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

WILLIAM WHITFORD, et al., Plaintiffs,
v.

Case No. 15-CV-421-bbc
GERALD NICHOL, et al., Defendants.

## DEFENDANTS' PROPOSED FINDINGS OF FACT

The defendants, Gerald Nichol, et al., by their attorneys, Wisconsin Attorney General Brad D. Schimel and Assistant Attorneys General Brian P. Keenan and Anthony D. Russomanno, and pursuant to the Court's October 15, 2015, Preliminary Pretrial Conference Order, offer the following findings of fact the defendants request the Court to find after trial:

## HISTORY OF ELECTIONS IN WISCONSIN

1. The Government Accountability Board's official election results are authoritative for Wisconsin elections dating back to the year 2000.
2. For elections in years prior to 2000, the Wisconsin Blue Book's election results are authoritative.
3. The City of Milwaukee Election Commission maintains election results dating back to 1997 on its website. These results are authoritative for election results in the City of Milwaukee.
4. The following chart contains the number of seats won by Democratic, Republican and Independent candidates in the November general elections from 1972 to 2014 . The party with the majority is listed in bold.

| Year | Democrat | Republican | Independent |
| :---: | :---: | :---: | :---: |
| 1972 | $\mathbf{6 2}$ | 37 |  |
| 1974 | $\mathbf{6 3}$ | 36 |  |
| 1976 | $\mathbf{6 6}$ | 33 |  |
| 1978 | $\mathbf{6 0}$ | 39 |  |
| 1980 | $\mathbf{5 9}$ | 40 |  |
| 1982 | $\mathbf{5 9}$ | 40 |  |
| 1984 | $\mathbf{5 2}$ | 47 |  |
| 1986 | $\mathbf{5 4}$ | 45 |  |
| 1988 | $\mathbf{5 6}$ | 43 |  |
| 1990 | $\mathbf{5 8}$ | 41 |  |
| 1992 | $\mathbf{5 2}$ | 47 |  |
| 1994 | 48 | $\mathbf{5 1}$ |  |
| 1996 | 47 | $\mathbf{5 2}$ |  |
| 1998 | 44 | $\mathbf{5 5}$ |  |
| 2000 | 43 | $\mathbf{5 6}$ |  |
| 2002 | 41 | $\mathbf{5 8}$ |  |
| 2004 | 39 | $\mathbf{6 0}$ |  |
| 2006 | 47 | $\mathbf{5 2}$ |  |
| 2008 | $\mathbf{5 2}$ | 46 |  |
| 2010 | 38 | $\mathbf{6 0}$ |  |
| 2012 | 39 | $\mathbf{6 0}$ |  |
| 2014 | 36 | $\mathbf{6 3}$ |  |

5. The Democrats won a majority of seats in the Wisconsin Assembly in each general election from 1972 through 1994.
6. The Republicans won a majority of seats in the Wisconsin Assembly in each general election from 1994 through 2014, with the exception of the 2008 election.
7. The Assembly map in place for the $1972,1974,1976,1978$ and 1980 plans was enacted by the Democratic Assembly and Republican Senate and signed by a Democratic Governor.
8. The Assembly map in place for the 1982 election was put in place by the federal court in Wisconsin State AFL-CIO v. Elections Bd., 543 F. Supp. 630 (E.D. Wis. 1982).
9. The Assembly map in place for the 1982 election was amended and enacted by the Democratic Assembly and Democratic Senate and signed by a Democratic Governor and was then in place for the 1984, 1986, 1988 and 1990 elections.
10. The Assembly map in place for the 1992, 1994, 1996, 1998 and 2000 elections was drawn by the federal court in Prosser v. Elections Board, 793 F. Supp. 859 (W.D. Wis. 1992).
11. The Assembly map in place for the 2002, 2004, 2006, 2008 and 2010 elections was drawn 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).
12. Professor Jackman analyzed each Wisconsin Assembly election since 1972 and found that Wisconsin's $E G$ has ranged from a high (most favorable to Democrats) of $+2.48 \%$ in 1994 to a low (most favorable to Republicans) of $-13.31 \%$ in 2012.
13. Disregarding results from the current plan, the lowest $E G$ was $-11.83 \%$ in 2006.
14. The most favorable $E G$ towards Democrats notably occurred in 1994 when the Republicans gained control of the Assembly for the first time since the 1968 election.
15. Professor Jackman finds that "Wisconsin has recorded an unbroken run of negative $E G$ estimates from 1998 to 2014."
16. The last positive $E G$ that Professor Jackman found in Wisconsin was the $2.48 \%$ from 1994 .
17. With respect to the 2002 Plan, Professor Jackman calculated an average efficiency gap of $-7.6 \%$, with $-4.0 \%$ as the most favorable year to Democrats and $-11.8 \%$ as the most favorable year to Republicans.
18. In 1992, the Democrats' seat share rounded to the nearest $.25 \%$ was $52.5 \%$. Given that Professor Jackman calculates an $E G$ of $-2 \%$, the Democratic vote share was $52.25 \%$ because the implied seat share if the efficiency gap was zero is 54.5\%
19. In 1994, the Democrats' seat share rounded to the nearest $0.25 \%$ was 48.5\%. Given that Professor Jackman calculates an $E G$ of $+2 \%$, the Democratic vote share was $48.25 \%$ because the implied seat share if the efficiency gap was zero is 46.5\%.
20. In 1996, the Democrats' seat share rounded to the nearest $0.25 \%$ was $47.5 \%$. Given that Professor Jackman calculates an $E G$ of $0 \%$, the Democratic vote
share was $48.75 \%$ because the implied seat share if the efficiency gap was zero is 47.5\%.
21. In 1998, the Democrats' seat share rounded to the nearest $0.25 \%$ was $44.5 \%$. Given that Professor Jackman calculates an $E G$ of $-7.5 \%$, the Democratic vote share was $51 \%$ because the implied seat share if the efficiency gap was zero is $52 \%$.
22. In 2000, the Democrats' seat share rounded to the nearest $0.25 \%$ was $43.5 \%$. Given that Professor Jackman calculates an $E G$ of $-6 \%$, the Democratic vote share was $49.75 \%$ because the implied seat share if the efficiency gap was zero is 49.5\%.
23. In 2002, the Democrats' seat share rounded to the nearest $0.25 \%$ was $41.5 \%$. Given that Professor Jackman calculates an $E G$ of $-7.5 \%$, the Democratic vote share was $49.5 \%$ because the implied seat share if the efficiency gap was zero is 49\%.
24. In 2004, the Democrats' seat share rounded to the nearest $0.25 \%$ was $40 \%$. Given that Professor Jackman calculates an $E G$ of $-10 \%$, the Democratic vote share was $50 \%$ because the implied seat share if the efficiency gap was zero is $50 \%$.
25. In 2006, the Democrats' seat share rounded to the nearest $0.25 \%$ was $47.5 \%$. Given that Professor Jackman calculates an $E G$ of $-12 \%$, the Democratic vote share was $54.75 \%$ because the implied seat share if the efficiency gap was zero is $59.5 \%$.
26. In 2008, the Democrats' seat share rounded to the nearest $0.25 \%$ was $53 \%$. Given that Professor Jackman calculates an $E G$ of $-5 \%$, the Democratic vote share was $54 \%$ because the implied seat share if the efficiency gap was zero is $58 \%$.
27. In 2010, the Democrats' seat share rounded to the nearest $0.25 \%$ was $39 \%$. Given that Professor Jackman calculates an $E G$ of $-4 \%$, the Democratic vote share was $46.5 \%$ because the implied seat share if the efficiency gap was zero is $43 \%$.
28. In 2012, Professor Jackman calculates that the Democrats' vote share was $51.4 \%$. This yields an implied seat share of $52.8 \%$ if the efficiency gap was zero. The Democrats' actual seat share was $39.4 \%$, yielding an efficiency gap of $-13.4 \%$.
29. In 2014, Professor Jackman calculates that the Democrats' vote share was $48.0 \%$. This yields an implied seat share of $46.0 \%$ if the efficiency gap was zero. Their actual seat share was $36.4 \%$, which yields an efficiency gap of $-9.6 \%$.
30. In 1988, Michael Dukakis, the Democratic candidate for President, won $1,126,794$ votes in Wisconsin to Republican George H.W. Bush's $1,047,499$ votes, winning $51.8 \%$ of the two-party vote.
31. In the presidential election nationwide, George H.W. Bush won 53.9\% of the two-party vote and Dukakis won $46.1 \%$.
32. The following chart shows the vote totals for Dukakis and Bush in each county in Wisconsin.

| County | Dukakis <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :--- | :---: | :--- | ---: |
| Adams | 3,598 | 3,258 | 6,856 |


| County | Dukakis <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | :--- | ---: |
| Ashland | 4,526 | 2,926 | 7,452 |
| Barron | 8,951 | 8,527 | 17,478 |
| Bayfield | 4,323 | 3,095 | 7,418 |
| Brown | 41,788 | 43,625 | 85,413 |
| Buffalo | 3,481 | 2,783 | 6,264 |
| Burnett | 3,537 | 2,884 | 6,421 |
| Calumet | 6,481 | 8,107 | 14,588 |
| Chippewa | 11,447 | 9,757 | 21,204 |
| Clark | 6,642 | 6,296 | 12,938 |
| Columbia | 9,132 | 10,475 | 19,607 |
| Crawford | 3,608 | 3,238 | 6,846 |
| Dane | 105,414 | 69,143 | 174,557 |
| Dodge | 12,663 | 17,003 | 29,666 |
| Door | 5,425 | 6,907 | 12,332 |
| Douglas | 13,907 | 6,440 | 20,347 |
| Dunn | 9,205 | 7,273 | 16,478 |
| Eau Claire | 21,150 | 17,664 | 38,814 |
| Florence | 1,018 | 1,106 | 2,124 |
| Fond du Lac | 15,887 | 21,985 | 37,872 |
| Forest | 2,142 | 1,845 | 3,987 |
| Grant | 9,421 | 10,049 | 19,470 |
| Green | 5,153 | 6,636 | 11,789 |
| Green Lake | 3,033 | 5,205 | 8,238 |
| Iowa | 4,268 | 4,240 | 8,508 |
| Iron | 2,090 | 1,599 | 3,689 |
| Jackson | 3,924 | 3,555 | 7,479 |
| Jefferson | 11,816 | 14,309 | 26,125 |
| Juneau | 3,734 | 4,869 | 8,603 |
| Kenosha | 30,089 | 21,661 | 51,750 |
| Kewaunee | 4,786 | 4,330 | 9,116 |
| La Crosse | 22,204 | 21,548 | 43,752 |
| Lafayette | 3,521 | 3,665 | 7,186 |
| Langlade | 4,254 | 4,884 | 9,138 |
| Lincoln | 5,819 | 5,257 | 11,076 |
| Manitowoc | 19,680 | 16,020 | 35,700 |
| Marathon | 24,658 | 24,482 | 49,140 |


| County | Dukakis Vote | Bush Vote | Two Party Total |
| :---: | :---: | :---: | :---: |
| Marinette | 8,030 | 9,637 | 17,667 |
| Marquette | 2,463 | 3,059 | 5,522 |
| Menominee | 1,028 | 381 | 1,409 |
| Milwaukee | 268,287 | 168,363 | 436,650 |
| Monroe | 6,437 | 7,073 | 13,510 |
| Oconto | 6,549 | 7,084 | 13,633 |
| Oneida | 7,414 | 8,130 | 15,544 |
| Outagamie | 27,771 | 33,113 | 60,884 |
| Ozaukee | 12,661 | 22,899 | 35,560 |
| Pepin | 1,906 | 1,311 | 3,217 |
| Pierce | 8,659 | 6,045 | 14,704 |
| Polk | 8,981 | 6,866 | 15,847 |
| Portage | 16,317 | 12,057 | 28,374 |
| Price | 3,987 | 3,450 | 7,437 |
| Racine | 39,631 | 36,342 | 75,973 |
| Richland | 3,643 | 4,026 | 7,669 |
| Rock | 29,576 | 28,178 | 57,754 |
| Rusk | 3,888 | 3,063 | 6,951 |
| St. Croix | 11,392 | 9,960 | 21,352 |
| Sauk | 8,324 | 10,225 | 18,549 |
| Sawyer | 3,231 | 3,260 | 6,491 |
| Shawano | 6,587 | 8,362 | 14,949 |
| Sheboygan | 23,429 | 23,471 | 46,900 |
| Taylor | 3,785 | 4,254 | 8,039 |
| Trempealeau | 6,212 | 4,902 | 11,114 |
| Vernon | 5,754 | 5,226 | 10,980 |
| Vilas | 3,781 | 5,842 | 9,623 |
| Walworth | 12,203 | 18,259 | 30,462 |
| Washburn | 3,393 | 3,074 | 6,467 |
| Washington | 15,907 | 24,328 | 40,235 |
| Waukesha | 57,598 | 90,467 | 148,065 |
| Waupaca | 7,078 | 11,559 | 18,637 |
| Waushara | 3,535 | 4,953 | 8,488 |
| Winnebago | 28,508 | 35,085 | 63,593 |


| County | Dukakis <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :--- | :---: | :--- | ---: |
| Wood | 16,074 | 16,549 | 32,623 |
|  | $1,126,794$ | $1,047,499$ | $2,174,293$ |

33. The following chart shows the vote totals and two-party vote percentages for Dukakis and Bush in Dane, Milwaukee and Rock Counties.

| County | Dukakis Vote | Bush Vote | Two Party Total |
| :---: | :---: | :---: | :---: |
| Dane | $105,414(60.39 \%)$ | $69,143(39.61 \%)$ | 174,557 |
| Milwaukee | $268,287(61.44 \%)$ | $168,363(38.56 \%)$ | 436,650 |
| Rock | $29,576(51.21 \%)$ | $28,178(48.79 \%)$ | 57,754 |

34. In 1988, the Democratic Party in Wisconsin had a broad geographic reach. It was strongest on the Menominee Indian Reservation (Partisan Index of 26.86), as is the case today. The other four most Democratic counties were Douglas (22.47 PI), Milwaukee (15.34 PI), Ashland (14.63) and Dane (14.3). Seventy-one percent of counties had Democratic leans, and the Democratic Party covered the entire Western portion of the State, particularly in the northwest. Republicans were relegated to suburban and rural counties in the southeast and east-central portions of the State.
35. The following map shows the PIs of each county in Wisconsin in 1988, with blue shading for counties with Democratic leans and red shading for counties with Republican leans, with darker shading for stronger leans.

## Wisconsin County PI 1988


36. In 1992, Bill Clinton, the Democratic candidate for President, won $1,041,066$ votes in Wisconsin to Republican George H.W. Bush's 930,855, winning $52.8 \%$ of the two-party vote share.
37. In the presidential election nationwide, Clinton won $53.5 \%$ of the two-party vote share to Bush's 46.5\%.
38. The following chart shows the vote totals for Clinton and Bush in each county in Wisconsin.

| County | Clinton <br> Vote | Bush <br> Vote | Two Party <br> Total |
| :---: | :---: | :---: | :---: |
| Adams | 3,539 | 2,465 | 6,004 |
| Ashland | 4,213 | 2,372 | 6,585 |
| Barron | 8,063 | 6,572 | 14,635 |
| Bayfield | 3,873 | 2,393 | 6,266 |
| Brown | 37,513 | 42,352 | 79,865 |
| Buffalo | 2,996 | 2,029 | 5,025 |
| Burnett | 3,172 | 2,340 | 5,512 |
| Calumet | 5,701 | 7,541 | 13,242 |
| Chippewa | 10,487 | 8,215 | 18,702 |
| Clark | 5,540 | 4,977 | 10,517 |
| Columbia | 9,348 | 9,099 | 18,447 |
| Crawford | 3,540 | 2,390 | 5,930 |
| Dane | 114,724 | 61,957 | 176,681 |
| Dodge | 11,438 | 14,971 | 26,409 |
| Door | 4,735 | 5,468 | 10,203 |
| Douglas | 12,319 | 5,679 | 17,998 |
| Dunn | 7,965 | 5,283 | 13,248 |
| Eau Claire | 21,221 | 15,915 | 37,136 |
| Florence | 978 | 942 | 1,920 |
| Fond du Lac | 13,757 | 19,785 | 33,542 |
| Forest | 1,904 | 1,393 | 3,297 |
| Grant | 8,914 | 7,678 | 16,592 |
| Green | 5,467 | 4,887 | 10,354 |
| Green Lake | 2,772 | 3,897 | 6,669 |
| Iowa | 4,467 | 3,288 | 7,755 |
| Iron | 1,762 | 1,273 | 3,035 |
| Jackson | 3,681 | 2,644 | 6,325 |
| Jefferson | 11,593 | 13,072 | 24,665 |
| Juneau | 4,177 | 4,051 | 8,228 |
| Kenosha | 27,341 | 19,854 | 47,195 |
| Kewaunee | 4,050 | 3,570 | 7,620 |
| La Crosse | 22,838 | 18,891 | 41,729 |
| Lafayette | 3,143 | 2,582 | 5,725 |
| Langlade | 3,630 | 3,890 | 7,520 |
| Lincoln | 5,297 | 4,321 | 9,618 |


| County | Clinton <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :---: | :---: | :---: | :---: |
| Manitowoc | 15,903 | 14,008 | 29,911 |
| Marathon | 21,482 | 20,948 | 42,430 |
| Marinette | 7,626 | 7,984 | 15,610 |
| Marquette | 2,533 | 2,322 | 4,855 |
| Menominee | 691 | 244 | 935 |
| Milwaukee | 235,521 | 151,314 | 386,835 |
| Monroe | 6,427 | 6,118 | 12,545 |
| Oconto | 5,898 | 5,720 | 11,618 |
| Oneida | 7,160 | 6,725 | 13,885 |
| Outagamie | 23,735 | 30,370 | 54,105 |
| Ozaukee | 11,879 | 22,805 | 34,684 |
| Pepin | 1,673 | 1,098 | 2,771 |
| Pierce | 7,824 | 4,844 | 12,668 |
| Polk | 7,746 | 5,446 | 13,192 |
| Portage | 15,553 | 10,914 | 26,467 |
| Price | 3,575 | 2,654 | 6,229 |
| Racine | 34,875 | 32,310 | 67,185 |
| Richland | 3,458 | 3,144 | 6,602 |
| Rock | 31,154 | 21,942 | 53,096 |
| Rusk | 3376 | 2,430 | 3,376 |
| St. Croix | 10281 | 8,114 | 10,281 |
| Sauk | 9128 | 8,886 | 9,128 |
| Sawyer | 2796 | 2,658 | 2,796 |
| Shawano | 6,062 | 7,253 | 13,315 |
| Sheboygan | 20,568 | 22,526 | 43,094 |
| Taylor | 3,305 | 3,415 | 6,720 |
| Trempealeau | 6,218 | 3,577 | 9,795 |
| Vernon | 5,673 | 4,072 | 9,745 |
| Vilas | 3,764 | 4,616 | 8,380 |
| Walworth | 11,825 | 15,727 | 27,552 |
| Washburn | 3,080 | 2,586 | 5,666 |
| Washington | 13,339 | 22,739 | 36,078 |
| Waukesha | 50,270 | 91,461 | 141,731 |
| Waupaca | 6,666 | 10,252 | 16,918 |


| County | Clinton <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| Waushara | 3,402 | 4,045 | 7,447 |
| Winnebago | 27,234 | 33,709 | 60,943 |
| Wood | 13,208 | 13,843 | 27,051 |
|  | $1,041,066$ | 930,855 | $1,971,921$ |

39. The following chart shows the vote totals and two-party vote percentages for Clinton and Bush in Dane, Milwaukee and Rock Counties.

| County | Clinton Vote | Bush Vote | Two Party Total |
| :---: | :---: | :---: | :---: |
| Dane | $114,724(64.93 \%)$ | $61,957(35.07 \%)$ | 176,681 |
| Milwaukee | $235,521(60.88 \%)$ | $151,314(39.12 \%)$ | 386,835 |
| Rock | $31,154(58.67 \%)$ | $21,942(41.33 \%)$ | 53,096 |

40. In 1996, Bill Clinton, the Democratic candidate for President, won $1,071,971$ votes in Wisconsin to Republican Bob Dole's 845,029 votes, winning $55.9 \%$ of the two-party vote share.
41. In the presidential election nationwide, Clinton won $54.7 \%$ of the two-party vote to Dole's 45.3\%.
42. The following chart shows the vote totals for Clinton and Dole in each county in Wisconsin.

| County | Clinton <br> Vote | Dole <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| Adams | 4,119 | 2,450 | 6,569 |
| Ashland | 3,808 | 1,863 | 5,671 |
| Barron | 8,025 | 6,158 | 14,183 |


| County | Clinton <br> Vote | Dole Vote | Two <br> Party <br> Total |
| :---: | :---: | :---: | :---: |
| Bayfield | 3,895 | 2,250 | 6,145 |
| Brown | 42,823 | 38,563 | 81,386 |
| Buffalo | 2,681 | 1,800 | 4,481 |
| Burnett | 3,625 | 2,452 | 6,077 |
| Calumet | 6,940 | 7,049 | 13,989 |
| Chippewa | 9,647 | 7,520 | 17,167 |
| Clark | 5,540 | 4,622 | 10,162 |
| Columbia | 10,336 | 8,377 | 18,713 |
| Crawford | 3,658 | 2,149 | 5,807 |
| Dane | 109,347 | 59,487 | 168,834 |
| Dodge | 12,625 | 12,890 | 25,515 |
| Door | 5,590 | 4,948 | 10,538 |
| Douglas | 10,976 | 5,167 | 16,143 |
| Dunn | 7,536 | 4,917 | 12,453 |
| Eau Claire | 20,298 | 13,900 | 34,198 |
| Florence | 869 | 927 | 1,796 |
| Fond du Lac | 15,542 | 16,488 | 32,030 |
| Forest | 2,092 | 1,166 | 3,258 |
| Grant | 9,203 | 7,021 | 16,224 |
| Green | 6,136 | 4,697 | 10,833 |
| Green Lake | 3,152 | 3,565 | 6,717 |
| Iowa | 4,690 | 2,866 | 7,556 |
| Iron | 1,725 | 1,260 | 2,985 |
| Jackson | 3,705 | 2,262 | 5,967 |
| Jefferson | 13,188 | 12,681 | 25,869 |
| Juneau | 4,331 | 3,226 | 7,557 |
| Kenosha | 27,964 | 18,296 | 46,260 |
| Kewaunee | 4,311 | 3,431 | 7,742 |
| La Crosse | 23,647 | 16,482 | 40,129 |
| Lafayette | 3,261 | 2,172 | 5,433 |
| Langlade | 4,074 | 3,206 | 7,280 |
| Lincoln | 6,166 | 4,076 | 10,242 |
| Manitowoc | 16,750 | 13,239 | 29,989 |
| Marathon | 24,012 | 19,874 | 43,886 |
| Marinette | 8,413 | 7,231 | 15,644 |
| Marquette | 2,859 | 2,208 | 5,067 |


| County | Clinton <br> Vote | Dole <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| Menominee | 992 | 230 | 1,222 |
| Milwaukee | 216,620 | 119,407 | 336,027 |
| Monroe | 6,924 | 5,299 | 12,223 |
| Oconto | 6,723 | 5,389 | 12,112 |
| Oneida | 7,619 | 6,339 | 13,958 |
| Outagamie | 28,815 | 27,758 | 56,573 |
| Ozaukee | 13,269 | 22,078 | 35,347 |
| Pepin | 1,585 | 1,007 | 2,592 |
| Pierce | 7,970 | 4,599 | 12,569 |
| Polk | 8,334 | 5,387 | 13,721 |
| Portage | 15,901 | 9,631 | 25,532 |
| Price | 3,523 | 2,545 | 6,068 |
| Racine | 38,567 | 30,107 | 68,674 |
| Richland | 3,502 | 2,642 | 6,144 |
| Rock | 32,450 | 20,096 | 52,546 |
| Rusk | 2941 | 2,219 | 2,941 |
| St. Croix | 11384 | 8,253 | 11,384 |
| Sauk | 9889 | 7,448 | 9,889 |
| Sawyer | 2773 | 2,603 | 2,773 |
| Shawano | 6,850 | 6,396 | 13,246 |
| Sheboygan | 22,022 | 20,067 | 42,089 |
| Taylor | 3,253 | 3,108 | 6,361 |
| Trempealeau | 5,848 | 3,035 |  |
| Vernon | 5,572 | 3,796 | 9,883 |
| Vilas | 4,226 | 4,496 | 8,722 |
| Walworth | 13,283 | 15,099 | 28,382 |
| Washburn | 3,231 | 2,703 | 5,934 |
| Washington | 17,154 | 25,829 | 42,983 |
| Waukesha | 57,354 | 91,729 | 149,083 |
| Waupaca | 7,800 | 8,679 | 16,479 |
| Waushara | 3,824 | 3,573 | 7,397 |
| Winnebago | 29,564 | 27,880 | 57,444 |
| Wood | 14,650 | 12,666 | 27,316 |
|  | $1,071,971$ | 845,029 | $1,917,000$ |
|  |  |  |  |
|  |  |  |  |

43. Bill Clinton won Milwaukee, Dane and Rock Counties with $64 \%$ of the two-party vote and carried the rest of the state with $52 \%$ of the vote, a difference of twelve percentage points.
44. In 1996, forty-five counties (62.5\%) had Democratic leans.
45. Below is a map showing the PIs of Wisconsin's counties in 1996.

## Wisconsin County PI 1996


46. The following chart shows the vote totals and two-party vote percentages for Clinton and Dole in Dane, Milwaukee and Rock Counties.

| County | Clinton Vote | Dole Vote | Two Party Total |
| :---: | :---: | :---: | :---: |
| Dane | $109,347(64.77 \%)$ | $59,487(35.23 \%)$ | 168,834 |
| Milwaukee | $216,620(64.47 \%)$ | $119,407(35.53 \%)$ | 336,027 |
| Rock | $32,450(61.75 \%)$ | $20,096(38.25 \%)$ | 52,246 |

47. In 2000, Albert Gore, the Democratic candidate for President, won $1,242,987$ votes in Wisconsin to Republican George W. Bush's 1,237,279 votes, winning $50.1 \%$ of the two-party vote.
48. In the presidential election nationwide, Gore won $50.27 \%$ of the two-party vote to Bush's 49.73\%.
49. The following chart shows the vote totals for Gore and Bush in each county in Wisconsin, as well as a subtotal for votes in the City of Milwaukee.

| County | Gore <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | :--- | ---: |
| Adams | 4,826 | 3,920 | 8,746 |
| Ashland | 4,356 | 3,038 | 7,394 |
| Barron | 8,928 | 9,848 | 18,776 |
| Bayfield | 4,427 | 3,266 | 7,693 |
| Brown | 49,096 | 54,258 | 103,354 |
| Buffalo | 3,237 | 3,038 | 6,275 |
| Burnett | 3,626 | 3,967 | 7,593 |
| Calumet | 8,202 | 10,837 | 19,039 |
| Chippewa | 12,102 | 12,835 | 24,937 |
| Clark | 5,931 | 7,461 | 13,392 |
| Columbia | 12,636 | 11,987 | 24,623 |


| County | Gore Vote | Bush Vote | Two <br> Party <br> Total |
| :---: | :---: | :---: | :---: |
| Crawford | 4,005 | 3,024 | 7,029 |
| Dane | 142,317 | 75,790 | 218,107 |
| Dodge | 14,580 | 21,684 | 36,264 |
| Door | 6,560 | 7,810 | 14,370 |
| Douglas | 13,593 | 6,930 | 20,523 |
| Dunn | 9,172 | 8,911 | 18,083 |
| Eau Claire | 24,078 | 20,921 | 44,999 |
| Florence | 816 | 1,528 | 2,344 |
| Fond du Lac | 18,181 | 26,548 | 44,729 |
| Forest | 2,158 | 2,404 | 4,562 |
| Grant | 10,691 | 10,240 | 20,931 |
| Green | 7,863 | 6,790 | 14,653 |
| Green Lake | 3,301 | 5,451 | 8,752 |
| Iowa | 5,842 | 4,221 | 10,063 |
| Iron | 1,620 | 1,734 | 3,354 |
| Jackson | 4,380 | 3,670 | 8,050 |
| Jefferson | 15,203 | 19,204 | 34,407 |
| Juneau | 4,813 | 4,910 | 9,723 |
| Kenosha | 32,429 | 28,891 | 61,320 |
| Kewaunee | 4,670 | 4,883 | 9,553 |
| La Crosse | 28,455 | 24,327 | 52,782 |
| Lafayette | 3,710 | 3,336 | 7,046 |
| Langlade | 4,199 | 5,125 | 9,324 |
| Lincoln | 6,664 | 6,727 | 13,391 |
| Manitowoc | 17,667 | 19,358 | 37,025 |
| Marathon | 26,546 | 28,883 | 55,429 |
| Marinette | 8,676 | 10,535 | 19,211 |
| Marquette | 3,437 | 3,522 | 6,959 |
| Menominee | 949 | 225 | 1,174 |
| Milwaukee | 252,329 | 163,491 | 415,820 |
| City of Milwaukee subtotal | 165,598 | 69,075 | 234,673 |
| Monroe | 7,460 | 8,217 | 15,677 |
| Oconto | 7,260 | 8,706 | 15,966 |


| County | Gore <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| Oneida | 8,339 | 9,512 | 17,851 |
| Outagamie | 32,735 | 39,460 | 72,195 |
| Ozaukee | 15,030 | 31,155 | 46,185 |
| Pepin | 1,854 | 1,631 | 3,485 |
| Pierce | 8,559 | 8,169 | 16,728 |
| Polk | 8,961 | 9,557 | 18,518 |
| Portage | 17,942 | 13,214 | 31,156 |
| Price | 3,413 | 4,136 | 7,549 |
| Racine | 41,563 | 44,014 | 85,577 |
| Richland | 3,837 | 3,994 | 7,831 |
| Rock | 40,472 | 27,467 | 67,939 |
| Rusk | 3161 | 3,758 | 3,161 |
| St. Croix | 13077 | 15,240 | 13,077 |
| Sauk | 13035 | 11,586 | 13,035 |
| Sawyer | 3333 | 3,972 | 3,333 |
| Shawano | 7,335 | 9,548 | 16,883 |
| Sheboygan | 23,569 | 29,648 | 53,217 |
| Taylor | 3,254 | 5,278 | 8,532 |
| Trempealeau | 6,678 | 5,002 |  |
| Vernon | 6,577 | 5,684 | 11,680 |
| Vilas | 4,706 | 6,958 | 11,664 |
| Walworth | 15,492 | 22,982 | 38,474 |
| Washburn | 3,695 | 3,912 | 7,607 |
| Washington | 18,115 | 41,162 | 59,277 |
| Waukesha | 64,319 | 133,105 | 197,424 |
| Waupaca | 8,787 | 12,980 | 21,767 |
| Waushara | 4,239 | 5,571 | 9,810 |
| Winnebago | 33,983 | 38,330 | 72,313 |
| Wood | 15,936 | 17,803 | 33,739 |
|  | $1,242,987$ | $1,237,279$ | $2,480,266$ |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

50. The following chart shows the vote totals and two-party vote percentages for Gore and Bush in Dane, Milwaukee and Rock Counties including a subtotal of votes in the City of Milwaukee.

| County | Gore Vote | Bush Vote | Two Party Total |
| :---: | :---: | :---: | :---: |
| Dane | $142,317(65.25 \%)$ | $75,790(35.75 \%)$ | 218,107 |
| Milwaukee | $252,329(60.68 \%)$ | $163,491(39.32 \%)$ | 415,820 |
| City of Milwaukee <br> subtotal | $165,598(70.57 \%)$ | $69,075(29.43 \%)$ | 234,673 |
| Rock | $40,472(59.57 \%)$ | $27,467(40.43 \%)$ | 67,939 |

51. In 2004, John Kerry, the Democratic candidate for President, won $1,489,504$ votes in Wisconsin to Republican George W. Bush's 1,478,120 votes, winning $50.2 \%$ of the two-party vote.
52. In the presidential election nationwide, Bush won $51.24 \%$ of the two-party vote to Kerry's 48.76\%.
53. The following chart shows the vote totals for Kerry and Bush in each county in Wisconsin, along with a subtotal for votes in the City of Milwaukee.

| County | Kerry <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| Adams | 5,447 | 4,890 | 10,337 |
| Ashland | 5,805 | 3,313 | 9,118 |
| Barron | 11,696 | 12,030 | 23,726 |
| Bayfield | 5,845 | 3,754 | 9,599 |
| Brown | 54,935 | 67,173 | 122,108 |
| Buffalo | 3,998 | 3,502 | 7,500 |


| County | Kerry <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| Burnett | 4,499 | 4,743 | 9,242 |
| Calumet | 10,290 | 14,721 | 25,011 |
| Chippewa | 14,751 | 15,450 | 30,201 |
| Clark | 6,966 | 7,966 | 14,932 |
| Columbia | 14,300 | 14,956 | 29,256 |
| Crawford | 4,656 | 3,680 | 8,336 |
| Dane | 181,052 | 90,369 | 271,421 |
| Dodge | 16,690 | 27,201 | 43,891 |
| Door | 8,367 | 8,910 | 17,277 |
| Douglas | 16,537 | 8,448 | 24,985 |
| Dunn | 12,039 | 10,879 | 22,918 |
| Eau Claire | 30,068 | 24,653 | 54,721 |
| Florence | 993 | 1,703 | 2,696 |
| Fond du Lac | 19,216 | 33,291 | 52,507 |
| Forest | 2,509 | 2,608 | 5,117 |
| Grant | 12,864 | 12,208 | 25,072 |
| Green | 9,575 | 8,497 | 18,072 |
| Green Lake | 3,605 | 6,472 | 10,077 |
| Iowa | 7,122 | 5,348 | 12,470 |
| Iron | 1,956 | 1,884 | 3,840 |
| Jackson | 5,249 | 4,387 | 9,636 |
| Jefferson | 17,925 | 23,776 | 41,701 |
| Juneau | 5,734 | 6,473 | 12,207 |
| Kenosha | 40,107 | 35,587 | 75,694 |
| Kewaunee | 5,175 | 5,970 | 11,145 |
| La Crosse | 33,170 | 28,289 | 61,459 |
| Lafayette | 4,402 | 3,929 | 8,331 |
| Langlade | 4,751 | 6,235 | 10,986 |
| Lincoln | 7,484 | 8,024 | 15,508 |
| Manitowoc | 20,652 | 23,027 | 43,679 |
| Marathon | 30,899 | 36,394 | 67,293 |
| Marinette | 10,190 | 11,866 | 22,056 |
| Marquette | 3,785 | 4,604 | 8,389 |
| Menominee | 1,412 | 288 |  |
| Milwaukee | 297,653 | 180,287 | 477,940 |


| County | Kerry <br> Vote | Bush <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| City of <br> Milwaukee <br> subtotal | 198,907 | 75,746 | 274,653 |
| Monroe | 8,973 | 10,375 | 19,348 |
| Oconto | 8,534 | 11,043 | 19,577 |
| Oneida | 10,464 | 11,351 | 21,815 |
| Outagamie | 40,169 | 48,903 | 89,072 |
| Ozaukee | 17,714 | 34,904 | 52,618 |
| Pepin | 2,181 | 1,853 | 4,034 |
| Pierce | 11,176 | 10,437 | 21,613 |
| Polk | 11,173 | 12,095 | 23,268 |
| Portage | 21,861 | 16,546 | 38,407 |
| Price | 4,349 | 4,312 | 8,661 |
| Racine | 48,229 | 52,456 | 100,685 |
| Richland | 4,501 | 4,836 | 9,337 |
| Rock | 46,598 | 33,151 | 79,749 |
| Rusk | 3820 | 3,985 | 3,820 |
| St. Croix | 18784 | 22,679 | 18,784 |
| Sauk | 15708 | 14,415 | 15,708 |
| Sawyer | 4411 | 4,951 | 4,411 |
| Shawano | 8,657 | 12,150 | 20,807 |
| Sheboygan | 27,608 | 34,458 | 62,066 |
| Taylor | 3,829 | 5,582 | 9,411 |
| Trempealeau | 8,075 | 5,878 | 13,953 |
| Vernon | 7,924 | 6,774 | 14,698 |
| Vilas | 5,713 | 8,155 | 13,868 |
| Walworth | 19,177 | 28,754 | 47,931 |
| Washburn | 4,705 | 4,762 | 9,467 |
| Washington | 21,234 | 50,641 | 71,875 |
| Waukesha | 73,626 | 154,926 | 228,552 |
| Waupaca | 10,792 | 15,941 | 26,733 |
| Waushara | 5,257 | 6,888 | 12,145 |
| Winnebago | 40,943 | 46,542 | 87,485 |
| Wood | 18,950 | 20,592 | 39,542 |
|  | $1,478,120$ | $2,967,624$ |  |

54. The following chart shows the vote totals and two-party vote percentages for Kerry and Bush in Dane, Milwaukee and Rock Counties including a subtotal of votes in the City of Milwaukee.

| County | Kerry Vote | Bush Vote | Two Party Total |
| :---: | :---: | :---: | :---: |
| Dane | $181,052(66.71 \%)$ | $90,369(33.29 \%)$ | 271,421 |
| Milwaukee | $297,653(62.28 \%)$ | $180,287(37.72 \%)$ | 477,940 |
| City of Milwaukee | $198,907(72.42 \%)$ | $75,746(27.58 \%)$ | 274,653 |
| subtotal |  |  |  |
| Rock | $46,598(58.43 \%)$ | $33,151(41.57 \%)$ | 79,749 |

55. In 2004, Wisconsin was marginally more Democratic than the country as a whole, as it had been in 1996, but the political divisions were different than in 1996.
56. Below is a map showing the PIs of Wisconsin's counties in 2004.

## Wisconsin County Pl 2004


57. The number of Democratic counties dropped to 33 ( $46 \%$ of the counties in the state). The most Democratic counties became more Democratic while the rest of the state became more Republican.
58. The map below shows that change in PI between 1996 and 2004, with red counties becoming more Republican and blue counties becoming more Democratic.

## Wisconsin County PVI Change, 1996-2004


59. In 2008, Barack Obama, the Democratic candidate for President, won $1,677,211$ votes in Wisconsin to Republican John McCain's $1,262,393$ votes, winning $57.05 \%$ of the two-party vote.
60. In the presidential election nationwide, Obama won $53.69 \%$ of the two-party vote to McCain's 46.31\%.
61. The following chart shows the vote totals for Obama and McCain in each county in Wisconsin including a subtotal of votes in the City of Milwaukee.

| County | Obama Vote | McCain <br> Vote | Two <br> Party <br> Total |
| :---: | :---: | :---: | :---: |
| Adams | 5,806 | 3,974 | 9,780 |
| Ashland | 5,818 | 2,634 | 8,452 |
| Barron | 12,078 | 10,457 | 22,535 |
| Bayfield | 5,972 | 3,365 | 9,337 |
| Brown | 67,269 | 55,854 | 123,123 |
| Buffalo | 3,949 | 2,923 | 6,872 |
| Burnett | 4,337 | 4,200 | 8,537 |
| Calumet | 13,295 | 12,722 | 26,017 |
| Chippewa | 16,239 | 13,492 | 29,731 |
| Clark | 7,454 | 6,383 | 13,837 |
| Columbia | 16,661 | 12,193 | 28,854 |
| Crawford | 4,987 | 2,830 | 7,817 |
| Dane | 205,984 | 73,065 | 279,049 |
| Dodge | 19,183 | 23,015 | 42,198 |
| Door | 10,142 | 7,112 | 17,254 |
| Douglas | 15,830 | 7,835 | 23,665 |
| Dunn | 13,002 | 9,566 | 22,568 |
| Eau Claire | 33,146 | 20,959 | 54,105 |
| Florence | 1,134 | 1,512 | 2,646 |
| Fond du Lac | 23,463 | 28,164 | 51,627 |
| Forest | 2,673 | 1,963 | 4,636 |
| Grant | 14,875 | 9,068 | 23,943 |
| Green | 11,502 | 6,730 | 18,232 |
| Green Lake | 4,000 | 5,393 | 9,393 |
| Iowa | 7,987 | 3,829 | 11,816 |
| Iron | 1,914 | 1,464 | 3,378 |
| Jackson | 5,572 | 3,552 | 9,124 |
| Jefferson | 21,448 | 21,096 | 42,544 |
| Juneau | 6,186 | 5,148 | 11,334 |
| Kenosha | 45,836 | 31,609 | 77,445 |
| Kewaunee | 5,902 | 4,711 | 10,613 |
| La Crosse | 38,524 | 23,701 | 62,225 |
| Lafayette | 4,732 | 2,984 | 7,716 |
| Langlade | 5,182 | 5,081 | 10,263 |
| Lincoln | 8,424 | 6,519 | 14,943 |
| Manitowoc | 22,428 | 19,234 | 41,662 |


| County | Obama Vote | McCain <br> Vote | Two <br> Party <br> Total |
| :---: | :---: | :---: | :---: |
| Marathon | 36,367 | 30,345 | 66,712 |
| Marinette | 11,195 | 9,726 | 20,921 |
| Marquette | 4,068 | 3,654 | 7,722 |
| Menominee | 1,257 | 185 | 1,442 |
| Milwaukee | 319,819 | 149,445 | 469,264 |
| City of Milwaukee subtotal | 213,436 | 57,665 | 271,101 |
| Monroe | 10,198 | 8,666 | 18,864 |
| Oconto | 9,927 | 8,755 | 18,682 |
| Oneida | 11,907 | 9,630 | 21,537 |
| Outagamie | 50,294 | 39,677 | 89,971 |
| Ozaukee | 20,579 | 37,172 | 57,751 |
| Pepin | 2,102 | 1,616 | 3,718 |
| Pierce | 11,803 | 9,812 | 21,615 |
| Polk | 10,876 | 11,282 | 22,158 |
| Portage | 24,817 | 13,810 | 38,627 |
| Price | 4,559 | 3,461 | 8,020 |
| Racine | 53,408 | 45,954 | 99,362 |
| Richland | 5,041 | 3,298 | 8,339 |
| Rock | 50,529 | 27,364 | 77,893 |
| Rusk | 3855 | 3,253 | 3,855 |
| St. Croix | 21177 | 22,837 | 21,177 |
| Sauk | 18617 | 11,562 | 18,617 |
| Sawyer | 4765 | 4,199 | 4,765 |
| Shawano | 10,259 | 9,538 | 19,797 |
| Sheboygan | 30,395 | 30,801 | 61,196 |
| Taylor | 4,563 | 4,586 | 9,149 |
| Trempealeau | 8,321 | 4,808 | 13,129 |
| Vernon | 8,463 | 5,367 | 13,830 |
| Vilas | 6,491 | 7,055 | 13,546 |
| Walworth | 24,177 | 25,485 | 49,662 |
| Washburn | 4,693 | 4,303 | 8,996 |
| Washington | 25,719 | 47,729 | 73,448 |


| County | Obama <br> Vote | McCain <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| Waukesha | 85,339 | 145,152 | 230,491 |
| Waupaca | 12,952 | 12,232 | 25,184 |
| Waushara | 5,868 | 5,770 | 11,638 |
| Winnebago | 48,167 | 37,946 | 86,113 |
| Wood | 21,710 | 16,581 | 38,291 |
|  | $1,677,211$ | $1,267,393$ | $2,944,604$ |

62. The following chart shows the vote totals and two-party vote percentages for Obama and McCain in Dane, Milwaukee and Rock Counties including a subtotal of votes in the City of Milwaukee.

| County | Obama Vote | McCain Vote | Two Party Total |
| :---: | :---: | :---: | :---: |
| Dane | $205,984(73.82 \%)$ | $73,065(26.18 \%)$ | 279,049 |
| Milwaukee | $319,819(68.15 \%)$ | $149,445(31.85 \%)$ | 469,264 |
| City of Milwaukee | $213,436(78.73 \%)$ | $57,665(21.27 \%)$ | 271,101 |
| subtotal |  |  |  |
| Rock | $50,529(64.87 \%)$ | $27,364(35.13 \%)$ | 77,893 |

63. In 2008, Democratic candidates for the Assembly ran about three points behind Obama in the statewide two-party vote.
64. In 2012, Barack Obama, the Democratic candidate for President, won 1,620,985 votes in Wisconsin to Republican Mitt Romney's 1,407,966 votes, winning $53.5 \%$ of the two-party vote.

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65. In the presidential election nationwide, Obama won $51.96 \%$ of the twoparty vote to Romney's 48.04\%.
66. The following chart shows the vote totals for Obama and Romney in each county in Wisconsin along with a subtotal for the votes in the City of Milwaukee.

| County | Obama <br> Vote | Romney <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| Adams | 5,542 | 4,644 | 10,186 |
| Ashland | 5,399 | 2,820 | 8,219 |
| Barron | 10,890 | 11,443 | 22,333 |
| Bayfield | 6,033 | 3,603 | 9,636 |
| Brown | 62,526 | 64,836 | 127,362 |
| Buffalo | 3,570 | 3,364 | 6,934 |
| Burnett | 3,986 | 4,550 | 8,536 |
| Calumet | 11,489 | 14,539 | 26,028 |
| Chippewa | 15,237 | 15,322 | 30,559 |
| Clark | 6,172 | 7,412 | 13,584 |
| Columbia | 17,175 | 13,026 | 30,201 |
| Crawford | 4,629 | 3,067 | 7,696 |
| Dane | 216,071 | 83,644 | 299,715 |
| Dodge | 18,762 | 25,211 | 43,973 |
| Door | 9,357 | 8,121 | 17,478 |
| Douglas | 14,863 | 7,705 | 22,568 |
| Dunn | 11,316 | 10,224 | 21,540 |
| Eau Claire | 30,666 | 23,256 | 53,922 |
| Florence | 953 | 1,645 | 2,598 |
| Fond du Lac | 22,379 | 30,355 | 52,734 |
| Forest | 2,425 | 2,172 | 4,597 |
| Grant | 13,594 | 10,255 | 23,849 |
| Green | 11,206 | 7,857 | 19,063 |
| Green Lake | 3,793 | 5,782 | 9,575 |
| Iowa | 8,105 | 4,287 | 12,392 |
| Iron | 1,784 | 1,790 | 3,574 |
| Jackson | 5,298 | 3,900 | 9,198 |


| County | Obama Vote | Romney Vote | Two Party Total |
| :---: | :---: | :---: | :---: |
| Jefferson | 20,158 | 23,517 | 43,675 |
| Juneau | 6,242 | 5,411 | 11,653 |
| Kenosha | 44,867 | 34,977 | 79,844 |
| Kewaunee | 5,153 | 5,747 | 10,900 |
| La Crosse | 36,693 | 25,751 | 62,444 |
| Lafayette | 4,536 | 3,314 | 7,850 |
| Langlade | 4,573 | 5,816 | 10,389 |
| Lincoln | 7,563 | 7,455 | 15,018 |
| Manitowoc | 20,403 | 21,604 | 42,007 |
| Marathon | 32,363 | 36,617 | 68,980 |
| Marinette | 9,882 | 10,619 | 20,501 |
| Marquette | 4,014 | 3,992 | 8,006 |
| Menominee | 1,191 | 179 | 1,370 |
| Milwaukee | 332,438 | 154,924 | 487,362 |
| City of Milwaukee subtotal | 227,384 | 56,553 | 283,937 |
| Monroe | 9,515 | 9,675 | 19,190 |
| Oconto | 8,865 | 10,741 | 19,606 |
| Oneida | 10,452 | 10,917 | 21,369 |
| Outagamie | 45,659 | 47,372 | 93,031 |
| Ozaukee | 19,159 | 36,077 | 55,236 |
| Pepin | 1,876 | 1,794 | 3,670 |
| Pierce | 10,235 | 10,397 | 20,632 |
| Polk | 10,073 | 12,094 | 22,167 |
| Portage | 22,075 | 16,615 | 38,690 |
| Price | 3,887 | 3,884 | 7,771 |
| Racine | 53,008 | 49,347 | 102,355 |
| Richland | 4,969 | 3,573 | 8,542 |
| Rock | 49,219 | 30,517 | 79,736 |
| Rusk | 3397 | 3,676 | 3,397 |
| St. Croix | 19910 | 25,503 | 19,910 |
| Sauk | 18736 | 12,838 | 18,736 |
| Sawyer | 4486 | 4,442 | 4,486 |
| Shawano | 9,000 | 11,022 | 20,022 |


| County | Obama <br> Vote | Romney <br> Vote | Two <br> Party <br> Total |
| :--- | ---: | ---: | ---: |
| Sheboygan | 27,918 | 34,072 | 61,990 |
| Taylor | 3,763 | 5,601 | 9,364 |
| Trempealeau | 7,605 | 5,707 | 13,312 |
| Vernon | 8,044 | 5,942 | 13,986 |
| Vilas | 5,951 | 7,749 | 13,700 |
| Walworth | 22,552 | 29,006 | 51,558 |
| Washburn | 4,447 | 4,699 | 9,146 |
| Washington | 23,166 | 54,765 | 77,931 |
| Waukesha | 78,779 | 162,798 | 241,577 |
| Waupaca | 11,578 | 14,002 | 25,580 |
| Waushara | 5,335 | 6,562 | 11,897 |
| Winnebago | 45,449 | 42,122 | 87,571 |
| Wood | 18,581 | 19,704 | 38,285 |
|  | $1,620,985$ | $1,407,966$ | $3,028,951$ |

67. In 2012, Obama won Milwaukee, Dane and Rock Counties with $69 \%$ of the two-party vote but won only $47 \%$ of the two-party vote in the rest of the state (to Mitt Romney's 53\%), a difference of twenty-two percentage points.
68. The following chart shows the vote totals and two-party vote percentages for Obama and Romney in Dane, Milwaukee and Rock Counties including a subtotal of votes in the City of Milwaukee.

| County | Obama Vote | Romney Vote | Two Party Total |
| :---: | :---: | :---: | :---: |
| Dane | $216,071(72.09 \%)$ | $83,644(27.91 \%)$ | 299,715 |
| Milwaukee | $332,438(68.21 \%)$ | $154,924(31.79 \%)$ | 487,362 |
| City of Milwaukee <br> subtotal | $227,384(80.08 \%)$ | $56,553(19.92 \%)$ | 283,937 |


| Rock | 49,219 (61.73\%) | 30,517 (38.27\%) | 79,736 |
| :---: | :---: | :---: | :---: |

69. In 2012, Wisconsin was slightly more Democratic than the country as a whole, similar to what it was in 2004.
70. While the State's overall political lean remained the same, there was significant change in the internal composition of the electorate. Only twenty-seven counties had a Democratic lean (37.5\% of the counties in the state). This is shown in the map below showing the PIs of Wisconsin counties in 2012.

## Wisconsin County PI 2012


71. From 2004 to 2012, Dane and Milwaukee counties became a few points more Democratic, as did counties in the southwest of the state. The rest of the state became more Republican which is shown in the map below showing the change in the PIs of Wisconsin counties from 2004 to 2012.

## Wisconsin County PVI Change, 2004-2012


72. From 1996 to 2012, the Democratic Party gained strength in areas in which it was already strong (Dane County, Milwaukee County and the southwest portion of the state), but lost ground to the Republicans in the rest of the state. This
is shown in the map below which shows the change in the PIs of Wisconsin counties from 1996 to 2012.

## Wisconsin County PVI Change, 1996-2012


73. From 1996 to 2012, Democrats have become more concentrated in their strongholds, which has made it more difficult for the party to win seats in the Assembly.
74. Below is a map of Wisconsin showing the location of wards using Professor Mayer's baseline partisanship scores for the 2012 election, with

Democratic leaning wards in blue (darker for stronger leans) and Republican wards in red (darker for stronger leans).

Wisconsin Ward Election Results - 2012

75. Professor Goedert examined the partisanship of Wisconsin's wards by taking the vote for President Obama in 2012 and performing a uniform swing downwards of $-3.5 \%$ to simulate an election where each party received $50 \%$ of the vote.
76. Below is a chart analyzing Wisconsin's wards in an evenly divided election. It shows the percentages of wards in the state for each decile of Democratic
vote share $(0-10 \%, 10-20 \%$, etc.), along with the percentage of population in the state that lives in the wards in each decile.


Figure 1. Wisconsin Ward Projections in Evenly Divided Statewide Election (Based on uniform swing from 2012 Presidential Election Results)
77. In the evenly divided election, Republicans would win $60.2 \%$ of wards, comprising $54.4 \%$ of the voting population. In fact, a majority of all wards in the state ( $50.8 \%$ of wards, comprising $44.3 \%$ of voting population) would be won by Republicans with less than $70 \%$ of the vote. In contrast, less than a third of wards would be won by Democrats with less than $70 \%$ of the vote.
78. There are many more wards comprising a much larger share of the population that were extremely Democratic. In the evenly balanced election, $4 \%$ of wards, comprising $7 \%$ of voting population, would be won by the Democrat with more $80 \%$ of the vote. Less than $1 \%$ of wards, comprising less than $1 \%$ of population, would be Republicans by a similarly huge margin.
79. The Republican Party in Wisconsin is not an entrenched minority party.
80. 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.
81. 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).
82. In the November 2010 election, Republicans won 60 seats in the Assembly.
83. Professor Jackman calculates that the Republican candidates for the Assembly won $53.5 \%$ of the statewide two-party vote share in the November 2010 election.
84. In the 2010 elections, the Republicans won seven of the districts that the plaintiffs list as Democratic districts in paragraphs 59 through 77 of the complaint, specifically Districts $2,5,26,68,72,88$, and 93 , while an independent won one (District 25).
85. On June 5, 2012, Governor Walker survived a recall attempt with $53.08 \%$ of the vote ( $53.4 \%$ of the two-party vote).
86. 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).
87. Wisconsin's Democratic candidates for the Assembly ran about two points behind the President's vote share: Professor Jackman calculates that Democrats had a two-party vote share of $51.4 \%$.
88. In November of 2014, the Republicans increased their control of the Assembly by winning 63 seats, equating to a $63.6 \%$ seat share.
89. Professor Jackman calculates that Republican candidates for the Assembly won $52 \%$ of the statewide two-party vote share in the November 2014 elections.

## COMPARISON OF ACT 43 WITH PRIOR PLANS

90. The 1992 Assembly map entered by the Prosser court had an overall range of population deviation of 0.91 percent, with 48 districts below the ideal and 51 above the ideal. Only one district was more than a half point away from the ideal. In the Senate, the 1992 plan had an overall deviation range 0.52 percent with 15 districts above the ideal population and 18 below the ideal.
91. The 2002 Assembly map entered by the Baumgart court had an overall range of 1.59 percent deviation, with 47 districts above the ideal, 51 below the ideal, and one exactly apportioned district. In the Senate, the overall deviation range of the 2002 map was 0.98 percent with 15 districts above the ideal population, 17
below, and one perfectly apportioned. Of the 99 Assembly districts in 2002, 77 districts were within +/- 0.5 percent of the ideal population; in the Senate, 32 of 33 districts fell in this range.
92. Act 43 creates 99 Assembly districts with populations falling within a range of 0.76 percent ( +0.39 percent to -0.37 percent) of the ideal population; 56 districts are above the ideal population, 41 are below the ideal, and two districts are perfectly apportioned. In the Senate, population variations fall within a range of 0.62 percent $(+0.35$ percent to -0.27 percent); 17 districts are above the ideal population, 14 are below the ideal, and two districts are perfectly apportioned.
93. The population deviation in Act 43 from the ideal for each Assembly and Senate district (using 2010 Census data) is described in the Appendix to Act 43 and Tables 2 and 3 to the pretrial report filed in the Baldus case on February 14, 2012.
94. A summary of population deviation in Assembly districts in Act 43, the 1992 plan, and the 2002 plan is in Table 4 of the pretrial report filed in the Baldus case on February 14, 2012.
95. Each state Senate district is composed of three entire state Assembly districts.
96. Changes in the Assembly districts will carry through to the Senate districts.
97. Assembly members serve two-year terms. Senators serve four-year, staggered terms with half elected in presidential years and the other half coincident with gubernatorial elections.
98. Redistricting results in shifts of voters among Senate districts in such a way that some voters will experience delayed voting or disenfranchisement. Following the redistricting after the 2010 census, voters who previously resided in even-numbered Senate districts (which vote in presidential years) but who are moved to odd-numbered Senate districts (which vote in midterm years) by redistricting would go six years between opportunities to vote for a state senator (from 2008 to 2014).
99. Only voters in even-numbered senate districts could vote for a senator in the 2012 regular election. Residents of odd-numbered senate districts were not able to vote in a regular senate election until 2014. The last regular senate election for even-numbered districts was in 2008; for odd-numbered districts, the last regular election was in 2010.
100. In 2011, Act 43 moved 299,704 persons (5.26 percent of all persons in Wisconsin according to the 2010 census) into new districts that result in similar delayed voting or disenfranchisement. The number of persons per district experiencing delayed voting or disenfranchisement ranged from a low of 133 to a high of 72,431 , with an average for the 17 districts involved of 17,630 persons per district.
101. The 1992 Federal Court map for the Assembly split 72 municipalities.
102. In 2002, the Federal Court's Assembly map split 50 municipalities.
103. Act 43 splits 62 municipalities in the Assembly.
104. The 1992 Federal Court map split 47 counties in the Assembly.
105. In 2002, the Federal Court divided 51 counties in the Assembly.
106. Act 43 splits 58 counties in the Assembly.
107. Two widely-used measures of compactness applied to legislative districts are the Perimeter-to-Area measure and the Smallest Circle score.
108. Districting plans are often assessed in the context of total (average) plan compactness.
109. The Perimeter-to-Area measure compares the relative length of the perimeter of a district to its area. It represents the area of the district as the proportion of the area of a circle with the same perimeter. The score ranges from 0 to 1 , with a value of 1 indicating perfect compactness. This score is achieved if a district is a circle. Most redistricting software generates this measure as the Polsby-Popper statistic.
110. Smallest Circle scores measure the space occupied by the district as a proportion of the space of the smallest encompassing circle, with values ranging from 0 to 1 . A value of 1 indicates perfect compactness and is achieved if a district is a circle. This statistic is often termed the Reock measure by redistricting applications. Ernest C. Reock, Jr. 1961, "A Note: Measuring Compactness as a Requirement of Legislative Apportionment," Midwest Journal of Political Science 5: 70-74.
111. The average Smallest Circle score for the entire Assembly map in Act 43 is 0.39 (range from 0.20 to 0.61 ).
112. The average Smallest Circle score for the entire Assembly map drawn by the Baumgart court in 2002 was 0.41 (range from 0.18 to 0.63 ).
113. The average Perimeter To Area score for the Assembly map is . 28 (range of . 05 to .56).
114. The average Perimeter To Area score for the Assembly map drawn by the Baumgart court in 2002 was 0.29 (range of 0.06 to 0.58 ).
115. The following chart contains a summary of municipal splits, county splits and compactness scores for Act 43 and prior plans.

|  | Municipal <br> Splits | County <br> Splits | Reock <br> (mean) | Popper <br> (mean) |
| :--- | :---: | :---: | :---: | :---: |
| 1972 Plan |  | 49 |  |  |
| 1982 Plan |  | 41 |  |  |
| 1992 Plan | 72 | 47 |  |  |
| 2002 Plan | 50 | 51 | 0.41 | 0.29 |
| Act 43 | 62 | 58 | 0.39 | 0.28 |

116. The average Assembly compactness scores are marginally lower for Act 43 than for the 2002 court-crafted plan.
117. A list of the compactness scores of Act 43 and the Baumgart plan is contained in Table 21 of the Baldus pretrial report.
118. The Act 43 map contained ten pairings of incumbents when adopted. An additional pairing occurred when Rep. Chris Taylor (D) was elected to Assembly District 48 in a July 2011 special election.
119. Of the 11 Assembly pairings, three involve two Democrats, three involve two Republicans, and five involve bipartisan pairings. Until Rep. Taylor's election, more Republicans than Democrats were paired under Act 43.

## PROFESSOR MAYER'S REPORT

120. One needs to assume that there were an equal number of votes cast in each district for the simplified method of calculating the efficiency gap to equate with the district-by-district calculation of the efficiency gap.
121. Professor Mayer only used the 2012 election results in his model; it does not rely on the results of any other elections.
122. Professor Mayer did not produce a model to predict the results of the 2014 Wisconsin Assembly elections either under Act 43 or his Demonstration Plan.
123. Professor Mayer's baseline partisanship model produces $1,454,117$ statewide vote for Democratic candidates.
124. Professor Mayer's baseline partisanship model produces the following vote totals and two-party vote percentages in the following cities

| City | Dem. Votes | Rep. Votes | Total |
| :---: | :---: | :---: | :---: |
| Milwaukee | $193,940(77.9 \%)$ | $54,992(22.1 \%)$ | 248,932 |


| Madison | $109,466(78.0 \%)$ | $30,928(22.0 \%)$ | 140,394 |
| :---: | :---: | :---: | :---: |
| Green Bay | $23,403(55.2 \%)$ | $18,998(44.8 \%)$ | 42,402 |
| Kenosha | $26,515(62.6 \%)$ | $15,828(37.4 \%)$ | 42,342 |
| Racine | $22,614(70.4 \%)$ | $9,517(29.6 \%)$ | 32,131 |
| Appleton | $18,232(51.6 \%)$ | $17,129(48.4 \%)$ | 35,361 |
| Waukesha | $15,257(37.6 \%)$ | $25,273(62.4 \%)$ | 40,530 |
| Oshkosh | $17,364(52.1 \%)$ | $15,945(47.9 \%)$ | 33,309 |
| Eau Claire | $20,601(59.2 \%)$ | $14,202(40.8 \%)$ | 34,803 |
| Janesville | $20,208(58.9 \%)$ | $14,080(41.1 \%)$ | 34,288 |
| La Crosse | $17,554(67.4 \%)$ | $8,485(32.6 \%)$ | 26,039 |
| Sheboygan | $14,573(56.5 \%)$ | $11,215(43.5 \%)$ | 25,787 |
| Beloit | $11,440(63.3 \%)$ | $6,623(36.7 \%)$ | 18,062 |

125. Using Professor Mayer's baseline partisanship model, $20.87 \%$ of the Democratic statewide Assembly vote comes from the City of Milwaukee (which Democrats win with $77.9 \%$ of the two-party vote) and the City of Madison (which the Democrats win with $78.0 \%$ of the two-party vote).
126. Professor Mayer's baseline partisanship 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.
127. Professor Mayer's baseline partisanship model for District 1 generates 197 wasted votes for the Republicans and 16,235 wasted votes for the Democrats.
128. In the actual 2012 election, the Republican won with 16,993 votes and the Democrat lost with 16,124 votes.
129. In the actual election, there were 435 wasted votes for the Republicans and 16,124 wasted votes for the Democrats.
130. Professor Mayer's baseline partisanship model predicts five seats incorrectly (four predicted to be won by Democrats that were actually won by Republicans and one the other way).
131. In Professor Mayer's baseline partisanship model, the Democratic candidate would win District 50 with 12,467 votes to the Republican candidate's 12,326 votes.
132. In the actual 2012 election, the Republican candidate won District 50 with 12,842 votes to the Democratic candidate's 11,945 votes.
133. In Professor Mayer's baseline partisanship model, the Democratic candidate would win District 51 with 14,173 votes to the Republican candidate's 13,048 votes.
134. In the actual election, the Republican candidate won District 51 with 10,642 votes to the Democratic candidate's 10,577 votes.
135. In Professor Mayer's baseline partisanship model, the Democratic candidate would win District 68 with 13,663 votes to the Republican candidate's 13,005.
136. In the actual election, the Republican candidate won District 68 with 13,758 votes to the Democratic candidate's 12,482 votes.
137. In Professor Mayer's baseline partisanship model, the Republican candidate would win District 70 with 14,387 votes to the Democratic candidate's 12,211 votes.
138. In the actual election, the Democratic candidate won District 70 with 13,518 votes to the Republican candidate's 13,374 .
139. In Professor Mayer's baseline partisanship model, the Democratic candidate would win District 72 with 14,294 votes to the Republican candidate's 13,895.
140. Republicans won 60 seats in the 2012 Assembly elections, yet Mayer's baseline partisanship model predicts only 57 Republican wins.
141. Professor Mayer does not correct his baseline partisanship model for what actually happened in the election; instead, he counts the wasted votes based on what his model predicts should have happened.
142. For his model, Professor Mayer admits that "the average absolute error in the vote margin is $1.49 \%$."
143. Professor Mayer's baseline partisanship model of Act 43 contains 42 districts with at least a 50\% Democratic baseline.
144. Professor Mayer's baseline partisanship model of Act 43 contains 17 seats that have a baseline between 50-55\% Republican. These districts and
percentages are shown in the chart below, from the least Republican to the most
Republican:

| District | Mayer Baseline Rep. \% |
| :---: | :---: |
| 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 | $54.1 \%$ |
| 40 | $54.2 \%$ |
| 28 | $54.6 \%$ |
| 30 | $54.7 \%$ |
| 21 | $54.9 \%$ |

## THE PARTISAN SCORE USED BY LEGISLATIVE STAFF

145. The partisanship score used by legislative staff was an average of statewide races from 2004 through 2010 developed by Joseph Handrick, Tad Ottman, and Adam Foltz, not a regression model created by Professor R. Keith Gaddie.
146. The partisan score based on the average of statewide races from 2004 to 2010 was incorrect about the winner of seven races in the 2012 election. The following table summarizes predicted winners and actual winners in bold:

| District | Statewide Average R\% | Actual 2012 R\% |
| :---: | :---: | :---: |
| 49 | $49.59 \%$ | $\mathbf{5 4 . 1 9 \%}$ |
| 51 | $46.23 \%$ | $\mathbf{5 1 . 8 5 \%}$ |


| 68 | $49.38 \%$ | $\mathbf{5 2 . 3 9 \%}$ |
| :---: | :---: | :---: |
| 70 | $\mathbf{5 0 . 7 3 \%}$ | $49.65 \%$ |
| 75 | $\mathbf{5 2 . 1 8 \%}$ | $48.85 \%$ |
| 94 | $\mathbf{5 1 . 9 1 \%}$ | $39.38 \%$ |
| 96 | $46.40 \%$ | $\mathbf{5 9 . 5 2 \%}$ |

147. The partisan score based on the average of statewide races from 2004 to 2010 was incorrect about the winner of six races in the 2014 election. The following table summarizes predicted winners and actual winners in bold:

| District | Statewide Average R\% | Actual 2014 R\% |
| :---: | :---: | :---: |
| 49 | $49.59 \%$ | $\mathbf{6 1 . 3 8 \%}$ |
| 51 | $46.23 \%$ | $\mathbf{4 7 . 4 8 \mathbf { N } ^ { 1 }}$ |
| 68 | $49.23 \%$ | $\mathbf{5 2 . 8 2 \%}$ |
| 85 | $48.38 \%$ | $\mathbf{5 0 . 1 9 \%}$ |
| 94 | $\mathbf{5 1 . 9 1 \%}$ | $45.94 \%$ |
| 96 | $46.40 \%$ | $\mathbf{5 8 . 9 1 \%}$ |

## THE DEMONSTRATION PLAN

148. In his baseline partisanship model, 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.
149. There are eighteen districts in Mayer's Demonstration Plan that are 50\%-55\% Democratic under his baseline partisanship model assuming all seats were contested and no incumbents were running, including sixteen districts

[^0]between $50 \%-53.4 \%$. The following table shows these districts ordered from least Democratic to most Democratic.

| Demonstration Plan District | Predicted Dem. Vote \% |
| :---: | :---: |
| 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 | $54.1 \%$ |
| 45 | $54.6 \%$ |

150. In the 2014 election environment, the statewide vote for Democratic candidates for the Assembly fell 3.4 percentage points, from $51.4 \%$ down to $48.0 \%$.
151. Applying a uniform swing of 3.4 percentage points to Mayer's baseline partisanship model results in Republicans winning 63 seats and Democrats winning 34 seats, the exact result seen in the actual 2014 elections.
152. In drafting the Demonstration Plan, Professor Mayer did not take into account the residences of the incumbents who had been elected in the 2010 Assembly elections.
153. The Demonstration Plan results in eleven more pairings of Republicans than Act 43 (Mayer calculates 50 Republican incumbent seats in Act 43
versus 39 in the Demonstration Plan) and one more pairing of Democrats (he calculates 23 Democratic incumbent seats in Act 43 versus 22 in the Demonstration Plan).

## PROFESSOR JACKMAN'S REPORT

154. Wisconsin does not have equal turnout across Assembly districts.
155. 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.
156. 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 .
157. The presence of imputed vote totals leads to uncertainty in Professor 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."
158. Professor Jackman expresses his $E G$ calculations as "point estimates" with lines indicating a $95 \%$ level of confidence.
159. Professor Jackman has less confidence in the "point estimate" of his $E G$ as the number of uncontested seats increases.
160. Professor Jackman found that "[t]he distribution of $E G$ measures trends in a pro-Republican direction through the 1990 s, such that by the 2000 s, $E G$ measures were more likely to be negative (Republican efficiency over Democrats)."
161. This trend began in the 1990s, a decade in which Republicans had unified party control of districting in only two of the forty-one states in Jackman's dataset.
162. Professor Jackman plotted the efficiency gap of each plan in each year from lowest to highest (from most favorable to Republicans to least) and then overlaying estimates of the smoothed weighted quantiles (with blue lines showing the 25 th percentile, 50 th percentile, and 75 th percentile plan).
163. The median efficiency gap has been negative (favorable to the Republicans) since the mid-1990s.
164. The most favorable median toward Democrats since 2000 was in 2010.
165. The 25 th percentile has been below $5 \%$ since the mid-1990s and even approached 7\% in 2004, 2010, and 2012.
166. The 75 th percentile has been below $5 \%$ since the mid-1990s and has hovered between $1 \%$ and $2 \%$ since 2000 .
167. Professor 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.
168. Professor Jackman finds that in every election year since 1996, more plans have had negative efficiency gaps than positive ones with the exception of 2010.
169. In 2010, Professor Jackman found that the proportion of plans having a positive efficiency gap was slightly more than 0.5.
170. 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.
171. Since 1996, the year with the greatest proportion of efficiency gap measures favoring Democrats was 2010, in which there was a slightly more than a $50-50$ probability of a plan being positive (favorable to Democrats).
172. In determining the threshold number for an efficiency gap in the first election under a plan, the key fact Professor 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.
173. Professor 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.
174. Professor Jackman 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."
175. Professor 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.
176. For all plans Professor Jackman studied since 1972, he 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.
177. For all plans Professor Jackman studied since 1991, 34\% of all plans produced an efficiency gap greater than $7 \%$ in magnitude in the first election: $22 \%$ produced a gap of at least $-7 \%$ and $12 \%$ percent produced a gap of at least $+7 \%$.
178. For all plans since 1972 that Professor Jackman studied, he finds that $18 \%$ of plans that had an $E G$ of at least $-7 \%$ in magnitude go on to produce an election with a positive $E G$.
179. For all plans Professor Jackman studied since 1991, he finds that $40 \%$ of plans that produce an $E G$ of at least $+7 \%$ in magnitude in the first election go on to produce an election with a negative $E G$.
180. For all plans Professor Jackman studied since 1991, he finds that 18\% of plans that produce an $E G$ of at least $-7 \%$ in magnitude in the first election go on to produce an election with a positive $E G$.
181. For all plans Professor Jackman studied since 1991, he finds that $60 \%$ of plans that produce an $E G$ of at least $+7 \%$ in magnitude in the first election go on to produce an election with a negative $E G$.
182. With respect to plans from the 1990s to today, Professor Jackman finds that elections favoring Republicans in the first election in a plan are much more common than those favoring Democrats.
183. Professor Jackman finds that "we seldom see a plan in the 1990s or later that commence with a large-pro Democratic efficiency gap."
184. In the 1990s and later, Professor Jackman finds that the probability the first election has an efficiency gap greater than $+5 \%$ (favorable to Democrats) "is only about $11 \%$."
185. 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 $E G<-.10$."
186. Based on the discrepancy between the likelihood of sign change between negative and positive efficiency gaps, Professor Jackman concludes that "pro-Democratic efficiency gaps seem much more fleeting than pro-Republican efficiency gaps."
187. Professor Jackman finds that a Democratic advantage in the efficiency gap is not as durable of a feature as a pro-Republican efficiency gap, a trend which becomes "even more pronounced in the analysis that focused on recent decades."
188. To determine his confidence in a threshold efficiency gap, Professor 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?"
189. Professor 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."
190. Professor 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.
191. Professor Jackman finds that "plans with at least one election" of an efficiency gap of 7\% or greater "are reasonably common."
192. Professor Jackman finds that an $E G$ of $7 \%$ or greater "is not a particularly informative signal with respect to the other elections in the plan."
193. Professor Jackman finds that $53 \%$ of plans since 1972 have one election with an $E G$ of $7 \%$ or greater in magnitude, with $29 \%$ of plans having a gap of $-7 \%$ or greater in magnitude and $25 \%$ of plans having a gap of $+7 \%$ or greater in magnitude.
194. When looking at plans since 1991, $47 \%$ of plans have had at least one election with an $E G$ greater than $7 \%$ in magnitude, with $38 \%$ of plans having an election with a gap of $-7 \%$ or greater in magnitude and $19 \%$ of plans having an election with a gap of $+7 \%$ or greater in magnitude.
195. Since $1972,33 \%$ of plans have had an election with an $E G$ of $10 \%$ or greater in magnitude, with $18 \%$ having an election with a gap of $-10 \%$ and $15 \%$ having an election with a gap of $+10 \%$.
196. When looking just at elections since 1991, $35 \%$ of plans have had an election with an $E G$ of at least $10 \%$ in magnitude: $24 \%$ of plans have had an election with a gap of $-10 \%$ and $11 \%$ of plans having an election with a gap of $+10 \%$.
197. Jackman found that 17 of the 141 plans (12\%) for which he could calculate three or more efficiency gaps 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.
198. Of these seventeen plans, sixteen of them were favorable to the Republicans and only one was favorable to the Democrats.
199. When one considers whether one party controlled the districting process, only seven plans featured unified partisan control over the districting process.
200. 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).
201. 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.
202. Professor Jackman calculated EGs for the 2012 and 2014 elections for 39 states.
203. Fifty point estimates were negative (64.1\%) while twenty-eight point estimates were positive (35.9\%).
204. Eighteen states (46\%) had point estimates for 2012 and 2014 that were both negative.
205. Included among this eighteen were Minnesota, Missouri, New York, and Kansas.
206. With respect to the entire country, Jackman found that "[t]he distribution of $E G$ measures trends in a pro-Republican direction through the 1990 s, such that by the $2000 \mathrm{~s}, E G$ measures were more likely to be negative."
207. 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.
208. Meanwhile the seventy-fifth percentile has only favored Democrats by $1 \%-2 \%$.
209. 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.
210. In 2012, the Republicans won five seats (Districts 1, 26, 50, 72 and 93) with no more than $51.3 \%$ of the total vote.
211. 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 ).
212. For 2012 and 2014, Professor Jackman calculates that Illinois had one negative efficiency gap and one narrowly positive efficiency gap.

Dated this 9th day of May, 2016.

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[^0]:    ${ }^{1}$ The Republican won in District 51 with less than $50 \%$ of the vote because an independent candidate won $5.25 \%$ of the vote. When calculated as a percentage of the two-party vote, the Republican won with 50.15\%.

