that produce an $E G$ of at least $+7 \%$ in the first election go on to produce an election with a negative EG. (Jackman Rep. 61, Fig. 29.)
162. Since 1991, Jackman finds that $18 \%$ of plans that produce an $E G$ of at least $-7 \%$ in the first election go on to produce an election with a positive $E G$. (Jackman Rep. 62, Fig. 30.)
163. Since 1991, He finds that $60 \%$ of plans that produce an $E G$ of at least $+7 \%$ in the first election go on to produce an election with a negative $E G$. (Jackman Rep. 62, Fig. 30.)
164. Jackman finds that elections favoring Republicans in the first election are much more common than those favoring Democrats. (Jackman Rep. 60.)
165. Jackman says that "we seldom see a plan in the 1990s or later that commence with a large-pro Democratic efficiency gap." (Jackman Rep. 60.)
166. The probability that the first election has an efficiency gap greater than 5\% "is only about 11\%." (Jackman Rep. 60.)
167. In contrast, negative efficiency gaps "are much more likely under the first election in post-1990 plans: almost $40 \%$ of plans open with $E G<-.05$ and about $20 \%$ of plans open with $E G<-.10$." (Jackman Rep. 60.)
168. Based on the discrepancy between the likelihood of sign change between negative and positive efficiency gaps, Jackman concludes that "proDemocratic efficiency gaps seem much more fleeting than pro-Republican efficiency gaps." (Jackman Rep. 60.)
169. A Democratic advantage is "not a durable feature" whereas a Republican advantage "tends to be a more durable feature of a plan." (Jackman Dep. 93.)
170. This trend becomes "even more pronounced in the analysis that focused on recent decades." (Jackman Dep. 95.)
171. To determine his confidence in a threshold, Jackman set out to determine the proportion of plans that trip the threshold and "if left undisturbed, would go on to produce a sequence of $E G$ measures that lie on the same side of zero as the threshold?" (Jackman Rep. 66.)
172. Jackman finds 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." (Jackman Dep. 111.)
173. Jackman thinks this number is acceptable because these plans are unlikely to change sign and thus would be properly struck down by courts as constitutional violations. (Jackman Rep. 66-69.)
174. Jackman finds that "plans with at least one election" of an efficiency gap of 7\% or greater "are reasonably common." (Jackman Rep. 56.)
175. An $E G$ of $7 \%$ or greater "is not a particularly informative signal with respect to the other elections in the plan." (Jackman Rep. 56.)
176. Jackman finds that $53 \%$ of plans since 1972 have one election with an $E G$ 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. (Jackman Rep. 57, Fig. 27.)
177. When looking at plans since 1991, $47 \%$ of plans have had at least one election with an $E G$ 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. (Jackman Rep. 59, Fig. 28.)
178. Since $1972,33 \%$ of plans have had an election with an $E G$ of $10 \%$ or higher, with $18 \%$ having an election with a gap of $-10 \%$ and $15 \%$ having an election with an gap of $+10 \%$. (Jackman Rep. 57, Fig. 20; Jackman Dep. 89, 91.)
179. When looking just at elections since 1991, $35 \%$ of plans have had an election with an $E G$ of at least $10 \%$ : $24 \%$ of plans have had an election with a gap of $-10 \%$ and $11 \%$ of plans having an election with a gap of $+10 \%$. (Jackman Rep. 59, Fig. 21.)
180. Jackman found that 17 of the 141 plans for which he could calculated 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. (Jackman Rep. 53; Jackman Dep. 83-84.)
181. Of these seventeen plans, sixteen of them were favorable to the Republicans and only one was favorable to the Democrats. (Jackman Rep. 55, Table 1.)
182. Jackman does not analyze whether these plans were partisan districting in the sense of one party controlling the districting process. (Trende Rep. -|| $109-10.)^{11}$
183. When one considers this fact, only seven plans featured unified partisan control over the districting process. (Trende Rep. \|\| 109-10.)

[^8]184. 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). (Jackman Rep. 55, Table 1.)
185. 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 remained the same sign. (Trende Rep. ब110.)
186. Jackman calculated $E G s$ for the 2012 and 2014 elections for 39 states. (Jackman Rep. 73, Fig. 36.)
187. Fifty-one point estimates were negative (65.4\%) while twenty-seven were positive (34.6\%). (Jackman Rep. 73, Fig. 36.)
188. Eighteen states (46\%) had point estimates for 2012 and 2014 that were both negative. (Jackman Rep. 73, Fig. 36.)
189. Included among this eighteen were Minnesota, Missouri, New York, and Kansas. (Jackman Rep. 73, Fig. 36.)
190. In elections held under the 1992 and 2002 Plans, the Republicans failed to win control of the Assembly two times: in 1992 and 2008. (Keenan Dec. $\mathbb{T}$ 15, Ex. 113.) ${ }^{12}$

[^9]191. In the 1992 Assembly elections, Republicans won 47 seats and Democrats won 52. (Keenan Dec. ब 15, Ex. 113.) The 1992 election results are publicly available in the 1993-1994 Wisconsin Blue Book, available at http://digicoll.library.wisc.edu/cgi-bin/WI/WI$\underline{\text { idx?type=article\&did=WI.WIBlueBk1993.i0016\&id=WI.WIBlueBk1993\&isize=M }}$
192. In the 1994 Assembly elections, Republicans won 51 seats and Democrats won 48. (Keenan Dec. ब 15, Ex. 113.) The 1994 election results are publicly available in the 1995-96 Wisconsin Blue Book, available http://digicoll.library.wisc.edu/cgi-bin/WI/WI$\underline{\text { idx?type=article\&did=WI.WIBlueBk1995.i0017\&id=WI.WIBlueBk1995\&isize=M }}$
193. In the 1996 Assembly elections, Republicans won 52 seats and Democrats won 47. (Keenan Dec. © 15, Ex. 113.) The 1996 election results are publicly available in the 1997-98 Wisconsin Blue Book, available at http://digicoll.library.wisc.edu/cgi-bin/WI/WI$\underline{\text { idx?type=article\&did=WI.WIBlueBk1997.i0017\&id=WI.WIBlueBk1997\&isize=M }}$
194. In the 1998 Assembly elections, Republicans won 55 seats and Democrats won 44. (Keenan Dec. If 15, Ex. 113.) The 1998 election results are publicly available in the 1999-2000 Wisconsin Blue Book, available at http://digicoll.library.wisc.edu/cgi-bin/WI/WIidx?type=article\&did=WI.WIBlueBk1999.i0017\&id=WI.WIBlueBk1999\&isize=M
195. In the 2000 Assembly elections, Republicans won 56 seats and Democrats won 43. (Keenan Dec. If 15, Ex. 113.) The 2000 election results are publicly available on the GAB's website at http://www.gab.wi.gov/sites/default/files/2000 General Election Summary Results. pdf
196. In the 2002 Assembly elections, Republicans won 58 seats and Democrats won 41. (Keenan Dec. ब 15, Ex. 113.) The 2002 election results are publicly available on the GAB's website at http://www.gab.wi.gov/sites/default/files/elec02F results.pdf
197. In the 2004 Assembly elections, Republicans won 60 seats and Democrats won 39. (Keenan Dec. © 15, Ex. 113.) The 2004 election results are publicly available on the GAB's website at http://www.gab.wi.gov/sites/default/files/2004 FallElection Results Summary.pdf
198. In the 2006 Assembly elections, Republicans won 52 seats and Democrats won 47. (Keenan Dec. ब 15, Ex. 113.) The 2006 election results are publicly available on the GAB's website at http://www.gab.wi.gov/sites/default/files/2006_FallElection_Results_Summary_0.pdf
199. In the 2008 Assembly elections, Republicans won 46 seats, Democrats won 52 , and an independent candidate won 1. (GAB 2008 Fall General Election Results at 10-43.) ${ }^{13}$

[^10]200. In the 2010 Assembly elections, Republicans won 60 seats, Democrats won 38, and an independent candidate won 1. (GAB 2010 Fall General Election Results at 9-34.) ${ }^{14}$
201. When Jackman analyzed each Wisconsin Assembly elections since 1972, he found that Wisconsin's $E G$ has ranged from $+2 \%$ (in 1994) to $-14 \%$ (in 2012). (Jackman Rep. 36.)
202. Disregarding results from the current plan, the lowest $E G$ was $-12 \%$ (in 2006). (Jackman Rep. 72, Fig. 35.)
203. The most favorable $E G$ towards Democrats since 1972 was $2 \%$, which notably occurred in 1994 when the Republicans gained control of the Assembly. (Jackman Rep. 36; Keenan Dec. $\mathbb{1}$ 15, Ex. 113.)
204. Jackman finds that "Wisconsin has recorded an unbroken run of negative $E G$ estimates from 1998 to 2014." (Jackman Rep. 36.)
205. The last positive $E G$ was the $2 \%$ from 1994. (Jackman Dep. 120.)
206. With respect to the 2002 Plan, Jackman calculated an average efficiency gap of $-8 \%$, with $-12 \%$ as the most favorable year to Republicans and $-4 \%$ as the most favorable year to Democrats. (Jackman Rep. 55, Table 1.)
207. In 1992, the Democrats' seat share founded to the nearest $.25 \%$ was $52.5 \%$. Given that Jackman calculates an $E G$ of $-2 \%$, this means the implied seat share was $54.5 \%$ and their vote share was $52.25 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 191.)

[^11]208. In 1994, the Democrats' seat share rounded to the nearest $0.25 \%$ was $48.5 \%$. Given that Jackman calculates an $E G$ of $+2 \%$, this means the implied seat share was $46.5 \%$ and their vote share was $48.25 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 192.)
209. In 1996, the Democrats' seat share rounded to the nearest $0.25 \%$ was $47.5 \%$. Given that Jackman calculates an $E G$ of $0 \%$, this means the implied seat share was $47.5 \%$ and their vote share was $48.75 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 193.)
210. In 1998, the Democrats' seat share rounded to the nearest $0.25 \%$ was $44.5 \%$. Given that Jackman calculates an $E G$ of $-7.5 \%$, this means the implied seat share was $52 \%$ and their vote share was $51 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 194.)
211. In 2000, the Democrats' seat share rounded to the nearest $0.25 \%$ was $43.5 \%$. Given that Jackman calculates an $E G$ of $-6 \%$, this means the implied seat share was $49.5 \%$ and their vote share was $49.75 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 195.)
212. In 2002, the Democrats' seat share rounded to the nearest $0.25 \%$ was $41.5 \%$. Given that Jackman calculates an $E G$ of $-7.5 \%$, this means the implied seat share was $49 \%$ and their vote share was $49.5 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 196.)
213. In 2004, the Democrats' seat share rounded to the nearest $0.25 \%$ was 40\%. Given that Jackman calculates an $E G$ of $-10 \%$, this means the implied seat
share was $50 \%$ and their vote share was $50 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 197.)
214. In 2006, the Democrats' seat share rounded to the nearest $0.25 \%$ was $47.5 \%$. Given that Jackman calculates an $E G$ of $-12 \%$, this means the implied seat share was $59.5 \%$ and their vote share was $54.75 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 198.)
215. In 2008, the Democrats' seat share rounded to the nearest $0.25 \%$ was $53 \%$. Given that Jackman calculates an $E G$ of $-5 \%$, this means the implied seat share was $58 \%$ and their actual vote share was $54 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 199.)
216. In 2010, the Democrats' seat share rounded to the nearest $0.25 \%$ was $39 \%$. Given that Jackman calculates an $E G$ of $-4 \%$, this means the implied seat share was $43 \%$ and their actual vote share was $46.5 \%$. (Jackman Rep. 17-19, 72, Fig. 35; PFOF 200.)
217. In 2012, the Democrats' vote share was $51.4 \%$. This yields an implied seat share of $52.8 \%$ under a zero efficiency gap hypothesis. The Democrats' actual seat share was $39.4 \%$, yielding an efficiency gap of $-13.4 \%$. (Jackman Dep. 117-19.)
218. In 2014, the Democrats' vote share was $48.0 \%$ which yields an implied seat share of $46.0 \%$. Their actual seat share was $36.4 \%$, which yields an efficiency gap of -9.6\%. (Jackman Dep. 117-19; Jackman Rep. 17-19, 72, Fig. 35; GAB 2014 Fall Election Results at 9-31.)
219. In 2008, the Democrats won control of the Assembly for the first time since 1992. (PFOF 191-199; GAB 2008 Fall General Election Results at 10-43.)
220. Senator Obama carried Wisconsin with $56.22 \%$ of the total vote (and $57.05 \%$ of the two-party vote). (GAB 2008 Fall General Election Results at 1.)
221. Assembly Democrats ran about two points behind Obama in the twoparty vote. (Jackman Rep. 72, Fig. 35; GAB 2008 Fall General Election Results.)
222. In the November 2010 election Republican candidates won the Governor's office, a majority in the State Senate and retook the majority in the Assembly. (GAB 2010 Fall General Election Results.)
223. In the November 2010 election Scott Walker won the Governor's office with $52.25 \%$ of the total vote (52.9\% of the two-party vote). (GAB 2010 Fall General Election Results at 1.)
224. In the November 2010 election Republicans won 60 seats in the Assembly. (GAB 2010 Fall General Election Results at 9-34.)
225. In the November 2010 election Republicans secured 53.5\% of the twoparty vote share. (PFOF 216; GAB 2010 Fall General Election Results.)
226. 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. (Compl. \|\| 60-76.)
227. In the 2010 elections, the Republicans won eight of these districts (Districts 2, 5, 26, 42, 68, 72, 88, and 93) and an independent won one (District 25). (GAB 2010 Fall General Election Results at 9-32.)
228. On June 5, 2012, Governor Walker survived a recall attempt with $53.08 \%$ of the vote (53.4\% of the two-party vote). (GAB 2012 Recall Election Results at 1.$)^{15}$
229. In November of 2012, President Obama won Wisconsin in the presidential election with $52.83 \%$ of the total vote ( $53.5 \%$ of the two-party vote). (GAB 2012 Fall Election Results at 1.)
230. 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\%. (Jackman Dep. 117.)
231. In November of 2014, the Republicans increased their control of the Assembly by winning 63 seats, equating to a $63.6 \%$ seat share. (GAB 2014 Fall Election Results at 9-31.)
232. Jackman calculates that Republicans' two-party vote share of $52 \%$. (Jackman Dep. 117.)
233. Both Goedert and Trende rely on recent work by political scientists Jowei Chen of the University of Michigan and Jonathan Rodden of Stanford University. (Goedert Rep. 18; Trende Rep. If 89.)
234. 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, (Trende Rep. 『\| 66-69.)

[^12]235. 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." (Trende 【 67.)
236. In 2012, 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." (Trende Rep. ब 68.)
237. Trende 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. (Trende Rep. $\mathbb{T \|}$ 81-85.)
238. The Partisan Index compares the share of the two-party vote in a jurisdiction compared to the national share of the vote. (Trende Rep. ब| 97. .)
239. The Partisan Index is a way to "control for national effects, and compare results across elections." (Trende Rep. 『\| 77.)
240. Using PI is a good comparison for 1996 and 2012 because Wisconsin "was almost identically as Democratic in 2012 as it was in 1996." (Trende Rep. - 184.$)$
241. 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


(Trende Rep. ब| 80.)
242. 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."

## Wisconsin County PI 2012


(Trende Rep. $\mathbb{1}$ 84.)
243. From 1996 to 2012, Republican support spread throughout much more of the state and Democratic support became more concentrated in its strongholds. (Trende Rep. 9 86.)
244. 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. (Trende Rep. ब 86.)
245. 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. (Trende Rep. ब 86.)
246. Under the two court-drawn plans, the efficiency gap ranged from $+2 \%$ to $-12 \%$. (Jackman Rep. 36, 72, Fig. 35.)
247. The most recent court-drawn plan had an average efficiency gap of $8 \%$, which ranged from $-4 \%$ to $-12 \%$. (Jackman Rep. 55, Table 1.)
248. With respect to the entire country, Jackman found that " $[\mathrm{t}]$ he distribution of $E G$ measures trends in a pro-Republican direction through the 1990s, such that by the 2000 s, $E G$ measures were more likely to be negative." (Jackman Rep. 44.)
249. The median plan has been negative since the mid-1990s and the 25 th percentile has been below $5 \%$ since the mid-1990s and even approached $7 \%$ in 2004, 2010, and 2012. (Jackman Rep. 45, Fig. 20.)
250. Meanwhile the seventy-fifth percentile has only favored Democrats by 1\%-2\%. (Jackman Rep. 45, Fig. 20.)
251. 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. (Jackman Rep. 46, Fig. 21.)
252. Thirty-six percent of plans fail Jackman's standard of a $7 \% E G$ in the first election following redistricting. (Jackman Rep. 61, Fig. 29.)
253. Even upping this standard to a $10 \% E G$ in the first election sweeps in about $18 \%$ of plans. (Jackman Rep. 61, Fig. 29.)
254. If the 2004 and $2006 E G$ s had presented themselves first, 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." (Compl. © 1.)
255. In 2012, the Republicans won five seats (Districts 1, 26, 50, 72 and 93) with no more than $51.3 \%$ of the total vote. (GAB 2012 Fall General Election Results at $8,14,20,26,30-31$.)
256. 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). (GAB 2012 Fall General Election Results at 8, 14, 20, 26, 30-31.)
257. For 2012 and 2014, Jackman calculates that Illinois had one negative efficiency gap and one narrowly positive efficiency gap. (Jackman Rep. 73, Fig. 36.)

Dated this 4th day of January, 2015.

Respectfully submitted,
BRAD D. SCHIMEL
Attorney General
s/ Brian P. Keenan
BRIAN P. KEENAN
Assistant Attorney General
State Bar \#1056525

# ANTHONY D. RUSSOMANNO 

Assistant Attorney General
State Bar \#1076050
Wisconsin Department of Justice
Post Office Box 7857
Madison, Wisconsin 53707-7857
(608) 266-0020 (BPK)
(608) 267-2238 (ADR)
(608) 267-2223 (Fax)
keenanbp@doj.state.wi.us
russomannoad@doj.state.wi.us


[^0]:    1 The Deposition Transcript of Ken Mayer is attached to the Declaration of Brian P. Keenan as Exhibit 100
    2 The Deposition Transcript of Simon Jackman is attached to the Declaration of Brian P. Keenan as Exhibit 101

[^1]:    ${ }^{3}$ The expert report of Ken Mayer is attached to the Declaration of Brain P. Keenan as Exhibit 111. This report is identical to the one filed with the court on July 8, 2014 attached to the Plaintiffs' Complaint as exhibit 2 (Dkt. 1-2), except it contains an Annex that was referenced in, but not attached to the version filed with the Court.

[^2]:    ${ }^{4}$ The GAB 2012 Fall General Election Results is attached to the Declaration of Brian P. Keenan as Exhibit 102.

[^3]:    ${ }^{5}$ Mayer Dep. Ex. 5 is attached to the Declaration of Brian P. Keenan as Exhibit 103.

[^4]:    ${ }^{6}$ Mayer Dep. Ex. 7 and Mayer Dep. Ex. 8 are attached to the Declaration of Brain P. Keenan as Exhibit 104 and 105, respectively.

[^5]:    ${ }^{7}$ The GAB 2014 Fall General Election Results is attached to the Declaration of Brian P. Keenan as Exhibit 106

[^6]:    8 The expert report of Nicholas Goedert is attached to the Declaration of Nicholas M. Goedert as Exhibit A.
    ${ }^{9}$ Mayer Dep. Ex. 10 is attached to the Declaration of Brian P. Keenan as Exhibit 107.

[^7]:    10 The expert report of Simon Jackman is attached to the Plaintiffs' Complaint as Ex. 3 (Dkt. 1-3).

[^8]:    11 The expert report of Sean Trende is submitted as a declaration but will be cited as Trende Rep. throughout.

[^9]:    12 Exhibit 113 is page 203 of the book by Michael J. Dubin, Party Affiliations in the State Legislatures: A Year by Year Summary, 1796-2006 showing the number of seats won by each party in the Wisconsin Assembly and Senate for the years 1974-2006. Defendants use this as a summary of the race-by-race results found in the Wisconsin Blue Book or the GAB's website.

[^10]:    13 The GAB 2008 Fall General Election Results is attached to the Declaration of Brain P. Keenan as Exhibit 108.

[^11]:    14 The GAB 2010 Fall General Election Results is attached to the Declaration of Brian P. Keenan as Exhibit 109.

[^12]:    15 The GAB 2012 Recall Election Results is attached to the Declaration of Brian P. Keenan as Exhibit 110.

