

Report on 2021 Redistricting





FOREWORD

For most of Michigan's history, redistricting was conducted by the State Legislature—a process that all too often sparked political controversy and judicial intervention when the Legislature and Governor could not agree on a plan. That all changed when Michigan voters approved a constitutional amendment in 2018 that created a **Michigan Independent Citizens Redistricting Commission (MICRC)** and vested it with exclusive authority to adopt new district boundaries based on census data for the Michigan Senate, Michigan House of Representatives, and U.S. House of Representatives every 10 years beginning in 2021.

The <u>Michigan Constitution</u> vests the State's redistricting process in the hands of the MICRC, led by 13 Commissioners who are selected using a process designed to provide for balanced, independent, and transparent governance. Commissioners were selected and appointed by August 2020 using the process outlined in the constitutional amendment. In order to ensure balance, under the Michigan Constitution, our 13 Commissioners are politically balanced: four members who affiliated with the Democratic party, four members who affiliated with the Republican party, and five members who were not affiliated with any political party.

Together, we completed the first open, independent and citizen-led redistricting process in Michigan history while far surpassing the MICRC's goals for public comment, public hearing attendance and news media coverage. The Michigan Constitution mandated at least 10 public hearings around the state during 2020-21. We held at least 139 public hearings, including 16 hearings prior to drafting maps, and received over 29,000 public comments.

Our mission since we began in 2020 was to lead Michigan's redistricting process to assure Michigan's Congressional, State Senate, and State House district lines were drawn fairly in a transparent manner, meeting Constitutional mandates. Our aim throughout the process was to raise public awareness of the commission, encourage citizens to participate in the map-making process, generate consistent news media coverage to inform the public and answer questions from the news media and public about the commission's work.

Without question, the MICRC's efforts to complete its responsibilities was challenged by the greatest public health crisis in more than a century caused by the devastating spread of the COVID-19 pandemic. The Michigan census data the commission anticipated using in early 2021 was not provided by the U.S. Census Bureau until late September due to COVID-related delays. While the lack of timely census data did not ultimately impede the commission from faithfully serving the people of Michigan, it did contribute to the MICRC's final maps not being approved until Dec. 28.

Despite these challenges, the MICRC fulfilled its constitutional mandate. We met or surpassed every metric of public observation and participation. From September 17, 2020, through May 6, 2021, before map drawing began we held 35 public meetings to address preliminary matters like hiring staff, procurement activities, and adoption of procedures. While the Michigan Constitution required the Commission to hold ten public hearings before drafting, we held sixteen. After the release of redistricting data from the U.S. Census Bureau, we created draft proposed maps. At this stage, we held 38 more public meetings throughout the state.

After winnowing the list of draft proposed U.S. House of Representatives, Michigan House of Representatives, and Michigan Senate plans to 15 plans, we published those proposed plans, accepted more feedback, and held an additional four meetings before adopting, at our December 28, 2021, meeting, new redistricting plans. As the Constitution requires, each plan was adopted by the vote of at



least two Commissioners affiliated with the two major parties and two Commissioners affiliated with no party.

Getting public input and promoting transparency in the MICRC process was of the utmost importance so that the public had confidence in our work as well as the work of future Michigan redistricting commissions. By holding dozens of meetings in every region of the state throughout 2020-21 was instrumental to the MICRC's ability to gain knowledge and insights from the public, then systematically go through and make the changes that we needed to comply with the seven ranked redistricting criteria, which include compliance with the Voting Rights Act and partisan fairness.

Planning and research was fundamental to the MICRC's work. The MICRC consulted with leaders of redistricting commissions from California and Arizona, the first and second states in the nation to approve similar commissions, respectively. We heard from experts with the University of Michigan and Michigan State University. We received feedback on our proposed maps from hundreds of organizations that helped shape our decisions.

"Redistricting is never easy," as the U.S. Supreme Court stated in *Abbott v. Perez*. This process has proved that although redistricting presents unique challenges, the MICRC has been successful in collaboratively overcoming those challenges. The adopted redistricting plan with new legislative boundaries will be used for the 2022 primary and general elections.

The MICRC is proud of what we achieved. We are not alone in that belief.

The Princeton Gerrymandering Project, a nonpartisan research group that analyzes redistricting with the aim of eliminating partisan gerrymandering across the country, graded the MICRC's congressional map with an overall score of "A" and a "B" for the state House and Senate maps, saying "compared to a lot of maps across the country, they did very well."

As one New York newspaper editorial observed after the MICRC's landmark maps were announced: "The state of Michigan has just done something almost miraculous in this time of political acrimony – and something every citizen in America should want their state to do: It has done away, as much as possible, with political gerrymandering and taken a giant leap toward guaranteeing fair state and federal representation."

Equally important, the MICRC commissioned the Glengariff Group, Inc. to conduct two pre- and post-campaign statewide surveys of Michigan voters. The benchmarking survey was conducted March 27-31, 2021. The post-survey was a 600 sample, live operator telephone survey conducted on Feb. 11-14, 2022 and has a margin of error of +/-4.0% with a 95% level of confidence.

Key results from the post-campaign public opinion survey show:

- Most impressively, at the conclusion of the survey, all voters were asked if Michigan should continue
 to allow the Michigan Independent Citizens' Redistricting Commission to redraw the state's maps or
 should Michigan go back to allowing elected representatives that have control in the State Legislature
 to redraw the maps. By an overwhelming margin of 65.5% to 10.1%, Michigan voters say the
 state should continue with the redistricting commission moving forward.
- Voters were asked if Michigan citizens did or did not have a greater role in deciding how new districts would be drawn. By a margin of 45.0%-22.1%, voters aware of the MICRC's work believe Michigan citizens did have a great role.



 Voters were asked if the Commission succeeded or failed in giving Michigan citizens a greater role than politicians in designing new districts. By a margin of 49.6%-22.1%, voters aware of the MICRC's work said the MICRC succeeded in giving Michigan citizens a greater role.

Our democracy is stronger thanks to Michigan citizens' engagement, leadership and vision for a fair, inclusive and transparent process that puts voters above politics and ensures gerrymandering in Michigan is done once and for all.





PURPOSE STATEMENT

This report fulfills the MICRC's requirement enumerated as follows in the Michigan Constitution:

"(16) For each adopted plan, the commission shall issue a report that explains the basis on which the commission made its decisions in achieving compliance with plan requirements and shall include the map and legal description required in part (9) of this section. A commissioner who votes against a redistricting plan may submit a dissenting report which shall be issued with the commission's report."

The seven ranked, constitutionally mandated criteria below were used to draw new district boundaries for the state's Congressional, State Senate and State House districts:

- "(a) Districts shall be of equal population as mandated by the United States constitution, and shall comply with the voting rights act and other federal laws.
- (b) Districts shall be geographically contiguous. Island areas are considered to be contiguous by land to the county of which they are a part.
- (c) Districts shall reflect the state's diverse population and communities of interest. Communities of interest may include, but shall not be limited to, populations that share cultural or historical characteristics or economic interests. Communities of interest do not include relationships with political parties, incumbents, or political candidates.
- (d) Districts shall not provide a disproportionate advantage to any political party. A disproportionate advantage to a political party shall be determined using accepted measures of partisan fairness.
- (e) Districts shall not favor or disfavor an incumbent elected official or a candidate.
- (f) Districts shall reflect consideration of county, city, and township boundaries.
- (g) Districts shall be reasonably compact."



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Dissenting Reports
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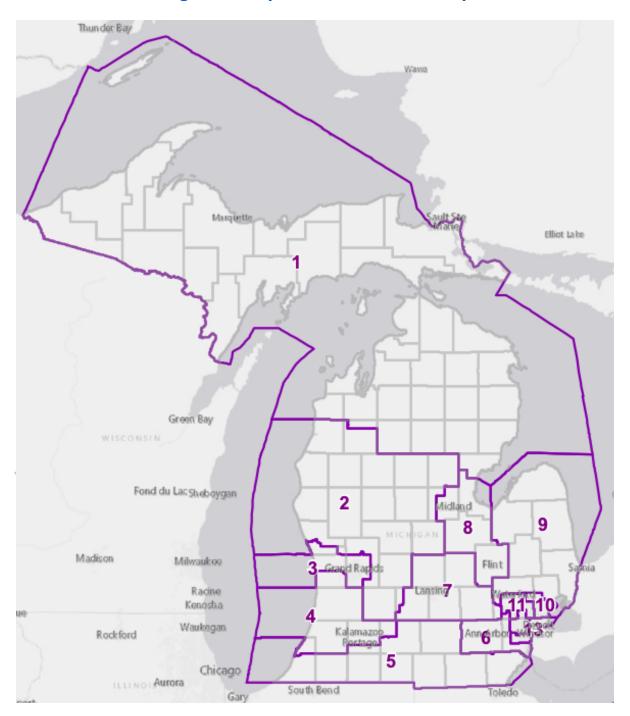




Michigan Congressional Districts

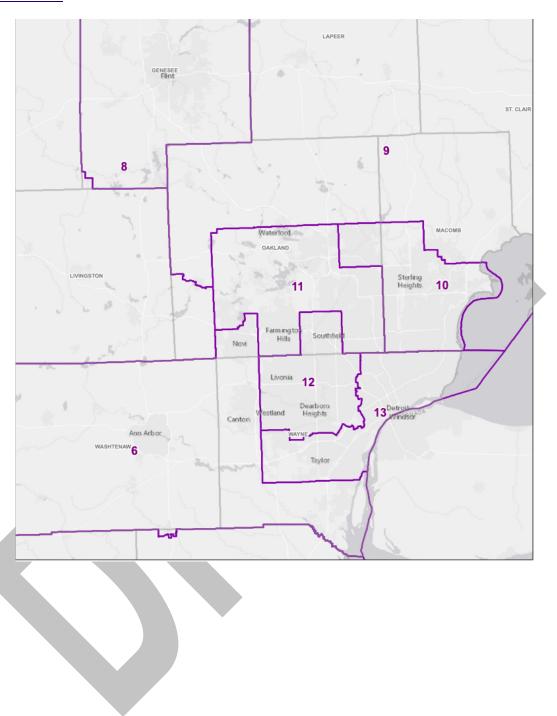
Michigan was apportioned 13 congressional districts following the 2020 Decennial Census, a reduction of one district from the 2010 apportionment. The Michigan Independent Citizen's Redistricting Commission approved the following map and district boundaries.

Legal Description & Interactive Map





Metro Detroit





POPULATION

"(a) Districts shall be of equal population as mandated by the United States constitution, and shall comply with the voting rights act and other federal laws."

The Michigan Independent Citizens Redistricting Commission sought and relied on legal counsel and expert advice in order to draw plans that complied with the requirements of the United States constitution, the Voting Rights Act and other federal laws. Material reflecting that counsel and advice is accessible on the Commission's website.

Meeting Notices & Materials

Meeting Notices & Materials Archives

Mapping Data

| | Total Population | | | | Racial D | Demographics as Percent of Total Population | | | Voting Age Population Racial Demographics as Pe | | s as Percent o | cent of Voting Population | | | | |
|----------|------------------|---------|---------|------------|----------|---|----------|----------|---|---------|----------------|---------------------------|----------|----------|----------|----------|
| DISTRICT | All Persons 7 | arget | Dev. | Difference | NH White | NH Black | NH Asian | Hispanic | Minority | VAP | % of Total | NH White | NH Black | NH Asian | Hispanic | Minority |
| 1 | 775,375 | 775,179 | 0.03%√ | 196 | 89.45% | 0.92% | 0.55% | 2.04% | 10.55% | 633,080 | 81.6% | 90.86% | 0.99% | 0.55% | 1.62% | 9.14% |
| 2 | 774,997 | 775,179 | -0.02%√ | -182 | 87.82% | 1.99% | 0.55% | 4.65% | 12.18% | 606,868 | 78.3% | 89.17% | 2.21% | 0.56% | 3.82% | 10.83% |
| 3 | 775,414 | 775,179 | 0.03%√ | 235 | 70.15% | 11.06% | 2.99% | 10.67% | 29.85% | 597,448 | 77.0% | 74.00% | 10.25% | 2.95% | 8.81% | 26.00% |
| 4 | 774,600 | 775,179 | -0.07%√ | -579 | 75.09% | 8.32% | 2.46% | 8.56% | 24.91% | 593,972 | 76.7% | 78.42% | 7.71% | 2.46% | 7.05% | 21.58% |
| 5 | 774,544 | 775,179 | -0.08%√ | -635 | 84.50% | 4.07% | 0.86% | 5.18% | 15.50% | 606,306 | 78.3% | 86.61% | 4.04% | 0.88% | 4.13% | 13.39% |
| 6 | 775,273 | 775,179 | 0.01%√ | 94 | 69.15% | 9.90% | 10.38% | 4.96% | 30.85% | 619,426 | 79.9% | 71.51% | 9.53% | 10.12% | 4.34% | 28.49% |
| 7 | 775,238 | 775,179 | 0.01%√ | 59 | 79.90% | 5.89% | 3.20% | 5.66% | 20.10% | 611,160 | 78.8% | 82.03% | 5.67% | 3.23% | 4.77% | 17.97% |
| 8 | 775,229 | 775,179 | 0.01%√ | 50 | 73.40% | 14.85% | 1.11% | 5.35% | 26.60% | 606,390 | 78.2% | 76.23% | 13.91% | 1.14% | 4.44% | 23.77% |
| 9 | 774,962 | 775,179 | -0.03%√ | -217 | 87.94% | 2.25% | 1.31% | 3.86% | 12.06% | 606,770 | 78.3% | 89.59% | 2.18% | 1.28% | 3.14% | 10.41% |
| 10 | 775,218 | 775,179 | 0.00%√ | 39 | 72.75% | 13.27% | 6.08% | 3.03% | 27.25% | 620,272 | 80.0% | 75.73% | 12.09% | 5.78% | 2.56% | 24.27% |
| 11 | 775,568 | 775,179 | 0.05%√ | 389 | 68.30% | 12.94% | 8.67% | 5.33% | 31.70% | 624,065 | 80.5% | 70.86% | 12.50% | 8.39% | 4.47% | 29.14% |
| 12 | 775,247 | 775,179 | 0.01%√ | 68 | 45.95% | 44.43% | 1.81% | 3.26% | 54.05% | 596,111 | 76.9% | 47.46% | 43.81% | 1.97% | 2.85% | 52.54% |
| 13 | 775,666 | 775,179 | 0.06%√ | 487 | 36.80% | 45.33% | 2.89% | 10.26% | 63.20% | 592,734 | 76.4% | 39.55% | 44.70% | 2.89% | 8.77% | 60.45% |
| | | | | | | | | | | | | | | | | |

Assigned 10077331 Total Pop 10077331 Unassigned 0



COMMUNITIES OF INTEREST

"(c) Districts shall reflect the state's diverse population and communities of interest."

The Michigan Independent Citizens Redistricting Commission sought to understand Michigan's diverse population and communities of interest via public engagement and feedback opportunities. In total, MICRC received more than 29,000 comments.

Comments on Final Congressional Map (Chestnut)

Comments on All Proposed Maps

Public Comment Portal Comments

Commission Meeting Comments





This chart outlines considerations for change to all maps following the second round of public input hearings in Oct. 2021.

| Suggested Change | Commissioner | Hearing | Map |
|--|--------------|---------|--------|
| Bangla Town | Szetela | Detroit | |
| Palmer Park adjustments for LGBTQ COI | Szetela | Detroit | |
| Dexter Davis area a street was split | Clark | Detroit | |
| Boston/Edison neighborhood split | Rothhorn | Detroit | Cherry |
| Generally examining neighborhoods | Rothhorn | Detroit | |
| Southfield | Eid | Detroit | |
| Troy wanted to be in Oakland County | Eid | Detroit | |
| Arab community wanted Dearborn Heights to remain whole | Eid | Detroit | |
| Morningside | Kellom | Detroit | |
| Woodward 8-mile area | Kellom | Detroit | |
| API community in Novi | Szetela | Detroit | |
| Seikh Community, Troy, Rochester, Rochester Hills and Sterling Heights | Lange | Detroit | |
| African Immigrant Community | Rothhorn | Detroit | |
| Orthodox Jewish Oak Park | Rothhorn | Detroit | |
| Examine keeping Detroit more together | Clark | Detroit | |
| Oxford, Addison, Lake Orion, Clarkston area assessment | Clark | Flint | |
| Flint split or single district | Clark | Flint | |
| Oxford Township two precincts (3 and 5) | Orton | Flint | House |
| Caro split from county | Orton | Flint | |
| Saginaw and Gennessee County together | Lange | Flint | |
| Possibly remove Grand Blanc from Flint districts | Rothhorn | Flint | |
| Midland with Tri Cities | Witjes | Gaylord | |
| Midland and Midland Township together | Clark | Gaylord | |
| Watershed needs to be kept together | Szetela | Gaylord | |



| Suggested Change | | Commissioner | Hearing | Мар |
|--|--|--------------|-----------|-----|
| Benzie County higher income vs lower income | | Rothhorn | Gaylord | |
| Cheboygan Residents Identify wih the West | | Clark | Gaylord | |
| Traverse City area | | Lange | Gaylord | |
| Leelanau keeping together | | Lange | Gaylord | |
| Unpack Lansing into 5 instead of 4 | | Eid | Lansing | |
| Battle Creek/Albion Community of Interest | | Eid | West MI | |
| KZ and BattleCreek | | Eid | West MI | |
| Delhi and Eaton | | Clark | West MI | |
| Grand Rapids and Kalamazoo | | Witjes | West MI | |
| Lakeshore District extend up to Saugatuck | | Eid | West MI | |
| Native American Nation Van Buren and Allegan | | Rothhorn | West MI | |
| Indigenous population community examination | | Clark | | |
| College student populations | | Lange | | |
| Jackson with west side of AA | | Szetela | Ann Arbor | |
| Break-up AA | | Szetela | Ann Arbor | |





PARTISAN FAIRNESS

(d) Districts shall not provide a disproportionate advantage to any political party. A disproportionate advantage to a political party shall be determined using accepted measures of partisan fairness.

The Michigan Independent Citizen's Redistricting Commission evaluated partisan fairness using four mathematical models. The adopted map did not provide 'disproportionate advantage' to any political party under any of the models used to measure partisan fairness.

Lopsided Margins¹

The lopsided margins test calculates the difference between the average winning margin for candidates from each political party. If one party tends to win elections by larger margins, it indicates the party's votes are packed.

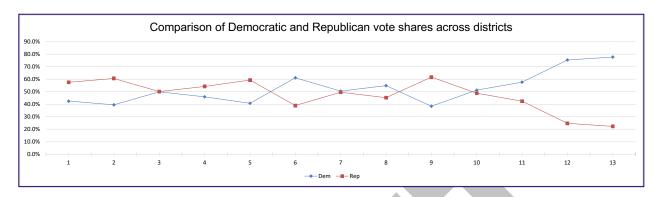
| Average Winning Margin | Dem | 61.2% | | | | |
|------------------------|---|-------|--|--|--|--|
| Average willing wargin | Rep | 57.2% | | | | |
| | | | | | | |
| | Finding | | | | | |
| Rep | Districts have a lopsided margin advantage of | | | | | |
| 4.0% | | | | | | |

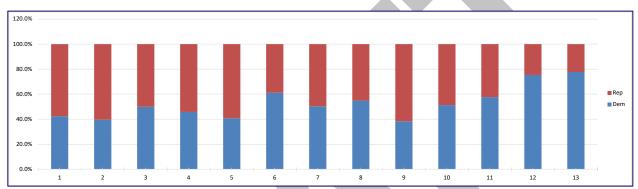
| _ | | | | | | | |
|----------|-----------|-----------|-------------|--------|---------|-------|-------|
| | Pa | rty | | Percen | t Votes | Party | Wins |
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | Dem | Rep |
| 1 | 2,014,575 | 2,729,623 | 4,744,198 | 42.5% | 57.5% | | 57.5% |
| 2 | 1,606,164 | 2,458,415 | 4,064,579 | 39.5% | 60.5% | | 60.5% |
| 3 | 2,060,007 | 2,067,194 | 4,127,201 | 49.9% | 50.1% | | 50.1% |
| 4 | 1,919,525 | 2,268,384 | 4,187,909 | 45.8% | 54.2% | | 54.2% |
| 5 | 1,639,749 | 2,383,861 | 4,023,610 | 40.8% | 59.2% | | 59.2% |
| 6 | 2,807,351 | 1,786,702 | 4,594,053 | 61.1% | 38.9% | 61.1% | |
| 7 | 2,294,626 | 2,256,640 | 4,551,266 | 50.4% | 49.6% | 50.4% | |
| 8 | 2,465,441 | 2,033,607 | 4,499,048 | 54.8% | 45.2% | 54.8% | |
| 9 | 1,750,528 | 2,812,643 | 4,563,171 | 38.4% | 61.6% | | 61.6% |
| 10 | 2,205,758 | 2,098,661 | 4,304,419 | 51.2% | 48.8% | 51.2% | |
| 11 | 2,734,755 | 2,010,497 | 4,745,252 | 57.6% | 42.4% | 57.6% | |
| 12 | 3,023,910 | 990,719 | 4,014,629 | 75.3% | 24.7% | 75.3% | |
| 13 | 2,756,127 | 791,495 | 3,547,622 | 77.7% | 22.3% | 77.7% | |

¹ Sam Wang, "Three Tests for Practical Evaluation of Partisan Gerrymandering," Stanford Law Journal, 16, June 2016. Available at: https://www.stanfordlawreview.org/print/article/three-tests-for-practical-evaluation-ofpartisan-gerrymandering/)



Lopsided Margins









Mean-Median Difference²

The mean-median district vote share difference compares a party's mean district vote share to its median district vote share:

- Mean = average party vote share across all districts
- Median = party vote share in the median district when districts are sorted on share of party vote

The difference between the mean and median vote shares provides a measure of whether the redistricting map produces skewed election results.

Mean-Median Difference = Party's Mean Vote - Party's Median Vote

Comparing a data set's mean and median is a common statistical analysis used to assess how skewed data set is – if the dataset is balanced, the mean will be very close in value to its median. As a dataset becomes more skewed and extreme values are added only on one side, the mean and median begin to diverge and looking at the difference between the two can be used determine the extent to which the data is skewed.

| District Median Percentage | Dem | 50.4% |
|----------------------------|-----|-------|
| District Median Fercentage | Rep | 49.6% |
| Statewide mean percentage | Dem | 52.7% |
| Statewide mean percentage | Rep | 47.3% |
| Mean-Median Difference | Dem | 2.3% |
| Wean-Wedian Difference | Rep | -2.3% |

| | Findings |
|-----|---|
| Rep | Districts have a mean-median advantage of |
| | 2.3% |

| | Party | | | | |
|----------|-------|-------|--|--|--|
| DISTRICT | Dem | Rep | | | |
| 1 | 42.5% | 57.5% | | | |
| 2 | 39.5% | 60.5% | | | |
| 3 | 49.9% | 50.1% | | | |
| 4 | 45.8% | 54.2% | | | |
| 5 | 40.8% | 59.2% | | | |
| 6 | 61.1% | 38.9% | | | |
| 7 | 50.4% | 49.6% | | | |
| 8 | 54.8% | 45.2% | | | |
| 9 | 38.4% | 61.6% | | | |
| 10 | 51.2% | 48.8% | | | |
| 11 | 57.6% | 42.4% | | | |
| 12 | 75.3% | 24.7% | | | |
| 13 | 77.7% | 22.3% | | | |

² Michael D. McDonald and Robin Best in "Unfair Partisan Gerrymanders in Politics and Law: A Diagnostic Applied to Six Cases," Election Law Journal 14(4), 2015 (available at: https://www.liebertpub.com/doi/abs/10.1089/elj.2015.0358)



Efficiency Gap³

The efficiency gap is calculated by taking one party's total wasted votes in an election, subtracting the other party's total wasted votes, and dividing this by the total number of votes cast. It captures in a single number the extent to which district lines waste the two parties votes unequally.

Efficiency Gap = [Party A wasted votes] – [Party B wasted votes] total number of votes cast statewide

Total Wasted Votes % Wasted Votes of Total Votes

| Statewide % Wasted Votes | Dem | 14,150,372 | 25.28% | |
|---------------------------|-----|------------|--------|--|
| Statewide 76 Wasted Votes | Rep | 13,833,107 | 24.72% | |

| | Finding |
|-----|--|
| Rep | Candidates have an efficiency gap advantage of 0.6% |

| | Pa | rty | | Lost Votes | | | Surplus Votes | | Total Wasted Votes | |
|----------|-----------|-----------|--------------------|------------|-----------|------------|---------------|---------|--------------------|-----------|
| | | | | | | Minimum to | | | | |
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | win | Dem | Rep | Dem | Rep |
| 1 | 2,014,575 | 2,729,623 | 4,744,198 | 2,014,575 | 0 | 2,372,099 | 0 | 357,524 | 2,014,575 | 357,524 |
| 2 | 1,606,164 | 2,458,415 | 4,064,579 | 1,606,164 | 0 | 2,032,290 | 0 | 426,126 | 1,606,164 | 426,126 |
| 3 | 2,060,007 | 2,067,194 | 4,127,201 | 2,060,007 | 0 | 2,063,601 | 0 | 3,594 | 2,060,007 | 3,594 |
| 4 | 1,919,525 | 2,268,384 | 4,187,909 | 1,919,525 | 0 | 2,093,955 | 0 | 174,430 | 1,919,525 | 174,430 |
| 5 | 1,639,749 | 2,383,861 | 4,023,610 | 1,639,749 | 0 | 2,011,805 | 0 | 372,056 | 1,639,749 | 372,056 |
| 6 | 2,807,351 | 1,786,702 | 4,594,053 | 0 | 1,786,702 | 2,297,027 | 510,325 | 0 | 510,325 | 1,786,702 |
| 7 | 2,294,626 | 2,256,640 | 4,551,266 | 0 | 2,256,640 | 2,275,633 | 18,993 | 0 | 18,993 | 2,256,640 |
| 8 | 2,465,441 | 2,033,607 | 4,499,048 | 0 | 2,033,607 | 2,249,524 | 215,917 | 0 | 215,917 | 2,033,607 |
| 9 | 1,750,528 | 2,812,643 | 4,563,171 | 1,750,528 | 0 | 2,281,586 | 0 | 531,058 | 1,750,528 | 531,058 |
| 10 | 2,205,758 | 2,098,661 | 4,304,419 | 0 | 2,098,661 | 2,152,210 | 53,549 | 0 | 53,549 | 2,098,661 |
| 11 | 2,734,755 | 2,010,497 | 4,745,252 | 0 | 2,010,497 | 2,372,626 | 362,129 | 0 | 362,129 | 2,010,497 |
| 12 | 3,023,910 | 990,719 | 4,014,629 | 0 | 990,719 | 2,007,315 | 1,016,596 | 0 | 1,016,596 | 990,719 |
| 13 | 2,756,127 | 791,495 | 3,547,622 | 0 | 791,495 | 1,773,811 | 982,316 | 0 | 982,316 | 791,495 |

Congressional District Maps

³ Nicholas O. Stephanopoulos and Eric M. McGhee, "Partisan Gerrymandering and the Efficiency Gap," University of Chicago Law Review: Vol. 82 (2), 2015. Available at: https://chicagounbound.uchicago.edu/uclrev/vol82/iss2/4)



Seats to Votes Ratio

The seats to votes ratio measures the party's control of seats after the election in proportion to its share of the total state vote. For example, a major party held 80 percent of the 12 seats for the United States House of Representatives in Michigan while winning only 50 percent of the total vote. The seats/votes ratio is 80/50. This could suggest partisan gerrymandering.

| | Vote Share | Count of Seats | Seat Share | Proportionality Bias |
|-----|------------|----------------|------------|----------------------|
| Dem | 52.3% | 7 | 53.8% | 1.5% |
| Rep | 47.7% | 6 | 46.2% | -1.5% |
| | - | | | |

| | | Composi | te Score | |
|----------|-----------|---------|-----------|-------|
| DISTRICT | Dem | Dem % | Rep | Rep % |
| 1 | 2,014,575 | 42.5% | 2,729,623 | 57.5% |
| 2 | 1,606,164 | 39.5% | 2,458,415 | 60.5% |
| 3 | 2,060,007 | 49.9% | 2,067,194 | 50.1% |
| 4 | 1,919,525 | 45.8% | 2,268,384 | 54.2% |
| 5 | 1,639,749 | 40.8% | 2,383,861 | 59.2% |
| 6 | 2,807,351 | 61.1% | 1,786,702 | 38.9% |
| 7 | 2,294,626 | 50.4% | 2,256,640 | 49.6% |
| 8 | 2,465,441 | 54.8% | 2,033,607 | 45.2% |
| 9 | 1,750,528 | 38.4% | 2,812,643 | 61.6% |
| 10 | 2,205,758 | 51.2% | 2,098,661 | 48.8% |
| 11 | 2,734,755 | 57.6% | 2,010,497 | 42.4% |
| 12 | 3,023,910 | 75.3% | 990,719 | 24.7% |
| 13 | 2,756,127 | 77.7% | 791,495 | 22.3% |



COMPACTNESS

The Michigan Independent Citizen's Redistricting Commission evaluated the requirement of "(g) Districts shall be reasonably compact" using five mathematical models. The adopted map was deemed 'reasonably compact' under each model.

POLSBY-POPPER

The Polsby-Popper (PP) measure (Polsby & Popper, 1991) is the ratio of the area of the district (A_D) to the area of a circle whose circumference is equal to the perimeter of the district (P_D). A district's Polsby-Popper score falls with the range of [0,1] and a score closer to 1 indicates a more compact district.

$$PP = 4\pi \times \frac{A_D}{P_D^2}$$

| Compactn | ess measure: P | olsby-Popp | oer | | |
|----------|---------------------|-------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 57,170 | 1,351 | 145,227 | 848 | 0.39 |
| 2 | 13,068 | 637 | 32,265 | 405 | 0.41 |
| 3 | 1,886 | 280 | 6,246 | 154 | 0.30 |
| 4 | 3,904 | 347 | 9,586 | 222 | 0.41 |
| 5 | 6,478 | 554 | 24,419 | 285 | 0.27 |
| 6 | 1,018 | 180 | 2,580 | 113 | 0.39 |
| 7 | 2,814 | 252 | 5,038 | 188 | 0.56 |
| 8 | 2,454 | 267 | 5,678 | 176 | 0.43 |
| 9 | 6,899 | 404 | 13,020 | 294 | 0.53 |
| 10 | 242 | 80 | 506 | 55 | 0.48 |
| 11 | 336 | 101 | 814 | 65 | 0.41 |
| 12 | 192 | 71 | 396 | 49 | 0.48 |
| 13 | 253 | 106 | 888 | 56 | 0.28 |
| | | | | | |

Most Compact: 0.56 For District: 7 Least Compact: 0.27 For District: 5



SCHWARTZBERG

The Schwartzberg score (S) compactness score is the ratio of the perimeter of the district (P_D) to the circumference of a circle whose area is equal to the area of the district. A district's Schwartzberg score as calculated below falls with the range of [0,1] and a score closer to 1 indicates a more compact district.

$$S = \frac{1}{P_D/C} = \frac{1}{P_D/(2\pi\sqrt{A_D/\pi})}$$

| Compactne | ess measure: S | chwartzberg |] | | ^ |
|-----------|---------------------|-------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 57,170 | 1,351 | 145,227 | 848 | 0.63 |
| 2 | 13,068 | 637 | 32,265 | 405 | 0.64 |
| 3 | 1,886 | 280 | 6,246 | 154 | 0.55 |
| 4 | 3,904 | 347 | 9,586 | 222 | 0.64 |
| 5 | 6,478 | 554 | 24,419 | 285 | 0.52 |
| 6 | 1,018 | 180 | 2,580 | 113 | 0.63 |
| 7 | 2,814 | 252 | 5,038 | 188 | 0.75 |
| 8 | 2,454 | 267 | 5,678 | 176 | 0.66 |
| 9 | 6,899 | 404 | 13,020 | 294 | 0.73 |
| 10 | 242 | 80 | 506 | 55 | 0.69 |
| 11 | 336 | 101 | 814 | 65 | 0.64 |
| 12 | 192 | 71 | 396 | 49 | 0.70 |
| 13 | 253 | 106 | 888 | 56 | 0.53 |

Most Compact: 0.75 For District: 7 Least Compact: 0.52 For District: 5

REOCK SCORE

The Reock Score (R) is the ratio of the area of the district A_D to the area of a minimum bounding circle (A_{MBC}) that encloses the district's geometry. A district's Reock score falls within the range of [0,1] and a score closer to 1 indicates a more compact district.

$$R = \frac{A_D}{A_{MBC}}$$

| ess measure: Re | ock Score | | | |
|-----------------|---|--|---|---|
| | | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 57,170 | 1,351 | 145,227 | 848 | 0.38 |
| 13,068 | 637 | 32,265 | 405 | 0.57 |
| 1,886 | 280 | 6,246 | 154 | 0.32 |
| 3,904 | 347 | 9,586 | 222 | 0.43 |
| 6,478 | 554 | 24,419 | 285 | 0.18 |
| 1,018 | 180 | 2,580 | 113 | 0.39 |
| 2,814 | 252 | 5,038 | 188 | 0.55 |
| 2,454 | 267 | 5,678 | 176 | 0.41 |
| 6,899 | 404 | 13,020 | 294 | 0.53 |
| 242 | 80 | 506 | 55 | 0.48 |
| 336 | 101 | 814 | 65 | 0.48 |
| 192 | 71 | 396 | 49 | 0.59 |
| 253 | 106 | 888 | 56 | 0.21 |
| | Distract Area (SQM) 57,170 13,068 1,886 3,904 6,478 1,018 2,814 2,454 6,899 242 336 192 | Area (SQM) (Miles) 57,170 1,351 13,068 637 1,886 280 3,904 347 6,478 554 1,018 180 2,814 252 2,454 267 6,899 404 242 80 336 101 192 71 | Distract Area (SQM) Perimeter (Miles) Area of Circle with Same Perimeter 57,170 1,351 145,227 13,068 637 32,265 1,886 280 6,246 3,904 347 9,586 6,478 554 24,419 1,018 180 2,580 2,814 252 5,038 2,454 267 5,678 6,899 404 13,020 242 80 506 336 101 814 192 71 396 | Distract Area (SQM) Perimeter (Miles) Area of Circle with Same Perimeter Perimeter of Circle with Same Area 57,170 1,351 145,227 848 13,068 637 32,265 405 1,886 280 6,246 154 3,904 347 9,586 222 6,478 554 24,419 285 1,018 180 2,580 113 2,814 252 5,038 188 2,454 267 5,678 176 6,899 404 13,020 294 242 80 506 55 336 101 814 65 192 71 396 49 |

Most Compact: 0.59 For District: 12 Least Compact: 0.18 For District: 5



CONVEX HULL

The Convex Hull score is a ratio of the area of the district to the area of the minimum convex polygon that can encloses the district's geometry. A district's Convex Hull score falls within the range of [0,1] and a score closer to 1 indicates a more compact district.

$$CH = \frac{A_D}{A_{MCP}}$$

| Compactne | ss measure: C | onvex Hull | | | |
|-----------|------------------------|----------------------|---------------------------------------|---------------------------------------|----------------------|
| District | Distract Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 57,170 | 1,351 | 145,227 | 848 | 0.87 |
| 2 | 13,068 | 637 | 32,265 | 405 | 0.78 |
| 3 | 1,886 | 280 | 6,246 | 154 | 0.76 |
| 4 | 3,904 | 347 | 9,586 | 222 | 0.78 |
| 5 | 6,478 | 554 | 24,419 | 285 | 0.77 |
| 6 | 1,018 | 180 | 2,580 | 113 | 0.73 |
| 7 | 2,814 | 252 | 5,038 | 188 | 0.90 |
| 8 | 2,454 | 267 | 5,678 | 176 | 0.78 |
| 9 | 6,899 | 404 | 13,020 | 294 | 0.88 |
| 10 | 242 | 80 | 506 | 55 | 0.76 |
| 11 | 336 | 101 | 814 | 65 | 0.82 |
| 12 | 192 | 71 | 396 | 49 | 0.84 |
| 13 | 253 | 106 | 888 | 56 | 0.66 |

Most Compact: 0.9 For District: 7 Least Compact: 0.66 For District: 13

LENGTH-WIDTH

The Length-Width Ratio (LW) is calculated as the ratio of the length (L_{MBR}) to the width (W_{MBR}) of the minimum bounding rectangle surrounding the district. To orient the Length-Width score towards other compactness measures the maximum value of a district's width or length has been set to the denominator, making scores close to 1 more compact, and scores closer to zero less compact.

$$LW = \frac{W_{MBR}}{L_{MBR}}$$

| Compactness | Compactness measure: Length-Width | | | | | | | | |
|-------------|-----------------------------------|-------------------|---------------------------------------|------------------------------------|----------------------|--|--|--|--|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value | | | | |
| 1 | 57,170 | 1,351 | 145,227 | 848 | 1.83 | | | | |
| 2 | 13,068 | 637 | 32,265 | 405 | 1.42 | | | | |
| 3 | 1,886 | 280 | 6,246 | 154 | 3.31 | | | | |
| 4 | 3,904 | 347 | 9,586 | 222 | 2.20 | | | | |
| 5 | 6,478 | 554 | 24,419 | 285 | 5.62 | | | | |
| 6 | 1,018 | 180 | 2,580 | 113 | 2.03 | | | | |
| 7 | 2,814 | 252 | 5,038 | 188 | 2.14 | | | | |
| 8 | 2,454 | 267 | 5,678 | 176 | 0.85 | | | | |
| 9 | 6,899 | 404 | 13,020 | 294 | 0.92 | | | | |
| 10 | 242 | 80 | 506 | 55 | 1.70 | | | | |
| 11 | 336 | 101 | 814 | 65 | 1.78 | | | | |
| 12 | 192 | 71 | 396 | 49 | 1.11 | | | | |
| 13 | 253 | 106 | 888 | 56 | 2.49 | | | | |

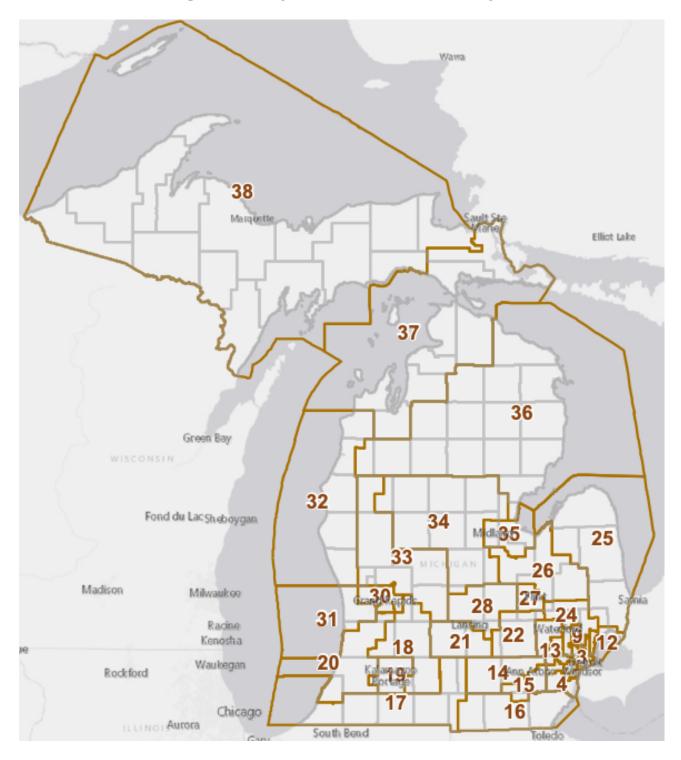
Most Compact: 5.62 For District: 5 Least Compact: 0.85 For District: 8



Michigan State Senate Districts

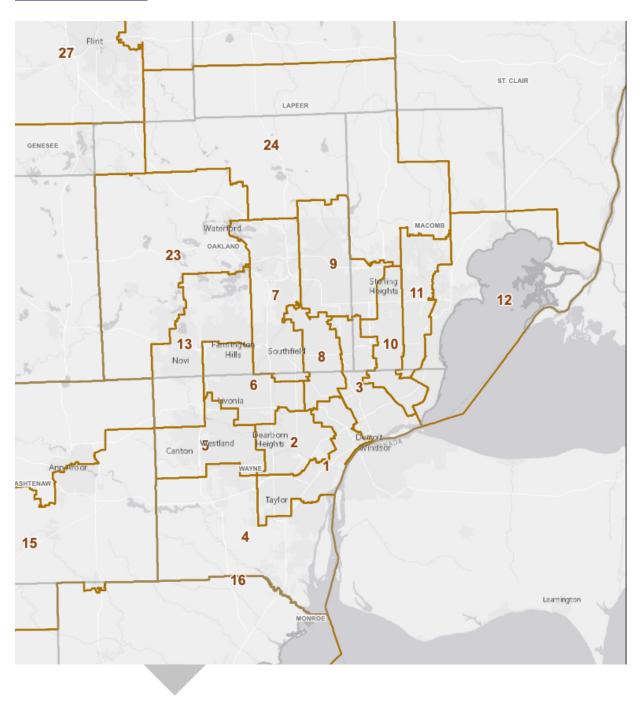
The Michigan Independent Citizen's Redistricting Commission approved the following map and district boundaries for the 38 state senate districts.

Legal Description & Interactive Map





METRO DETROIT





POPULATION

"(a) Districts shall be of equal population as mandated by the United States constitution, and shall comply with the voting rights act and other federal laws."

The Michigan Independent Citizens Redistricting Commission sought and relied on legal counsel and expert advice in order to draw plans that complied with the requirements of the United States constitution, the Voting Rights Act and other federal laws. Material reflecting that counsel and advice is accessible on the Commission's website.

Meeting Notices & Materials

Meeting Notices & Materials Archives

Mapping Data



State Senate District Map



| | | Total Po | pulation | | Racial De | mographics | as Percent | of Total Pop | ulation | Voting Age | Population | Racial De | mographics a | s Percent of | Voting Pop | ulation |
|------------|---------------|----------|----------|------------|-----------|------------|------------|--------------|----------|------------|------------|-----------|--------------|--------------|------------|----------|
| DISTRICT | All Persons 7 | arget | Dev. | Difference | NH White | NH Black | NH Asian | Hispanic | Minority | VAP | % of Total | NH White | NH Black | NH Asian | Hispanic | Minority |
| 1 | 270,366 | 265,193 | 1.95%√ | 5,173 | 38.73% | 34.78% | 0.85% | 19.30% | 61.27% | 201,593 | 74.6% | 42.88% | 35.03% | 0.93% | 16.83% | 57.12% |
| 2 | 260,296 | 265,193 | -1.85%√ | -4,897 | 61.33% | 24.66% | 1.60% | 8.81% | 38.67% | 188,578 | 72.4% | 61.85% | 24.47% | 1.83% | 7.88% | 38.15% |
| 3 | 268,291 | 265,193 | 1.17%√ | 3,098 | 39.96% | 42.25% | 10.11% | 2.40% | 60.04% | 212,874 | 79.3% | 41.95% | 42.09% | 9.46% | 2.19% | 58.05% |
| 4 | 259,877 | 265,193 | -2.00%√ | -5,316 | 74.98% | 14.56% | 2.25% | 6.09% | 25.02% | 214,717 | 82.6% | 74.71% | 13.32% | 2.14% | 4.98% | 25.29% |
| 5 | 260,723 | 265,193 | -1.69%√ | -4,470 | 62.23% | 19.28% | 9.16% | 3.96% | 37.77% | 205,113 | 78.7% | 65.09% | 18.25% | 8.86% | 3.42% | 34.91% |
| 6 | 269,435 | 265,193 | 1.60%√ | 4,242 | 44.15% | 39.61% | 5.40% | 2.93% | 55.85% | 205,711 | 76.3% | 48.95% | 39.15% | 5.55% | 2.60% | 51.05% |
| 7 | 258,715 | 265,193 | -2.44%√ | -6,478 | 39.05% | 45.54% | 4.57% | 7.55% | 60.95% | 208,010 | 80.4% | 40.54% | 44.78% | 4.71% | 6.20% | 59.46% |
| 8 | 267,500 | 265,193 | 0.87%√ | 2,307 | 47.83% | 40.57% | 1.66% | 2.48% | 52.17% | 206,961 | 77.4% | 52.04% | 40.25% | 1.85% | 2.28% | 47.96% |
| 9 | 260,091 | 265,193 | -1.92%√ | -5,102 | 71.32% | 4.34% | 17.23% | 3.75% | 28.68% | 206,406 | 79.4% | 73.16% | 4.24% | 16.23% | 3.18% | 26.84% |
| 10 | 260,891 | 265,193 | -1.62%√ | -4,302 | 47.66% | 44.75% | 4.16% | 2.22% | 52.34% | 207,211 | 79.4% | 50.14% | 40.43% | 3.95% | 1.90% | 49.86% |
| 11 | 267,881 | 265,193 | 1.01%√ | 2,688 | 66.85% | 20.46% | 2.30% | 2.76% | 33.15% | 204,523 | 76.3% | 72.05% | 19.19% | 2.35% | 2.38% | 27.95% |
| 12 | 270,210 | 265,193 | 1.89%√ | 5,017 | 75.00% | 12.13% | 1.16% | 2.78% | 25.00% | 207,870 | 76.9% | 81.01% | 11.52% | 1.29% | 2.34% | 18.99% |
| 13 | 258,822 | 265,193 | -2.40%√ | -6,371 | 73.56% | 8.54% | 13.82% | 3.34% | 26.44% | 213,186 | 82.4% | 73.47% | 8.19% | 12.43% | 2.77% | 26.53% |
| 14 | 262,085 | 265,193 | -1.17%√ | -3,108 | 82.27% | 6.31% | 5.30% | 4.33% | 17.73% | 218,191 | 83.3% | 80.82% | 5.96% | 5.36% | 3.37% | 19.18% |
| 15 | 260,766 | 265,193 | -1.67%√ | -4,427 | 68.07% | 14.59% | 8.11% | 6.21% | 31.93% | 221,289 | 84.9% | 68.01% | 13.28% | 8.09% | 5.32% | 31.99% |
| 16 | 262,182 | 265,193 | -1.14%√ | -3,011 | 89.48% | 2.47% | 0.56% | 5.66% | 10.52% | 213,755 | 81.5% | 88.39% | 2.36% | 0.57% | 4.46% | 11.61% |
| 17 | 266,557 | 265,193 | 0.51%√ | 1,364 | 84.35% | 4.39% | 0.97% | 6.06% | 15.65% | 209,069 | 78.4% | 85.38% | 4.32% | 1.02% | 4.72% | 14.62% |
| 18 | 268,135 | 265,193 | 1.11%√ | 2,942 | 83.41% | 4.92% | 1.70% | 4.49% | 16.59% | 205,401 | 76.6% | 85.77% | 4.66% | 1.56% | 3.62% | 14.23% |
| 19 | 262,619 | 265,193 | -0.97%√ | -2,574 | 76.77% | 11.36% | 2.70% | 5.88% | 23.23% | 211,508 | 80.5% | 77.49% | 10.03% | 2.71% | 4.80% | 22.51% |
| 20 | 262,284 | 265,193 | -1.10%√ | -2,909 | 75.11% | 9.05% | 2.03% | 8.53% | 24.89% | 200,292 | 76.4% | 78.64% | 8.34% | 1.95% | 6.73% | 21.36% |
| 21 | 271,390 | 265,193 | 2.34%√ | 6,197 | 68.10% | 11.61% | 2.75% | 8.46% | 31.90% | 205,416 | 75.7% | 73.70% | 11.23% | 2.77% | 7.38% | 26.30% |
| 22 | 264,573 | 265,193 | -0.23%√ | -620 | 89.50% | 0.65% | 0.78% | 2.86% | 10.50% | 204,483 | 77.3% | 92.17% | 0.65% | 0.83% | 2.37% | 7.83% |
| 23 | 263,780 | 265,193 | -0.53%√ | -1,413 | 85.17% | 3.66% | 2.70% | 5.03% | 14.83% | 211,880 | 80.3% | 85.65% | 3.52% | 2.62% | 4.05% | 14.35% |
| 24 | 271,211 | 265,193 | 2.27%√ | 6,018 | 83.91% | 1.69% | 2.41% | 3.77% | 16.09% | 203,066 | 74.9% | 89.06% | 1.70% | 2.44% | 3.24% | 10.94% |
| 25 | 264,345 | 265,193 | -0.32%√ | -848 | 89.17% | 2.24% | 0.45% | 3.64% | 10.83% | 209,073 | 79.1% | 90.82% | 2.19% | 0.46% | 2.94% | 9.18% |
| 26 | 266,938 | 265,193 | 0.66%√ | 1,745 | 84.87% | 3.15% | 0.42% | 4.46% | 15.13% | 206,886 | 77.5% | 88.51% | 3.13% | 0.44% | 3.71% | 11.49% |
| 27 | 269,043 | 265,193 | 1.45%√ | 3,850 | 57.85% | 27.73% | 1.22% | 4.07% | 42.15% | 200,250 | 74.4% | 63.00% | 27.27% | 1.32% | 3.66% | 37.00% |
| 28 | 265,180 | 265,193 | 0.00%√ | -13 | 78.73% | 4.65% | 5.09% | 5.07% | 21.27% | 210,771 | 79.5% | 81.43% | 4.84% | 5.29% | 4.38% | 18.57% |
| 29 | 263,566 | 265,193 | -0.61%√ | -1,627 | 55.33% | 16.51% | 4.61% | 18.56% | 44.67% | 200,247 | 76.0% | 60.57% | 15.37% | 4.63% | 15.50% | 39.43% |
| 30 | 264,560 | 265,193 | -0.24%√ | -633 | 81.65% | 5.68% | 2.38% | 7.62% | 18.35% | 212,420 | 80.3% | 82.52% | 5.06% | 2.30% | 6.18% | 17.48% |
| 31 | 267,918 | 265,193 | 1.03%√ | 2,725 | 79.46% | 1.56% | 2.85% | 10.84% | 20.54% | 200,843 | 75.0% | 83.32% | 1.41% | 2.92% | 9.22% | 16.68% |
| 32 | 270,401 | 265,193 | 1.96%√ | 5,208 | 75.58% | 9.07% | 0.52% | 6.01% | 24.42% | 205,945 | 76.2% | 80.98% | 8.80% | 0.55% | 4.92% | 19.02% |
| 33 | 267,378 | 265,193 | 0.82%√ | 2,185 | 87.59% | 2.51% | 0.43% | 5.12% | 12.41% | 207,138 | 77.5% | 88.65% | 2.99% | 0.43% | 4.33% | 11.35% |
| 34 | 261,805 | 265,193 | -1.28%√ | -3,388 | 90.54% | 2.22% | 0.72% | 3.76% | 9.46% | 213,991 | 81.7% | 89.33% | 2.34% | 0.72% | 3.01% | 10.67% |
| 35 | 268,708 | 265,193 | 1.33%√ | 3,515 | 74.07% | 12.21% | 1.54% | 7.75% | 25.93% | 211,487 | 78.7% | 76.93% | 11.30% | 1.55% | 6.32% | 23.07% |
| 36 | 270,486 | 265,193 | 2.00%√ | 5,293 | 92.65% | 0.35% | 0.36% | 2.03% | 7.35% | 220,106 | 81.4% | 93.79% | 0.30% | 0.37% | 1.55% | 6.21% |
| 37 | 261,707 | 265,193 | -1.31%√ | -3,486 | 87.54% | 0.73% | 0.59% | 2.45% | 12.46% | 213,146 | 81.4% | 89.30% | 0.75% | 0.57% | 1.95% | 10.70% |
| 38 | 266,616 | 265,193 | 0.54%√ | 1,423 | 88.14% | 1.65% | 0.69% | 1.74% | 11.86% | 217,404 | 81.5% | 89.52% | 1.90% | 0.72% | 1.43% | 10.48% |
| Assigned 1 | 10077331 | | | | | | | | | | | | | | | |

Assigned 10077331
Total Pop 10077331
Jnassigne 0

State Senate District Map



COMMUNITIES OF INTEREST

The Michigan Independent Citizens Redistricting Commission sought to understand Michigan's diverse population and communities of interest via public engagement and feedback opportunities. In total, MICRC received more than 29,000 comments.

"(c) Districts shall reflect the state's diverse population and communities of interest."

Comments on Final Congressional Map (Linden)

Comments on All Proposed Maps

Public Comment Portal Comments

Commission Meeting Comments



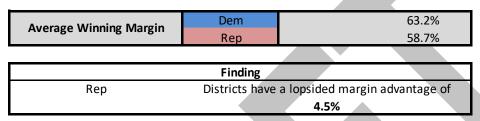


PARTISAN FAIRNESS

(d) Districts shall not provide a disproportionate advantage to any political party. A disproportionate advantage to a political party shall be determined using accepted measures of partisan fairness.

The Michigan Independent Citizen's Redistricting Commission evaluated partisan fairness using four mathematical models. The adopted map did not provide 'disproportionate advantage' to any political party under any of the models used to measure partisan fairness.

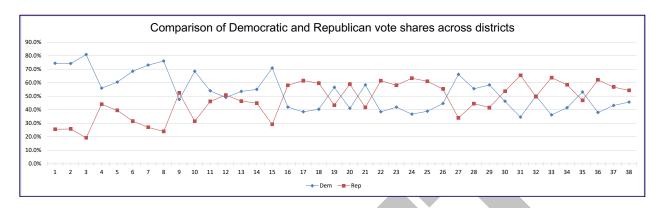
Lopsided Margins

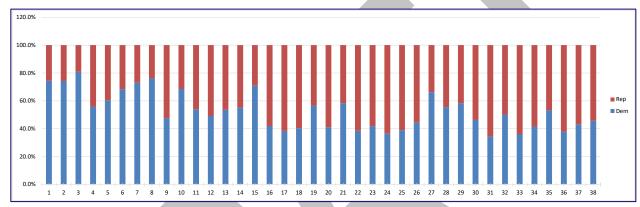


| | Party | | | Percent Votes | | Party | Wins |
|----------|-----------|-----------|-------------|---------------|-------|-------|-------|
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | Dem | Rep |
| 1 | 851,070 | 292,452 | 1,143,522 | 74.4% | 25.6% | 74.4% | |
| 2 | 755,866 | 262,569 | 1,018,435 | 74.2% | 25.8% | 74.2% | |
| 3 | 946,197 | 224,423 | 1,170,620 | 80.8% | 19.2% | 80.8% | |
| 4 | 828,426 | 653,023 | 1,481,449 | 55.9% | 44.1% | 55.9% | |
| 5 | 851,926 | 556,975 | 1,408,901 | 60.5% | 39.5% | 60.5% | |
| 6 | 1,016,114 | 469,106 | 1,485,220 | 68.4% | 31.6% | 68.4% | |
| 7 | 1,132,528 | 418,860 | 1,551,388 | 73.0% | 27.0% | 73.0% | |
| 8 | 1,251,274 | 394,020 | 1,645,294 | 76.1% | 23.9% | 76.1% | |
| 9 | 705,117 | 777,377 | 1,482,494 | 47.6% | 52.4% | | 52.4% |
| 10 | 914,105 | 420,349 | 1,334,454 | 68.5% | 31.5% | 68.5% | |
| 11 | 770,214 | 657,708 | 1,427,922 | 53.9% | 46.1% | 53.9% | |
| 12 | 802,043 | 830,837 | 1,632,880 | 49.1% | 50.9% | | 50.9% |
| 13 | 938,950 | 814,031 | 1,752,981 | 53.6% | 46.4% | 53.6% | |
| 14 | 860,212 | 701,929 | 1,562,141 | 55.1% | 44.9% | 55.1% | |
| 15 | 1,087,019 | 448,037 | 1,535,056 | 70.8% | 29.2% | 70.8% | |
| 16 | 605,886 | 839,809 | 1,445,695 | 41.9% | 58.1% | | 58.1% |
| 17 | 503,371 | 806,208 | 1,309,579 | 38.4% | 61.6% | | 61.6% |
| 18 | 577,925 | 855,830 | 1,433,755 | 40.3% | 59.7% | | 59.7% |
| 19 | 857,354 | 656,945 | 1,514,299 | 56.6% | 43.4% | 56.6% | |
| 20 | 580,817 | 834,128 | 1,414,945 | 41.0% | 59.0% | | 59.0% |
| 21 | 873,298 | 623,609 | 1,496,907 | 58.3% | 41.7% | 58.3% | |
| 22 | 632,830 | 1,012,216 | 1,645,046 | 38.5% | 61.5% | | 61.5% |
| 23 | 678,270 | 941,820 | 1,620,090 | 41.9% | 58.1% | | 58.1% |
| 24 | 591,273 | 1,021,738 | 1,613,011 | 36.7% | 63.3% | | 63.3% |
| 25 | 570,630 | 894,868 | 1,465,498 | 38.9% | 61.1% | | 61.1% |
| 26 | 694,054 | 861,687 | 1,555,741 | 44.6% | 55.4% | | 55.4% |
| 27 | 948,759 | 485,590 | 1,434,349 | 66.1% | 33.9% | 66.1% | |
| 28 | 822,315 | 659,345 | 1,481,660 | 55.5% | 44.5% | 55.5% | |
| 29 | 742,769 | 530,176 | 1,272,945 | 58.4% | 41.6% | 58.4% | |
| 30 | 705,493 | 818,997 | 1,524,490 | 46.3% | 53.7% | | 53.7% |
| 31 | 532,144 | 1,009,913 | 1,542,057 | 34.5% | 65.5% | | 65.5% |
| 32 | 717,007 | 710,001 | 1,427,008 | 50.2% | 49.8% | 50.2% | |
| 33 | 494,983 | 873,196 | 1,368,179 | 36.2% | 63.8% | | 63.8% |
| 34 | 569,367 | 802,097 | 1,371,464 | 41.5% | 58.5% | | 58.5% |
| 35 | 832,714 | 734,835 | 1,567,549 | 53.1% | 46.9% | 53.1% | |
| 36 | 618,130 | 1,010,985 | 1,629,115 | 37.9% | 62.1% | | 62.1% |
| 37 | 736,347 | 969,123 | 1,705,470 | 43.2% | 56.8% | | 56.8% |
| 38 | 691,811 | 823,414 | 1,515,225 | 45.7% | 54.3% | | 54.3% |



Lopsided Margins





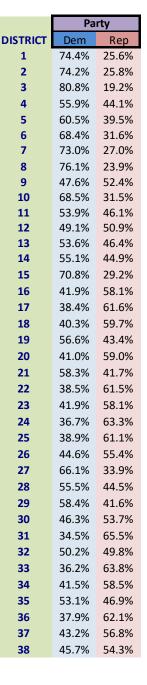




Mean-Median Difference

| District Median Percentage | Dem | 51.7% |
|----------------------------|-----|-------|
| District Median Percentage | Rep | 48.3% |
| Chahanida manan mananda a | Dem | 52.8% |
| Statewide mean percentage | Rep | 47.2% |
| Moan Modian Difference | Dem | 1.2% |
| Mean-Median Difference | Rep | -1.2% |

| | Findings |
|-----|---|
| Rep | Districts have a mean-median advantage of |
| | 1.2% |





Efficiency Gap

| Total Wasted Votes | % Wasted Votes of Total Votes |
|--------------------|-------------------------------|
| | |

| | | TOTAL TEACTOR TOTOS | 70 Trubica rotes or rotal rotes |
|---------------------------|-----|---------------------|---------------------------------|
| Statewide % Wasted Votes | Dem | 14,932,558 | 26.67% |
| Statewide // Wasted Votes | Rep | 13,060,859 | 23.33% |

| | Finding |
|-----|---|
| Rep | Candidates have an efficiency gap advantage of 3.3% |

| | | | | | | Minimum | | | | |
|----------|-----------|---------|--------------------|---------|---------|---------|---------|---------|---------|---------|
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | to win | Dem | Rep | Dem | Rep |
| 1 | 851,070 | 292,452 | 1,143,522 | 0 | 292,452 | 571,761 | 279,309 | 0 | 279,309 | 292,452 |
| 2 | 755,866 | 262,569 | 1,018,435 | 0 | 262,569 | 509,218 | 246,649 | 0 | 246,649 | 262,569 |
| 3 | 946,197 | 224,423 | 1,170,620 | 0 | 224,423 | 585,310 | 360,887 | 0 | 360,887 | 224,423 |
| 4 | 828,426 | 653,023 | 1,481,449 | 0 | 653,023 | 740,725 | 87,702 | 0 | 87,702 | 653,023 |
| 5 | 851,926 | 556,975 | 1,408,901 | 0 | 556,975 | 704,451 | 147,476 | 0 | 147,476 | 556,975 |
| 6 | 1,016,114 | 469,106 | 1,485,220 | 0 | 469,106 | 742,610 | 273,504 | 0 | 273,504 | 469,106 |
| 7 | 1,132,528 | 418,860 | 1,551,388 | 0 | 418,860 | 775,694 | 356,834 | 0 | 356,834 | 418,860 |
| 8 | 1,251,274 | 394,020 | 1,645,294 | 0 | 394,020 | 822,647 | 428,627 | 0 | 428,627 | 394,020 |
| 9 | 705,117 | 777,377 | 1,482,494 | 705,117 | 0 | 741,247 | 0 | 36,130 | 705,117 | 36,130 |
| 10 | 914,105 | 420,349 | 1,334,454 | 0 | 420,349 | 667,227 | 246,878 | 0 | 246,878 | 420,349 |
| 11 | 770,214 | 657,708 | 1,427,922 | 0 | 657,708 | 713,961 | 56,253 | 0 | 56,253 | 657,708 |
| 12 | 802,043 | 830,837 | 1,632,880 | 802,043 | 0 | 816,440 | 0 | 14,397 | 802,043 | 14,397 |
| 13 | 938,950 | 814,031 | 1,752,981 | 0 | 814,031 | 876,491 | 62,460 | 0 | 62,460 | 814,031 |
| 14 | 860,212 | 701,929 | 1,562,141 | 0 | 701,929 | 781,071 | 79,142 | 0 | 79,142 | 701,929 |
| 15 | 1,087,019 | 448,037 | 1,535,056 | 0 | 448,037 | 767,528 | 319,491 | 0 | 319,491 | 448,037 |
| 16 | 605,886 | 839,809 | 1,445,695 | 605,886 | 0 | 722,848 | 0 | 116,962 | 605,886 | 116,962 |
| 17 | 503,371 | 806,208 | 1,309,579 | 503,371 | 0 | 654,790 | 0 | 151,419 | 503,371 | 151,419 |
| 18 | 577,925 | 855,830 | 1,433,755 | 577,925 | 0 | 716,878 | 0 | 138,953 | 577,925 | 138,953 |
| 19 | 857,354 | 656,945 | 1,514,299 | 0 | 656,945 | 757,150 | 100,205 | 0 | 100,205 | 656,945 |

State Senate District Map



Efficiency Gap

| | Party | | | Lost ' | Votes | | Surplus | Votes | Total Was | sted Votes |
|----------|---------|-----------|--------------------|---------|---------|---------|---------|---------|-----------|------------|
| | | | | | | Minimum | | | | |
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | to win | Dem | Rep | Dem | Rep |
| 21 | 873,298 | 623,609 | 1,496,907 | 0 | 623,609 | 748,454 | 124,845 | 0 | 124,845 | 623,609 |
| 22 | 632,830 | 1,012,216 | 1,645,046 | 632,830 | 0 | 822,523 | 0 | 189,693 | 632,830 | 189,693 |
| 23 | 678,270 | 941,820 | 1,620,090 | 678,270 | 0 | 810,045 | 0 | 131,775 | 678,270 | 131,775 |
| 24 | 591,273 | 1,021,738 | 1,613,011 | 591,273 | 0 | 806,506 | 0 | 215,233 | 591,273 | 215,233 |
| 25 | 570,630 | 894,868 | 1,465,498 | 570,630 | 0 | 732,749 | 0 | 162,119 | 570,630 | 162,119 |
| 26 | 694,054 | 861,687 | 1,555,741 | 694,054 | 0 | 777,871 | 0 | 83,817 | 694,054 | 83,817 |
| 27 | 948,759 | 485,590 | 1,434,349 | 0 | 485,590 | 717,175 | 231,585 | 0 | 231,585 | 485,590 |
| 28 | 822,315 | 659,345 | 1,481,660 | 0 | 659,345 | 740,830 | 81,485 | 0 | 81,485 | 659,345 |
| 29 | 742,769 | 530,176 | 1,272,945 | 0 | 530,176 | 636,473 | 106,297 | 0 | 106,297 | 530,176 |
| 30 | 705,493 | 818,997 | 1,524,490 | 705,493 | 0 | 762,245 | 0 | 56,752 | 705,493 | 56,752 |
| 31 | 532,144 | 1,009,913 | 1,542,057 | 532,144 | 0 | 771,029 | 0 | 238,885 | 532,144 | 238,885 |
| 32 | 717,007 | 710,001 | 1,427,008 | 0 | 710,001 | 713,504 | 3,503 | 0 | 3,503 | 710,001 |
| 33 | 494,983 | 873,196 | 1,368,179 | 494,983 | 0 | 684,090 | 0 | 189,107 | 494,983 | 189,107 |
| 34 | 569,367 | 802,097 | 1,371,464 | 569,367 | 0 | 685,732 | 0 | 116,365 | 569,367 | 116,365 |
| 35 | 832,714 | 734,835 | 1,567,549 | 0 | 734,835 | 783,775 | 48,940 | 0 | 48,940 | 734,835 |
| 36 | 618,130 | 1,010,985 | 1,629,115 | 618,130 | 0 | 814,558 | 0 | 196,428 | 618,130 | 196,428 |
| 37 | 736,347 | 969,123 | 1,705,470 | 736,347 | 0 | 852,735 | 0 | 116,388 | 736,347 | 116,388 |
| 38 | 691,811 | 823,414 | 1,515,225 | 691,811 | 0 | 757,613 | 0 | 65,802 | 691,811 | 65,802 |

State Senate District Map



Seats to Votes Ratio

| | Vote Share | Count of Seats | Seat Share | Proportionality Bias |
|-----|------------|----------------|------------|----------------------|
| Dem | 52.3% | 20 | 52.6% | 0.3% |
| Rep | 47.7% | 18 | 47.4% | -0.3% |
| _ | = | | | |

| | Composite Score | | | | | | | |
|----------|-----------------|-------|-----------|--------|--|--|--|--|
| DICTRICT | Dom | | _ | Dan 0/ | | | | |
| DISTRICT | Dem 054,070 | Dem % | Rep | Rep % | | | | |
| 1 | 851,070 | 74.4% | 292,452 | 25.6% | | | | |
| 2 | 755,866 | 74.2% | 262,569 | 25.8% | | | | |
| 3 | 946,197 | 80.8% | 224,423 | 19.2% | | | | |
| 4 | 828,426 | 55.9% | 653,023 | 44.1% | | | | |
| 5 | 851,926 | 60.5% | 556,975 | 39.5% | | | | |
| 6 | 1,016,114 | 68.4% | 469,106 | 31.6% | | | | |
| 7 | 1,132,528 | 73.0% | 418,860 | 27.0% | | | | |
| 8 | 1,251,274 | 76.1% | 394,020 | 23.9% | | | | |
| 9 | 705,117 | 47.6% | 777,377 | 52.4% | | | | |
| 10 | 914,105 | 68.5% | 420,349 | 31.5% | | | | |
| 11 | 770,214 | 53.9% | 657,708 | 46.1% | | | | |
| 12 | 802,043 | 49.1% | 830,837 | 50.9% | | | | |
| 13 | 938,950 | 53.6% | 814,031 | 46.4% | | | | |
| 14 | 860,212 | 55.1% | 701,929 | 44.9% | | | | |
| 15 | 1,087,019 | 70.8% | 448,037 | 29.2% | | | | |
| 16 | 605,886 | 41.9% | 839,809 | 58.1% | | | | |
| 17 | 503,371 | 38.4% | 806,208 | 61.6% | | | | |
| 18 | 577,925 | 40.3% | 855,830 | 59.7% | | | | |
| 19 | 857,354 | 56.6% | 656,945 | 43.4% | | | | |
| 20 | 580,817 | 41.0% | 834,128 | 59.0% | | | | |
| 21 | 873,298 | 58.3% | 623,609 | 41.7% | | | | |
| 22 | 632,830 | 38.5% | 1,012,216 | 61.5% | | | | |
| 23 | 678,270 | 41.9% | 941,820 | 58.1% | | | | |
| 24 | 591,273 | 36.7% | 1,021,738 | 63.3% | | | | |
| 25 | 570,630 | 38.9% | 894,868 | 61.1% | | | | |
| 26 | 694,054 | 44.6% | 861,687 | 55.4% | | | | |
| 27 | 948,759 | 66.1% | 485,590 | 33.9% | | | | |
| 28 | 822,315 | 55.5% | 659,345 | 44.5% | | | | |
| 29 | 742,769 | 58.4% | 530,176 | 41.6% | | | | |
| 30 | 705,493 | 46.3% | 818,997 | 53.7% | | | | |
| 31 | 532,144 | 34.5% | 1,009,913 | 65.5% | | | | |
| 32 | 717,007 | 50.2% | 710,001 | 49.8% | | | | |
| 33 | 494,983 | 36.2% | 873,196 | 63.8% | | | | |
| 34 | 569,367 | 41.5% | 802,097 | 58.5% | | | | |
| 35 | 832,714 | 53.1% | 734,835 | 46.9% | | | | |
| 36 | 618,130 | 37.9% | 1,010,985 | 62.1% | | | | |
| 37 | 736,347 | 43.2% | 969,123 | 56.8% | | | | |
| 38 | 691,811 | 45.7% | 823,414 | 54.3% | | | | |



COMPACTNESS

The Michigan Independent Citizen's Redistricting Commission evaluated the requirement of "(g) Districts shall be reasonably compact" using five mathematical models. The adopted map was deemed 'reasonably compact' under each model.

Polsby-Popper

| Compactness | s measure: Po | | er | | |
|--------------|---------------------|-------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 71 | 63 | 315 | 30 | 0.23 |
| 2 | 54 | 38 | 114 | 26 | 0.48 |
| 3 | 70 | 66 | 345 | 30 | 0.20 |
| 4 | 251 | 88 | 616 | 56 | 0.41 |
| 5 | 79 | 50 | 198 | 32 | 0.40 |
| 6 | 74 | 47 | 179 | 31 | 0.41 |
| 7 | 113 | 66 | 345 | 38 | 0.33 |
| 8 | 49 | 49 | 192 | 25 | 0.26 |
| 9 | 105 | 57 | 255 | 36 | 0.41 |
| 10 | 61 | 55 | 241 | 28 | 0.25 |
| 11 | 63 | 54 | 234 | 28 | 0.27 |
| 12 | 306 | 89 | 629 | 62 | 0.49 |
| 13 | 132 | 65 | 333 | 41 | 0.39 |
| 14 | 966 | 165 | 2,158 | 110 | 0.45 |
| 15 | 406 | 122 | 1,186 | 71 | 0.34 |
| 16 | 1,797 | 223 | 3,954 | 150 | 0.45 |
| 17 | 3,507 | 419 | 13,972 | 210 | 0.25 |
| 18 | 1,589 | 244 | 4,740 | 141 | 0.34 |
| 19 | 543 | 108 | 924 | 83 | 0.59 |
| 20 | 1,890 | 318 | 8,068 | 154 | 0.23 |
| 21 | 887 | 134 | 1,426 | 106 | 0.62 |
| 22 | 874 | 133 | 1,416 | 105 | 0.62 |
| 23 | 309 | 92 | 677 | 62 | 0.46 |
| 24 | 547 | 133 | 1,403 | 83 | 0.39 |
| 25 | 5,020 | 353 | 9,894 | 251 | 0.51 |
| 26 | 1,701 | 269 | 5,763 | 146 | 0.30 |
| 27 | 288 | 84 | 555 | 60 | 0.52 |
| 28 | 1,119 | 169 | 2,266 | 119 | 0.49 |
| 29 | 77 | 41 | 133 | 31 | 0.58 |
| 30 | 360 | 112 | 994 | 67 | 0.36 |
| 31 | 2,499 | 227 | 4,100 | 177 | 0.61 |
| 32 | 5,788 | 347 | 9,573 | 270 | 0.60 |
| 33 | 2,924 | 333 | 8,827 | 192 | 0.33 |
| 34 | 4,334 | 354 | 9,974 | 233 | 0.43 |
| 35 | 767 | 137 | 1,502 | 98 | 0.51 |
| 36 | 14,061 | 615 | 30,128 | 420 | 0.47 |
| 37 | 9,836 | 613 | 29,891 | 352 | 0.33 |
| 38 | 33,196 | 943 | 70,771 | 646 | 0.47 |
| Most Compost | 0.62 Ear Diatria | 4. 22 | | | |

Most Compact: 0.62 For District: 22 Least Compact: 0.2 For District: 3



Schwartzberg

| District | District Area | Perimeter | Area of Circle with | Perimeter of Circle | Compactness |
|----------|---------------|-----------|---------------------|---------------------|-------------|
| | (SQM) | (Miles) | Same Perimeter | with Same Area | Value |
| 1 | 71 | 63 | 315 | 30 | 0.47 |
| 2 | 54 | 38 | 114 | 26 | 0.69 |
| 3 | 70 | 66 | 345 | 30 | 0.45 |
| 4 | 251 | 88 | 616 | 56 | 0.64 |
| 5 | 79 | 50 | 198 | 32 | 0.63 |
| 6 | 74 | 47 | 179 | 31 | 0.64 |
| 7 | 113 | 66 | 345 | 38 | 0.57 |
| 8 | 49 | 49 | 192 | 25 | 0.51 |
| 9 | 105 | 57 | 255 | 36 | 0.64 |
| 10 | 61 | 55 | 241 | 28 | 0.50 |
| 11 | 63 | 54 | 234 | 28 | 0.52 |
| 12 | 306 | 89 | 629 | 62 | 0.70 |
| 13 | 132 | 65 | 333 | 41 | 0.63 |
| 14 | 966 | 165 | 2,158 | 110 | 0.67 |
| 15 | 406 | 122 | 1,186 | 71 | 0.59 |
| 16 | 1,797 | 223 | 3,954 | 150 | 0.67 |
| 17 | 3,507 | 419 | 13,972 | 210 | 0.50 |
| 18 | 1,589 | 244 | 4,740 | 141 | 0.58 |
| 19 | 543 | 108 | 924 | 83 | 0.77 |
| 20 | 1,890 | 318 | 8,068 | 154 | 0.48 |
| 21 | 887 | 134 | 1,426 | 106 | 0.79 |
| 22 | 874 | 133 | 1,416 | 105 | 0.79 |
| 23 | 309 | 92 | 677 | 62 | 0.68 |
| 24 | 547 | 133 | 1,403 | 83 | 0.62 |
| 25 | 5,020 | 353 | 9,894 | 251 | 0.71 |
| 26 | 1,701 | 269 | 5,763 | 146 | 0.54 |
| 27 | 288 | 84 | 555 | 60 | 0.72 |
| 28 | 1,119 | 169 | 2,266 | 119 | 0.70 |
| 29 | 77 | 41 | 133 | 31 | 0.76 |
| 30 | 360 | 112 | 994 | 67 | 0.60 |
| 31 | 2,499 | 227 | 4,100 | 177 | 0.78 |
| 32 | 5,788 | 347 | 9,573 | 270 | 0.78 |
| 33 | 2,924 | 333 | 8,827 | 192 | 0.58 |
| 34 | 4,334 | 354 | 9,974 | 233 | 0.66 |
| 35 | 767 | 137 | 1,502 | 98 | 0.71 |
| 36 | 14,061 | 615 | 30,128 | 420 | 0.68 |
| 37 | 9,836 | 613 | 29,891 | 352 | 0.57 |
| 38 | 33,196 | 943 | 70,771 | 646 | 0.68 |

Most Compact: 0.79 For District: 22 Least Compact: 0.45 For District: 3



Reock Score

| Compact | ness measur | e: Reock Sco | ore | | |
|----------|------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 71 | 63 | 315 | 30 | 0.27 |
| 2 | 54 | 38 | 114 | 26 | 0.61 |
| 3 | 70 | 66 | 345 | 30 | 0.28 |
| 4 | 251 | 88 | 616 | 56 | 0.47 |
| 5 | 79 | 50 | 198 | 32 | 0.50 |
| 6 | 74 | 47 | 179 | 31 | 0.44 |
| 7 | 113 | 66 | 345 | 38 | 0.32 |
| 8 | 49 | 49 | 192 | 25 | 0.37 |
| 9 | 105 | 57 | 255 | 36 | 0.47 |
| 10 | 61 | 55 | 241 | 28 | 0.24 |
| 11 | 63 | 54 | 234 | 28 | 0.23 |
| 12 | 306 | 89 | 629 | 62 | 0.42 |
| 13 | 132 | 65 | 333 | 41 | 0.34 |
| 14 | 966 | 165 | 2,158 | 110 | 0.35 |
| 15 | 406 | 122 | 1,186 | 71 | 0.41 |
| 16 | 1,797 | 223 | 3,954 | 150 | 0.32 |
| 17 | 3,507 | 419 | 13,972 | 210 | 0.22 |
| 18 | 1,589 | 244 | 4,740 | 141 | 0.41 |
| 19 | 543 | 108 | 924 | 83 | 0.57 |
| 20 | 1,890 | 318 | 8,068 | 154 | 0.30 |
| 21 | 887 | 134 | 1,426 | 106 | 0.49 |
| 22 | 874 | 133 | 1,416 | 105 | 0.51 |
| 23 | 309 | 92 | 677 | 62 | 0.46 |
| 24 | 547 | 133 | 1,403 | 83 | 0.41 |
| 25 | 5,020 | 353 | 9,894 | 251 | 0.53 |
| 26 | 1,701 | 269 | 5,763 | 146 | 0.39 |
| 27 | 288 | 84 | 555 | 60 | 0.56 |
| 28 | 1,119 | 169 | 2,266 | 119 | 0.52 |
| 29 | 77 | 41 | 133 | 31 | 0.57 |
| 30 | 360 | 112 | 994 | 67 | 0.37 |
| 31 | 2,499 | 227 | 4,100 | 177 | 0.60 |
| 32 | 5,788 | 347 | 9,573 | 270 | 0.43 |
| 33 | 2,924 | 333 | 8,827 | 192 | 0.29 |
| 34 | 4,334 | 354 | 9,974 | 233 | 0.50 |
| 35 | 767 | 137 | 1,502 | 98 | 0.58 |
| 36 | 14,061 | 615 | 30,128 | 420 | 0.49 |
| 37 | 9,836 | 613 | 29,891 | 352 | 0.38 |
| 38 | 33,196 | 943 | 70,771 | 646 | 0.51 |
| | , | | , | | |

Most Compact: 0.61 For District: 2 Least Compact: 0.22 For District: 17



Convex Hull

| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
|----------|------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|
| 1 | 71 | 63 | 315 | 30 | 0.59 |
| 2 | 54 | 38 | 114 | 26 | 0.84 |
| 3 | 70 | 66 | 345 | 30 | 0.59 |
| 4 | 251 | 88 | 616 | 56 | 0.78 |
| 5 | 79 | 50 | 198 | 32 | 0.77 |
| 6 | 74 | 47 | 179 | 31 | 0.79 |
| 7 | 113 | 66 | 345 | 38 | 0.79 |
| 8 | 49 | 49 | 192 | 25 | 0.72 |
| 9 | 105 | 57 | 255 | 36 | 0.79 |
| 10 | 61 | 55 | 241 | 28 | 0.63 |
| 11 | 63 | 54 | 234 | 28 | 0.73 |
| 12 | 306 | 89 | 629 | 62 | 0.86 |
| 13 | 132 | 65 | 333 | 41 | 0.75 |
| 14 | 966 | 165 | 2,158 | 110 | 0.91 |
| 15 | 406 | 122 | 1,186 | 71 | 0.77 |
| 16 | 1,797 | 223 | 3,954 | 150 | 0.94 |
| 17 | 3,507 | 419 | 13,972 | 210 | 0.64 |
| 18 | 1,589 | 244 | 4,740 | 141 | 0.71 |
| 19 | 543 | 108 | 924 | 83 | 0.86 |
| 20 | 1,890 | 318 | 8,068 | 154 | 0.62 |
| 21 | 887 | 134 | 1,426 | 106 | 0.96 |
| 22 | 874 | 133 | 1,416 | 105 | 0.89 |
| 23 | 309 | 92 | 677 | 62 | 0.86 |
| 24 | 547 | 133 | 1,403 | 83 | 0.81 |
| 25 | 5,020 | 353 | 9,894 | 251 | 0.87 |
| 26 | 1,701 | 269 | 5,763 | 146 | 0.70 |
| 27 | 288 | 84 | 555 | 60 | 0.95 |
| 28 | 1,119 | 169 | 2,266 | 119 | 0.83 |
| 29 | 77 | 41 | 133 | 31 | 0.93 |
| 30 | 360 | 112 | 994 | 67 | 0.74 |
| 31 | 2,499 | 227 | 4,100 | 177 | 0.90 |
| 32 | 5,788 | 347 | 9,573 | 270 | 0.91 |
| 33 | 2,924 | 333 | 8,827 | 192 | 0.70 |
| 34 | 4,334 | 354 | 9,974 | 233 | 0.78 |
| 35 | 767 | 137 | 1,502 | 98 | 0.80 |
| 36 | 14,061 | 615 | 30,128 | 420 | 0.79 |
| 37 | 9,836 | 613 | 29,891 | 352 | 0.76 |
| 38 | 33,196 | 943 | 70,771 | 646 | 0.87 |

Most Compact: 0.96 For District: 21 Least Compact: 0.59 For District: 1



Length-Width

| Compact | tness measure | : Length-Widt | h | | |
|----------|------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 71 | 63 | 315 | 30 | 1.21 |
| 2 | 54 | 38 | 114 | 26 | 1.59 |
| 3 | 70 | 66 | 345 | 30 | 0.86 |
| 4 | 251 | 88 | 616 | 56 | 1.63 |
| 5 | 79 | 50 | 198 | 32 | 1.74 |
| 6 | 74 | 47 | 179 | 31 | 1.65 |
| 7 | 113 | 66 | 345 | 38 | 0.67 |
| 8 | 49 | 49 | 192 | 25 | 0.80 |
| 9 | 105 | 57 | 255 | 36 | 1.04 |
| 10 | 61 | 55 | 241 | 28 | 0.61 |
| 11 | 63 | 54 | 234 | 28 | 0.50 |
| 12 | 306 | 89 | 629 | 62 | 1.19 |
| 13 | 132 | 65 | 333 | 41 | 0.85 |
| 14 | 966 | 165 | 2,158 | 110 | 2.90 |
| 15 | 406 | 122 | 1,186 | 71 | 1.65 |
| 16 | 1,797 | 223 | 3,954 | 150 | 4.04 |
| 17 | 3,507 | 419 | 13,972 | 210 | 3.60 |
| 18 | 1,589 | 244 | 4,740 | 141 | 1.00 |
| 19 | 543 | 108 | 924 | 83 | 1.65 |
| 20 | 1,890 | 318 | 8,068 | 154 | 1.74 |
| 21 | 887 | 134 | 1,426 | 106 | 2.34 |
| 22 | 874 | 133 | 1,416 | 105 | 1.55 |
| 23 | 309 | 92 | 677 | 62 | 0.99 |
| 24 | 547 | 133 | 1,403 | 83 | 2.01 |
| 25 | 5,020 | 353 | 9,894 | 251 | 1.05 |
| 26 | 1,701 | 269 | 5,763 | 146 | 1.69 |
| 27 | 288 | 84 | 555 | 60 | 1.35 |
| 28 | 1,119 | 169 | 2,266 | 119 | 1.71 |
| 29 | 77 | 41 | 133 | 31 | 2.01 |
| 30 | 360 | 112 | 994 | 67 | 2.05 |
| 31 | 2,499 | 227 | 4,100 | 177 | 1.88 |
| 32 | 5,788 | 347 | 9,573 | 270 | 0.80 |
| 33 | 2,924 | 333 | 8,827 | 192 | 0.87 |
| 34 | 4,334 | 354 | 9,974 | 233 | 1.55 |
| 35 | 767 | 137 | 1,502 | 98 | 1.27 |
| 36 | 14,061 | 615 | 30,128 | 420 | 1.87 |
| 37 | 9,836 | 613 | 29,891 | 352 | 1.63 |
| 38 | 33,196 | 943 | 70,771 | 646 | 1.87 |
| | | | • | | |

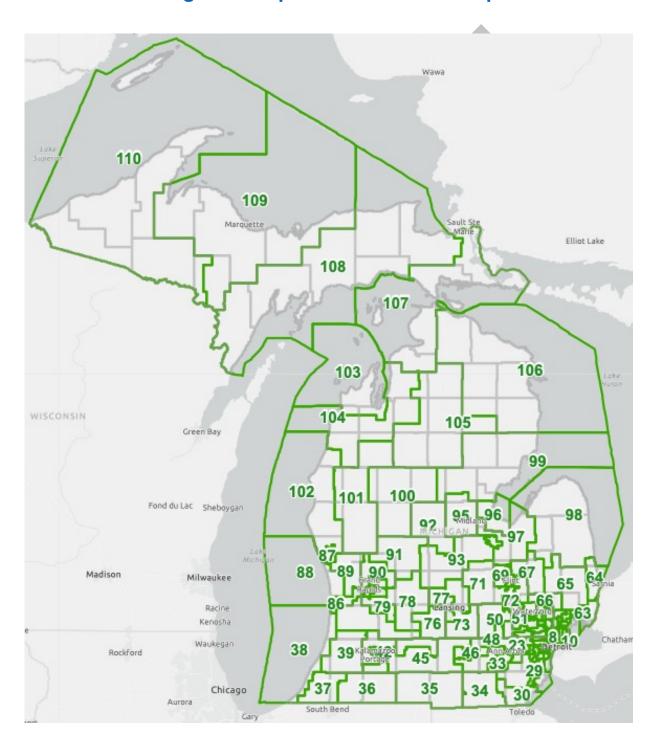
Most Compact: 4.04 For District: 16 Least Compact: 0.5 For District: 11



Michigan State House Districts

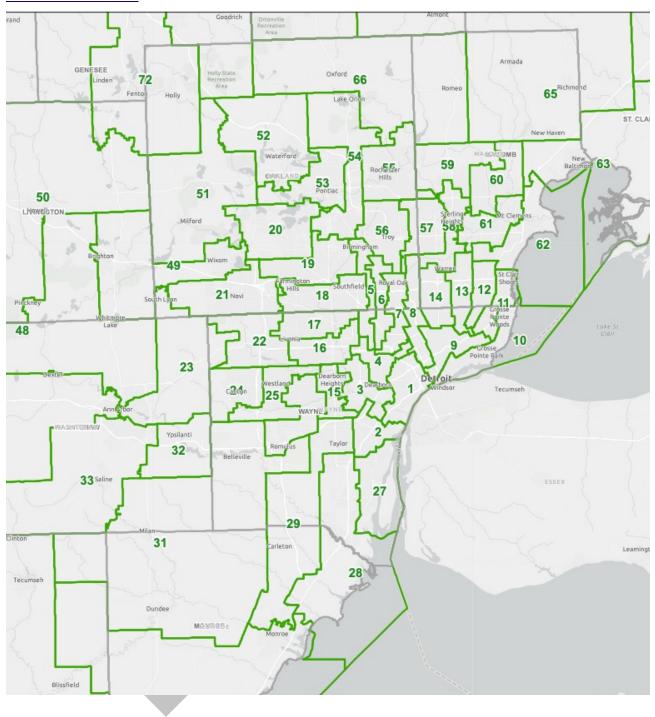
The Michigan Independent Citizen's Redistricting Commission approved the following map and district boundaries for the 110 state house districts.

Legal Description & Interactive Map



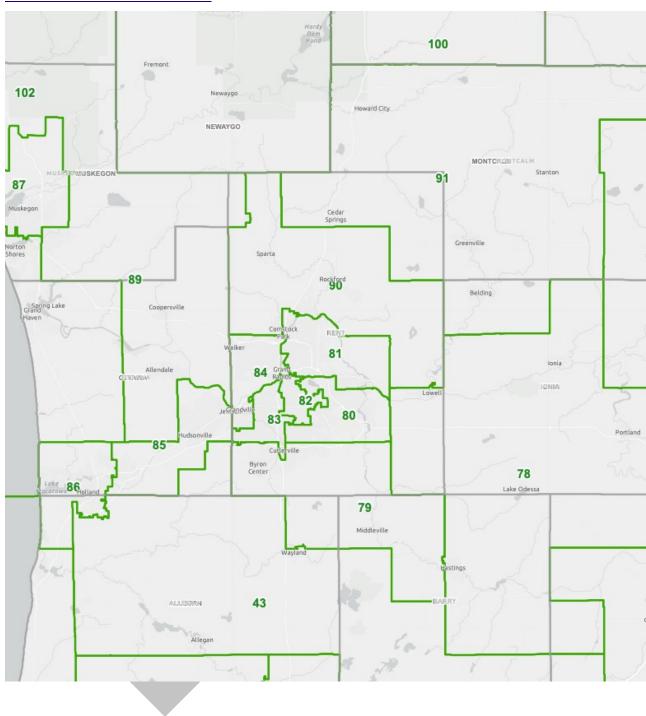


METRO DETROIT





GREATER GRAND RAPIDS





"(a) Districts shall be of equal population as mandated by the United States constitution, and shall comply with the voting rights act and other federal laws."

The Michigan Independent Citizens Redistricting Commission sought and relied on legal counsel and expert advice in order to draw plans that complied with the requirements of the United States constitution, the Voting Rights Act and other federal laws. Material reflecting that counsel and advice is accessible on the Commission's website.

Meeting Notices & Materials

Meeting Notices & Materials Archives

Mapping Data





| | | Total Pop | ulation | | Racial Demographics as Percent of Total Population | | | | | | ge Population | Racial De | Racial Demographics as Percent of Voting Population | | | |
|----------|---------------|-----------|---------|------------|--|----------|----------|----------|----------|--------|---------------|-----------|---|----------|----------|----------|
| DISTRICT | All Person: 7 | Target | Dev. | Difference | NH White | NH Black | NH Asian | Hispanic | Minority | VAP | % of Total | NH White | NH Black | NH Asian | Hispanic | Minority |
| 1 | 91,856 | 91,612 | 0.27%√ | 244 | 16.79% | 35.26% | 0.33% | 43.92% | 83.21% | 65,520 | 71.3% | 18.67% | 38.03% | 0.38% | 39.49% | 81.33% |
| 2 | 89,622 | 91,612 | -2.17%√ | -1,990 | 63.27% | 11.54% | 1.13% | 18.58% | 36.73% | 69,719 | 77.8% | 67.61% | 11.04% | 1.21% | 15.61% | 32.39% |
| 3 | 93,531 | 91,612 | 2.09%√ | 1,919 | 51.18% | 33.31% | 2.34% | 8.21% | 48.82% | 66,030 | | 52.34% | 32.82% | 2.77% | 7.64% | 47.66% |
| 4 | 90,903 | 91,612 | -0.77%√ | -709 | 41.08% | 52.65% | 0.47% | 1.72% | 58.92% | 64,833 | 71.3% | 38.61% | 55.60% | 0.50% | 1.61% | 61.39% |
| 5 | 92,744 | 91,612 | 1.24%√ | 1,132 | 36.68% | 55.87% | 1.53% | 1.96% | 63.32% | 71,629 | | 38.11% | 55.31% | 1.55% | 1.70% | 61.89% |
| 6 | 93,629 | 91,612 | 2.20%√ | 2,017 | 36.10% | 56.66% | 1.15% | 2.03% | 63.90% | 73,324 | 78.3% | 38.54% | 54.93% | 1.31% | 1.79% | 61.46% |
| 7 | 92,948 | 91,612 | 1.46%√ | 1,336 | 44.28% | 46.93% | 1.51% | 2.80% | 55.72% | 75,856 | 81.6% | 47.68% | 44.29% | 1.71% | 2.52% | 52.32% |
| 8 | 92,670 | 91,612 | 1.15%√ | 1,058 | 41.68% | 45.73% | 4.16% | 2.96% | 58.32% | 76,299 | 82.3% | 44.50% | 43.70% | 4.57% | 2.61% | 55.50% |
| 9 | 90,818 | 91,612 | -0.87%√ | -794 | 28.46% | 50.05% | 15.19% | 1.57% | 71.54% | 66,200 | 72.9% | 28.03% | 51.65% | 14.68% | 1.48% | 71.97% |
| 10 | 90,534 | 91,612 | -1.18%√ | -1,078 | 53.11% | 38.14% | 2.08% | 2.77% | 46.89% | 74,475 | 82.3% | 53.31% | 38.79% | 2.32% | 2.35% | 46.69% |
| 11 | 91,145 | 91,612 | -0.51%√ | -467 | 46.16% | 46.82% | 0.80% | 2.19% | 53.84% | 70,700 | 77.6% | 51.18% | 42.82% | 0.93% | 1.82% | 48.82% |
| 12 | 90,630 | 91,612 | -1.07%√ | -982 | 45.97% | 44.46% | 1.33% | 2.45% | 54.03% | 68,955 | 76.1% | 51.03% | 40.99% | 1.28% | 2.08% | 48.97% |
| 13 | 90,393 | 91,612 | -1.33%√ | -1,219 | 47.56% | 41.39% | 4.11% | 2.17% | 52.44% | 69,812 | 77.2% | 52.03% | 38.36% | 3.91% | 1.89% | 47.97% |
| 14 | 90,555 | 91,612 | -1.15%√ | -1,057 | 38.99% | 43.39% | 10.11% | 2.45% | 61.01% | 69,140 | 76.4% | 43.17% | 41.11% | 9.31% | 2.14% | 56.83% |
| 15 | 92,301 | 91,612 | 0.75%√ | 689 | 80.88% | 7.49% | 1.72% | 5.23% | 19.12% | 69,652 | 75.5% | 82.15% | 7.18% | 1.87% | 4.70% | 17.85% |
| 16 | 93,035 | 91,612 | 1.55%√ | 1,423 | 34.88% | 56.88% | 0.94% | 2.87% | 65.12% | 72,066 | 77.5% | 38.03% | 54.92% | 1.02% | 2.44% | 61.97% |
| 17 | 90,737 | 91,612 | -0.96%√ | -875 | 45.56% | 44.57% | 1.80% | 3.10% | 54.44% | 71,354 | 78.6% | 48.90% | 42.43% | 1.94% | 2.64% | 51.10% |
| 18 | 92,169 | 91,612 | 0.61%√ | 557 | 36.50% | 52.03% | 4.21% | 2.71% | 63.50% | 75,714 | 82.1% | 37.44% | 52.16% | 4.12% | 2.40% | 62.56% |
| 19 | 90,931 | 91,612 | -0.74%√ | -681 | 60.63% | 24.62% | 7.86% | 2.80% | 39.37% | 72,930 | 80.2% | 61.39% | 25.11% | 8.00% | 2.34% | 38.61% |
| 20 | 93,017 | 91,612 | 1.53%√ | 1,405 | 75.60% | 10.28% | 7.26% | 2.68% | 24.40% | 74,684 | 80.3% | 76.81% | 10.20% | 7.42% | 2.25% | 23.19% |
| 21 | 93,876 | 91,612 | 2.47%√ | 2,264 | 57.07% | 7.60% | 27.76% | 3.48% | 42.93% | 71,599 | 76.3% | 59.96% | 7.89% | 26.00% | 3.07% | 40.04% |
| 22 | 91,654 | 91,612 | 0.05%√ | 42 | 85.05% | 2.23% | 5.67% | 3.19% | 14.95% | 75,487 | 82.4% | 86.64% | 2.24% | 5.33% | 2.74% | 13.36% |
| 23 | 90,719 | 91,612 | -0.97%√ | -893 | 70.61% | 4.68% | 14.87% | 4.41% | 29.39% | 76,266 | 84.1% | 71.65% | 4.78% | 14.75% | 4.14% | 28.35% |
| 24 | 91,480 | 91,612 | -0.14%√ | -132 | 61.18% | 10.03% | 20.19% | 3.69% | 38.82% | 69,996 | 76.5% | 63.53% | 9.84% | 19.60% | 3.29% | 36.47% |
| 25 | 90,562 | 91,612 | -1.15%√ | -1,050 | 64.13% | 20.53% | 4.87% | 4.47% | 35.87% | 73,216 | 80.8% | 66.72% | 19.62% | 4.96% | 3.82% | 33.28% |
| 26 | 91,723 | 91,612 | 0.12%√ | 111 | 50.52% | 37.86% | 1.05% | 4.20% | 49.48% | 70,678 | 77.1% | 54.11% | 35.82% | 1.14% | 3.61% | 45.89% |
| 27 | 90,457 | 91,612 | -1.26%√ | -1,155 | 84.33% | 3.05% | 1.18% | 6.36% | 15.67% | 73,737 | 81.5% | 86.29% | 2.93% | 1.21% | 5.34% | 13.71% |
| 28 | 91,598 | 91,612 | -0.02%√ | -14 | 74.98% | 9.75% | 3.36% | 6.24% | 25.02% | 71,385 | 77.9% | 77.44% | 9.14% | 3.23% | 5.36% | 22.56% |
| 29 | 92,583 | 91,612 | 1.06%√ | 971 | 72.48% | 13.37% | 1.38% | 6.68% | 27.52% | 72,381 | | 76.05% | 11.83% | 1.40% | 5.62% | 23.95% |
| 30 | 93,460 | 91,612 | 2.02%√ | 1,848 | 87.42% | 2.57% | 0.64% | 4.06% | 12.58% | 73,606 | 78.8% | 89.60% | 2.30% | 0.67% | 3.21% | 10.40% |
| 31 | 92,978 | 91,612 | 1.49%√ | 1,366 | 72.74% | 16.00% | 1.27% | 4.03% | 27.26% | 73,558 | 79.1% | 74.55% | 15.72% | 1.28% | 3.54% | 25.45% |
| 32 | 92,092 | 91,612 | 0.52%√ | 480 | 53.20% | 28.29% | 3.69% | 7.17% | 46.80% | 73,449 | | 57.13% | 26.46% | 3.89% | 6.21% | 42.87% |
| 33 | 92,730 | 91,612 | 1.22%√ | 1,118 | 68.50% | 7.94% | 11.52% | 5.90% | 31.50% | 74,822 | 80.7% | 70.65% | 7.76% | 11.65% | 5.23% | 29.35% |
| 34 | 92,371 | 91,612 | 0.83%√ | 759 | 83.11% | 2.61% | 0.48% | 8.88% | 16.89% | 73,142 | | 85.26% | 2.88% | 0.49% | 7.27% | 14.74% |
| 35 | 93,023 | 91,612 | 1.54%√ | 1,411 | 89.55% | 1.44% | 0.48% | 4.20% | 10.45% | 71,335 | | 90.73% | 1.66% | 0.49% | 3.29% | 9.27% |
| 36 | 89,634 | 91,612 | -2.16%√ | -1,978 | 84.12% | 2.73% | 0.69% | 7.00% | 15.88% | 68,621 | | 86.65% | 2.74% | 0.72% | 5.44% | 13.35% |
| 37 | 91,456 | 91,612 | -0.17%√ | -156 | 78.38% | 6.26% | 1.89% | 6.54% | 21.62% | 71,787 | | 81.10% | 6.19% | 2.00% | 5.18% | 18.90% |
| 38 | 93,422 | 91,612 | 1.98%√ | 1,810 | 67.57% | 19.03% | 1.75% | 6.63% | 32.43% | 73,770 | | 72.12% | 16.97% | 1.68% | 5.18% | 27.88% |
| 39 | 90,270 | 91,612 | -1.46%√ | -1,342 | 81.17% | 1.69% | 0.44% | 10.74% | 18.83% | 69,482 | | 84.59% | 1.69% | 0.45% | 8.20% | 15.41% |
| 40 | 90,211 | 91,612 | -1.53%√ | -1,401 | 77.97% | 7.16% | 4.56% | 4.57% | 22.03% | 69,763 | 77.3% | 80.75% | 6.74% | 4.45% | 3.86% | 19.25% |



| | | Total Pop | ulation | | Racial De | emographics | as Percent | of Total Pop | ulation | Voting Age | Population | Racial D | Racial Demographics as Percent of Voting Population | | | | |
|----------|---------------|-----------|---------|------------|-----------|-------------|------------|--------------|----------|------------|------------|----------|---|----------|----------|----------|--|
| DISTRICT | All Person: 7 | Target | Dev. | Difference | NH White | NH Black | NH Asian | Hispanic | Minority | VAP | % of Total | NH White | NH Black | NH Asian | Hispanic | Minority | |
| 41 | 91,872 | 91,612 | 0.28%√ | 260 | 59.50% | 21.99% | 2.17% | 8.66% | 40.50% | 72,876 | 79.3% | 64.54% | 19.61% | 2.54% | 7.40% | 35.46% | |
| 42 | 91,192 | 91,612 | -0.46%√ | -420 | 86.29% | 3.44% | 1.09% | 3.41% | 13.71% | 70,454 | 77.3% | 88.31% | 3.13% | 1.11% | 2.69% | 11.69% | |
| 43 | 92,518 | 91,612 | 0.99%√ | 906 | 88.43% | 0.80% | 0.52% | 5.52% | 11.57% | 70,016 | 75.7% | 90.34% | 0.65% | 0.51% | 4.58% | 9.66% | |
| 44 | 89,974 | 91,612 | -1.79%√ | -1,638 | 67.40% | 15.11% | 3.76% | 6.67% | 32.60% | 68,782 | 76.4% | 71.48% | 14.34% | 3.39% | 5.53% | 28.52% | |
| 45 | 90,612 | 91,612 | -1.09%√ | -1,000 | 90.40% | 1.29% | 0.55% | 3.08% | 9.60% | 71,054 | 78.4% | 92.00% | 1.14% | 0.54% | 2.48% | 8.00% | |
| 46 | 91,041 | 91,612 | -0.62%√ | -571 | 75.41% | 12.23% | 1.26% | 4.62% | 24.59% | 71,551 | 78.6% | 78.41% | 12.17% | 1.26% | 3.54% | 21.59% | |
| 47 | 91,302 | 91,612 | -0.34%√ | -310 | 82.97% | 3.10% | 3.93% | 4.17% | 17.03% | 73,378 | 80.4% | 84.80% | 3.07% | 4.17% | 3.43% | 15.20% | |
| 48 | 92,373 | 91,612 | 0.83%√ | 761 | 83.36% | 1.79% | 6.90% | 3.00% | 16.64% | 74,656 | 80.8% | 84.30% | 1.79% | 7.25% | 2.56% | 15.70% | |
| 49 | 93,247 | 91,612 | 1.78%√ | 1,635 | 81.32% | 5.78% | 4.20% | 4.03% | 18.68% | 74,267 | 79.6% | 82.78% | 5.82% | 4.14% | 3.38% | 17.22% | |
| 50 | 93,139 | 91,612 | 1.67%√ | 1,527 | 91.14% | 0.44% | 0.72% | 3.01% | 8.86% | 72,160 | 77.5% | 92.28% | 0.44% | 0.77% | 2.54% | 7.72% | |
| 51 | 91,507 | 91,612 | -0.11%√ | -105 | 89.00% | 1.30% | 1.29% | 3.41% | 11.00% | 72,488 | 79.2% | 90.44% | 1.25% | 1.35% | 2.70% | 9.56% | |
| 52 | 91,098 | 91,612 | -0.56%√ | -514 | 84.95% | 2.75% | 1.63% | 5.77% | 15.05% | 72,818 | 79.9% | 86.85% | 2.66% | 1.63% | 4.81% | 13.15% | |
| 53 | 93,056 | 91,612 | 1.58%√ | 1,444 | 40.81% | 33.94% | 2.28% | 17.60% | 59.19% | 71,476 | 76.8% | 46.05% | 32.59% | 2.35% | 14.72% | 53.95% | |
| 54 | 92,949 | 91,612 | 1.46%√ | 1,337 | 73.66% | 6.77% | 9.52% | 5.16% | 26.34% | 73,853 | 79.5% | 75.32% | 6.95% | 9.54% | 4.33% | 24.68% | |
| 55 | 91,805 | 91,612 | 0.21%√ | 193 | 73.68% | 3.41% | 13.74% | 4.69% | 26.32% | 71,848 | 78.3% | 75.98% | 3.51% | 13.12% | 3.98% | 24.02% | |
| 56 | 90,410 | 91,612 | -1.31%√ | -1,202 | 67.73% | 3.39% | 21.41% | 3.38% | 32.27% | 71,737 | 79.3% | 70.93% | 3.44% | 19.61% | 2.94% | 29.07% | |
| 57 | 89,693 | 91,612 | -2.09%√ | -1,919 | 74.61% | 5.19% | 13.76% | 2.60% | 25.39% | 71,864 | 80.1% | 76.21% | 4.89% | 13.48% | 2.27% | 23.79% | |
| 58 | 90,454 | 91,612 | -1.26%√ | -1,158 | 78.17% | 8.23% | 6.25% | 2.72% | 21.83% | 73,423 | 81.2% | 79.90% | 7.86% | 6.07% | 2.41% | 20.10% | |
| 59 | 89,336 | 91,612 | -2.48%√ | -2,276 | 86.97% | 2.68% | 3.69% | 2.91% | 13.03% | 70,271 | 78.7% | 88.36% | 2.58% | 3.58% | 2.50% | 11.64% | |
| 60 | 92,742 | 91,612 | 1.23%√ | 1,130 | 81.65% | 7.23% | 3.47% | 3.23% | 18.35% | 72,453 | 78.1% | 83.34% | 7.08% | 3.47% | 2.69% | 16.66% | |
| 61 | 93,156 | 91,612 | 1.69%√ | 1,544 | 73.83% | 15.25% | 2.72% | 3.08% | 26.17% | 75,006 | 80.5% | 77.01% | 13.83% | 2.69% | 2.52% | 22.99% | |
| 62 | 90,539 | 91,612 | -1.17%√ | -1,073 | 77.07% | 13.35% | 1.44% | 2.83% | 22.93% | 74,114 | 81.9% | 79.79% | 12.07% | 1.47% | 2.35% | 20.21% | |
| 63 | 90,638 | 91,612 | -1.06%√ | -974 | 88.69% | 3.12% | 0.74% | 2.65% | 11.31% | 72,589 | 80.1% | 90.27% | 2.86% | 0.79% | 2.13% | 9.73% | |
| 64 | 91,060 | 91,612 | -0.60%√ | -552 | 85.90% | 3.78% | 0.61% | 4.08% | 14.10% | 71,638 | 78.7% | 88.31% | 3.56% | 0.65% | 3.30% | 11.69% | |
| 65 | 92,892 | 91,612 | 1.40%√ | 1,280 | 87.96% | 2.29% | 0.36% | 5.03% | 12.04% | 73,184 | 78.8% | 89.40% | 2.39% | 0.36% | 4.12% | 10.60% | |
| 66 | 93,014 | 91,612 | 1.53%√ | 1,402 | 88.17% | 1.18% | 1.61% | 4.41% | 11.83% | 71,767 | 77.2% | 89.95% | 1.10% | 1.61% | 3.59% | 10.05% | |
| 67 | 92,816 | 91,612 | 1.31%√ | 1,204 | 87.35% | 3.28% | 0.42% | 3.56% | 12.65% | 73,721 | 79.4% | 88.89% | 3.28% | 0.41% | 2.70% | 11.11% | |
| 68 | 93,065 | 91,612 | 1.59%√ | 1,453 | 82.34% | 6.24% | 1.74% | 4.12% | 17.66% | 73,273 | 78.7% | 84.24% | 6.00% | 1.78% | 3.37% | 15.76% | |
| 69 | 91,698 | 91,612 | 0.09%√ | 86 | 68.76% | 21.07% | 0.85% | 3.62% | 31.24% | 71,476 | 77.9% | 71.44% | 19.84% | 0.88% | 3.15% | 28.56% | |
| 70 | 90,738 | 91,612 | -0.95%√ | -874 | 36.26% | 51.87% | 0.51% | 4.87% | 63.74% | 68,117 | 75.1% | 39.89% | 50.13% | 0.59% | 4.37% | 60.11% | |
| 71 | 91,966 | 91,612 | 0.39%√ | 354 | 91.17% | 0.69% | 0.43% | 3.06% | 8.83% | 72,963 | 79.3% | 92.41% | 0.64% | 0.42% | 2.51% | 7.59% | |
| 72 | 92,844 | 91,612 | 1.34%√ | 1,232 | 85.21% | 4.89% | 1.27% | 3.55% | 14.79% | 72,890 | 78.5% | 86.72% | 4.79% | 1.31% | 2.88% | 13.28% | |
| 73 | 91,543 | 91,612 | -0.08%√ | -69 | 77.71% | 5.83% | 7.53% | 4.34% | 22.29% | 75,397 | 82.4% | 78.57% | 6.50% | 7.50% | 3.80% | 21.43% | |
| 74 | 90,782 | 91,612 | -0.91%√ | -830 | 58.79% | 18.25% | 4.34% | 11.02% | 41.21% | 70,233 | 77.4% | 63.43% | 17.05% | 4.27% | 9.39% | 36.57% | |
| 75 | 93,554 | 91,612 | 2.12%√ | 1,942 | 79.32% | 4.35% | 5.90% | 5.12% | 20.68% | 75,207 | 80.4% | 81.08% | 4.26% | 6.12% | 4.27% | 18.92% | |
| 76 | 92,354 | 91,612 | 0.81%√ | 742 | 78.11% | 7.92% | 2.58% | 6.26% | 21.89% | 73,043 | 79.1% | 80.63% | 7.67% | 2.44% | 5.18% | 19.37% | |
| 77 | 92,594 | 91,612 | 1.07%√ | 982 | 69.49% | 11.08% | 2.11% | 10.61% | 30.51% | 72,106 | 77.9% | 73.16% | 10.25% | 2.18% | 9.15% | 26.84% | |
| 78 | 92,264 | 91,612 | 0.71%√ | 652 | 87.59% | 3.62% | 0.42% | 4.31% | 12.41% | 71,687 | 77.7% | 88.34% | 4.48% | 0.43% | 3.47% | 11.66% | |
| 79 | 90,952 | 91,612 | -0.72%√ | -660 | 82.38% | 4.41% | 3.55% | 5.05% | 17.62% | 67,213 | 73.9% | 84.66% | 4.13% | 3.49% | 4.15% | 15.34% | |
| 80 | 92,350 | 91,612 | 0.81%√ | 738 | 67.22% | 12.08% | 8.14% | 7.64% | 32.78% | 69,344 | 75.1% | 70.96% | 11.28% | 7.94% | 6.32% | 29.04% | |



| | 1 | Total Population | on | Racial D | emographics | as Percent | of Total Pop | ulation | Voting Ad | e Population | Racial De | emographics a | s Percent of | Voting Popu | lation |
|----------|---------------|------------------|--------------------------|------------|-------------|------------|--------------|----------|-----------|--------------|-----------|---------------|--------------|-------------|----------|
| DISTRICT | All Persons 7 | | | e NH White | NH Black | NH Asian | Hispanic | Minority | VAP | % of Total | NH White | NH Black | NH Asian | Hispanic | Minority |
| 81 | 91,516 | | 10%√ -96 | 78.37% | 7.75% | 3.19% | 5.49% | 21.63% | 71,975 | 78.6% | 81.42% | 7.03% | 3.06% | 4.63% | 18.58% |
| 82 | 91,219 | 91,612 -0.4 | 43%√ -393 | 49.92% | 26.76% | 3.33% | 14.62% | 50.08% | 70,814 | 77.6% | 55.75% | 24.58% | 3.37% | 12.03% | 44.25% |
| 83 | 91,341 | 91,612 -0. | 30%√ -271 | 51.58% | 9.19% | 2.73% | 31.56% | 48.42% | 67,461 | 73.9% | 57.46% | 8.69% | 2.98% | 26.96% | 42.54% |
| 84 | 91,890 | 91,612 0. | 30%√ 278 | 75.14% | 6.21% | 1.83% | 11.25% | 24.86% | 73,379 | 79.9% | 79.03% | 5.36% | 1.91% | 9.31% | 20.97% |
| 85 | 90,127 | 91,612 -1. | <mark>62%√ -1,485</mark> | 87.14% | 1.21% | 2.12% | 5.70% | 12.86% | 66,158 | 73.4% | 89.34% | 1.11% | 2.16% | 4.64% | 10.66% |
| 86 | 90,575 | 91,612 -1. | 13%√ -1,037 | 66.02% | 2.62% | 5.08% | 22.19% | 33.98% | 70,221 | 77.5% | 70.69% | 2.33% | 5.13% | 18.69% | 29.31% |
| 87 | 91,376 | 91,612 -0. | <mark>26%√ -236</mark> | 61.91% | 24.21% | 0.50% | 6.83% | 38.09% | 70,829 | 77.5% | 65.83% | 22.94% | 0.53% | 5.55% | 34.17% |
| 88 | 90,900 | 91,612 -0. | 78%√ -712 | 87.81% | 1.47% | 1.42% | 4.62% | 12.19% | 71,051 | 78.2% | 89.90% | 1.37% | 1.37% | 3.68% | 10.10% |
| 89 | 93,134 | 91,612 1. | 66%√ 1,522 | 86.99% | 1.96% | 0.82% | 5.55% | 13.01% | 71,969 | 77.3% | 88.55% | 2.04% | 0.89% | 4.58% | 11.45% |
| 90 | 91,549 | 91,612 -0. | 07%√ -63 | 87.20% | 1.60% | 0.91% | 5.69% | 12.80% | 68,467 | 74.8% | 89.55% | 1.47% | 0.89% | 4.50% | 10.45% |
| 91 | 91,350 | 91,612 -0.3 | <mark>29%√ -262</mark> | 90.75% | 0.53% | 0.38% | 3.79% | 9.25% | 70,036 | 76.7% | 92.31% | 0.44% | 0.38% | 3.02% | 7.69% |
| 92 | 92,520 | 91,612 0. | 99%√ 908 | 81.45% | 4.58% | 1.37% | 5.84% | 18.55% | 73,959 | 79.9% | 82.92% | 5.11% | 1.41% | 4.77% | 17.08% |
| 93 | 89,410 | 91,612 -2. | 40%√ -2,202 | 86.47% | 3.80% | 1.18% | 5.25% | 13.53% | 72,182 | 80.7% | 87.40% | 4.20% | 1.17% | 4.50% | 12.60% |
| 94 | 90,438 | 91,612 -1. | 28%√ -1,174 | 46.40% | 33.75% | 1.24% | 13.25% | 53.60% | 69,020 | 76.3% | 51.34% | 31.92% | 1.29% | 11.32% | 48.66% |
| 95 | 91,439 | 91,612 -0. | 19%√ -173 | 88.86% | 1.05% | 1.89% | 3.11% | 11.14% | 71,873 | 78.6% | 90.46% | 1.01% | 1.85% | 2.48% | 9.54% |
| 96 | 90,544 | 91,612 -1. | 17%√ -1,068 | 86.81% | 1.69% | 0.55% | 6.14% | 13.19% | 72,724 | 80.3% | 89.24% | 1.54% | 0.58% | 4.84% | 10.76% |
| 97 | 93,159 | 91,612 1. | 69%√ 1,547 | 88.85% | 2.28% | 0.49% | 4.03% | 11.15% | 73,355 | 78.7% | 90.17% | 2.33% | 0.49% | 3.30% | 9.83% |
| 98 | 92,049 | 91,612 0. | 48%√ 437 | 92.62% | 0.32% | 0.29% | 3.35% | 7.38% | 72,801 | 79.1% | 93.77% | 0.31% | 0.29% | 2.76% | 6.23% |
| 99 | 89,375 | 91,612 -2. | 44%√ -2,237 | 92.86% | 0.38% | 0.35% | 2.09% | 7.14% | 72,792 | 81.4% | 93.81% | 0.34% | 0.36% | 1.64% | 6.19% |
| 100 | 91,751 | 91,612 0. | 15%√ 139 | 91.21% | 1.17% | 0.45% | 2.19% | 8.79% | 72,641 | 79.2% | 92.09% | 1.15% | 0.50% | 1.89% | 7.91% |
| 101 | 92,604 | 91,612 1.0 | 08%√ 992 | 87.51% | 1.49% | 0.45% | 5.48% | 12.49% | 72,534 | 78.3% | 88.89% | 1.50% | 0.45% | 4.81% | 11.11% |
| 102 | 91,886 | | 30%√ 274 | 85.43% | 1.22% | 0.40% | 7.30% | 14.57% | 72,924 | | 87.83% | 1.25% | 0.40% | 5.68% | 12.17% |
| 103 | 93,426 | 91,612 | 98%√ 1,814 | 89.71% | 0.53% | 0.79% | 3.36% | 10.29% | 76,458 | 81.8% | 91.48% | 0.46% | 0.73% | 2.69% | 8.52% |
| 104 | 89,466 | | 34%√ -2,146 | 91.28% | 0.35% | 0.44% | 2.58% | 8.72% | 71,871 | 80.3% | 92.68% | 0.30% | 0.46% | 1.96% | 7.32% |
| 105 | 89,541 | | <mark>26%√ -2,071</mark> | 92.67% | 0.32% | 0.32% | 2.12% | 7.33% | 72,736 | | 93.86% | 0.28% | 0.33% | 1.56% | 6.14% |
| 106 | 90,875 | | 80%√ -737 | 92.66% | 0.27% | 0.31% | 1.34% | 7.34% | 75,466 | 83.0% | 93.74% | 0.22% | 0.32% | 1.05% | 6.26% |
| 107 | 92,701 | | 1,089 | 83.30% | 1.24% | 0.52% | 1.77% | 16.70% | 75,875 | | 85.31% | 1.39% | 0.48% | 1.42% | 14.69% |
| 108 | 89,366 | | 45%√ -2,246 | 85.05% | 2.21% | 0.34% | 1.69% | 14.95% | 72,443 | | 87.00% | 2.62% | 0.36% | 1.25% | 13.00% |
| 109 | 89,410 | | 40%√ -2,202 | 87.41% | 2.21% | 0.51% | 1.84% | 12.59% | 73,187 | | 88.58% | 2.58% | 0.53% | 1.63% | 11.42% |
| 110 | 90,788 | 91,612 -0. | 90%√ -824 | 91.64% | 0.48% | 1.19% | 1.70% | 8.36% | 74,036 | 81.5% | 92.71% | 0.46% | 1.25% | 1.41% | 7.29% |
| Assigned | 10077331 | | | | | | | | | | | | | | |

Assigned 10077331 Total Pop 10077331 Unassigned 0



COMMUNITIES OF INTEREST

The Michigan Independent Citizens Redistricting Commission sought to understand Michigan's diverse population and communities of interest via public engagement and feedback opportunities. In total, MICRC received more than 29,000 comments.

"(c) Districts shall reflect the state's diverse population and communities of interest."

Comments on Final Congressional Map (Hickory)

Comments on All Proposed Maps

Public Comment Portal Comments

Commission Meeting Comments



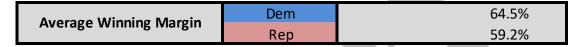


PARTISAN FAIRNESS

(d) Districts shall not provide a disproportionate advantage to any political party. A disproportionate advantage to a political party shall be determined using accepted measures of partisan fairness.

The Michigan Independent Citizen's Redistricting Commission evaluated partisan fairness using four mathematical models. The adopted map did not provide 'disproportionate advantage' to any political party under any of the models used to measure partisan fairness.

Lopsided Margins



| | Finding |
|-----|---|
| Rep | Districts have a lopsided margin advantage of |
| | 5.3% |

| | Pa | rty | | Percen | t Votes | Party | Wins |
|----------|---------|---------|--------------------|--------|---------|-------|-------|
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | Dem | Rep |
| 1 | 258,502 | 20,654 | 279,156 | 92.6% | 7.4% | 92.6% | |
| 2 | 261,320 | 174,928 | 436,248 | 59.9% | 40.1% | 59.9% | |
| 3 | 265,267 | 72,758 | 338,025 | 78.5% | 21.5% | 78.5% | |
| 4 | 328,745 | 19,885 | 348,630 | 94.3% | 5.7% | 94.3% | |
| 5 | 438,662 | 126,246 | 564,908 | 77.7% | 22.3% | 77.7% | |
| 6 | 470,863 | 102,192 | 573,055 | 82.2% | 17.8% | 82.2% | |
| 7 | 463,517 | 102,015 | 565,532 | 82.0% | 18.0% | 82.0% | |
| 8 | 341,385 | 88,387 | 429,772 | 79.4% | 20.6% | 79.4% | |
| 9 | 311,310 | 17,291 | 328,601 | 94.7% | 5.3% | 94.7% | |
| 10 | 366,472 | 198,627 | 565,099 | 64.9% | 35.1% | 64.9% | |
| 11 | 353,187 | 168,158 | 521,345 | 67.7% | 32.3% | 67.7% | |
| 12 | 313,082 | 125,555 | 438,637 | 71.4% | 28.6% | 71.4% | |
| 13 | 303,076 | 144,266 | 447,342 | 67.8% | 32.2% | 67.8% | |
| 14 | 306,099 | 104,625 | 410,724 | 74.5% | 25.5% | 74.5% | |
| 15 | 270,884 | 173,183 | 444,067 | 61.0% | 39.0% | 61.0% | |
| 16 | 405,317 | 123,360 | 528,677 | 76.7% | 23.3% | 76.7% | |
| 17 | 334,631 | 153,279 | 487,910 | 68.6% | 31.4% | 68.6% | |
| 18 | 491,476 | 126,756 | 618,232 | 79.5% | 20.5% | 79.5% | |
| 19 | 412,797 | 235,189 | 647,986 | 63.7% | 36.3% | 63.7% | |
| 20 | 349,902 | 284,833 | 634,735 | 55.1% | 44.9% | 55.1% | |
| 21 | 259,240 | 241,843 | 501,083 | 51.7% | 48.3% | 51.7% | |
| 22 | 309,321 | 339,589 | 648,910 | 47.7% | 52.3% | | 52.3% |
| 23 | 291,695 | 187,546 | 479,241 | 60.9% | 39.1% | 60.9% | |
| 24 | 305,861 | 223,265 | 529,126 | 57.8% | 42.2% | 57.8% | |
| 25 | 275,148 | 168,470 | 443,618 | 62.0% | 38.0% | 62.0% | |



Lopsided Margins

| | Pa | rty | | Percen | t Votes | Party | Wins |
|----------|---------|---------|--------------------|--------|---------|-------|-------|
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | Dem | Rep |
| 26 | 312,525 | 129,982 | 442,507 | 70.6% | 29.4% | 70.6% | |
| 27 | 281,073 | 271,239 | 552,312 | 50.9% | 49.1% | 50.9% | |
| 28 | 251,831 | 229,455 | 481,286 | 52.3% | 47.7% | 52.3% | |
| 29 | 238,070 | 218,638 | 456,708 | 52.1% | 47.9% | 52.1% | |
| 30 | 230,506 | 290,674 | 521,180 | 44.2% | 55.8% | | 55.8% |
| 31 | 275,393 | 235,646 | 511,039 | 53.9% | 46.1% | 53.9% | |
| 32 | 360,998 | 108,735 | 469,733 | 76.9% | 23.1% | 76.9% | |
| 33 | 420,621 | 167,901 | 588,522 | 71.5% | 28.5% | 71.5% | |
| 34 | 214,429 | 277,077 | 491,506 | 43.6% | 56.4% | | 56.4% |
| 35 | 143,815 | 295,685 | 439,500 | 32.7% | 67.3% | | 67.3% |
| 36 | 153,719 | 264,662 | 418,381 | 36.7% | 63.3% | | 63.3% |
| 37 | 179,718 | 274,797 | 454,515 | 39.5% | 60.5% | | 60.5% |
| 38 | 285,580 | 266,034 | 551,614 | 51.8% | 48.2% | 51.8% | |
| 39 | 189,211 | 264,591 | 453,802 | 41.7% | 58.3% | | 58.3% |
| 40 | 297,007 | 253,141 | 550,148 | 54.0% | 46.0% | 54.0% | |
| 41 | 318,040 | 108,655 | 426,695 | 74.5% | 25.5% | 74.5% | |
| 42 | 246,225 | 295,466 | 541,691 | 45.5% | 54.5% | | 54.5% |
| 43 | 160,976 | 348,109 | 509,085 | 31.6% | 68.4% | | 68.4% |
| 44 | 217,430 | 200,803 | 418,233 | 52.0% | 48.0% | 52.0% | |
| 45 | 189,025 | 329,707 | 518,732 | 36.4% | 63.6% | | 63.6% |
| 46 | 215,370 | 200,283 | 415,653 | 51.8% | 48.2% | 51.8% | |
| 47 | 382,546 | 238,809 | 621,355 | 61.6% | 38.4% | 61.6% | |
| 48 | 312,504 | 306,850 | 619,354 | 50.5% | 49.5% | 50.5% | |
| 49 | 239,660 | 309,345 | 549,005 | 43.7% | 56.3% | | 56.3% |
| 50 | 196,227 | 359,878 | 556,105 | 35.3% | 64.7% | | 64.7% |
| 51 | 229,955 | 363,093 | 593,048 | 38.8% | 61.2% | | 61.2% |
| 52 | 239,488 | 344,546 | 584,034 | 41.0% | 59.0% | | 59.0% |
| 53 | 287,443 | 121,241 | 408,684 | 70.3% | 29.7% | 70.3% | |
| 54 | 267,126 | 309,291 | 576,417 | 46.3% | 53.7% | | 53.7% |
| 55 | 267,990 | 306,710 | 574,700 | 46.6% | 53.4% | | 53.4% |
| 56 | 291,476 | 264,875 | 556,351 | 52.4% | 47.6% | 52.4% | |
| 57 | 215,912 | 228,973 | 444,885 | 48.5% | 51.5% | | 51.5% |
| 58 | 239,623 | 242,137 | 481,760 | 49.7% | 50.3% | | 50.3% |
| 59 | 201,755 | 333,786 | 535,541 | 37.7% | 62.3% | | 62.3% |
| 60 | 234,995 | 299,708 | 534,703 | 43.9% | 56.1% | | 56.1% |
| 61 | 271,563 | 250,509 | 522,072 | 52.0% | 48.0% | 52.0% | |
| 62 | 273,649 | 273,005 | 546,654 | 50.1% | 49.9% | 50.1% | |
| 63 | 214,269 | 325,099 | 539,368 | 39.7% | 60.3% | | 60.3% |
| 64 | 217,142 | 262,173 | 479,315 | 45.3% | 54.7% | | 54.7% |
| 65 | 183,403 | 351,999 | 535,402 | 34.3% | 65.7% | | 65.7% |



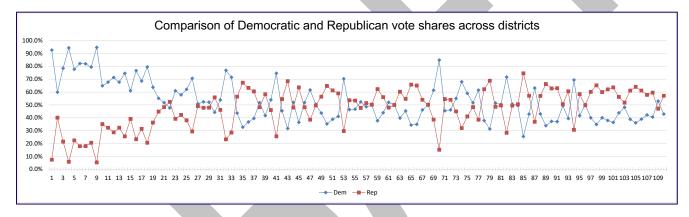
Lopsided Margins

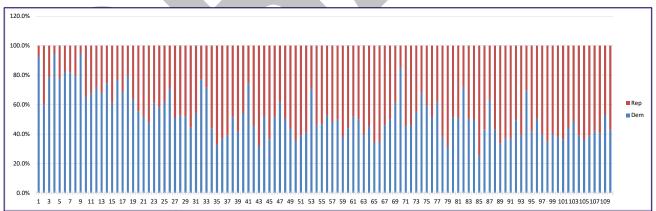
| | Pa | rty | | Percen | t Votes | Party | Wins |
|----------|---------|---------|--------------------|--------|---------|-------|-------|
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | Dem | Rep |
| 66 | 202,864 | 377,939 | 580,803 | 34.9% | 65.1% | | 65.1% |
| 67 | 250,917 | 293,559 | 544,476 | 46.1% | 53.9% | | 53.9% |
| 68 | 276,355 | 278,227 | 554,582 | 49.8% | 50.2% | | 50.2% |
| 69 | 323,172 | 203,120 | 526,292 | 61.4% | 38.6% | 61.4% | |
| 70 | 374,227 | 66,491 | 440,718 | 84.9% | 15.1% | 84.9% | |
| 71 | 251,023 | 301,954 | 552,977 | 45.4% | 54.6% | | 54.6% |
| 72 | 260,583 | 305,018 | 565,601 | 46.1% | 53.9% | | 53.9% |
| 73 | 262,680 | 214,960 | 477,640 | 55.0% | 45.0% | 55.0% | |
| 74 | 326,911 | 154,066 | 480,977 | 68.0% | 32.0% | 68.0% | |
| 75 | 327,413 | 227,885 | 555,298 | 59.0% | 41.0% | 59.0% | |
| 76 | 292,290 | 273,022 | 565,312 | 51.7% | 48.3% | 51.7% | |
| 77 | 322,455 | 201,503 | 523,958 | 61.5% | 38.5% | 61.5% | |
| 78 | 177,054 | 291,695 | 468,749 | 37.8% | 62.2% | | 62.2% |
| 79 | 160,508 | 353,131 | 513,639 | 31.2% | 68.8% | | 68.8% |
| 80 | 275,659 | 259,938 | 535,597 | 51.5% | 48.5% | 51.5% | |
| 81 | 285,844 | 281,219 | 567,063 | 50.4% | 49.6% | 50.4% | |
| 82 | 312,114 | 123,420 | 435,534 | 71.7% | 28.3% | 71.7% | |
| 83 | 187,012 | 182,812 | 369,824 | 50.6% | 49.4% | 50.6% | |
| 84 | 243,716 | 249,048 | 492,764 | 49.5% | 50.5% | | 50.5% |
| 85 | 138,039 | 405,083 | 543,122 | 25.4% | 74.6% | | 74.6% |
| 86 | 203,770 | 270,959 | 474,729 | 42.9% | 57.1% | | 57.1% |
| 87 | 268,142 | 156,618 | 424,760 | 63.1% | 36.9% | 63.1% | |
| 88 | 245,387 | 325,594 | 570,981 | 43.0% | 57.0% | | 57.0% |
| 89 | 154,660 | 302,784 | 457,444 | 33.8% | 66.2% | | 66.2% |
| 90 | 207,162 | 349,053 | 556,215 | 37.2% | 62.8% | | 62.8% |
| 91 | 171,026 | 291,337 | 462,363 | 37.0% | 63.0% | | 63.0% |
| 92 | 203,368 | 208,285 | 411,653 | 49.4% | 50.6% | | 50.6% |
| 93 | 206,155 | 316,588 | 522,743 | 39.4% | 60.6% | | 60.6% |
| 94 | 336,647 | 148,685 | 485,332 | 69.4% | 30.6% | 69.4% | |
| 95 | 227,166 | 319,003 | 546,169 | 41.6% | 58.4% | | 58.4% |
| 96 | 274,622 | 271,760 | 546,382 | 50.3% | 49.7% | 50.3% | |
| 97 | 217,116 | 326,656 | 543,772 | 39.9% | 60.1% | | 60.1% |
| 98 | 180,381 | 338,681 | 519,062 | 34.8% | 65.2% | | 65.2% |
| 99 | 209,769 | 314,549 | 524,318 | 40.0% | 60.0% | | 60.0% |
| 100 | 182,482 | 298,484 | 480,966 | 37.9% | 62.1% | | 62.1% |
| 101 | 177,978 | 310,629 | 488,607 | 36.4% | 63.6% | | 63.6% |
| 102 | 230,242 | 295,320 | 525,562 | 43.8% | 56.2% | | 56.2% |
| 103 | 314,152 | 337,962 | 652,114 | 48.2% | 51.8% | | 51.8% |
| 104 | 218,901 | 344,830 | 563,731 | 38.8% | 61.2% | | 61.2% |
| 105 | 194,704 | 345,949 | 540,653 | 36.0% | 64.0% | | 64.0% |



Lopsided Margins

| | Pa | rty | | Percen | t Votes | Party Wins | | | |
|----------|-----------------|---------|-------------|--------|---------|------------|-------|--|--|
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | Dem | Rep | | |
| 106 | 223,939 | 351,534 | 575,473 | 38.9% | 61.1% | | 61.1% | | |
| 107 | 246,137 | 337,553 | 583,690 | 42.2% | 57.8% | | 57.8% | | |
| 108 | 202,307 | 297,105 | 499,412 | 40.5% | 59.5% | | 59.5% | | |
| 109 | 275,060 | 244,621 | 519,681 | 52.9% | 47.1% | 52.9% | | | |
| 110 | 220,366 293,600 | | 513,966 | 42.9% | 57.1% | | 57.1% | | |







Mean-Median Difference

| District Median Percentage | Dem | 50.3% |
|----------------------------|-----|-------|
| District Median Percentage | Rep | 49.7% |
| Statewide mean percentage | Dem | 53.1% |
| Statewide mean percentage | Rep | 46.9% |
| Mean-Median Difference | Dem | 2.7% |
| Weari-Wedian Difference | Rep | -2.7% |

| | Findings |
|-----|---|
| Rep | Districts have a mean-median advantage of 2.7% |

| | | Party | | | Pa | rty | | Party | | | | | |
|---|----------|----------------|----------------|---|----------|-------|-------|----------|-------|-------|----------|-------|-------|
| | | | • | | DISTRICT | Dem | Rep | | | - | | | |
| | DISTRICT | Dem | Rep | | | | | DISTRICT | Dem | Rep | | | |
| | 1 | 92.6% | 7.4% | | 31 | 53.9% | 46.1% | 61 | 52.0% | 48.0% | | | |
| | 2 | 59.9% | 40.1% | | 32 | 76.9% | 23.1% | 62 | 50.1% | 49.9% | | | |
| | 3 | 78.5% | 21.5% | | 33 | 71.5% | 28.5% | 63 | 39.7% | 60.3% | | | |
| | 4 | 94.3% | 5.7% | | 34 | 43.6% | 56.4% | 64 | 45.3% | 54.7% | | | |
| | 5 | 77.7% | 22.3% | | 35 | 32.7% | 67.3% | 65 | 34.3% | 65.7% | | | |
| | 6 | 82.2% | 17.8% | | 36 | 36.7% | 63.3% | 66 | 34.9% | 65.1% | | | |
| | 7 | 82.0% | 18.0% | | 37 | 39.5% | 60.5% | 67 | 46.1% | 53.9% | | | |
| | 8 | 79.4% | 20.6% | | 38 | 51.8% | 48.2% | 68 | 49.8% | 50.2% | | | |
| | 9 | 94.7% | 5.3% | 4 | 39 | 41.7% | 58.3% | 69 | 61.4% | 38.6% | | Pa | irty |
| | 10 | 64.9% | 35.1% | | 40 | 54.0% | 46.0% | 70 | 84.9% | 15.1% | DISTRICT | | Rep |
| | 11 | 67.7% | 32.3% | | 41 | 74.5% | 25.5% | 71 | 45.4% | 54.6% | 91 | 37.0% | 63.0% |
| | 12 | 71.4% | 28.6% | | 42 | 45.5% | 54.5% | 72 | 46.1% | 53.9% | 92 | 49.4% | 50.6% |
| | 13 14 | 67.8% 74.5% | 32.2% 25.5% | | 43 | 31.6% | 68.4% | 73 | 55.0% | 45.0% | 93 | 39.4% | 60.6% |
| | 15 | 61.0% | 39.0% | | 44 | 52.0% | 48.0% | 74 | 68.0% | 32.0% | 94 | 69.4% | 30.6% |
| | 16 | 76.7% | 23.3% | | 45 | 36.4% | 63.6% | 75 | 59.0% | 41.0% | 95 | 41.6% | 58.4% |
| | 17 | 68.6% | 31.4% | | 46 | 51.8% | 48.2% | 76 | 51.7% | 48.3% | 96 | 50.3% | 49.7% |
| | 18 | 79.5% | 20.5% | | 47 | 61.6% | 38.4% | 77 | 61.5% | 38.5% | 97 | 39.9% | 60.1% |
| | 19 | 63.7% | 36.3% | | 48 | 50.5% | 49.5% | 78 | 37.8% | 62.2% | 98 | 34.8% | 65.2% |
| • | 20 | 55.1% | 44.9% | | 40 | 45.3% | 54.3% | 79 | 31.2% | 68.8% | 99 | 40.0% | 60.0% |
| | 21 | 51.7% | 48.3% | | 51 | 38.8% | 61.2% | 80 | 51.5% | 48.5% | 100 | 37.9% | 62.1% |
| | 22 | 47.7% | 52.3% | | 52 | 41.0% | 59.0% | 81 | 50.4% | 49.6% | 101 | 36.4% | 63.6% |
| | 23 | 60.9% | 39.1% | | 53 | 70.3% | 29.7% | 82 | 71.7% | 28.3% | 102 | 43.8% | 56.2% |
| | 24 | 57.8% | 42.2% | | 54 | 46.3% | 53.7% | 83 | 50.6% | 49.4% | 103 | 48.2% | 51.8% |
| | 24 25 | 62.0% | 38.0% | | 55 | 46.6% | 53.4% | 84 | 49.5% | 50.5% | 104 | 38.8% | 61.2% |
| | | | | | 56 | 52.4% | 47.6% | 85 | 25.4% | 74.6% | 105 | 36.0% | 64.0% |
| | 26 | 70.6% | 29.4% | | 57 | 48.5% | 51.5% | 86 | 42.9% | 57.1% | 106 | 38.9% | 61.1% |
| | 27 | 50.9% | 49.1% | | 58 | 49.7% | 50.3% | 87 | 63.1% | 36.9% | 107 | 42.2% | 57.8% |
| | 28 | 52.3% | 47.7% | | 59 | 37.7% | 62.3% | 88 | 43.0% | 57.0% | 108 | 40.5% | 59.5% |
| | 29 | 52.1% | 47.9% | | 60 | 43.9% | 56.1% | 89 | 33.8% | 66.2% | 109 | 52.9% | 47.1% |
| | 30 | 44.2% | 55.8% | | bu | 43.9% | 30.1% | 90 | 37.2% | 62.8% | 110 | 42.9% | 57.1% |



| | | Total Wasted Votes | % Wasted Votes of Total Votes |
|--------------------------|-----|--------------------|-------------------------------|
| Statewide % Wasted Votes | Dem | 15,201,004 | 27.16% |
| Statewide % Wasted Votes | Rep | 12,782,476 | 22.84% |
| | | | |

| | Finding | |
|-----|---|--|
| Rep | Candidates have an efficiency gap advantage of 4.3% | |

| | Pai | rty | | Lost | Votes | | Surplus | Votes | Total Was | ted Votes |
|----------|---------|---------|--------------------|------|---------|---------|---------|-------|-----------|-----------|
| | | | | | | Minimum | | | | |
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | to win | Dem | Rep | Dem | Rep |
| 1 | 258,502 | 20,654 | 279,156 | 0 | 20,654 | 139,578 | 118,924 | 0 | 118,924 | 20,654 |
| 2 | 261,320 | 174,928 | 436,248 | 0 | 174,928 | 218,124 | 43,196 | 0 | 43,196 | 174,928 |
| 3 | 265,267 | 72,758 | 338,025 | 0 | 72,758 | 169,013 | 96,255 | 0 | 96,255 | 72,758 |
| 4 | 328,745 | 19,885 | 348,630 | 0 | 19,885 | 174,315 | 154,430 | 0 | 154,430 | 19,885 |
| 5 | 438,662 | 126,246 | 564,908 | 0 | 126,246 | 282,454 | 156,208 | 0 | 156,208 | 126,246 |
| 6 | 470,863 | 102,192 | 573,055 | 0 | 102,192 | 286,528 | 184,336 | 0 | 184,336 | 102,192 |
| 7 | 463,517 | 102,015 | 565,532 | 0 | 102,015 | 282,766 | 180,751 | 0 | 180,751 | 102,015 |
| 8 | 341,385 | 88,387 | 429,772 | 0 | 88,387 | 214,886 | 126,499 | 0 | 126,499 | 88,387 |
| 9 | 311,310 | 17,291 | 328,601 | 0 | 17,291 | 164,301 | 147,010 | 0 | 147,010 | 17,291 |
| 10 | 366,472 | 198,627 | 565,099 | 0 | 198,627 | 282,550 | 83,923 | 0 | 83,923 | 198,627 |
| 11 | 353,187 | 168,158 | 521,345 | 0 | 168,158 | 260,673 | 92,515 | 0 | 92,515 | 168,158 |
| 12 | 313,082 | 125,555 | 438,637 | 0 | 125,555 | 219,319 | 93,764 | 0 | 93,764 | 125,555 |
| 13 | 303,076 | 144,266 | 447,342 | 0 | 144,266 | 223,671 | 79,405 | 0 | 79,405 | 144,266 |
| 14 | 306,099 | 104,625 | 410,724 | 0 | 104,625 | 205,362 | 100,737 | 0 | 100,737 | 104,625 |
| 15 | 270,884 | 173,183 | 444,067 | 0 | 173,183 | 222,034 | 48,851 | 0 | 48,851 | 173,183 |
| 16 | 405,317 | 123,360 | 528,677 | 0 | 123,360 | 264,339 | 140,979 | 0 | 140,979 | 123,360 |
| 17 | 334,631 | 153,279 | 487,910 | 0 | 153,279 | 243,955 | 90,676 | 0 | 90,676 | 153,279 |
| 18 | 491,476 | 126,756 | 618,232 | 0 | 126,756 | 309,116 | 182,360 | 0 | 182,360 | 126,756 |
| 19 | 412,797 | 235,189 | 647,986 | 0 | 235,189 | 323,993 | 88,804 | 0 | 88,804 | 235,189 |
| 20 | 349,902 | 284,833 | 634,735 | 0 | 284,833 | 317,368 | 32,535 | 0 | 32,535 | 284,833 |



| | Pa | rty | | Lost ' | Votes | | Surplus | Votes | Total Was | sted Votes |
|----------|---------|---------|-------------|---------|---------|---------|---------|--------|-----------|------------|
| | | | | | | Minimum | | | | |
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | to win | Dem | Rep | Dem | Rep |
| 21 | 259,240 | 241,843 | 501,083 | 0 | 241,843 | 250,542 | 8,699 | 0 | 8,699 | 241,843 |
| 22 | 309,321 | 339,589 | 648,910 | 309,321 | 0 | 324,455 | 0 | 15,134 | 309,321 | 15,134 |
| 23 | 291,695 | 187,546 | 479,241 | 0 | 187,546 | 239,621 | 52,075 | 0 | 52,075 | 187,546 |
| 24 | 305,861 | 223,265 | 529,126 | 0 | 223,265 | 264,563 | 41,298 | 0 | 41,298 | 223,265 |
| 25 | 275,148 | 168,470 | 443,618 | 0 | 168,470 | 221,809 | 53,339 | 0 | 53,339 | 168,470 |
| 26 | 312,525 | 129,982 | 442,507 | 0 | 129,982 | 221,254 | 91,272 | 0 | 91,272 | 129,982 |
| 27 | 281,073 | 271,239 | 552,312 | 0 | 271,239 | 276,156 | 4,917 | 0 | 4,917 | 271,239 |
| 28 | 251,831 | 229,455 | 481,286 | 0 | 229,455 | 240,643 | 11,188 | 0 | 11,188 | 229,455 |
| 29 | 238,070 | 218,638 | 456,708 | 0 | 218,638 | 228,354 | 9,716 | 0 | 9,716 | 218,638 |
| 30 | 230,506 | 290,674 | 521,180 | 230,506 | 0 | 260,590 | 0 | 30,084 | 230,506 | 30,084 |
| 31 | 275,393 | 235,646 | 511,039 | 0 | 235,646 | 255,520 | 19,874 | 0 | 19,874 | 235,646 |
| 32 | 360,998 | 108,735 | 469,733 | 0 | 108,735 | 234,867 | 126,132 | 0 | 126,132 | 108,735 |
| 33 | 420,621 | 167,901 | 588,522 | 0 | 167,901 | 294,261 | 126,360 | 0 | 126,360 | 167,901 |
| 34 | 214,429 | 277,077 | 491,506 | 214,429 | 0 | 245,753 | 0 | 31,324 | 214,429 | 31,324 |
| 35 | 143,815 | 295,685 | 439,500 | 143,815 | 0 | 219,750 | 0 | 75,935 | 143,815 | 75,935 |
| 36 | 153,719 | 264,662 | 418,381 | 153,719 | 0 | 209,191 | 0 | 55,472 | 153,719 | 55,472 |
| 37 | 179,718 | 274,797 | 454,515 | 179,718 | 0 | 227,258 | 0 | 47,540 | 179,718 | 47,540 |
| 38 | 285,580 | 266,034 | 551,614 | 0 | 266,034 | 275,807 | 9,773 | 0 | 9,773 | 266,034 |
| 39 | 189,211 | 264,591 | 453,802 | 189,211 | 0 | 226,901 | 0 | 37,690 | 189,211 | 37,690 |
| 40 | 297,007 | 253,141 | 550,148 | 0 | 253,141 | 275,074 | 21,933 | 0 | 21,933 | 253,141 |
| 41 | 318,040 | 108,655 | 426,695 | 0 | 108,655 | 213,348 | 104,693 | 0 | 104,693 | 108,655 |
| 42 | 246,225 | 295,466 | 541,691 | 246,225 | 0 | 270,846 | 0 | 24,621 | 246,225 | 24,621 |
| 43 | 160,976 | 348,109 | 509,085 | 160,976 | 0 | 254,543 | 0 | 93,567 | 160,976 | 93,567 |
| 44 | 217,430 | 200,803 | 418,233 | 0 | 200,803 | 209,117 | 8,314 | 0 | 8,314 | 200,803 |
| 45 | 189,025 | 329,707 | 518,732 | 189,025 | 0 | 259,366 | 0 | 70,341 | 189,025 | 70,341 |
| 46 | 215,370 | 200,283 | 415,653 | 0 | 200,283 | 207,827 | 7,544 | 0 | 7,544 | 200,283 |
| 47 | 382,546 | 238,809 | 621,355 | 0 | 238,809 | 310,678 | 71,869 | 0 | 71,869 | 238,809 |
| 48 | 312,504 | 306,850 | 619,354 | 0 | 306,850 | 309,677 | 2,827 | 0 | 2,827 | 306,850 |
| 49 | 239,660 | 309,345 | 549,005 | 239,660 | 0 | 274,503 | 0 | 34,843 | 239,660 | 34,843 |
| 50 | 196,227 | 359,878 | 556,105 | 196,227 | 0 | 278,053 | 0 | 81,826 | 196,227 | 81,826 |



| | Pa | rty | | Lost | Votes | | Surplus | Votes | Total Was | sted Votes |
|----------|---------|---------|--------------------|---------|---------|---------|---------|--------|-----------|------------|
| | | | | | | Minimum | | | | |
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | to win | Dem | Rep | Dem | Rep |
| 51 | 229,955 | 363,093 | 593,048 | 229,955 | 0 | 296,524 | 0 | 66,569 | 229,955 | 66,569 |
| 52 | 239,488 | 344,546 | 584,034 | 239,488 | 0 | 292,017 | 0 | 52,529 | 239,488 | 52,529 |
| 53 | 287,443 | 121,241 | 408,684 | 0 | 121,241 | 204,342 | 83,101 | 0 | 83,101 | 121,241 |
| 54 | 267,126 | 309,291 | 576,417 | 267,126 | 0 | 288,209 | 0 | 21,083 | 267,126 | 21,083 |
| 55 | 267,990 | 306,710 | 574,700 | 267,990 | 0 | 287,350 | 0 | 19,360 | 267,990 | 19,360 |
| 56 | 291,476 | 264,875 | 556,351 | 0 | 264,875 | 278,176 | 13,301 | 0 | 13,301 | 264,875 |
| 57 | 215,912 | 228,973 | 444,885 | 215,912 | 0 | 222,443 | 0 | 6,531 | 215,912 | 6,531 |
| 58 | 239,623 | 242,137 | 481,760 | 239,623 | 0 | 240,880 | 0 | 1,257 | 239,623 | 1,257 |
| 59 | 201,755 | 333,786 | 535,541 | 201,755 | 0 | 267,771 | 0 | 66,016 | 201,755 | 66,016 |
| 60 | 234,995 | 299,708 | 534,703 | 234,995 | 0 | 267,352 | 0 | 32,357 | 234,995 | 32,357 |
| 61 | 271,563 | 250,509 | 522,072 | 0 | 250,509 | 261,036 | 10,527 | 0 | 10,527 | 250,509 |
| 62 | 273,649 | 273,005 | 546,654 | 0 | 273,005 | 273,327 | 322 | 0 | 322 | 273,005 |
| 63 | 214,269 | 325,099 | 539,368 | 214,269 | 0 | 269,684 | 0 | 55,415 | 214,269 | 55,415 |
| 64 | 217,142 | 262,173 | 479,315 | 217,142 | 0 | 239,658 | 0 | 22,516 | 217,142 | 22,516 |
| 65 | 183,403 | 351,999 | 535,402 | 183,403 | 0 | 267,701 | 0 | 84,298 | 183,403 | 84,298 |
| 66 | 202,864 | 377,939 | 580,803 | 202,864 | 0 | 290,402 | 0 | 87,538 | 202,864 | 87,538 |
| 67 | 250,917 | 293,559 | 544,476 | 250,917 | 0 | 272,238 | 0 | 21,321 | 250,917 | 21,321 |
| 68 | 276,355 | 278,227 | 554,582 | 276,355 | 0 | 277,291 | 0 | 936 | 276,355 | 936 |
| 69 | 323,172 | 203,120 | 526,292 | 0 | 203,120 | 263,146 | 60,026 | 0 | 60,026 | 203,120 |
| 70 | 374,227 | 66,491 | 440,718 | 0 | 66,491 | 220,359 | 153,868 | 0 | 153,868 | 66,491 |
| 71 | 251,023 | 301,954 | 552,977 | 251,023 | 0 | 276,489 | 0 | 25,466 | 251,023 | 25,466 |
| 72 | 260,583 | 305,018 | 565,601 | 260,583 | 0 | 282,801 | 0 | 22,218 | 260,583 | 22,218 |
| 73 | 262,680 | 214,960 | 477,640 | 0 | 214,960 | 238,820 | 23,860 | 0 | 23,860 | 214,960 |
| 74 | 326,911 | 154,066 | 480,977 | 0 | 154,066 | 240,489 | 86,423 | 0 | 86,423 | 154,066 |
| 75 | 327,413 | 227,885 | 555,298 | 0 | 227,885 | 277,649 | 49,764 | 0 | 49,764 | 227,885 |
| 76 | 292,290 | 273,022 | 565,312 | 0 | 273,022 | 282,656 | 9,634 | 0 | 9,634 | 273,022 |
| 77 | 322,455 | 201,503 | 523,958 | 0 | 201,503 | 261,979 | 60,476 | 0 | 60,476 | 201,503 |
| 78 | 177,054 | 291,695 | 468,749 | 177,054 | 0 | 234,375 | 0 | 57,321 | 177,054 | 57,321 |
| 79 | 160,508 | 353,131 | 513,639 | 160,508 | 0 | 256,820 | 0 | 96,312 | 160,508 | 96,312 |
| 80 | 275,659 | 259,938 | 535,597 | 0 | 259,938 | 267,799 | 7,861 | 0 | 7,861 | 259,938 |



| | Pa | rtv |) | Lost ' | Votes | | Surplus | Votes | Total Was | sted Votes |
|----------|---------|---------|-------------|---------|---------|---------|-------------|-------------|-----------|-------------------|
| | | -, | | | | Minimum | | | | |
| DISTRICT | Dem | Rep | Total Votes | Dem | Rep | to win | Dem | Rep | Dem | Rep |
| 81 | 285,844 | 281,219 | 567,063 | 0 | 281,219 | 283,532 | 2,313 | 0 | 2,313 | 281,219 |
| 82 | 312,114 | 123,420 | 435,534 | 0 | 123,420 | 217,767 | 94,347 | 0 | 94,347 | 123,420 |
| 83 | 187,012 | 182,812 | 369,824 | 0 | 182,812 | 184,912 | 2,100 | 0 | 2,100 | 182,812 |
| 84 | 243,716 | 249,048 | 492,764 | 243,716 | 0 | 246,382 | 0 | 2,666 | 243,716 | 2,666 |
| 85 | 138,039 | 405,083 | 543,122 | 138,039 | 0 | 271,561 | 0 | 133,522 | 138,039 | 133,522 |
| 86 | 203,770 | 270,959 | 474,729 | 203,770 | 0 | 237,365 | 0 | 33,595 | 203,770 | 33,595 |
| 87 | 268,142 | 156,618 | 424,760 | 0 | 156,618 | 212,380 | 55,762 | 0 | 55,762 | 156,618 |
| 88 | 245,387 | 325,594 | 570,981 | 245,387 | 0 | 285,491 | 0 | 40,104 | 245,387 | 40,104 |
| 89 | 154,660 | 302,784 | 457,444 | 154,660 | 0 | 228,722 | 0 | 74,062 | 154,660 | 74,062 |
| 90 | 207,162 | 349,053 | 556,215 | 207,162 | 0 | 278,108 | 0 | 70,946 | 207,162 | 70,946 |
| 91 | 171,026 | 291,337 | 462,363 | 171,026 | 0 | 231,182 | 0 | 60,156 | 171,026 | 60,156 |
| 92 | 203,368 | 208,285 | 411,653 | 203,368 | 0 | 205,827 | 0 | 2,459 | 203,368 | 2,459 |
| 93 | 206,155 | 316,588 | 522,743 | 206,155 | 0 | 261,372 | 0 | 55,217 | 206,155 | 55,217 |
| 94 | 336,647 | 148,685 | 485,332 | 0 | 148,685 | 242,666 | 93,981 | 0 | 93,981 | 148,685 |
| 95 | 227,166 | 319,003 | 546,169 | 227,166 | 0 | 273,085 | 0 | 45,919 | 227,166 | 45,919 |
| 96 | 274,622 | 271,760 | 546,382 | 0 | 271,760 | 273,191 | 1,431 | 0 | 1,431 | 271,760 |
| 97 | 217,116 | 326,656 | 543,772 | 217,116 | 0 | 271,886 | 0 | 54,770 | 217,116 | 54,770 |
| 98 | 180,381 | 338,681 | 519,062 | 180,381 | 0 | 259,531 | 0 | 79,150 | 180,381 | 79,150 |
| 99 | 209,769 | 314,549 | 524,318 | 209,769 | 0 | 262,159 | 0 | 52,390 | 209,769 | 52,390 |
| 100 | 182,482 | 298,484 | 480,966 | 182,482 | 0 | 240,483 | 0 | 58,001 | 182,482 | 58,001 |
| 101 | 177,978 | 310,629 | 488,607 | 177,978 | 0 | 244,304 | 0 | 66,326 | 177,978 | 66,326 |
| 102 | 230,242 | 295,320 | 525,562 | 230,242 | 0 | 262,781 | 0 | 32,539 | 230,242 | 32,539 |
| 103 | 314,152 | 337,962 | 652,114 | 314,152 | 0 | 326,057 | 0 | 11,905 | 314,152 | 11,905 |
| 104 | 218,901 | 344,830 | 563,731 | 218,901 | 0 | 281,866 | 0 | 62,965 | 218,901 | 62,965 |
| 105 | 194,704 | 345,949 | 540,653 | 194,704 | 0 | 270,327 | 0 | 75,623 | 194,704 | 75,623 |
| 106 | 223,939 | 351,534 | 575,473 | 223,939 | 0 | 287,737 | 0 | 63,798 | 223,939 | 63,798 |
| 107 | 246,137 | 337,553 | 583,690 | 246,137 | 0 | 291,845 | 0 | 45,708 | 246,137 | 45,708 |
| 108 | 202,307 | 297,105 | 499,412 | 202,307 | 0 | 249,706 | 0 15 220 | 47,399 | 202,307 | 47,399 244,621 |
| 109 | 275,060 | 244,621 | 519,681 | 220.266 | 244,621 | 259,841 | 15,220 | 0 26 617 | 15,220 | 244,621 |
| 110 | 220,366 | 293,600 | 513,966 | 220,366 | 0 | 256,983 | 0 | 36,617 | 220,366 | 36,617 |



Seats to Votes Ratio

| | | Vote Share | Count of Seats | Seat Share | Proportionality Bias |
|---|-----|------------|----------------|------------|----------------------|
| ı | Dem | 52.3% | 57 | 51.8% | -0.5% |
| ı | Rep | 47.7% | 53 | 48.2% | 0.5% |
| | | - | | | |

| | | Composit | e Score | |
|-----------|---------|----------|---------|-------|
| DISTRICT | Dem | Dem % | Rep | Rep % |
| 1 | 258,502 | 92.6% | 20,654 | 7.4% |
| 2 | 261,320 | 59.9% | 174,928 | 40.1% |
| 3 | 265,267 | 78.5% | 72,758 | 21.5% |
| 4 | 328,745 | 94.3% | 19,885 | 5.7% |
| 5 | 438,662 | 77.7% | 126,246 | 22.3% |
| 6 | 470,863 | 82.2% | 102,192 | 17.8% |
| 7 | 463,517 | 82.0% | 102,015 | 18.0% |
| 8 | 341,385 | 79.4% | 88,387 | 20.6% |
| 9 | 311,310 | 94.7% | 17,291 | 5.3% |
| 10 | 366,472 | 64.9% | 198,627 | 35.1% |
| 11 | 353,187 | 67.7% | 168,158 | 32.3% |
| 12 | 313,082 | 71.4% | 125,555 | 28.6% |
| 13 | 303,076 | 67.8% | 144,266 | 32.2% |
| 14 | 306,099 | 74.5% | 104,625 | 25.5% |
| 15 | 270,884 | 61.0% | 173,183 | 39.0% |
| 16 | 405,317 | 76.7% | 123,360 | 23.3% |
| 17 | 334,631 | 68.6% | 153,279 | 31.4% |
| 18 | 491,476 | 79.5% | 126,756 | 20.5% |
| 19 | 412,797 | 63.7% | 235,189 | 36.3% |
| 20 | 349,902 | 55.1% | 284,833 | 44.9% |
| 21 | 259,240 | 51.7% | 241,843 | 48.3% |
| 22 | 309,321 | 47.7% | 339,589 | 52.3% |
| 23 | 291,695 | 60.9% | 187,546 | 39.1% |
| 24 | 305,861 | 57.8% | 223,265 | 42.2% |
| 25 | 275,148 | 62.0% | 168,470 | 38.0% |
| 26 | 312,525 | 70.6% | 129,982 | 29.4% |
| 27 | 281,073 | 50.9% | 271,239 | 49.1% |
| 28 | 251,831 | 52.3% | 229,455 | 47.7% |
| 29 | 238,070 | 52.1% | 218,638 | 47.9% |
| 30 | 230,506 | 44.2% | 290,674 | 55.8% |
| 31 | 275,393 | 53.9% | 235,646 | 46.1% |
| 32 | 360,998 | 76.9% | 108,735 | 23.1% |
| 33 | 420,621 | 71.5% | 167,901 | 28.5% |
| 34 | 214,429 | 43.6% | 277,077 | 56.4% |
| 35 | 143,815 | 32.7% | 295,685 | 67.3% |
| 36 | 153,719 | 36.7% | 264,662 | 63.3% |
| 37 | 179,718 | 39.5% | 274,797 | 60.5% |
| 38 | 285,580 | 51.8% | 266,034 | 48.2% |
| 39 | 189,211 | 41.7% | 264,591 | 58.3% |
| 40 | 297,007 | 54.0% | 253,141 | 46.0% |



Seats to Votes Ratio

| | | Composi | te Score | |
|----------|---------|---------|----------|-------|
| DISTRICT | Dem | Dem % | Rep | Rep % |
| 41 | 318,040 | 74.5% | 108,655 | 25.5% |
| 42 | 246,225 | 45.5% | 295,466 | 54.5% |
| 43 | 160,976 | 31.6% | 348,109 | 68.4% |
| 44 | 217,430 | 52.0% | 200,803 | 48.0% |
| 45 | 189,025 | 36.4% | 329,707 | 63.6% |
| 46 | 215,370 | 51.8% | 200,283 | 48.2% |
| 47 | 382,546 | 61.6% | 238,809 | 38.4% |
| 48 | 312,504 | 50.5% | 306,850 | 49.5% |
| 49 | 239,660 | 43.7% | 309,345 | 56.3% |
| 50 | 196,227 | 35.3% | 359,878 | 64.7% |
| 51 | 229,955 | 38.8% | 363,093 | 61.2% |
| 52 | 239,488 | 41.0% | 344,546 | 59.0% |
| 53 | 287,443 | 70.3% | 121,241 | 29.7% |
| 54 | 267,126 | 46.3% | 309,291 | 53.7% |
| 55 | 267,990 | 46.6% | 306,710 | 53.4% |
| 56 | 291,476 | 52.4% | 264,875 | 47.6% |
| 57 | 215,912 | 48.5% | 228,973 | 51.5% |
| 58 | 239,623 | 49.7% | 242,137 | 50.3% |
| 59 | 201,755 | 37.7% | 333,786 | 62.3% |
| 60 | 234,995 | 43.9% | 299,708 | 56.1% |
| 61 | 271,563 | 52.0% | 250,509 | 48.0% |
| 62 | 273,649 | 50.1% | 273,005 | 49.9% |
| 63 | 214,269 | 39.7% | 325,099 | 60.3% |
| 64 | 217,142 | 45.3% | 262,173 | 54.7% |
| 65 | 183,403 | 34.3% | 351,999 | 65.7% |
| 66 | 202,864 | 34.9% | 377,939 | 65.1% |
| 67 | 250,917 | 46.1% | 293,559 | 53.9% |
| 68 | 276,355 | 49.8% | 278,227 | 50.2% |
| 69 | 323,172 | 61.4% | 203,120 | 38.6% |
| 70 | 374,227 | 84.9% | 66,491 | 15.1% |
| 71 | 251,023 | 45.4% | 301,954 | 54.6% |
| 72 | 260,583 | 46.1% | 305,018 | 53.9% |
| 73 | 262,680 | 55.0% | 214,960 | 45.0% |
| 74 | 326,911 | 68.0% | 154,066 | 32.0% |
| 75 | 327,413 | 59.0% | 227,885 | 41.0% |
| 76 | 292,290 | 51.7% | 273,022 | 48.3% |
| 77 | 322,455 | 61.5% | 201,503 | 38.5% |
| 78 | 177,054 | 37.8% | 291,695 | 62.2% |
| 79 | 160,508 | 31.2% | 353,131 | 68.8% |
| 80 | 275,659 | 51.5% | 259,938 | 48.5% |

| | | Composi | te Score | |
|----------|---------|---------|----------|-------|
| DISTRICT | Dem | Dem % | Rep | Rep % |
| 81 | 285,844 | 50.4% | 281,219 | 49.6% |
| 82 | 312,114 | 71.7% | 123,420 | 28.3% |
| 83 | 187,012 | 50.6% | 182,812 | 49.4% |
| 84 | 243,716 | 49.5% | 249,048 | 50.5% |
| 85 | 138,039 | 25.4% | 405,083 | 74.6% |
| 86 | 203,770 | 42.9% | 270,959 | 57.1% |
| 87 | 268,142 | 63.1% | 156,618 | 36.9% |
| 88 | 245,387 | 43.0% | 325,594 | 57.0% |
| 89 | 154,660 | 33.8% | 302,784 | 66.2% |
| 90 | 207,162 | 37.2% | 349,053 | 62.8% |
| 91 | 171,026 | 37.0% | 291,337 | 63.0% |
| 92 | 203,368 | 49.4% | 208,285 | 50.6% |
| 93 | 206,155 | 39.4% | 316,588 | 60.6% |
| 94 | 336,647 | 69.4% | 148,685 | 30.6% |
| 95 | 227,166 | 41.6% | 319,003 | 58.4% |
| 96 | 274,622 | 50.3% | 271,760 | 49.7% |
| 97 | 217,116 | 39.9% | 326,656 | 60.1% |
| 98 | 180,381 | 34.8% | 338,681 | 65.2% |
| 99 | 209,769 | 40.0% | 314,549 | 60.0% |
| 100 | 182,482 | 37.9% | 298,484 | 62.1% |
| 101 | 177,978 | 36.4% | 310,629 | 63.6% |
| 102 | 230,242 | 43.8% | 295,320 | 56.2% |
| 103 | 314,152 | 48.2% | 337,962 | 51.8% |
| 104 | 218,901 | 38.8% | 344,830 | 61.2% |
| 105 | 194,704 | 36.0% | 345,949 | 64.0% |
| 106 | 223,939 | 38.9% | 351,534 | 61.1% |
| 107 | 246,137 | 42.2% | 337,553 | 57.8% |
| 108 | 202,307 | 40.5% | 297,105 | 59.5% |
| 109 | 275,060 | 52.9% | 244,621 | 47.1% |
| 110 | 220,366 | 42.9% | 293,600 | 57.1% |



COMPACTNESS

The Michigan Independent Citizen's Redistricting Commission evaluated the requirement of "(*g*) Districts shall be reasonably compact" using five mathematical models. The adopted map was deemed 'reasonably compact' under each model.

Polsby-Popper

| Compact | ness measure: | Polsby-Poppe | er | | |
|----------|------------------------|----------------------|------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 26 | 28 | 62 | 18 | 0.42 |
| 2 | 19 | 24 | 48 | 16 | 0.41 |
| 3 | 24 | 36 | 101 | 17 | 0.23 |
| 4 | 15 | 29 | 68 | 14 | 0.23 |
| 5 | 16 | 37 | 108 | 14 | 0.15 |
| 6 | 16 | 33 | 87 | 14 | 0.19 |
| 7 | 19 | 32 | 83 | 15 | 0.23 |
| 8 | 22 | 36 | 102 | 16 | 0.21 |
| 9 | 22 | 29 | 65 | 16 | 0.33 |
| 10 | 56 | 46 | 172 | 27 | 0.33 |
| 11 | 18 | 26 | 53 | 15 | 0.34 |
| 12 | 16 | 21 | 35 | 14 | 0.46 |
| 13 | 19 | 27 | 58 | 16 | 0.33 |
| 14 | 22 | 21 | 37 | 17 | 0.59 |
| 15 | 16 | 28 | 63 | 14 | 0.26 |
| 16 | 24 | 27 | 59 | 18 | 0.42 |
| 17 | 23 | 27 | 58 | 17 | 0.40 |
| 18 | 34 | 33 | 85 | 21 | 0.39 |
| 19 | 38 | 41 | 137 | 22 | 0.28 |
| 20 | 51 | 40 | 125 | 25 | 0.41 |
| 21 | 52 | 39 | 122 | 25 | 0.42 |
| 22 | 41 | 41 | 132 | 23 | 0.31 |
| 23 | 97 | 60 | 285 | 35 | 0.34 |
| 24 | 30 | 25 | 51 | 19 | 0.58 |
| 25 | 28 | 40 | 127 | 19 | 0.22 |
| 26 | 34 | 36 | 103 | 21 | 0.33 |
| 27 | 46 | 33 | 88 | 24 | 0.53 |
| 28 | 171 | 77 | 477 | 46 | 0.36 |
| 29 | 112 | 78 | 478 | 38 | 0.23 |
| 30 | 364 | 115 | 1,043 | 68 | 0.35 |
| 31 | 393 | 112 | 1,007 | 70 | 0.39 |
| 32 | 44 | 31 | 75 | 24 | 0.59 |
| 33 | 151 | 66 | 346 | 44 | 0.44 |
| 34 | 664 | 117 | 1,082 | 91 | 0.61 |
| 35 | 1,129 | 152 | 1,843 | 119 | 0.61 |
| 36 | 864 | 129 | 1,315 | 104 | 0.66 |
| 37 | 523 | 116 | 1,068 | 81 | 0.49 |
| 38 | 2,765 | 245 | 4,761 | 186 | 0.58 |
| 39 | 769 | 129 | 1,334 | 98 | 0.58 |
| 40 | 101 | 58 | 264 | 36 | 0.38 |



| Compact | ness measure: | Polsby-Popp | er | | |
|----------|------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 41 | 33 | 38 | 113 | 20 | 0.29 |
| 42 | 388 | 147 | 1,709 | 70 | 0.23 |
| 43 | 815 | 190 | 2,877 | 101 | 0.28 |
| 44 | 255 | 100 | 795 | 57 | 0.32 |
| 45 | 969 | 213 | 3,620 | 110 | 0.27 |
| 46 | 163 | 88 | 615 | 45 | 0.26 |
| 47 | 338 | 132 | 1,393 | 65 | 0.24 |
| 48 | 285 | 119 | 1,122 | 60 | 0.25 |
| 49 | 106 | 71 | 397 | 36 | 0.27 |
| 50 | 405 | 106 | 901 | 71 | 0.45 |
| 51 | 138 | 69 | 378 | 42 | 0.36 |
| 52 | 83 | 50 | 202 | 32 | 0.41 |
| 53 | 38 | 44 | 152 | 22 | 0.25 |
| 54 | 70 | 62 | 307 | 30 | 0.23 |
| 55 | 42 | 30 | 72 | 23 | 0.58 |
| 56 | 32 | 29 | 68 | 20 | 0.48 |
| 57 | 28 | 30 | 70 | 19 | 0.39 |
| 58 | 25 | 48 | 184 | 18 | 0.14 |
| 59 | 40 | 38 | 113 | 23 | 0.36 |
| 60 | 33 | 34 | 91 | 20 | 0.36 |
| 61 | 27 | 38 | 115 | 18 | 0.23 |
| 62 | 114 | 61 | 295 | 38 | 0.39 |
| 63 | 229 | 96 | 739 | 54 | 0.31 |
| 64 | 296 | 86 | 590 | 61 | 0.50 |
| 65 | 808 | 141 | 1,581 | 101 | 0.51 |
| 66 | 209 | 79 | 499 | 51 | 0.42 |
| 67 | 452 | 119 | 1,118 | 75 | 0.40 |
| 68 | 149 | 71 | 396 | 43 | 0.38 |
| 69 | 158 | 70 | 390 | 45 | 0.41 |
| 70 | 40 | 43 | 150 | 23 | 0.27 |
| 71 | 683 | 131 | 1,375 | 93 | 0.50 |
| 72 | 175 | 77 | 472 | 47 | 0.37 |
| 73 | 443 | 111 | 982 | 75 | 0.45 |
| 74 | 49 | 32 | 81 | 25 | 0.60 |
| 75 | 291 | 88 | 611 | 60 | 0.48 |
| 76 | 425 | 102 | 824 | 73 | 0.52 |
| 77 | 202 | 82 | 531 | 50 | 0.38 |
| 78 | 832 | 160 | 2,026 | 102 | 0.41 |
| 79 | 250 | 92 | 667 | 56 | 0.38 |
| 80 | 63 | 50 | 201 | 28 | 0.31 |
| 81 | 77 | 48 | 186 | 31 | 0.42 |



| (SQM) (Miles) Same Perimeter with Same Area Value 32 17 32 81 15 0.21 33 27 36 105 19 0.26 34 46 39 118 24 0.39 35 92 56 247 34 0.37 36 80 51 204 32 0.39 37 99 55 242 35 0.41 38 2,200 206 3,362 166 0.65 39 429 113 1,018 73 0.42 30 303 106 899 62 0.34 301 833 145 1,666 102 0.50 303 1,179 210 3,505 122 0.34 304 59 52 214 27 0.28 305 624 107 916 89 0.68 | Compactness measure: Polsby–Popper | | | | | | | | |
|---|------------------------------------|--------|-----|--------|-----|----------------------|--|--|--|
| 33 27 36 105 19 0.26 34 46 39 118 24 0.39 35 92 56 247 34 0.37 36 80 51 204 32 0.39 37 99 55 242 35 0.41 38 2,200 206 3,362 166 0.65 39 429 113 1,018 73 0.42 90 303 106 899 62 0.34 91 833 145 1,666 102 0.50 92 761 139 1,533 98 0.50 93 1,179 210 3,505 122 0.34 94 59 52 214 27 0.28 95 52 214 27 0.28 96 481 102 822 78 0.59 97 885 220 3,867 105 0.23 98 3,825 344 | District | | | | | Compactness Value | | | |
| 34 46 39 118 24 0.39 35 92 56 247 34 0.37 36 80 51 204 32 0.39 37 99 55 242 35 0.41 38 2,200 206 3,362 166 0.65 39 429 113 1,018 73 0.42 30 303 106 899 62 0.34 301 833 145 1,666 102 0.50 302 761 139 1,533 98 0.50 303 1,179 210 3,505 122 0.34 304 59 52 214 27 0.28 305 624 107 916 89 0.68 306 481 102 822 78 0.59 307 885 220 3,867 105 0.23 308 4,118 305 7,422 227 0.55 309 | 82 | 17 | 32 | 81 | 15 | 0.21 | | | |
| 35 92 56 247 34 0.37 36 80 51 204 32 0.39 37 99 55 242 35 0.41 38 2,200 206 3,362 166 0.65 39 429 113 1,018 73 0.42 90 303 106 899 62 0.34 91 833 145 1,666 102 0.50 92 761 139 1,533 98 0.50 93 1,179 210 3,505 122 0.34 94 59 52 214 27 0.28 95 52 214 27 0.28 96 481 102 822 78 0.59 97 885 220 3,867 105 0.23 98 3,825 344 9,395 219 0.41 100 | 83 | 27 | 36 | 105 | 19 | 0.26 | | | |
| 366 80 51 204 32 0.39 37 99 55 242 35 0.41 38 2,200 206 3,362 166 0.65 39 429 113 1,018 73 0.42 90 303 106 899 62 0.34 91 833 145 1,666 102 0.50 92 761 139 1,533 98 0.50 93 1,179 210 3,505 122 0.34 94 59 52 214 27 0.28 95 624 107 916 89 0.68 96 481 102 822 78 0.59 97 885 220 3,867 105 0.23 98 4,118 305 7,422 227 0.55 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101< | 84 | 46 | 39 | 118 | 24 | 0.39 | | | |
| 37 99 55 242 35 0.41 38 2,200 206 3,362 166 0.65 39 429 113 1,018 73 0.42 30 303 106 899 62 0.34 31 833 145 1,666 102 0.50 32 761 139 1,533 98 0.50 33 1,179 210 3,505 122 0.34 34 59 52 214 27 0.28 35 624 107 916 89 0.68 36 481 102 822 78 0.59 37 885 220 3,867 105 0.23 38 4,118 305 7,422 227 0.55 39 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 < | 85 | 92 | 56 | 247 | 34 | 0.37 | | | |
| 38 2,200 206 3,362 166 0.65 39 429 113 1,018 73 0.42 30 303 106 899 62 0.34 31 833 145 1,666 102 0.50 32 761 139 1,533 98 0.50 33 1,179 210 3,505 122 0.34 34 59 52 214 27 0.28 35 624 107 916 89 0.68 36 481 102 822 78 0.59 37 885 220 3,867 105 0.23 38 4,118 305 7,422 227 0.55 39 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 | 86 | 80 | 51 | 204 | 32 | 0.39 | | | |
| 39 429 113 1,018 73 0.42 30 303 106 899 62 0.34 31 833 145 1,666 102 0.50 32 761 139 1,533 98 0.50 33 1,179 210 3,505 122 0.34 34 59 52 214 27 0.28 35 624 107 916 89 0.68 36 481 102 822 78 0.59 37 885 220 3,867 105 0.23 38 4,118 305 7,422 227 0.55 39 3,825 344 9,395 219 0.41 400 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 <tr< td=""><td>87</td><td>99</td><td>55</td><td>242</td><td>35</td><td>0.41</td></tr<> | 87 | 99 | 55 | 242 | 35 | 0.41 | | | |
| 300 303 106 899 62 0.34 31 833 145 1,666 102 0.50 32 761 139 1,533 98 0.50 33 1,179 210 3,505 122 0.34 34 59 52 214 27 0.28 35 624 107 916 89 0.68 36 481 102 822 78 0.59 37 885 220 3,867 105 0.23 38 4,118 305 7,422 227 0.55 39 3,825 344 9,395 219 0.41 400 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 | 88 | 2,200 | 206 | 3,362 | 166 | 0.65 | | | |
| 90 303 106 899 62 0.34 91 833 145 1,666 102 0.50 92 761 139 1,533 98 0.50 93 1,179 210 3,505 122 0.34 94 59 52 214 27 0.28 95 624 107 916 89 0.68 96 481 102 822 78 0.59 97 885 220 3,867 105 0.23 98 4,118 305 7,422 227 0.55 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 | 89 | | 113 | | 73 | 0.42 | | | |
| 92 761 139 1,533 98 0.50 93 1,179 210 3,505 122 0.34 94 59 52 214 27 0.28 95 624 107 916 89 0.68 96 481 102 822 78 0.59 97 885 220 3,867 105 0.23 98 4,118 305 7,422 227 0.55 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 | 90 | 303 | | | 62 | 0.34 | | | |
| 93 1,179 210 3,505 122 0.34 94 59 52 214 27 0.28 95 624 107 916 89 0.68 96 481 102 822 78 0.59 97 885 220 3,867 105 0.23 98 4,118 305 7,422 227 0.55 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 <td>91</td> <td>833</td> <td>145</td> <td>1,666</td> <td>102</td> <td>0.50</td> | 91 | 833 | 145 | 1,666 | 102 | 0.50 | | | |
| 94 59 52 214 27 0.28 95 624 107 916 89 0.68 96 481 102 822 78 0.59 97 885 220 3,867 105 0.23 98 4,118 305 7,422 227 0.55 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28< | 92 | 761 | 139 | 1,533 | 98 | 0.50 | | | |
| 95 624 107 916 89 0.68 96 481 102 822 78 0.59 97 885 220 3,867 105 0.23 98 4,118 305 7,422 227 0.55 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 | 93 | 1,179 | 210 | 3,505 | 122 | 0.34 | | | |
| 96 481 102 822 78 0.59 97 885 220 3,867 105 0.23 98 4,118 305 7,422 227 0.55 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 94 | 59 | 52 | 214 | 27 | 0.28 | | | |
| 97 885 220 3,867 105 0.23 98 4,118 305 7,422 227 0.55 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 95 | 624 | 107 | 916 | 89 | 0.68 | | | |
| 98 4,118 305 7,422 227 0.55 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 96 | 481 | 102 | 822 | 78 | 0.59 | | | |
| 99 3,825 344 9,395 219 0.41 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 97 | 885 | 220 | 3,867 | 105 | 0.23 | | | |
| 100 1,719 191 2,917 147 0.59 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 98 | 4,118 | 305 | 7,422 | 227 | 0.55 | | | |
| 101 1,941 251 4,996 156 0.39 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 99 | 3,825 | 344 | 9,395 | 219 | 0.41 | | | |
| 102 3,417 291 6,755 207 0.51 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 100 | 1,719 | 191 | 2,917 | 147 | 0.59 | | | |
| 103 2,883 250 4,975 190 0.58 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 101 | 1,941 | 251 | 4,996 | 156 | 0.39 | | | |
| 104 2,436 362 10,413 175 0.23 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 102 | 3,417 | 291 | 6,755 | 207 | 0.51 | | | |
| 105 2,921 300 7,146 192 0.41 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 103 | 2,883 | 250 | 4,975 | 190 | 0.58 | | | |
| 106 7,780 397 12,550 313 0.62 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 104 | 2,436 | 362 | 10,413 | 175 | 0.23 | | | |
| 107 4,923 444 15,720 249 0.31 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 105 | 2,921 | 300 | 7,146 | 192 | 0.41 | | | |
| 108 9,287 645 33,135 342 0.28 109 10,075 541 23,305 356 0.43 | 106 | 7,780 | 397 | 12,550 | 313 | 0.62 | | | |
| 109 10,075 541 23,305 356 0.43 | 107 | 4,923 | 444 | 15,720 | 249 | 0.31 | | | |
| | 108 | 9,287 | 645 | 33,135 | 342 | 0.28 | | | |
| 110 14,139 680 36,767 422 0.38 | 109 | 10,075 | 541 | 23,305 | 356 | 0.43 | | | |
| | 110 | 14,139 | 680 | 36,767 | 422 | 0.38 | | | |

Most Compact: 0.68 For District: 95 Least Compact: 0.14 For District: 58



Schwartzberg

| Compactness measure: Schwartzberg | | | | | | | |
|-----------------------------------|------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|--|--|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value | | |
| 1 | 26 | 28 | 62 | 18 | 0.65 | | |
| 2 | 19 | 24 | 48 | 16 | 0.64 | | |
| 3 | 24 | 36 | 101 | 17 | 0.48 | | |
| 4 | 15 | 29 | 68 | 14 | 0.48 | | |
| 5 | 16 | 37 | 108 | 14 | 0.39 | | |
| 6 | 16 | 33 | 87 | 14 | 0.43 | | |
| 7 | 19 | 32 | 83 | 15 | 0.48 | | |
| 8 | 22 | 36 | 102 | 16 | 0.46 | | |
| 9 | 22 | 29 | 65 | 16 | 0.57 | | |
| 10 | 56 | 46 | 172 | 27 | 0.57 | | |
| 11 | 18 | 26 | 53 | 15 | 0.58 | | |
| 12 | 16 | 21 | 35 | 14 | 0.67 | | |
| 13 | 19 | 27 | 58 | 16 | 0.58 | | |
| 14 | 22 | 21 | 37 | 17 | 0.77 | | |
| 15 | 16 | 28 | 63 | 14 | 0.51 | | |
| 16 | 24 | 27 | 59 | 18 | 0.65 | | |
| 17 | 23 | 27 | 58 | 17 | 0.63 | | |
| 18 | 34 | 33 | 85 | 21 | 0.63 | | |
| 19 | 38 | 41 | 137 | 22 | 0.53 | | |
| | | | | | | | |
| 20 21 | 51 52 | 40 | 125 | 25 25 | 0.64 | | |
| 21 22 | 41 | 39 41 | 122 132 | | 0.65 0.56 | | |
| | | | | 23 | | | |
| 23 | 97 | 60 | 285 | 35 | 0.58 | | |
| 24 | 30 | 25 | 51 | 19 | 0.76 | | |
| 25 | 28 | 40 | 127 | 19 | 0.47 | | |
| 26 | 34 | 36 | 103 | 21 | 0.57 | | |
| 27 | 46 | 33 | 88 | 24 | 0.73 | | |
| 28 | 171 | 77 | 477 | 46 | 0.60 | | |
| 29 | 112 | 78 | 478 | 38 | 0.48 | | |
| 30 | 364 | 115 | 1,043 | 68 | 0.59 | | |
| 31 | 393 | 112 | 1,007 | 70 | 0.62 | | |
| 32 | 44 | 31 | 75 | 24 | 0.77 | | |
| 33 | 151 | 66 | 346 | 44 | 0.66 | | |
| 34 | 664 | 117 | 1,082 | 91 | 0.78 | | |
| 35 | 1,129 | 152 | 1,843 | 119 | 0.78 | | |
| 36 | 864 | 129 | 1,315 | 104 | 0.81 | | |
| 37 | 523 | 116 | 1,068 | 81 | 0.70 | | |
| 38 | 2,765 | 245 | 4,761 | 186 | 0.76 | | |
| 39 | 769 | 129 | 1,334 | 98 | 0.76 | | |
| 40 | 101 | 58 | 264 | 36 | 0.62 | | |
| 41 | 33 | 38 | 113 | 20 | 0.54 | | |
| 42 | 388 | 147 | 1,709 | 70 | 0.48 | | |
| 43 | 815 | 190 | 2,877 | 101 | 0.53 | | |
| 44 | 255 | 100 | 795 | 57 | 0.57 | | |
| 45 | 969 | 213 | 3,620 | 110 | 0.52 | | |



| Compact | ness measure: | Schwartzberg | 9 | | |
|----------|------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 46 | 163 | 88 | 615 | 45 | 0.51 |
| 47 | 338 | 132 | 1,393 | 65 | 0.49 |
| 48 | 285 | 119 | 1,122 | 60 | 0.50 |
| 49 | 106 | 71 | 397 | 36 | 0.52 |
| 50 | 405 | 106 | 901 | 71 | 0.67 |
| 51 | 138 | 69 | 378 | 42 | 0.60 |
| 52 | 83 | 50 | 202 | 32 | 0.64 |
| 53 | 38 | 44 | 152 | 22 | 0.50 |
| 54 | 70 | 62 | 307 | 30 | 0.48 |
| 55 | 42 | 30 | 72 | 23 | 0.76 |
| 56 | 32 | 29 | 68 | 20 | 0.69 |
| 57 | 28 | 30 | 70 | 19 | 0.63 |
| 58 | 25 | 48 | 184 | 18 | 0.37 |
| 59 | 40 | 38 | 113 | 23 | 0.60 |
| 60 | 33 | 34 | 91 | 20 | 0.60 |
| 61 | 27 | 38 | 115 | 18 | 0.48 |
| 62 | 114 | 61 | 295 | 38 | 0.62 |
| 63 | 229 | 96 | 739 | 54 | 0.56 |
| 64 | 296 | 86 | 590 | 61 | 0.71 |
| 65 | 808 | 141 | 1,581 | 101 | 0.71 |
| 66 | 209 | 79 | 499 | 51 | 0.65 |
| 67 | 452 | 119 | 1,118 | 75 | 0.64 |
| 68 | 149 | 71 | 396 | 43 | 0.61 |
| 69 | 158 | 70 | 390 | 45 | 0.64 |
| 70 | 40 | 43 | 150 | 23 | 0.52 |
| 71 | 683 | 131 | 1,375 | 93 | 0.70 |
| 72 | 175 | 77 | 472 | 47 | 0.61 |
| 73 | 443 | 111 | 982 | 75 | 0.67 |
| 74 | 49 | 32 | 81 | 25 | 0.78 |
| 75 | 291 | 88 | 611 | 60 | 0.69 |
| 76 | 425 | 102 | 824 | 73 | 0.72 |
| 77 | 202 | 82 | 531 | 50 | 0.62 |
| 78 | 832 | 160 | 2,026 | 102 | 0.64 |
| 79 | 250 | 92 | 667 | 56 | 0.61 |
| 80 | 63 | 50 | 201 | 28 | 0.56 |
| 81 | 77 | 48 | 186 | 31 | 0.64 |
| 82 | 17 | 32 | 81 | 15 | 0.46 |
| 83 | 27 | 36 | 105 | 19 | 0.51 |
| 84 | 46 | 39 | 118 | 24 | 0.63 |
| 85 | 92 | 56 | 247 | 34 | 0.61 |
| 86 | 80 | 51 | 204 | 32 | 0.63 |
| 87 | 99 | 55 | 242 | 35 | 0.64 |
| 88 | 2,200 | 206 | 3,362 | 166 | 0.81 |
| 89 | 429 | 113 | 1,018 | 73 | 0.65 |
| | | | | | |
| 90 | 303 | 106 | 899 | 62 | 0.58 |



| Compactr | Compactness measure: Schwartzberg | | | | | | | |
|----------|-----------------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|--|--|--|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value | | | |
| 91 | 833 | 145 | 1,666 | 102 | 0.71 | | | |
| 92 | 761 | 139 | 1,533 | 98 | 0.70 | | | |
| 93 | 1,179 | 210 | 3,505 | 122 | 0.58 | | | |
| 94 | 59 | 52 | 214 | 27 | 0.53 | | | |
| 95 | 624 | 107 | 916 | 89 | 0.82 | | | |
| 96 | 481 | 102 | 822 | 78 | 0.76 | | | |
| 97 | 885 | 220 | 3,867 | 105 | 0.48 | | | |
| 98 | 4,118 | 305 | 7,422 | 227 | 0.74 | | | |
| 99 | 3,825 | 344 | 9,395 | 219 | 0.64 | | | |
| 100 | 1,719 | 191 | 2,917 | 147 | 0.77 | | | |
| 101 | 1,941 | 251 | 4,996 | 156 | 0.62 | | | |
| 102 | 3,417 | 291 | 6,755 | 207 | 0.71 | | | |
| 103 | 2,883 | 250 | 4,975 | 190 | 0.76 | | | |
| 104 | 2,436 | 362 | 10,413 | 175 | 0.48 | | | |
| 105 | 2,921 | 300 | 7,146 | 192 | 0.64 | | | |
| 106 | 7,780 | 397 | 12,550 | 313 | 0.79 | | | |
| 107 | 4,923 | 444 | 15,720 | 249 | 0.56 | | | |
| 108 | 9,287 | 645 | 33,135 | 342 | 0.53 | | | |
| 109 | 10,075 | 541 | 23,305 | 356 | 0.66 | | | |
| 110 | 14,139 | 680 | 36,767 | 422 | 0.62 | | | |

Most Compact: 0.82 For District: 95 Least Compact: 0.37 For District: 58

Reock Score

| Compact | ness measure: l | Reock Score | | | |
|----------|------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 26 | 28 | 62 | 18 | 0.40 |
| 2 | 19 | 24 | 48 | 16 | 0.52 |
| 3 | 24 | 36 | 101 | 17 | 0.46 |
| 4 | 15 | 29 | 68 | 14 | 0.40 |
| 5 | 16 | 37 | 108 | 14 | 0.13 |
| 6 | 16 | 33 | 87 | 14 | 0.18 |
| 7 | 19 | 32 | 83 | 15 | 0.26 |
| 8 | 22 | 36 | 102 | 16 | 0.17 |
| 9 | 22 | 29 | 65 | 16 | 0.38 |
| 10 | 56 | 46 | 172 | 27 | 0.21 |



| Compactness measure: Reock Score | | | | | |
|----------------------------------|------------------------|----------------------|---------------------------------------|------------------------------------|---------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactnes Value |
| 11 | 18 | 26 | 53 | 15 | 0.30 |
| 12 | 16 | 21 | 35 | 14 | 0.29 |
| 13 | 19 | 27 | 58 | 16 | 0.27 |
| 14 | 22 | 21 | 37 | 17 | 0.48 |
| 15 | 16 | 28 | 63 | 14 | 0.42 |
| 16 | 24 | 27 | 59 | 18 | 0.38 |
| 17 | 23 | 27 | 58 | 17 | 0.28 |
| 18 | 34 | 33 | 85 | 21 | 0.37 |
| 19 | 38 | 41 | 137 | 22 | 0.38 |
| 20 | 51 | 40 | 125 | 25 | 0.44 |
| 21 | 52 | 39 | 122 | 25 | 0.37 |
| 22 | 41 | 41 | 132 | 23 | 0.39 |
| 23 | 97 | 60 | 285 | 35 | 0.45 |
| 24 | 30 | 25 | 51 | 19 | 0.52 |
| 25 | 28 | 40 | 127 | 19 | 0.24 |
| 26 | 34 | 36 | 103 | 21 | 0.37 |
| 27 | 46 | 33 | 88 | 24 | 0.42 |
| 28 | 171 | 77 | 477 | 46 | 0.36 |
| 29 | 112 | 78 | 478 | 38 | 0.21 |
| 30 | 364 | 115 | 1,043 | 68 | 0.40 |
| 31 | 393 | 112 | 1,043 | 70 | 0.45 |
| 32 | | | | | |
| 32 33 | 44 151 | 31 66 | 75 346 | 24 44 | 0.49 0.40 |
| | 664 | | | | |
| 34 | | 117 | 1,082 | 91 | 0.55 |
| 35 | 1,129 | 152 | 1,843 | 119 | 0.49 |
| 36 | 864 | 129 | 1,315 | 104 | 0.49 |
| 37 | 523 | 116 | 1,068 | 81 | 0.40 |
| 38 | 2,765 | 245 | 4,761 | 186 | 0.47 |
| 39 | 769 | 129 | 1,334 | 98 | 0.50 |
| 40 | 101 | 58 | 264 | 36 | 0.52 |
| 41 | 33 | 38 | 113 | 20 | 0.50 |
| 42 | 388 | 147 | 1,709 | 70 | 0.43 |
| 43 | 815 | 190 | 2,877 | 101 | 0.25 |
| 44 | 255 | 100 | 795 | 57 | 0.32 |
| 45 | 969 | 213 | 3,620 | 110 | 0.30 |
| 46 | 163 | 88 | 615 | 45 | 0.31 |
| 47 | 338 | 132 | 1,393 | 65 | 0.28 |
| 48 | 285 | 119 | 1,122 | 60 | 0.37 |
| 49 | 106 | 71 | 397 | 36 | 0.39 |
| 50 | 405 | 106 | 901 | 71 | 0.57 |
| 51 | 138 | 69 | 378 | 42 | 0.45 |
| 52 | 83 | 50 | 202 | 32 | 0.55 |
| 53 | 38 | 44 | 152 | 22 | 0.34 |
| 54 | 70 | 62 | 307 | 30 | 0.30 |
| 55 | 42 | 30 | 72 | 23 | 0.50 |
| 56 | 32 | 29 | 68 | 20 | 0.49 |
| 57 | 28 | 30 | 70 | 19 | 0.40 |
| 58 | 25 | 48 | 184 | 18 | 0.29 |
| 59 | strict Map | 38 | 113 | 23 | 0.48 |
| 60 | 33 | 34 | 91 | 20 | 0.41 |



| District | District Area | Perimeter | Area of Circle with | Perimeter of Circle | Compactnes |
|------------|---------------|-----------|---------------------|---------------------|------------|
| 0.4 | (SQM) | (Miles) | Same Perimeter | with Same Area | Value |
| 61 | 27 | 38 | 115 | 18 | 0.40 |
| 62 | 114 | 61 | 295 | 38 | 0.46 |
| 63 | 229 | 96 | 739 | 54 | 0.31 |
| 64 | 296 | 86 | 590 | 61 | 0.40 |
| 65 | 808 | 141 | 1,581 | 101 | 0.54 |
| 66 | 209 | 79 | 499 | 51 | 0.37 |
| 67 | 452 | 119 | 1,118 | 75 | 0.52 |
| 68 | 149 | 71 | 396 | 43 | 0.42 |
| 69 | 158 | 70 | 390 | 45 | 0.57 |
| 70 | 40 | 43 | 150 | 23 | 0.48 |
| 71 | 683 | 131 | 1,375 | 93 | 0.58 |
| 72 | 175 | 77 | 472 | 47 | 0.51 |
| 73 | 443 | 111 | 982 | 75 | 0.51 |
| 74 | 49 | 32 | 81 | 25 | 0.61 |
| 75 | 291 | 88 | 611 | 60 | 0.44 |
| 76 | 425 | 102 | 824 | 73 | 0.59 |
| 77 | 202 | 82 | 531 | 50 | 0.50 |
| 78 | 832 | 160 | 2,026 | 102 | 0.50 |
| 79 | 250 | 92 | 667 | 56 | 0.35 |
| 80 | 63 | 50 | 201 | 28 | 0.49 |
| 81 | 77 | 48 | 186 | 31 | 0.39 |
| 82 | 17 | 32 | 81 | 15 | 0.48 |
| | | | | | |
| 83 | 27 | 36 | 105 | 19 | 0.43 |
| 84 | 46 | 39 | 118 | 24 | 0.40 |
| 85 | 92 | 56 | 247 | 34 | 0.37 |
| 86 | 80 | 51 | 204 | 32 | 0.48 |
| 87 | 99 | 55 | 242 | 35 | 0.57 |
| 88 | 2,200 | 206 | 3,362 | 166 | 0.56 |
| 89 | 429 | 113 | 1,018 | 73 | 0.50 |
| 90 | 303 | 106 | 899 | 62 | 0.36 |
| 91 | 833 | 145 | 1,666 | 102 | 0.52 |
| 92 | 761 | 139 | 1,533 | 98 | 0.44 |
| 93 | 1,179 | 210 | 3,505 | 122 | 0.39 |
| 94 | 59 | 52 | 214 | 27 | 0.43 |
| 95 | 624 | 107 | 916 | 89 | 0.60 |
| 96 | 481 | 102 | 822 | 78 | 0.54 |
| 97 | 885 | 220 | 3,867 | 105 | 0.51 |
| 98 | 4,118 | 305 | 7,422 | 227 | 0.72 |
| 99 | 3,825 | 344 | 9,395 | 219 | 0.29 |
| 100 | 1,719 | 191 | 2,917 | 147 | 0.54 |
| 101 | 1,941 | 251 | 4,996 | 156 | 0.34 |
| 102 | 3,417 | 291 | 6,755 | 207 | 0.49 |
| 103 | 2,883 | 250 | 4,975 | 190 | 0.55 |
| 104 | 2,436 | 362 | 10,413 | 175 | 0.31 |
| 105 | 2,921 | 302 | 7,146 | 192 | 0.50 |
| | | | | | |
| 106 107 | 7,780 | 397 | 12,550 | 313 | 0.46 |
| 107 | 4,923 | 444 | 15,720 | 249 | 0.43 |
| 108 | 9,287 | 645 | 33,135 | 342 | 0.34 |
| 109 | 10,075 | 541 | 23,305 | 356 | 0.58 |
| 110 | 14,139 | 680 | 36,767 | 422 | 0.57 |



Convex Hull

| Compact | ness measure | : Convex Hull | | | |
|----------|------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 26 | 28 | 62 | 18 | 0.79 |
| 2 | 19 | 24 | 48 | 16 | 0.75 |
| 3 | 24 | 36 | 101 | 17 | 0.70 |
| 4 | 15 | 29 | 68 | 14 | 0.54 |
| 5 | 16 | 37 | 108 | 14 | 0.60 |
| 6 | 16 | 33 | 87 | 14 | 0.60 |
| 7 | 19 | 32 | 83 | 15 | 0.62 |
| 8 | 22 | 36 | 102 | 16 | 0.70 |
| 9 | 22 | 29 | 65 | 16 | 0.67 |
| 10 | 56 | 46 | 172 | 27 | 0.76 |
| 11 | 18 | 26 | 53 | 15 | 0.67 |
| 12 | 16 | 21 | 35 | 14 | 0.80 |
| 13 | 19 | 27 | 58 | 16 | 0.78 |
| 14 | 22 | 21 | 37 | 17 | 0.92 |
| 15 | 16 | 28 | 63 | 14 | 0.67 |
| 16 | 24 | 28 27 | 59 | 18 | 0.67 |
| | | | | | |
| 17 | 23 | 27 | 58 | 17 | 0.90 |
| 18 | 34 | 33 | 85 | 21 | 0.86 |
| 19 | 38 | 41 | 137 | 22 | 0.67 |
| 20 | 51 | 40 | 125 | 25 | 0.80 |
| 21 | 52 | 39 | 122 | 25 | 0.83 |
| 22 | 41 | 41 | 132 | 23 | 0.76 |
| 23 | 97 | 60 | 285 | 35 | 0.68 |
| 24 | 30 | 25 | 51 | 19 | 0.91 |
| 25 | 28 | 40 | 127 | 19 | 0.60 |
| 26 | 34 | 36 | 103 | 21 | 0.74 |
| 27 | 46 | 33 | 88 | 24 | 0.85 |
| 28 | 171 | 77 | 477 | 46 | 0.74 |
| 29 | 112 | 78 | 478 | 38 | 0.64 |
| 30 | 364 | 115 | 1,043 | 68 | 0.75 |
| 31 | 393 | 112 | 1,007 | 70 | 0.77 |
| 32 | 44 | 31 | 75 | 24 | 0.91 |
| 33 | 151 | 66 | 346 | 44 | 0.83 |
| 34 | 664 | 117 | 1,082 | 91 | 0.93 |
| 35 | 1,129 | 152 | 1,843 | 119 | 0.93 |
| 36 | 864 | 129 | 1,315 | 104 | 0.98 |
| 37 | 523 | 116 | 1,068 | 81 | 0.85 |
| 38 | 2,765 | 245 | 4,761 | 186 | 0.91 |
| | | | | | |
| 39 | 769 | 129 | 1,334 | 98 | 0.89 |
| 40 | 101 | 58 | 264 | 36 | 0.84 |
| 41 | 33 | 38 | 113 | 20 | 0.79 |
| 42 | 388 | 147 | 1,709 | 70 | 0.62 |
| 43 | 815 | 190 | 2,877 | 101 | 0.70 |
| 44 | 255 | 100 | 795 | 57 | 0.68 |
| 45 | 969 | 213 | 3,620 | 110 | 0.76 |
| 46 | 163 | 88 | 615 | 45 | 0.73 |
| 47 | 338 | 132 | 1,393 | 65 | 0.70 |
| 48 | 285 | 119 | 1,122 | 60 | 0.59 |
| 49 | 106 | 71 | 397 | 36 | 0.65 |
| 50 | 405 | 106 | 901 | 71 | 0.83 |



| | ness measure: | | A 601 : 12 | D 1 () | |
|----------|---------------------|----------------------|---------------------------------------|------------------------------------|---------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactnes Value |
| 51 | 138 | 69 | 378 | 42 | 0.78 |
| 52 | 83 | 50 | 202 | 32 | 0.83 |
| 53 | 38 | 44 | 152 | 22 | 0.69 |
| 54 | 70 | 62 | 307 | 30 | 0.61 |
| 55 | 42 | 30 | 72 | 23 | 0.92 |
| 56 | 32 | 29 | 68 | 20 | 0.85 |
| 57 | 28 | 30 | 70 | 19 | 0.74 |
| 58 | 25 | 48 | 184 | 18 | 0.47 |
| 59 | 40 | 38 | 113 | 23 | 0.77 |
| 60 | 33 | 34 | 91 | 20 | 0.77 |
| 61 | 27 | 38 | 115 | 18 | 0.72 |
| 62 | 114 | 61 | 295 | 38 | 0.73 |
| 63 | 229 | 96 | 739 | 54 | 0.71 |
| 64 | 296 | 86 | 590 | 61 | 0.71 |
| | | | | | |
| 65 66 | 808 209 | 141 79 | 1,581 499 | 101 51 | 0.81 0.84 |
| | | | | | |
| 67 | 452 | 119 | 1,118 | 75 | 0.79 |
| 68 | 149 | 71 | 396 | 43 | 0.82 |
| 69 | 158 | 70 | 390 | 45 | 0.89 |
| 70 | 40 | 43 | 150 | 23 | 0.79 |
| 71 | 683 | 131 | 1,375 | 93 | 0.83 |
| 72 | 175 | 77 | 472 | 47 | 0.84 |
| 73 | 443 | 111 | 982 | 75 | 0.86 |
| 74 | 49 | 32 | 81 | 25 | 0.96 |
| 75 | 291 | 88 | 611 | 60 | 0.87 |
| 76 | 425 | 102 | 824 | 73 | 0.85 |
| 77 | 202 | 82 | 531 | 50 | 0.80 |
| 78 | 832 | 160 | 2,026 | 102 | 0.79 |
| 79 | 250 | 92 | 667 | 56 | 0.77 |
| 80 | 63 | 50 | 201 | 28 | 0.80 |
| 81 | 77 | 48 | 186 | 31 | 0.83 |
| 82 | 17 | 32 | 81 | 15 | 0.66 |
| 83 | 27 | 36 | 105 | 19 | 0.63 |
| 84 | 46 | 39 | 118 | 24 | 0.79 |
| 85 | 92 | 56 | 247 | 34 | 0.69 |
| 86 | 80 | 51 | 204 | 32 | 0.86 |
| 87 | 99 | 55 | 242 | 35 | 0.79 |
| 88 | 2,200 | 206 | 3,362 | 166 | 0.73 |
| oo 89 | 429 | 113 | 3,362 1,018 | 73 | 0.95 |
| | | | | | |
| 90 01 | 303 | 106 | 899 | 62 | 0.70 |
| 91 02 | 833 | 145 | 1,666 | 102 | 0.82 |
| 92 | 761 | 139 | 1,533 | 98 | 0.83 |
| 93 | 1,179 | 210 | 3,505 | 122 | 0.78 |
| 94 | 59 | 52 | 214 | 27 | 0.73 |
| 95 | 624 | 107 | 916 | 89 | 0.95 |
| 96 | 481 | 102 | 822 | 78 | 0.86 |
| 97 | 885 | 220 | 3,867 | 105 | 0.61 |
| 98 | 4,118 | 305 | 7,422 | 227 | 0.91 |
| 99 | Strict Map | 344 | 9,395 | 219 | 0.81 |



| Compactne | Compactness measure: Convex Hull | | | | | | | |
|-----------|----------------------------------|----------------------|------------------------------------|------------------------------------|----------------------|--|--|--|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value | | | |
| 100 | 1,719 | 191 | 2,917 | 147 | 0.86 | | | |
| 101 | 1,941 | 251 | 4,996 | 156 | 0.73 | | | |
| 102 | 3,417 | 291 | 6,755 | 207 | 0.87 | | | |
| 103 | 2,883 | 250 | 4,975 | 190 | 0.87 | | | |
| 104 | 2,436 | 362 | 10,413 | 175 | 0.56 | | | |
| 105 | 2,921 | 300 | 7,146 | 192 | 0.74 | | | |
| 106 | 7,780 | 397 | 12,550 | 313 | 0.93 | | | |
| 107 | 4,923 | 444 | 15,720 | 249 | 0.68 | | | |
| 108 | 9,287 | 645 | 33,135 | 342 | 0.67 | | | |
| 109 | 10,075 | 541 | 23,305 | 356 | 0.79 | | | |
| 110 | 14,139 | 680 | 36,767 | 422 | 0.78 | | | |

Most Compact: 0.98 For District: 36 Least Compact: 0.47 For District: 58

Length-Width

| Compactn | ess measure: L | ength-Width | | | |
|----------|------------------------|-------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 1 | 26 | 28 | 62 | 18 | 0.96 |
| 2 | 19 | 24 | 48 | 16 | 1.24 |
| 3 | 24 | 36 | 101 | 17 | 1.17 |
| 4 | 15 | 29 | 68 | 14 | 1.59 |
| 5 | 16 | 37 | 108 | 14 | 0.33 |
| 6 | 16 | 33 | 87 | 14 | 0.41 |
| 7 | 19 | 32 | 83 | 15 | 0.58 |
| 8 | 22 | 36 | 102 | 16 | 0.40 |
| 9 | 22 | 29 | 65 | 16 | 1.85 |
| 10 | 56 | 46 | 172 | 27 | 2.09 |
| 11 | 18 | 26 | 53 | 15 | 0.92 |
| 12 | 16 | 21 | 35 | 14 | 0.68 |
| 13 | 19 | 27 | 58 | 16 | 0.47 |
| 14 | 22 | 21 | 37 | 17 | 0.74 |
| 15 | 16 | 28 | 63 | 14 | 1.06 |
| 16 | 24 | 27 | 59 | 18 | 2.06 |
| 17 | 23 | 27 | 58 | 17 | 4.09 |
| 18 | 34 | 33 | 85 | 21 | 3.19 |
| 19 | 38 | 41 | 137 | 22 | 2.06 |
| 20 | 51 | 40 | 125 | 25 | 2.40 |



| - | | Length-Width | | | |
|----------|---------------------|----------------------|---------------------------------------|------------------------------------|---------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactnes Value |
| 21 | 52 | 39 | 122 | 25 | 2.72 |
| 22 | 41 | 41 | 132 | 23 | 2.21 |
| 23 | 97 | 60 | 285 | 35 | 1.18 |
| 24 | 30 | 25 | 51 | 19 | 1.33 |
| 25 | 28 | 40 | 127 | 19 | 2.20 |
| 26 | 34 | 36 | 103 | 21 | 1.03 |
| 27 | 46 | 33 | 88 | 24 | 0.68 |
| 28 | 171 | 77 | 477 | 46 | 0.76 |
| 29 | 112 | 78 | 478 | 38 | 0.67 |
| 30 | 364 | 115 | 1,043 | 68 | 2.28 |
| 31 | 393 | 112 | 1,007 | 70 | 1.53 |
| 32 | 44 | 31 | 75 | 24 | 1.53 |
| 33 | 151 | 66 | 346 | 44 | 1.79 |
| 34 | 664 | 117 | 1,082 | 91 | 1.61 |
| 35 | 1,129 | 152 | 1,843 | 119 | 2.57 |
| 36 | 864 | 129 | 1,315 | 104 | 2.61 |
| 37 | 523 | 116 | 1,068 | 81 | 2.16 |
| | | | | 186 | |
| 38 | 2,765 | 245 | 4,761 | | 1.07 |
| 39 | 769 | 129 | 1,334 | 98 | 1.46 |
| 40 | 101 | 58 | 264 | 36 | 1.36 |
| 41 | 33 | 38 | 113 | 20 | 1.13 |
| 42 | 388 | 147 | 1,709 | 70 | 1.06 |
| 43 | 815 | 190 | 2,877 | 101 | 2.71 |
| 44 | 255 | 100 | 795 | 57 | 3.04 |
| 45 | 969 | 213 | 3,620 | 110 | 3.29 |
| 46 | 163 | 88 | 615 | 45 | 3.13 |
| 47 | 338 | 132 | 1,393 | 65 | 2.71 |
| 48 | 285 | 119 | 1,122 | 60 | 1.87 |
| 49 | 106 | 71 | 397 | 36 | 1.99 |
| 50 | 405 | 106 | 901 | 71 | 1.34 |
| 51 | 138 | 69 | 378 | 42 | 0.90 |
| 52 | 83 | 50 | 202 | 32 | 1.49 |
| 53 | 38 | 44 | 152 | 22 | 1.93 |
| 54 | 70 | 62 | 307 | 30 | 0.69 |
| 55 | 42 | 30 | 72 | 23 | 0.96 |
| 56 | 32 | 29 | 68 | 20 | 1.03 |
| 57 | 28 | 30 | 70 | 19 | 0.89 |
| 58 | 25 | 48 | 184 | 18 | 0.80 |
| 59 | 40 | 38 | 113 | 23 | 2.19 |
| 60 | 33 | 34 | 91 | 20 | 0.97 |
| 61 | 27 | 3 4 38 | 115 | 18 | 1.67 |
| 62 | 114 | | | 38 | 1.07 |
| | | 61 | 295 | | |
| 63 | 229 | 96 | 739 | 54 | 0.98 |
| 64 | 296 | 86 | 590 | 61 | 0.71 |
| 65 | 808 | 141 | 1,581 | 101 | 1.09 |
| 66 | 209 | 79 | 499 | 51 | 2.60 |
| 67 | 452 | 119 | 1,118 | 75 | 1.07 |
| 68 | 149 | 71 | 396 | 43 | 0.80 |
| 69 | 158 | 70 | 390 | 45 | 1.01 |
| 70 | strict Map | 43 | 150 | 23 | 1.14 |



| Compactness measure: Length-Width | | | | | |
|-----------------------------------|------------------------|----------------------|---------------------------------------|------------------------------------|----------------------|
| District | District Area (SQM) | Perimeter (Miles) | Area of Circle with Same Perimeter | Perimeter of Circle with Same Area | Compactness Value |
| 71 | 683 | 131 | 1,375 | 93 | 1.43 |
| 72 | 175 | 77 | 472 | 47 | 0.91 |
| 73 | 443 | 111 | 982 | 75 | 1.30 |
| 74 | 49 | 32 | 81 | 25 | 0.93 |
| 75 | 291 | 88 | 611 | 60 | 0.98 |
| 76 | 425 | 102 | 824 | 73 | 1.36 |
| 77 | 202 | 82 | 531 | 50 | 1.50 |
| 78 | 832 | 160 | 2,026 | 102 | 0.97 |
| 79 | 250 | 92 | 667 | 56 | 1.82 |
| 80 | 63 | 50 | 201 | 28 | 2.17 |
| 81 | 77 | 48 | 186 | 31 | 1.63 |
| 82 | 17 | 32 | 81 | 15 | 1.35 |
| 83 | 27 | 36 | 105 | 19 | 1.09 |
| 84 | 46 | 39 | 118 | 24 | 0.89 |
| 85 | 92 | 56 | 247 | 34 | 1.47 |
| 86 | 80 | 51 | 204 | 32 | 1.00 |
| 87 | 99 | 55 | 242 | 35 | 1.22 |
| 88 | 2,200 | 206 | 3,362 | 166 | 1.59 |
| 89 | 429 | 113 | 1,018 | 73 | 1.06 |
| 90 | 303 | 106 | 899 | 62 | 1.37 |
| 91 | 833 | 145 | 1,666 | 102 | 1.89 |
| 92 | 761 | 139 | 1,533 | 98 | 1.10 |
| 93 | 1,179 | 210 | 3,505 | 122 | 1.92 |
| 94 | 59 | 52 | 214 | 27 | 1.76 |
| 95 | 624 | 107 | 916 | 89 | 1.01 |
| 96 | 481 | 102 | 822 | 78 | 1.10 |
| 97 | 885 | 220 | 3,867 | 105 | 1.21 |
| 98 | 4,118 | 305 | 7,422 | 227 | 1.56 |
| 99 | 3,825 | 344 | 9,395 | 219 | 3.54 |
| 100 | 1,719 | 191 | 2,917 | 147 | 1.37 |
| 101 | 1,941 | 251 | 4,996 | 156 | 0.73 |
| 102 | 3,417 | 291 | 6,755 | 207 | 0.90 |
| 103 | 2,883 | 250 | 4,975 | 190 | 1.39 |
| 104 | 2,436 | 362 | 10,413 | 175 | 1.80 |
| 105 | 2,921 | 300 | 7,146 | 192 | 1.39 |
| 106 | 7,780 | 397 | 12,550 | 313 | 1.85 |
| 107 | 4,923 | 444 | 15,720 | 249 | 1.71 |
| 108 | 9,287 | 645 | 33,135 | 342 | 1.58 |
| 109 | 10,075 | 541 | 23,305 | 356 | 1.35 |
| 110 | 14,139 | 680 | 36,767 | 422 | 1.30 |

Most Compact: 4.09 For District: 17 Least Compact: 0.33 For District: 5



DISSENTING REPORTS

Three commissioners of the inaugural Michigan Independent Citizens Redistricting Commission elected to submit a dissenting report as allowed by the Michigan State Constitution.

"A commissioner who votes against a redistricting plan may submit a dissenting report which shall be issued with the commission's report."



Dissenting Reports 69



DISSENTING REPORT Submitted by Commissioner Rhonda Lange

Dissenting Report 1

Dissenting Report for Adopted Congressional, Senate and State House Maps

Commissioner Rhonda Lange

Michigan Independent Citizens Redistricting Commission

Abstract

This report is an evaluation and assessment of why I objected to the recently adopted plans and details not only my personal opinions on the plans' creation but facts on input that the public gave that were ignored. I will not go into detail as to why I voted for other maps such as the Lange Congressional and Senate plans as the short and direct answer is I was told I HAD to vote for one. My personal choice would have been to not vote for any or abstain from voting due to not believing that we had reached truly fair maps that represented the voices of the public that we heard from. My stance was and still is that the Commission should have taken more time to work on maps and that none of the maps were truly fair.

Dissenting Report for Adopted Congressional, Senate and State House Maps

Congressional Plan Chestnut

The Congressional Chestnut Plan does a complete disservice to parts of Northern and Central Michigan. For example, District 2 takes the west coast of the state and runs it over and down to within two counties of the southern border of the state, which clearly is not compact and splits a total of six counties unnecessarily, which also goes against the criteria of considering county and township lines. District 8, while splitting three counties, needlessly splits off a township in Tuscola to add it to District 8 while splitting off a small township in Genesee County, that is in District 8 and putting it in District 7, again discounting county lines. District 3 needlessly splits three counties and ignores input about communities of interest. Such is the case with Districts 4 and 5. I will say that the SE part of the state, including Districts 6, 10, 11, 12 and 13, while not perfect from a split point of view due to population, I have no issues with; however, from a COI, it is my opinion that the Commission failed, especially as it relates to the African American population.

Michigan Senate Linden

The Michigan Senate Linden Plan does a disservice to "some" citizens of Michigan. While in the Senate plan Northern Michigan is a little more compact, once you get to Districts 33, 34 and 31 multiple counties are needlessly split to make up districts. Districts 33 and 34 both have five county splits and consist mostly of rural areas that do not have high populations, so those splits are both unwarranted and unnecessary. While public comment about COIs for those areas was minimal due to a lack of outreach in my opinion, the comments that were received should have been taken into account. District 17 needlessly splits four counties in mostly rural areas and discounts the COI testimony given for those areas in my opinion. District 22 needlessly splits

five counties. As for districts 1-13, my opinion is the same as it was for the Congressional maps in that area. It is my thought that VRA could have been accomplished in conjunction with COI and I will expound on this in my conclusion. Allegan County is split needlessly three times and Ottawa County is split needlessly two times after hundreds of comments from its residents about the county being a COI and from what I saw maybe one or two (I distinctly remember one) views that felt otherwise, yet they were split, and it was said that was a "compromise" when there was no need for it. The Commission split up three counties so that 3 cities could be considered a COI in District 35. It can also be argued that District 15 could have been accomplished in one county without taking a chunk out of Lenawee.

State House Hickory Plan

State House plan "Hickory" is the worst offender of them all not only in my opinion disenfranchising African American voters but as well as rural voters and voters in Northern Michigan. The U.P. commented that their counties are their COI and not to split them. District 107 needlessly splits three counties. District 104 is one of the most egregious splits in Northern Michigan, splitting 6 counties and not in the name of COI! District 110 splits two counties. While I drew this district, upon going back and editing and reviewing COI, I found it could have been redrawn in a way that kept counties whole and still maintained COI and county boundaries. District 97 splits four counties. Jackson County was split four times, which is completely unacceptable, and their voices were ignored when they expressed that their county WAS/IS THEIR COI. Even if they were over population for one house district, every attempt should have been made to do the least number of splits to maintain their COI. District 28 goes into Monroe County and the voices of those from Monroe County were ignored. In looking at this district it

could have been maintained in Wayne County. District 43 splits four counties and is not compact. Lapeer County, which again is mostly rural, was split three times unnecessarily. Then we move into SE Michigan: Macomb, Oakland, and Wayne counties. We as a Commission failed this area horribly. It is my opinion that not only with the overwhelming amount of input from the citizens, especially the African American community but also the overwhelming call from the communities for us to keep drawing and have their voices better represented, we should have made additional changes. It's my opinion that doing mediocre work is not OK when that work will affect communities for 10 years.

Conclusion, Summary, Evaluation of Process including ranked criteria, public comment, etc., and my personal opinions on the work that got us to these maps.

It is my belief, based off just the minimal examples expressed in the body of this report, that the Commission failed in its duty to draw fair maps. It is also my belief based off not only what I saw but also heard, that there was a definite bias not only politically but also geographically and racially in the drawing of these maps both in favor and against. It is my belief that the Commission did not take into consideration all the ranked criteria when evaluating each criteria, making sure each was met simultaneously. While some criteria such as political fairness had to be evaluated once an entire map was completed, the others could have and should have been looked at sincerely after each district was drawn. The excuse that time was a factor when you have citizens from both sides of the aisle and all over the state saying that the maps needed more work is unacceptable. The citizens spoke and said they did not want these maps for the next 10 years and "we" ignored that because of time. It is my opinion that when the maps were being

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drawn based on COIs, the Commission was doing a fairly good job, but once it got to political

fairness things went off the track, by our own expert's opinion and court case evaluation.

ACCEPTABLE measures would be:

Lopsided Margin: Less than 8%

Mean Median: Less than 5

Efficiency Gap: Less than 7%

The Commission took these numbers to an extreme at the cost of breaking up COIs and,

in my opinion, intentionally diluted the votes of rural populations by combining them with

heavily populated urban areas that voted in a distinct way. It was also stated openly in a meeting

by a commissioner that Northern Michigan was mostly white and really didn't have any diversity.

That statement showed, in my opinion, there was bias and discrimination toward people in

Northern Michigan, which consists mostly of rural areas.

When looking at criteria for SE Michigan, particularly those in the Detroit area, of course,

the first is VRA, which we were given guidance from Mr. Adelson. While I personally did not

agree with his and Dr Handley's evaluation, I am not an expert and did not object either. Where I

think the Commission failed in this aspect with the maps is that we should have not only

considered VRA (or possibly gotten a second opinion) but combined it with COI. The citizens of

Detroit, especially African American citizens, came out in strong numbers about their COI, even

listing exact streets in some cases. I think these maps failed because we listened to our experts

and a set of proposed numbers over the voices of the citizens of the state who were told they

would get to pick their representatives by having their communities of interest kept intact. In

using the term "cracking and packing" as it relates to VRA, packing is the "INTENTIONAL" act

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of concentrating a group to reduce their voting power. I believe we as a Commission could have listened to the African American community and given them the districts that they asked for based off of the COI standpoint, regardless of if those districts were at 51% or even higher as long as it was what the community asked for, but we didn't.

This brings me back to criteria 3, COI. We as a Commission received a lot of public comments on what citizens saw as their COIs. I feel that in drawing these maps the Commission showed a serious lack of consistency in what they saw as being acceptable for COI and, in my opinion, treated different areas of the state in different ways. Maybe this was unintentional, but it happened. Point of fact: the Tri-Cities (Midland, Saginaw, Bay City). The Commission decided that three cities in three different counties was a COI and drew it to be such in two maps based off of one set of public comments for the area; Ottawa County literally had hundreds of comments, including a petition saying that the entire county was their COI, and gave examples of why, and the Commission intentionally split the county unnecessarily and then had a commissioner say it was a "compromise" when there was no need for compromise to the best of my knowledge. I only recall one written comment against the whole county being a COI. I drew maps that made Northern Michigan more compact and considered the COIs that were given for what I will call Central Northern Michigan and the Commission ignored what people in those areas said. A lot of the rural areas stated that their county is/was their COI and the Commission balked at that idea while saying that three cities in three different counties was a COI; again, there was a lack of consistency. I must agree with a lot of the public comment when they said their COI is their county, especially in rural areas where the population is not as condensed. It is my opinion that it is no different than saying, for an example, a five-block radius in Detroit that might hypothetically have 20,000 people is a COI because they have the same issues as far as

economics, environmental, etc. It is no different for a county that has 20,000 people; the issues may be different, but the community still exists.

As for the criteria of favoring or disfavoring an incumbent, while I cannot speak for anyone but myself on this particular criteria, I can say that I did not look at any incumbent data as far as who represented what district in the old plans, were incumbents drawn out of new plans, etc. To make sure of this, I asked that Mr. Woods, the Communications and Outreach Director, not to send me any newspaper articles, at the advice of Legal Counsel Pastula, as it was said articles were being published that talked about incumbents and the districts they were in. I cannot speak to what other commissioners have or have not done regarding this criteria.

Criteria 6: Districts shall reflect consideration of county, city and township boundaries. As described in the subsections of this report in regards to each set of maps, I think I have more than shown in the few examples given that as far as Criteria 6 is concerned, the Commission did an extremely poor job of considering this criteria, especially in rural areas where being split multiple times for no constructive reason negatively affects their representation, and again most rural areas came to this Commission and specifically stated that their county was/is their COI and their voices were blatantly ignored.

Last Criteria: Districts will be reasonably compact. Again, just by looking at the examples I gave for each map, it is easy to see that this criteria was not met. I did a map that outperformed all other maps, including the current Legislative maps, when it came to this criteria that could have at least been considered for certain areas.

In closing, I would like to give my final perspective and opinion as it relates to the process, the work performed, and the concerns I have that I think could have influenced the maps as they were adopted.

First is the outreach. I was very vocal throughout this process on how I feel the outreach for the rural communities was not given as much commitment, time, or funds as the urban and more populous parts of the state. I repeatedly asked our Communications and Outreach Director to reach out to certain areas or groups, to which he said he would but never produced. I was told that there were lots of town halls done in rural communities, yet when the list circulated it was shown not to be the case. It is my opinion that there was extreme bias in the outreach. When it came to public hearings, I feel it was always quickly recommended to cut potential rural venues even though having only two for all of Northern Michigan, including the U.P., would make it harder for people to participate in person, especially in areas where internet could be considered spotty at best, which also limited access to participating online. The Commission approved funds requested by the Communications Director to hire an "influencer" to get more people to the Flint hearing because he felt turnout the first time around wasn't great but did not give the same consideration to any other areas. It is my opinion that areas picked for public hearings were very politically biased and a better job could have been done to make sure it was more of an equal mix.

Next is transparency. I have grave concerns on this issue. It is my belief by things I saw, things I personally heard, and things that I read that transparency was lacking! I also believe the public comment portal was a mess. I asked repeatedly if there was a way to make it easier to navigate as a commissioner and print out public comment, and the use of "hashtags" to help search … really? If you don't know what the public is going to use for a hashtag for a particular area, how do you know what to search? Also, I had issues with not getting attachments that were uploaded to the portal in a timely fashion (I'm still waiting on recently uploaded material from January).

This whole process has honestly saddened me and proved to me what my concern was all along for this amendment and what is "fair." I would dare ask is it "fair" that the African American population came out in strong numbers and told us what they wanted, and we didn't provide that? Is it fair that rural communities came out and told us what they wanted (some driving long distance) and we ignored it? Is it fair that the only two considerations that were given to the U.P. were trying to combine two cities (again in different counties) to make a district and the second being looking to try not to split the Native American population — which don't get me wrong, I am fine with that — but in turn didn't listen to the other voices we heard from? Is it fair that organized groups' voices were heard louder and dare I say drowned out the voices of lone citizens who took time off from work or drove long distances and sat for hours just to be heard? The list goes on and on. I realize we absolutely couldn't make everyone happy but more serious and unbiased consideration should have been given to all.

While I think these maps are truly not representative of the entire state and the input we received, if anything good comes out of this I hope that future commissions really listen to the public not about politics but about the people's needs, their communities, their beliefs, and that they don't judge or show bias toward them for that because in the end I think all anybody really wants is to live their lives to the fullest the way they see fit.

This will conclude my report. While I can go on and on about my experiences and things I observed, heard, etc., this is not the place to do it, although on a personal privilege note, I know that commissioners do not particularly care for me and that's OK. I volunteered for this Commission to do a job and if I feel something isn't right I'm going to say it, regardless of if it goes against the views of others or the narrative, because I am a member of this Commission like it or not and my job was not to make the Commission happy and portray a narrative to the

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media just to advance the career of someone or so some organization could win a Pulitzer or any of the other B.S. that was floated my way, stuff that I repeatedly said I could not care less about. The only reason I applied for this position was I wanted to make sure of two things and that was that the maps were fair for EVERYONE in the state from the very northern tip of the U.P. to the very SE corner of the Lower Peninsula and to make sure that everyone's voice was heard and considered EQUALLY! I feel that as a Commission we failed and for that I truly apologize to all the citizens of the State of Michigan.

Commissioner Rhonda Lange



DISSENTING REPORT Submitted by Commissioner Erin Wagner

This serves as my dissenting report for the Michigan Independent Citizens Redistricting Commission 2021 Final Proposed Maps.

From the start of my term on this commission, I have been interested in fair maps for ALL of Michigan's citizens, not just a few parties, or even the party that I affiliate with. I have read every public comment both on and off the portal and looked at every map submitted. At one point, I even asked General Counsel Pastula if the maps submitted by the citizens to the portal had been vetted by any of our "expert panel" of witnesses (specifically the Promote the Vote maps, in relation to VRA and the other criteria) so that I could use portions of those in relation to drawing my own and was told they had not been.

One of the main reasons I voted for EDS was because they offered to supply a QR code during the live mapping process where anyone could pull it up and see and comment upon exactly what we were doing at the time, yet when I brought that up, I was told that since MDOS had a contract with Professor Duchin, EDS would not be supplying a QR code.

I do not believe that these maps best serve the Citizens of Michigan and feel, as I stated a few times, that we should have spent more time than we allotted to come up with maps that were truly fair to everyone, while meeting all criteria. In my entire lifetime here in Michigan, we have been neither Red nor Blue, swinging between the two parties frequently in our voting decisions. To be fair is to slice up the "pie" so that everyone gets the same size piece. These maps do nothing of the kind. When we were mapping in relation to the importance of the criteria, I believe we were on the right path. When certain organizations started crying out about partisan fairness, I believe we then went off on a strictly partisan tangent and discounted most all the other work we had done, especially in relation to Communities of Interest (hereon referred to as COI's) as well as County boundaries.

When it came time to vote, we were forced to choose one of the subpar maps that were proposed. If we didn't agree that any of them be put forth to the public and the 45-day comment period, we should have been allowed to vote no confidence. I believe we should have taken more time, as numerous public commenters told us, to come up with maps that every Commissioner could confidently say were our best work.

Some examples as to why I voted against the proposed maps include, but are not limited to the following:

Chestnut:

Chestnut groups Grand Rapids with Grand Haven, Norton Shores and the like on the far west coast of Michigan, as well as extending into Muskegon. It divides three counties to make the 3rd Congressional

District and lumps different COI'S together. District 2 extends south beyond notable county boundaries to include 20 different counties, which are in NO way communities of interest. District 8 takes areas from five different counties to lump Midland with Bay City and Saginaw. District 7 includes six different counties encompassing rural areas such as Fowler, Charlotte, Olivet, Eaton Rapids, as well as Fowlerville, Howell and Brighton. Coming from this area, we have nothing in common with Howell, Brighton or the capitol of Lansing, aside from traveling there on occasion.

Linden:

The Linden map is laughable in that once again it groups rural areas with the capitol of Lansing in district 21 and places East Lansing, with rural Eagle, Westphalia and Williamston. Williamston and Webberville are a COI, yet it splits them to place Webberville in District 22 with Howell and Brighton. District 30 grabs from the west yet again. District 33 places northern areas, such as Baldwin and Sauble with areas such as Portland and Ionia which are in the middle of the State and much closer to Lansing, Grand Ledge and the like. Once again, Midland is grouped with Bay City and Saginaw, completely discounting a COI. Detroit areas seem to reach much farther north than Communities of Interest would warrant. Detroit's voice was by far the largest and loudest and yet we still seem to have allowed that voice to fall on deaf ears. District 36 extends from the Northeast tip of the lower peninsula down to the Huron Manistee National Forests on the Western side of the lower peninsula, dipping down to grab Pinconning in Bay County.

Hickory:

In the Hickory map, even though we heard numerous COI testimony to keep the Grosse Pointes in the same district as Harper Woods, Saint Clair Shores and nearby Detroit neighborhoods such as Morningside, East English Village, Jefferson-Chalmers, it slices Harper Woods from District 10 and includes it with District 11. Morningside is included in District 9, while District 10 extends beyond East Village to include everything southeast along the Detroit River and cuts off on the northeast side before St. Clair Shores.

Ann Arbor is split in to four districts, 47, 33, 23, and 49. Lansing's District 77 uses the Grand River along Moore's River Drive as most of its southern boundary, north to W. Cutler Road just north of Dewitt, then west and north again to include Westphalia and Eagle (areas which do not have the same interests as Lansing, and dips into Eaton County to grab Grand Ledge. District 76 includes the northeast tip of Eaton County, which is considered Lansing, grabs Vermontville (an area with a high concentration of Amish) yet leaves out Kalamo and Bellevue, with Bellevue being just west of Olivet about 5 minutes by car.

It splits Nashville, Hastings and Delton, all within Barry County into three separate districts and includes Bellevue in Eaton County with the Western portion of the State in District 43. Barry County is split three ways, and Eaton County is split in four ways.

As stated, these examples are not the ONLY problems I see in the proposed maps.

Another reason I dissented on these maps is because of the numerous times, as a Commissioner attending remotely, I watched the Commission take breaks and then come back to pass a motion regarding commission business, that was not part of the discussion that took place prior to said break and therefore remote Commissioners were not privy to any discussion. Unfortunately, this called into question the whole matter of "transparency" for me.

I understand that we could not make everyone happy, however I believe had we spent more time in revising maps according to public comment, we could have done a much better job than what we put forth.

Sincerely,

Commissioner Erin Wagner



DISSENTING REPORT Submitted by Commissioner Rebecca Szetela



DISSENTING REPORT: 2021 CHESTNUT CONGRESSIONAL REDISTRICTING MAP

Authored by: Commissioner Rebecca Szetela

Chair: September 2021-March 2022

Vice-Chair: March 2021-September 2021

Summary

The Michigan Independent Citizens Redistricting Commission adopted its final United States Congressional, Michigan State House, and Michigan State Senate maps on December 28, 2021. This approval was the culmination of over a year of challenging, and often intense, work, which was complicated both by the global COVID-19 pandemic and a four-month delay in release of data from the United States Census Bureau. For the first time in the State of Michigan, a group of randomly selected voters, in lieu of politicians, drew the U.S. Congressional, Michigan State House, and Michigan State Senate maps. These maps were drawn openly and with the ongoing participation, input, and observation of the public. Individual Commissioners, who were strangers to each other at the start of this process, bridged their partisan leanings and worked collaboratively, as a team, to compile maps. The Commission performed admirably under very challenging circumstances. There is much for the Commission to celebrate.

While celebrations are in order, all business processes, no matter how successful, should be subject to a frank evaluation process. There is always room for improvement. There are always insights to be gleaned and carried forward. Retrospective evaluations, where we look backward at what went right, what went wrong, and what can be improved, are (and should be) standard and expected. The redistricting process should be subject to no less scrutiny.

The intent of this Dissenting Report is to provide an honest and transparent account of areas where, due to a variety of intersecting factors, the Commission could have performed more faithfully to its Constitutional mandate in the creation, revision, and adoption of its U.S. Congressional, State House, and State Senate maps. This Report highlights deficiencies in adhering to several Constitutional criteria (Voting Rights Act Compliance, Respecting Communities of Interest, and Partisan Fairness) as well as an error in elevating a criterion that was not in the Constitution. This Report also notes that the Commission did not appropriately account for and consider the full body of public comment. As a

result, the Commission's process was not as data-driven, objective, or participatory as it should have been.

Because this Report is written with the intention toward improvements in the process, I have included many recommendations for future Commissions. For the reasons set forth below, I dissent to the adoption of Chestnut Congressional map by the Commission.

Rationale

OBJECTION 1 | CRITERIA #1 COMPLIANCE WITH FEDERAL LAW, INCLUDING THE VOTING RIGHTS ACT

"Unfortunately we do not have sufficient information to anticipate what might happen in future Democratic primaries in the proposed districts. The reason is that we have only one statewide Democratic primary for which we can recompile results and minority voters were not cohesive in this primary. We simply do not know what would happen in a primary in which minority voters are cohesive."

Ex. 1, Dr. Lisa Handley, December 27, 2021¹

In my opinion, the Commission cannot say with any degree of confidence whether any of the Commission's approved maps (the US Congressional ("Chestnut"), State Senate ("Linden"), and State House ("Hickory")) will provide minorities, particularly Black voters in the metropolitan Detroit area, with an opportunity to elect their candidates of choice in **both** primary and general elections. This is a serious flaw in the Chestnut map. Thus, I dissent to its adoption.

The Commission's Quantitative and Legal Analysis

In furtherance of its compliance with the Voting Rights Act ("VRA"), the Commission exclusively relied on quantitative analysis from Dr. Lisa Handley, legal analysis from its Voting Rights Expert (Bruce Adelson), and legal advice from its general counsel. The first step in this compliance process was a determination as to whether voting in Michigan was racially polarized. To determine this, Dr. Handley analyzed ten years' worth of general and primary election data from the State of Michigan. Ex. 2, Final Handley Report.² In conducting her analysis, Dr. Handley calculated that the majority of Michigan counties (95%, or 79 out of 83 counties) lacked sufficient Black voter populations to estimate voting behavior. Ex. 3, Sept. 2 Transcript, pp. 21-24. Thus, a racially polarized voting ("RPV") analysis could not

¹ I would like to acknowledge the excellent analysis Dr. Lisa Handley performed for the Commission.

² For brevity, I have only attached portions of Exhibit 2 to this Dissent. The full report is available at: https://www.michigan.gov/micrc/meeting-notices-and-materials under the link titled "Racially Polarized Voting Analysis."

be performed in those counties. *Id.* However, Dr. Handley determined that four Michigan counties (Wayne, Oakland, Saginaw, and Genesee) contained sufficient Black voting-age populations to allow an RPV analysis to be conducted. *Id.* In each of those four counties where the RPV analysis was conducted, voting was racially polarized. Ex. 2, pg. 7; Ex. 3, pp. 21-24. Because voting was racially polarized, the Commission was required to structure districts that complied with the VRA in those counties. *Id.* Mr. Adelson correspondingly advised that the VRA did not require minority-majority districts (e.g., districts with greater than 50% Black voting age population); however, the Commission did need to create "opportunity to elect" districts. The Commission was advised by Mr. Adelson that an "opportunity to elect" district is one where the district contains the requisite number of minority voters needed to enable those voters an opportunity to elect their candidates of choice. Dr. Handley's analysis was intended to determine the minimum percentage of Black voting-age population ("BVAP") necessary to create opportunity to elect districts in the four racially polarized counties (Wayne, Oakland, Saginaw, and Genesee).

To estimate these percentages, Dr. Handley evaluated the degree to which white voters supported Black-preferred candidates (the "White Crossover Vote") in the four counties. As noted by Dr. Handley, "if a relatively consistent percentage of white voters support Black-preferred candidates, candidates preferred by Black voters can be elected in districts that are less than majority Black." Ex. 2, p. 19. The White Crossover Vote can also compensate for depressed Black voter turnout. Ex. 2, p. 19. Alternately, "if voting is starkly polarized, with few or no whites crossing over to vote for the candidates supported by Black voters," a district "that is more than 50% Black VAP" may be needed to elect Black-preferred candidates. *Id.* Thus, Dr. Handley's analysis included the voting patterns of Black and white voters as well as data regarding variations in turnout rates.

After completing her analysis, Dr. Handley provided the Commission with a report stating that, for *general elections*, Black voters could elect candidates of choice in Wayne County with a BVAP as low as 35%. Ex. 2; Ex. 4, pp 13-18. In Oakland County, once again for *general elections*, Black voters could elect candidates of choice with a BVAP as low as 40%. Ex. 2; Ex. 4. Dr. Handley also stated that no county required districts with a BVAP of 50% or more in the general election. *Id*.

However, general election results were not the only relevant inquiry. As noted in Dr. Handley's writings on this topic, **both primary and general elections must be considered**. Ex. 5, *Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence*, B. Grofman, L. Handley, and D. Lublin, North Carolina Law Review, Volume 79, Number 5, Article 12 (6-1-2001) p. 1410-1411. Moreover, map drawers need to be *most* focused on the *highest* percentages required because that is

the percentage needed to win both elections (primary and general). *Id.* Accordingly, if 52% is the proper number to allow minority voters an opportunity to elect in a primary, but 43% is needed in a general election, the map drawer's work should be governed by the higher primary percentage (52%). *Id.*

Accordingly, Dr. Handley also analyzed primary data. Ex. 2, p. 24-26. There was a single Statewide Michigan Democratic³ primary with results that could be recompiled and applied to any district reconfiguration that the Commission desired to test. *Id.* That election was the 2018 Gubernatorial primary, in which three candidates were running: Gretchen Whitmer, Abdul El-Sayed, and Shri Thanedar. In analyzing this election, Dr. Handley determined that Black voters were not "cohesive" – meaning they did not support a single, identifiable candidate. *Id.* This lack of cohesiveness made it impossible to extrapolate the data from that election in a manner that could predict the election results for future districts. *Id.* at 24. Disappointingly, the 2018 Gubernatorial primary could not be used to determine the proper BVAP levels needed for Black voters to elect their candidates of choice in the primary elections in the recompiled districts.

other primary election data. Dr. Handley produced two charts entitled "Threshold of Representation" for both the State Senate and State House (the "Threshold Tables"). Ex. 2, p. 24-26. Dr. Handley described these Threshold Tables as being a "useful check on the percent needed to win estimates" found in the general election tables. Ex. 2, p. 24. The Threshold Tables were "designed to identify the lowest minority percentage above which minority candidates are consistently elected." Ex. 2, p. 24. For the State Senate, that threshold was 48%. For the State House, the threshold identified was 36% (as described more fully in the footnote, it should have been between 47% and 52%). A Threshold Table

³ Because Michigan's BVAP population tends to vote overwhelmingly Democratic, Democratic primaries were Dr. Handley's area of focus.

⁴ Dr. Handley's analysis showed there were no State Senate districts with BVAP levels between 36% and 44% (the very "target range" the Commission later confined itself to in drawing its maps). Ex. 2; Ex. 3, pp. 18-19. Of the single district with 45% BVAP (District 1), the Black candidate of choice (Alberta Tinsley Talabi) did not survive the primary, even though she received approximately 48% (and the majority) of the Black vote. Ex. 2, p. 26, 65. In comparison, Stephanie Chang, an Asian woman, won the primary with 49.8% of the vote, having received over 75% of the votes cast by white voters. *Id. Thus, in a district with 45% BVAP, Black voters did not have the opportunity for their candidate of choice (Alberta Tinsley Talabi) to advance to the general election*. As expected, as the Democratic candidate in the general election, Ms. Chang easily won the general election for Senate District 1, obtaining 72% of the vote and an estimated 95%+ of the BVAP vote. Ex. 2, p. 54.

⁵ Using the same methodology Dr. Handley used in the Senate table, the Threshold for the House also should have been 47% BVAP or more. Similar to the State Senate, there were no State House districts with BVAP levels between 37% and 46%. Ex. 2, p. 25-26; Ex. 3, pp. 18-19. Dr. Handley's State House Threshold Table identifies 36% as the number needed to elect minority candidates of choice. Ex. 2. However, her analysis overlooked the fact that

was not provided for Congressional elections.

To summarize Dr. Handley's analysis, for Wayne and Oakland Counties, the election analysis showed that Black voters had the opportunity to elect candidates of choice in the *general election* with BVAP numbers ranging between 35% and 40%. Ex. 4, pp. 13-16. However, the Threshold Tables, which reflected **primary results**, suggested higher amounts were likely necessary (48% in the State Senate and between 47% and 52% in the State House) for Black voters to have an opportunity to elect their candidates of choice in primaries. Ex. 4, p. 18-19. Because VRA compliance requires the ability to elect candidates of choice *in both elections*, the Commission should have taken a conservative approach by using higher BVAP numbers (approximately 48%) when constructing districts in all maps. Ex. 5, pp. 1410-1411. This approach would have been the most protective of the voting rights of Black voters.

The Commission's Directions From Counsel

Armed with Dr. Handley's report and data, the Commission began drawing maps following this approach and drew districts in the Metropolitan Detroit area with BVAP percentages around 50%. After completing districts in most of the Metropolitan Detroit area, the Commission's counsel intervened and began aggressively pushing the Commission to reduce the BVAP numbers to as close to the general election percentages (35% to 40%) as possible. Ex. 6, Sept. 13 Email. This pressure was most evident at

the minority candidate elected at the 36% threshold was not the candidate of choice for Black voters. Although all districts above 36% elected minority candidates, and in State House District 29 (BVAP 36.04%) a Black candidate was elected, this candidate was not the candidate of choice for Black voters. Ex. 2, p. 25, 67. The Black voters' candidate of choice (Kermit Williams) did not survive the primary, even though he received approximately 50% of the Black vote. Id. In comparison, Brenda Carter, a Black woman, won the primary with 30.7% of the vote, having received over 59% of the votes cast by white voters. Id. Thus, in a district with 36% BVAP, Black voters were not able to have their candidate of choice (Kermit Williams) survive the primary to be considered at the general election. Once again, as expected, the winner of the Democratic primary, Brenda Carter, easily won the general election for House District 29, obtaining 72.9% of the vote and an estimated 95%+ of the BVAP vote. Ex. 2, p. 58. By comparison, in the 6th House District (53% BVAP), the candidate of choice favored by Black voters (Tyrone Carter – with approximately 70% of BVAP vote) was able to prevail in the primary, even though white voters did not prefer that candidate. Ex. 2, p. 25, 68. Dr. Handley did not provide estimates for Black voters for District 4, where Abraham Aiyash was elected, because so many candidates ran for election in that primary that Dr. Handley could not ascertain the minority-preferred candidate. Thus, the Threshold of Representation for State House districts should have been somewhere between the BVAP of Mr. Aiyash's district (47% BVAP in the 4th district) and the 53% BVAP in Mr. Carter's district (the 6th district).

⁶ The variation in the target BVAP percentages was attributable to primary and general election disparities in both the White Crossover Vote and voter turnout.

⁷ If the Commission had exercised its discretion to use BVAP percentages higher than the general election values, and those numbers proved to be too high, Black voters' candidates of choice would still have a reasonable chance of election and a future Commission would have the ability, based on a decade of data, to adjust the numbers further downward. On the other hand, if the general election BVAP thresholds adhered to by the Commission are too low, Black voters may spend a decade being injured by not having an opportunity to elect candidates of choice. The Commission should have had a careful discussion balancing the risks and benefits of both approaches. In lieu of having that discussion, the Commission yielded that decision-making to its counsel.

the September 30, 2021, Commission meeting in Rochester Hills, where the Commission was expressly directed to identify "anything that is higher than 40% for the black voting age population" and "those quote unquote fixes can be dealt with." Ex. 7, Sept. 30, 2021, AM Meeting Transcript, pg. 21; See Ex. 7, p. 22. Despite Dr. Handley's analysis showing that the required BVAP for primary elections was likely higher than the required BVAP for general elections, the Commission acquiesced to its counsel and redrew each of its existing maps in the Metropolitan Detroit area based on the general election BVAP "targets" of 35% to 40%.

The Public Response

Having witnessed the low percentages of BVAP that the Commission was being directed to achieve, Metropolitan Detroiters appeared in force to question whether the Commission's maps would provide Black voters in Metropolitan Detroit with an opportunity to elect their candidates of choice in the primaries. *See* Ex. 8⁸, Detroit Hearing Transcript, Oct. 20, 2021. The Commission received hundreds of comments objecting to the low BVAP percentages in its draft maps. Ex. 8. Additionally, Jerome Reide, a legislative liaison from the Michigan Department of Civil Rights, and John E. Johnson, Jr., the Executive Director of the Michigan Department of Civil Rights, also both presented letters to the Commission indicting their belief that the Commission was violating the Voting Rights Act.

As voters testified, the Metropolitan Detroit area is solidly Democratic, with elections in Wayne County generally favoring Democrats by 20 percentage points or more. Ex. 8. Reliably, whoever wins the Democratic primary in Wayne County will win the general election. *Id., see* Ex. 2. Thus, for Black voters to be able to elect their candidate of choice, that candidate of choice *must be able to succeed in the Democratic primary*. Ex. 8. The public asserted that general election results were neither reliable nor valid indicators of whether Black voters would be able to elect candidates of choice. *Id.* By ignoring the outsized role of the Democratic primaries in the Metropolitan Detroit area and focusing on the 35% and 40% range derived from general election data, the public stated that the Commission was poised to disenfranchise Black voters by denying them the opportunity to elect their candidates of choice. *Id.*

The Commission Declines to Correct Its Course

Following several hearings and meetings, including the October 20 Detroit Public Hearing, some Commissioners began questioning the validity of its attorneys' directives to draw districts using the

⁸ Due to its length, I have attached only a portion of the transcript from the October 20, 2021, public hearing in Detroit. The full transcript is available at: https://www.michigan.gov/micrc/-/media/Project/Websites/MiCRC/Transcripts1/MICRC Meeting Transcript 10 20 2021.pdf?rev=a378536e31c446 a494555afb9672b019&hash=0E0BEC4295A48C46AEB4689E2C0299D4

general election BVAP percentages supplied by Dr. Handley's report. The Commission's response to those concerns should have been to return to the expert who prepared the RPV analysis (Dr. Handley) to seek her opinion with respect to the concerns of the public. Instead, once again at the direction of counsel, the Commission held a closed session with its counsel (rather than Dr. Handley) to discuss the concerns of voters. Ex. 9, Oct. 20, 2021, Email. This meeting was merely a reiteration of the same legal advice that had resulted in the objections from Metropolitan Detroiters in the first instance. Closed Session Hearing, Oct. 27, 2021. At this meeting, the concerns of Metropolitan Detroiters were cast as advocating "not to follow the law." Id. at 1:03:46. This messaging was repeated in email messages to Commissioners in advance of the meeting as well, where Commissioners were directed to disregard the comments as being "advanced by lobbyists and politicians driving emotion." Ex. 10, Oct. 18, 2021, Email. Commissioner comments during the closed-door meeting exemplify the adoption by some Commissioners of these recharacterizations of the concerns of voters. Closed Session Hearing, Oct. 27, 2021 (Commissioner at 1:01:50: "I also reflected on the Detroit hearing...they were just wrong...their comments were not backed by anything other than their feelings"; Commissioner at 39:13: "I think...I hope we all recognize, at least I think, many of the many, many, many of the comments that we heard, while they were saying that it was a VRA issue, it's a partisan issue. They have an agenda. And we need to be able to spot that and weed that out and not fall for that."; Commissioner at 1:20:12: "I just want to remind us all that...it was set up so that we hear from citizens, but, I think, at this point, we need to, kind of, shut out all the criticisms that are coming and all the pressure because these are all motivated."). In this echo chamber created by its counsel, Commissioners were dissuaded from making further adjustments to the maps. Acceding to these pressures, the Commission abandoned further inquiry into whether higher BVAP percentages were needed and, instead, deferred to the advice of counsel.

Although the Commission itself did not directly seek clarification from Dr. Handley, Dr. Handley attempted to alert the Commission of its impending error. Specifically, Dr. Handley warned Commission staff¹⁰ on December 10, 2021, that the Commission's maps had BVAP levels too low to allow Black

⁹ The audio from this meeting is available at: https://www.michigan.gov/micrc/additional-pages/MSC-163823-Materials under the heading, "Closed Session Audio Recording, Oct. 27." A transcript of this hearing was not available at the time of the preparation of this Report.

¹⁰ This information was not conveyed to the Commission by its general counsel and other staff members were directed by the general counsel not to share Dr. Handley's concerns with Commissioners. Uncomfortable with the general counsel's direction, staff members informed me of Dr. Handley's concerns and I relayed those concerns to several Commissioners on December 15, 2021. Ex. 11, December 15, 2021, Email. For clarification, I incorrectly stated in my December 15 email, based on my misunderstanding at the time, that Dr. Handley's analysis was flawed. The Commission's understanding of Dr. Handley's analysis was flawed, not the analysis itself.

voters the opportunity to elect their candidates of choice. Ex. 11, Email. Dr. Handley reaffirmed these concerns on December 27, 2021, noting that the Commission does not know if its maps will provide minority voters with an opportunity to elect candidates of choice in the Democratic primary:

Unfortunately we do not have sufficient information to anticipate what might happen in future Democratic primaries in the proposed districts. The reason is that we have only one statewide Democratic primary for which we can recompile results and minority voters were not cohesive in this primary. We simply do not know what would happen in a primary in which minority voters are cohesive."

Ex. 1, Dr. Lisa Handley, December 27, 2021

Despite vigorous public comment, evidence from its own expert indicating that higher BVAP percentages were needed, and plenty of time to act to change the maps, the Commission instead voted on December 28, 2021 to not allow adjustments to the maps. ¹¹ Ex. 16, p. 85. The Commission had no data or evidence to suggest that Black voters will have an opportunity to elect candidates of choice in the Democratic primary with BVAP percentages of 35%, 40%, or even 45%. Ex. 2, Ex. 3. Undeterred, the Commission approved the Chestnut map, with BVAP populations of 43.81% (District 12) and 44.70% (District 13).

Conclusion

In conclusion, given the concerning data derived from primary elections and warnings from both the public and the Commission's RPV expert, the Commission's approach to compliance with the VRA was anything but data-driven, evidence-based, or participatory. The Commission's approach was to follow a will-o'-the-wisp and rely on the hope that general election thresholds will magically translate into Black voters' candidates of choice advancing past the Democratic primaries. Because the Commission did not have evidence or data to establish that these BVAP levels are sufficient to allow Black voters to have an opportunity to elect their candidates of choice in both the primary and general elections for either its Congressional, State Senate, or State House maps, I dissent to the adoption of the Chestnut Congressional Map.

Recommendation for Future Commissions:

 In determining the requisite minority voting populations necessary for minority voters to have an opportunity to elect their candidates of choice, future Commissions should utilize the higher of the general election or primary election results to establish "target" BVAP ranges.

¹¹ Commissioners Kellom, Curry, Lange, Wagner, and I voted against precluding changes to the maps (i.e., those Commissioners were in favor of changing the maps).

- 2. To ensure full and complete understanding of expert reports, all discussions of data and analysis regarding the requisite level of minority populations necessary to permit minority voters an opportunity to elect candidates of choice should require the attendance of the data scientist who conducted the analysis (in this case, Dr. Lisa Handley). Staff and other consultants should not be permitted to interpret the recommendations or conclusions of data scientists for the Commission.
- 3. Expert analysis of draft map compliance with the Voting Rights Act (and other metrics) should be received before maps may advance to the 45-day public comment period.
- 4. To the extent there is ambiguity or uncertainty regarding what BVAP levels are appropriate, Commissioners should openly and publicly discuss any concerns fully and vote on recommendations. The Commission should not rely on non-analyst determinations of the appropriate percentage levels.
- 5. The Commission, not staff or consultants, should evaluate the validity and import of public comments.

OBJECTION 2 | CRITERIA #3 COMMUNITIES OF INTEREST

I dissent to the Chestnut map to the extent it fails to take into consideration and accommodate the following seven communities of interest that were identified as significant by the Commission and incorporated into other Congressional, State Senate, and State House Maps.

Community of Interest 1: Bengali Community of Interest

The Bengali community identified Hamtramck and portions of Warren and Macomb County as being a community of interest that should be kept together. This community of interest was divided into two in the Chestnut Congressional map. The Chestnut map is the only final proposed Congressional map published by the Commission that divides this community of interest.

See comments p1511 (Mariam Akanan), p4107 (Nada Alhanooti, Hamtramck), f1514 (Tufayel Reza, Warren), f1516 (Iqbal Hossain, Hamtramck City), f1460 (Nurun Nesa, Warren), f1459 (Nazmin Begum, Warren); w1456 (Sumon Kobir, Warren Township), w1398 (Muzadded Abdullan, Warren City), p1037 (Rebeka Islam, Hamtramck), Map submitted via Portal Comment by Hayg Oshagan, 9/8/2021

Community of Interest 2: Jewish Community of Interest

Eighty percent of the Metropolitan Detroit-area Jewish community resides in the "core" Oakland County communities of Berkley, Commerce Township, West Bloomfield, Bloomfield Hills, Birmingham, Franklin, Farmington, Farmington Hills, Royal Oak, Oak Park, Huntington Woods, Walled Lake, and

Southfield. Seven percent of Jewish households live in the Southfield area and 12% of the population of Southfield is Jewish. Franklin also contains a significant Jewish population. Despite requests to keep Southfield and Franklin with the remainder of the Jewish community in the "core" area, the Chestnut map isolates and separates Southfield and Franklin from the remainder of the Jewish community of interest. The Chestnut map is the only final proposed Congressional map published by the Commission that divides this community of interest.

See comments w746 (Todd Schafer, Beverly Hills); c1803 (Menachem Hojda, Oak Park); c5247 (Judah Karesh, West Bloomfield Township); w1000 (Charlotte Massey, Royal Oak)

Community of Interest 3: Indigenous Population Community of Interest

The Commission received many comments from members of Indigenous populations, who specifically identified their populations as communities of interest throughout the State. The Indigenous populations specifically identified the service areas for the Indian Health Services clinic run by the Nottawaseppi Huron Band of the Potawatomi and the American Indian Health & Family Services clinic in the Detroit area as communities of interest. In addition, Meredith Kennedy, the author of these comments and a representative for and member of the Indigenous populations, specifically identified the Birch map as being the map that best preserved these communities of interest. The Chestnut map does not preserve the community of interest of the Indigenous populations.

See comments p5531, p5527, and p5525

Community of Interest 4: LQBTQ+ Community of Interest

The Commission also received many comments from members and allies of the LQBTQ+ community, who identified their community of interest as encompassing the communities of Southfield, Oak Park, Pleasant Ridge, Huntington Woods, Ferndale, Hazel Park, and the Detroit neighborhood of Palmer Park. The Chestnut map divides this community of interest into three separate districts.

See comments w1924 (Oscar Renautt, Oak Park), w5790 (Ivy Nicole), w5669 (Sarah, Ishpeming Township), w5473 (Troy, Detroit), w5471 (Kathy Randolph), f3493 (Michael Rowady), c777 (LGBT Detroit, Detroit), c819 (LGBT Detroit, Detroit), w1287 (Midge Cone, Ann Arbor), and w1306 (Sue Hadden, Ann Arbor).

Community of Interest 5: Sikh Community of Interest

The Sikh community of Troy and Rochester Hills also identified their community as a community

of interest and requested that the Troy and Rochester Hills Sikh community of interest stay together. The Chestnut map divides this community.

Ex. 8, p. 16; Ex. 16, p. 19.

Community of Interest 6: Asian Pacific Islander and Chaldean Populations in Oakland/Macomb Counties Community of Interest

Members of the Asian Pacific Islander and Chaldean communities in eastern Oakland County and western Macomb counties also identified themselves as a community of interest. The Chestnut map divides these populations in two by following the township boundary between the 10th and 11th districts for Oakland and Macomb County. Thus, the Chestnut map divides the Asian Pacific Islander and Chaldean community of interest.

See comments w8699 (Daniel G, Troy) and p7262 (Yousif, Troy).

Community of Interest 7: Arab & Middle Eastern/North African Community of Interest

Members of the Arab or Middle Eastern/North African (MENA) community in Wayne County also identified themselves as a community of interest. The Chestnut map divides these populations in two. Thus, the Chestnut map divides the Arab or Middle Eastern/North African (MENA) community of interest.

See comment c1510 (Mariam Akanan, Dearborn), with supporting comments from Jamie Kim (Dearborn) and Mariam Bazzi (Dearborn).

Although the Commission had the discretion to determine which communities of interest it would incorporate into its maps, it is striking that these seven communities of interest were specifically identified for inclusion in all other "collaborative" Commission maps yet excluded, without explanation, from the Chestnut map. The Commission did not assess whether these communities of interest could have been accommodated within the Chestnut map and did not explain why these communities of interest were abandoned by the Commission in the Chestnut map. Due to the unexplained failure to accommodate the seven above-referenced communities of interest, I dissent to the adoption of the Chestnut Congressional map.

Recommendation for Future Commissions:

- Future Commissions should maintain records of communities of interest incorporated into
 various draft maps along with specific details as to why communities of interest were
 included in some maps but not others.
- 2. To the extent maps exclude communities of interest included in other maps, a full

accounting as to the rationale for that exclusion must be documented, along with a detailed explanation as to why the excluded community of interest could not be reasonably accommodated in the excluding map.

OBJECTION 3 | CRITERIA #4 PARTISAN FAIRNESS

I dissent because each of the Commission's Congressional, State Senate, and State House maps, including the Chestnut, could have achieved improved (i.e., closer to zero) partisan fairness metrics. Although the redistricting software licensed by the Commission, AutoBound Edge, contained a full complement of political and partisan data and tools, the Commission was directed by its general counsel that the Commission was precluded from considering election data and partisan fairness metrics when drawing its initial Statewide maps. Specifically, the Commission was advised by its general counsel that the Constitution "actually prohibits the Commission from considering the election results while they are mapping" and that the Commission was "legally prohibited from" considering election data in drawing maps. Ex. 7, Sept. 30, 2021, AM Transcript, pp. 66-67. As noted by members of the public, the Constitution contains no such restrictions. Ex. 12, Sept. 30, 2021, PM Transcript, p. 9.

To prevent Commissioners from viewing election data and partisan metrics during mapping, the Commission's general counsel further directed the Commission's mapping vendor, EDS, to disable and keep "hidden" the partisan fairness metrics, election data, and other political data and reporting features in AutoBound Edge. Ex. 13, Oct. 6 2021, Email. The Commission was unaware of this direction and did not consent to it. Handicapped by this lack of access, the Commission began drawing maps in August of 2021 without access to key functionality in the mapping software that it had paid for. These features were not re-enabled until after the completion of draft maps in October and required a software update. Ex. 14, October 3, 2021, Email from Kimball Brace ("One of the things that staff and I need to discuss on Monday is how much of some of the additional reports do you want to unveil. Like this political fairness report there are a bunch of other data, tables and reports that are possible in EDGE, but we should talk about what do we want to release.")

The Commission's lack of access to partisan fairness metrics until after maps were drawn resulted in rushed attempts to fix woefully non-compliant maps. Further, even after Commissioners were granted access to partisan fairness tools, Commissioners were repeatedly directed by the general counsel to "stop chasing zero" – meaning to cease trying to improve the partisan fairness metrics of the draft maps, even though improvements in such metrics were unquestionably achievable (and had been achieved by several Commissioners) without altering adherence to higher-ranked Constitutional

criteria.

Moreover, maps with improved partisan fairness metrics were hampered from public release by the Commission's counsel. For example, around September 30, 2021, a Commissioner produced what had been described by the general counsel as a "perfect" Congressional map. The general counsel described the map as having a "0%" efficiency gap and a "0%" mean-median measurement. The general counsel and other consultants decided that this Commissioner's map could not have been produced without improper outside influence. Thus, the general counsel accused the Commissioner of violating the Constitution and pressured the Commissioner to withhold the map from the public and his fellow Commissioners ("Bruce and I remain steadfast in our recommendation to [REDACTED] that he not advance his map we discussed with him last week..."). Ex. 15, October 4, 2021, Email. Because of this interference, the Commissioner did not present the map to the Commission or the public and, further, altered the map to increase the partisan fairness metrics, tilting the "perfect" map in favor of Republicans. Ex. 15. This map — which deliberately inflated the partisan fairness metrics in favor of Republicans — was the predecessor to the Chestnut map. As a result of these pressures, the Chestnut map is a less-partisan-fair version of another map.

As evidenced by a Commissioner's supposedly "perfect" map and other maps, ¹³ the Commission could have produced Congressional, State Senate, and State House maps with better (meaning closer to zero) partisan fairness metrics, without compromising other Constitutional criteria. Because maps with better partisan fairness metrics were actually achieved yet hindered from public production, I dissent to the adoption of the Chestnut map.

Recommendation for Future Commissions:

- 1. Future Commissions should have access to all partisan fairness and political data and reporting functionality while drafting maps.
- Commissioners, not staff or consultants, should make decisions regarding access to data, tools, and maps.

OBJECTION 4 | INEQUITABLE ACCOUNTING AND TREATMENT OF PUBLIC COMMENTS AND INAPPROPRIATE ATTEMPTS TO INFLUENCE PUBLIC COMMENTS

I dissent to the adoption of the Chestnut Congressional map because it was not the map

¹² Ironically, the general counsel's failure to be forthright with the full Commission with respect to her concerns about this Commissioner's map may have enabled the adoption of a revised version of the very map that she objected to.

¹³ Similarly, the Szetela House map was a more-partisan-fair version of the Hickory, without deleterious impacts on higher-ranked Constitutional criteria.

preferred by the public. The Birch map, not the Chestnut map, was the Congressional map that the majority of the public supported. Due to the Commission's lack of an organized accounting system to track public comments and failure to equally weigh all comments, some Commissioners erroneously concluded that the Chestnut map had the greatest public support. Since the Birch map actually had the greatest public support, this was in error.

The Commission was tasked with soliciting "wide" and "meaningful public participation" as part of its Constitutional obligations. Const. 1963, Art. IV., §6(10). Accordingly, the Commission diligently solicited public feedback, resulting in the Commission receiving nearly thirty thousand public comments throughout the redistricting process. ¹⁴ After the approval and advancement of final proposed maps to the 45-day public comment period on November 1, the Commission received comments via public meetings ("In-Person Comments"), via the online public comment portal ("Portal Comments"), and via comments placed directly on the maps themselves on the Mapping Page ("Mapping Comments"). ¹⁵ Unfortunately, the Commission lacked a systematic method of tallying, recording, and reporting public comments.

Recognizing this deficiency on the part of the Commission, members of the public attempted to fill the gap. For example, a woman named Nicole Bedi tallied Mapping and Portal Comments and reported the tallies. Ex. 16, December 28, 2021, Transcript, p. 19. Specifically, Ms. Bedi reported that the Birch map received the greatest number of positive comments (with 67% of comments positive). Ex. 16, p. 19. As further noted by Ms. Bedi, only 55% of the Chestnut map's comments were positive. *Id.* With 67% of its 819 comments positive, the Birch map received 548 positive comments. In contrast, the Chestnut map (with only 55% of its 828 comments being positive) received only 455 positive comments. Ex. 16, p. 19. Thus, the Birch map had over 20% more favorable comments than the Chestnut map. Other members of the public conducted similar examinations of the public record and provided their reports to the Commission. Each of those reports indicated that the Birch map was the most preferred.

Rather than relying on these or other mathematical tabulations, the Commission's evaluation of public comments was haphazard and inconsistent. Some Commissioners did not routinely read Portal or Mapping Comments. Other Commissioners did not read a single Portal or Mapping Comment. Some

¹⁴ The Commission's 2022 Communication and Outreach Report is available at: https://www.michigan.gov/micrc//media/Project/Websites/MiCRC/MISC5/MICRC-CO-

^{031022.}pdf?rev=e1e5911a7d264fa997475f9270d6380a&hash=D6FB5458F97A8339A47E7FAAFE75AEAE

¹⁵ Portal Comments and Mapping Comments are available on the www.michigan.gov/micrc website.

Commissioners weren't attentive to In-Person Comments. In contrast, at least one Commissioner seemed to value In-Person Comments more than Mapping or Portal Comments. ¹⁶ Ex. 16, p. 82-83, ¶5. Additionally, despite the fact that In-Person Comments in favor of the Birch were ubiquitous, some Commissioners appeared to inexplicably disregard those In-Person Comments. Ex. 16, p. 80-81, ¶1 and ¶3. Had the Commission created a recording and tracking system for public comments, many of these inconsistencies and discrepancies could have been avoided.

Lastly, at least one Commissioner attempted to sway public votes in favor of his preferred maps. Specifically, on December 20, 2021, prior to the Commission's final vote on the maps, a Commissioner individually met with two groups that had been particularly engaged during the redistricting process, ACCESS and APIAVote Michigan. It was the practice of the Commission that all public interactions be coordinated and publicly noticed through the Commission's staff and that Commissioners appear in groups. The rationale behind those practices was to prevent Commissioners from interactions with the public that could undermine the Commission's goals of transparency and openness. Disregarding those practices, the Commissioner individually arranged and attended this meeting. At the meeting, the Commissioner repeatedly suggested that the Chestnut map was the public's preferred map, informing both groups "you liked the Chestnut Congressional Map," and specifically advocating for both groups to submit "more comments like that." To her credit, the representative from ACCESS corrected the Commissioner and stated that the Birch map was actually the map preferred by her group for the State of Michigan. Despite this Commissioner's efforts, the Chestnut map still received fewer favorable votes than the Birch map.

Using objective measures, in addition to receiving a greater number of favorable comments, the Birch, not the Chestnut, map had the greatest number of votes in favor of adopting the map between the dates the maps were published and the date the map was ultimately adopted. Between November 1, 2021, and December 28, 2021, the Birch map received approximately 15% more votes in its favor of its adoption than the Chestnut map. ¹⁸ Additionally, when considering votes in favor of the Birch prior to

¹⁶ One Commissioner mistakenly believed there were comments in favor of the Chestnut map at the "next five" public hearings, which were held between October 20 and October 26. Ex. 16, p. 82-83, ¶5. The Chestnut map was not created or named until November 1. Therefore, the Commission could not have received In-Person Comments in favor of the Chestnut map at October hearings/meetings because the Chestnut map did not exist at that time. This confusion illustrates the precise problem with relying upon memory rather than objective measures.

¹⁷ This meeting was recorded and posted on APIAVote Michigan's Facebook page on December 27, 2021, but I was unaware of the existence of the video or its contents until after the Commission voted on the maps on December 28, 2021. As of the date of this Report, the video is available at: https://www.facebook.com/apiavotemi/.

¹⁸ Although the Birch map received a great many comments urging its adoption before November 1, 2021, and

November 1, 2021, the Birch map was irrefutably the public's preferred map, with substantially greater public support than the Chestnut.

| Source | | Support Birch | Support Chestnut |
|---------------------|----------------------------------|---------------|------------------|
| | Mapping Comments | 294 | 204 |
| | Portal Comments | 98 | 81 |
| | In-Person Comments ¹⁹ | 50 | 101 |
| Total ²⁰ | | <u>442</u> | 386 |

The Chestnut map was not the public's preferred map by any measure.

The Commission was not obligated to adopt a particular map based solely on the weight of public opinion. However, because the Commission was required to solicit (and did solicit) public participation, the Commission should have accurately documented, analyzed, and given meaningful consideration the comments received from the public. It failed to do so. In part due to the failure to appropriately tally, measure, and account for public comments, the Commission failed to adopt the map preferred by the public and, instead, voted to approve a map the public did not prefer. For these reasons, I dissent to the adoption of the Chestnut map by the Commission.

Recommendation for Future Commissions:

- 1. Future Commissions should maintain a public, running tally of unique "votes" in favor of any maps published for the public's consideration. This tally should include all unique votes received for a particular map during the duration of its publication to the public.
- 2. Multiple votes by the same individual should be counted as a single vote. The Commission should establish processes to prevent the same individuals from casting multiple votes.
- 3. In-person, written, and online comments should be weighted equally.
- 4. Vote tallies should quantify the percentage of positive and negative comments with respect

those votes in favor are still relevant and important, I focused solely on the time period where both maps had been published for consideration. Considering votes before November 1, 2021, would have resulted in an even greater number of votes in favor of the Birch.

¹⁹ In the November 1 through December 28 time frame, the Chestnut map received more support than the Birch map via In-Person Comments; however, the Birch map received significantly more support in writing via Portal and Mapping Comments. Commissioners who never or rarely read Portal and Mapping Comments incorrectly believed the Chestnut map had greater support, when, in fact, the Birch map was the public's preferred Congressional Plan. ²⁰ I personally tallied the number of Portal, Mapping, and In-Person for the Birch and Chestnut maps to reach these results. In making these tallies, I only treated a comment as "in favor of adopting" of a map when the commentor specifically described one map as being superior to others using superlatives or other clear indicators of preference (e.g., "best map," "fairest map," "adopt this one," etc.). I disregarded comments generally describing a map as "fair" or "balanced" as well as comments ranking two maps as equal (e.g., "either the Chestnut or Birch"). I also disregarded unfavorable comments. In addition, I only considered votes after the date the Chestnut was created (November 1, 2021).

- to a particular map.
- 5. Commissioners should not meet individually with groups or individuals to discuss redistricting matters.
- 6. Commissioners should not be permitted to "steer" or direct public opinion toward particular maps. In interactions with the public and press, Commissioners should remain neutral with respect to their preferred maps until the date of deliberations.
- 7. To enable the seamless incorporation of public mapping proposals, the Commission should verify that mapping tools used by the public to submit maps are compatible with mapping software used by the Commission.
- 8. To the extent a future Commission elects to adopt a map in spite of the weight of public comment with respect to that map, the Commission should provide, at a minimum, a rationale for its decision.

OBJECTION 5 | IMPROPER CONSIDERATION OF COMPETITIVENESS

In addition to receiving fewer positive public comments and fewer favorable public votes than other maps, a significant percentage of positive comments favoring the Chestnut map did so due to the supposed "competitiveness" of the map. Competitiveness is not among the Commission's seven ranked Constitutional criteria. Further, the Commission was repeatedly advised that it could not consider competitiveness as a factor ("I have consistently stated that competitiveness is not a constitutional criteria in Michigan. Attempting to add this consideration as a criteria [sic] creates a significant legal problem and leaves the MICRC wide open to a court challenge. First, there is no legal basis for including competitiveness in the criteria that the MICRC is constitutionally mandated to follow. This would likely be viewed as arbitrary and capricious by a court, particularly after receiving legal advice against inserting competitiveness.") Ex. 17, Sept. 20, 2021, Email.

Although the Constitution does not list competitiveness as a factor, the Constitution does not prevent the Commission from considering other factors *after* verifying compliance with the seven ranked Constitutional criteria. However, several Commissioners stated during deliberations that they primarily favored the Chestnut due to its "competitiveness," above consideration with respect to how the Congressional maps compared with respect to the seven ranked Constitutional criteria. Ex. 16, p. 77, p. 80 (¶1-2), and p. 81 (¶3). In so doing, the Commission elevated a non-Constitutional criterion above the seven ranked Constitutional criteria. Thus, I dissent to the adoption of the Chestnut map to the extent the Commission improperly considered "competitiveness" as a primary factor in adopting

the map.

Recommendation for Future Commissions:

- Future Commissions should not consider non-ranked criteria above Constitutionally ranked criteria.
- 2. Future Commissions should evaluate how to treat comments promoting criteria not specified by the Constitution.
- 3. If future Commissions desire to consider non-Constitutional criteria, such consideration should only occur after an evaluation and ranking of potential plans compliance with non-Constitutional criteria.

OBJECTION 6 | FAILURE TO ENGAGE IN OPEN AND TRANSPARENT DELIBERATIONS

Lastly, I dissent to the adoption of the Chestnut map because the Commission failed to deliberate on the maps comprehensively, openly, transparently, and objectively. The Commission deliberated for a mere 20 to 25 minutes before commencing voting on the Chestnut map. Deliberations on the Linden and Hickory maps were similarly brief. The Commission did not evaluate, compare, or contrast plans for their compliance with each of the Constitutional criteria in any systematic or comprehensive manner. Additionally, no attempts were made to rank plans based on objective measures. This lack of meaningful analysis and discussion of which maps best conformed to the Constitutional and other criteria did not fulfill the Commission's mission of an open, transparent, objective, and data-driven process. Thus, I dissent to the adoption of the Chestnut Congressional map.

Recommendation for Future Commissions:

- Future Commissions should schedule several open meetings to deliberate over proposed plans.
- 2. Evaluations of compliance with each Constitutional criteria should be conducted well in advance of final deliberations and voting.
- 3. Proposed maps should be compared, contrasted, scored, and ranked in accordance with their compliance with the Constitutional criteria.

Conclusion

In summary, I dissent to the adoption of the Chestnut map with respect to its compliance with Constitutional Criteria 1 (Voting Rights Act Compliance), 3 (Communities of Interest), and 4 (Partisan Fairness). I also dissent to the adoption of the Chestnut map because the Commission improperly weighed considerations of competitiveness in adopting the map. Additionally, I dissent to the adoption of the Chestnut map because the Commission neglected to consider and equally weigh all public

comment received in a support of the various Congressional maps and, as a consequence, adopted a map not preferred by the public. Finally, I dissent due to the lack of open, transparent, and data-driven deliberations regarding the maps.

Respectfully submitted,

Rebecca Szetela Rebecca Szetela

Dated: June 24, 2022

Exhibit 1

From: Irhandley@aol.com

Sent: Monday, December 27, 2021 9:25 PM

To: Szetela, Rebecca (MICRC)

Cc: Rothhorn, MC (MICRC); Pastula, Julianne (MICRC); badelson1@comcast.net

Subject: Re: MICRC Questions

Follow Up Flag: Follow up Flag Status: Completed

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Dear Rebecca.

Both the threshold tables on 26 and 27 and the recompiled election results for Dillard are important tools for estimating whether minority candidates of choice can win in the proposed districts. The two approaches, at least in this instance, do not contradict one another with regard to the general election - the minority preferred candidate wins all of the general election above 35% in the state senate threshold table as well as the state house threshold table. It is the Democratic primary that is the stumbling block in the senate threshold table (I am referring to State Senate District 1 and the fact that the winner was not the candidate of choice of Black voters in the primary - she was, however, the minority candidate of choice in the general).

Unfortunately we do not have sufficient information to anticipate what might happen in future Democratic primaries in the proposed districts. The reason is that we have only one statewide Democratic primary for which we can recompile results and minority voters were not cohesive in this primary. We simply do not know what would happen in a primary in which minority voters are cohesive.

(The reason that recompiled election results are especially important is that they take into account the voting patterns of the actual voters that will reside in the newly proposed district.)

Best wishes, Lisa

Dr. Lisa Handley

—-Original Message-

From: Szetela, Rebecca (MICRC) <SzetelaR@michigan.gov>

To: SA HANDLEY ! To: SA HANDLEY salkandley@aol.com

Cc: Rothhorn, MC (MICRC) < Rothhorn M@michigan.gov>

Sent: Mon, Dec 27, 2021 2:24 pm

Subject: MICRC Questions

Good afternoon, Dr. Handley! I have some follow up question on your report to the MICRC. I understand you will be unavailable tomorrow, so Sue suggested I email a list of questions to you.

I am trying to reconcile the information contained on pages 26 and 27. My understanding is that the table on page 26 was intended to test the "breakpoint" between districts that are electing candidates of choice versus those that are not. Table 10 on page 26 indicates that for the Michigan State Senate, districts with BVAP of 47% or lower are not able to elect

candidates of choice. This is concerning since none of our currently proposed Senate maps (Palm, Cherry, Linden) exceed 45% BVAP. Based on this table alone, I read your report to suggest that our Senate maps need to be above 48% to create opportunity to elect districts and that revisions may be necessary.

However, when I read the text on the next page (re: bellweather elections, particularly the 2014 SOS race with Godfrey Dillard), I draw a different conclusion.

I wondered how our districts are performing looking at that election. To test the maps, I ran the Linden and Cherry election results for the Dillard election. I also edited the Linden to increase the BVAP to 45% and Linden/Cherry maps to increase the BVAP to 48% for comparison purposes. Comparing the election results for the 2014 SOS election, Dillard would have won handily in all five districts, regardless of whether the BVAP was as low as 35% or as high as 50%.

Senate Maps - BVAP Percentages

| | | <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u> | | | | |
|--------------|-------------|---|--------------------|----------|---------------------------|------------------|
| | Linden Plan | | Revised Linden 45% | | Revised Linden/Cherry 48% | |
| District No. | | | | Dillard | | |
| | BVAP | Dillard Election | BVAP | Election | BVAP | Dillard Election |
| 1 | 35.03% | 71.74% | 45.23% | 79.97% | 50.95% | 84.53% |
| 3 | 42.09% | 76.23% | 45.39% | 78.54% | 48.24% | 80.45% |
| 7 | 44.78% | 63.19% | 46.59% | 64.89% | 50.70% | 66.74% |
| 8 | 40.25% | 65.15% | 45.20% | 68.40% | 49.65% | 70.81% |
| 10 | 40.43% | 62.57% | 45.98% | 66.49% | 48.15% | 68.25% |

This reassures me that maybe our Senate maps are OK with their percentages as they stand? Or am I misunderstanding your analysis? If you could clarify I would appreciate it.

On a related note, I do think that part of the variation in results in current District 1 on Table 10 relates to the combination of communities. In the current district 1, you have very little of Detroit plus Harper Woods combined with Grosse Pointe Woods and Grosse Pointe Shores, which are both wealthy and white with high voter turnout. I suspect part of the variation in District 1 may relate to variations in voter turnout between the wealthier Grosse Pointes vs. the considerably less well-heeled Detroit and Harper Wood. I would expect the Grosse Pointes preferred candidate to be elected given the makeup of that district (which is part of the reason why we drew that district differently in our Senate maps).

| Thank you so much for any clarification |
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|---|

Rebecca Szetela

Commissioner

Michigan Independent Citizens Redistricting Commission

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Exhibit 2

Report to the Michigan Independent Citizens Redistricting Commission Dr. Lisa Handley

Preface

This report outlines the analyses I conducted on behalf of the Michigan Independent Citizens Redistricting Commission (MICRC) and relays my findings. I also briefly explain the partisan fairness measures I advised the MICRC to adopt as a component of the redistricting software and why I made these recommendations. The legal implications of my findings and the assessment of any proposed plans have been left to the MICRC legal team.

I. The Voting Rights Act and Racially Polarized Voting

The Voting Rights Act of 1965 prohibits any voting standard, practice or procedure – including redistricting plans – that result in the denial or dilution of minority voting strength. Section 2 of the Voting Rights Act was amended in 1982 to establish that intentional discrimination need not be proven (as the Supreme Court determined was required under the 15th Amendment to the Constitution). The U.S. Supreme Court first interpreted the amended Act in *Thornburg v. Gingles*, ¹ a challenge to the 1982 North Carolina state legislative plans. In this case the U.S. Supreme Court held that plaintiffs must satisfy three preconditions to qualify for relief:

- The minority group must be sufficiently large and geographically compact to form a majority in a single-member district
- The minority group must be politically cohesive
- Whites must vote as a bloc to usually defeat the minority-preferred candidates

What do we mean when we say minority voters must be politically cohesive? And how do we know if white voters usually vote as a bloc to defeat the candidates preferred by minority voters? According to the Court, racially polarized voting is the "evidentiary linchpin" of a vote dilution claim. Voting is racially polarized if minorities and whites consistently vote for different candidates. More specifically, if minorities consistently support the same candidates, they are said to be politically cohesive. If whites are consistently *not* supporting these candidates, they are said to be bloc voting against the minority-preferred candidates.

¹ 478 U.S. 30 (1986).

Table 1: Number of Statewide Elections Analyzed that were Polarized

| | General Elections with Minority Candidates | All Statewide General Election Contests | Statewide Democratic Primary |
|-----------|---|---|------------------------------------|
| Statewide | 6/6 | 12/13 | 1/1 |
| Genesee | 5/6 | 9/13 | 1/1 |
| Saginaw | 6/6 | 11/13 | 1/1 |
| Oakland | 6/6 | 13/13 | 0/1 |
| Wayne | 3/6 | 7/13 | 1/1 |

Every statewide general election contest analyzed was polarized in Oakland County – only in the Democratic primary for Governor in 2018 did Black and white voters support the same candidate (Gretchen Whitmer). Voting in Saginaw County was nearly as polarized: two U.S. Senate contests (2012 and 2014) were not polarized, but the gubernatorial primary was polarized. Black and white voters agreed on the same candidates slightly more often in Genesee County – in addition to supporting U.S. senate candidates Debbie Stabenow in 2012 and Gary Peters in 2014, they both supported Barack Obama in 2012 and Democrat Mark Schauer for Governor in 2014.

Voting in Wayne County was considerably less racially polarized than statewide or in the other three counties studied. However, slightly more than half of the general election contests and the one statewide Democratic primary analyzed were polarized, with Black and white voters supporting the same candidates in 2012, disagreeing on the three statewide offices, but supporting the same U.S. Senate candidate in 2014, supporting different candidates for U.S. President in 2016 and 2020, and voting for most of the same candidates in 2018.

C. Congressional and State Legislative Election Results

This section provides a summary of my racial bloc voting analysis of recent congressional and state legislative districts in the four-county area of Wayne, Oakland, Genesee and Saginaw. I analyzed 2018 and 2020 general elections, and the 2018 and 2020 Democratic primaries if at least one African American candidate competed in the election contest. However, for a number of state

only the first step in the process – it does not take into account the voting patterns of Black and white voters. If voting is racially polarized but a significant number of white voters typically "crossover" to vote for Black voters' preferred candidate, it may be the case that crossover voting can more than compensate for depressed Black turnout.

Incorporating Minority Cohesion and White Crossover Voting Even if Black citizens are turning out at lower rates than whites, and voting is racially polarized, if a relatively consistent percentage of white voters support Black-preferred candidates, the candidates preferred by Black voters can be elected in districts that are less than majority Black. On the other hand, if voting is starkly polarized, with few or no whites crossing over to vote for the candidates supported by Black voters, it may be the case that a district that is more than 50% Black VAP is needed to elect Black-preferred candidates. A district-specific, functional analysis should take into account not only differences in turnout rates, but also the voting patterns of Black and white voters.²¹

To illustrate this mathematically, consider a district that has 1000 persons of voting age, 50% of who are Black and 50% of who are white. Let us begin by assuming that Black turnout is lower than white turnout in a two-candidate general election. In our hypothetical election example, 42% of the Black VAP turn out to vote and 60% of the white VAP vote. This means that, for our illustrative election, there are 210 Black voters and 300 white voters. Further suppose that 96% of the Black voters supported their candidate of choice and 25% of the white voters cast their votes for this candidate (with the other 75% supporting her opponent in the election contest). Thus, in our example, Black voters cast 200 of their 210 votes for the Black-preferred candidate and their other 8 votes for her opponent; white voters cast 75 of their 300 votes for the Black-preferred candidate and 225 votes for their preferred candidate:

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Thus, for example, if 39.3% of the Black population turned out and 48.3% of the white population turned out, B= .483 and A = .393, and M = .483/(.393+.483) = .483/.876 = .5513, therefore a Black VAP of 55.1% would produce an equal number of Black and white voters. (For a more in-depth discussion of equalizing turnout see Kimball Brace, Bernard Grofman, Lisa Handley and Richard Niemi, "Minority Voting Equality: The 65 Percent Rule in Theory and Practice," *Law and Policy*, 10 (1), January 1988.)

²¹ For an in-depth discussion of this approach to creating effective minority districts, see Bernard Grofman, Lisa Handley and David Lublin, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," *North Carolina Law Review*, volume 79 (5), June 2001.

It is important to remember that winning office in the United States usually requires winning two elections: a primary and a general election. The tables above consider only general election contests. Producing a comparable set of tables for Democratic primaries is not possible. First, there was only one statewide Democratic primary – the 2018 primary contest for Governor. There were three candidates competing in this election and because 50% of the vote was not required to win the election, a mathematical equation setting the percentage needed to win 50% of the vote does not work. Second, Black voters were not cohesive in support of any one of these three candidates. In fact, the candidate preferred by even the plurality of Black voters was not the same in the four counties examined. Drawing a district that Black-preferred candidate could win this primary is not possible when there is no Black-preferred candidate.

In areas where most of the white voters are likely to vote in Republican primaries, the inability to calculate the percent needed to win in Democratic primaries is not particularly important. Black voters will dominate the Democratic primary unless they make up only a very small portion of the voters in the district. However, in the counties examined in Michigan, many white voters elect to participate in the Democratic primary, especially in Wayne County. As the percentage Black VAP of proposed districts decreases, it may become more challenging for Black-preferred candidates to win not only the general election but the Democratic primary – but only if voting in Democratic primaries is racially polarized. Unfortunately, it is not possible to ascertain exactly how much more difficult it would be – or even if it would be more difficult – given the lack of Democratic primary election data.

B. Threshold of Representation in the Current State House and Senate Districts

A useful check on the percent needed to win estimates found in Tables 5-8 that can be done prior to drawing any districts is to produce what have been referred to by some political scientists as "threshold of representation" tables. These tables are designed to identify the lowest minority percentage above which minority candidates are consistently elected. Tables 9 and 10, below, report the BVAP of the current Michigan state house and senate districts with over 20% BVAP, and indicate the race and party of the candidate elected to represent the district.²³ Sorted

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²³ There are no African American state senators or representatives elected from districts that are less than 20% Black in VAP. However, there are other minority candidates (Hispanic, Asian, and Middle Eastern) elected to state house districts with considerably less than 20% BVAP.

by the percent BVAP, the tables can sometimes provide evidence of a clear breakpoint between those districts that are probably electing candidates of choice and those that are not.²⁴

An examination Table 9 indicates that every Michigan state house district with a BVAP of at least 35% elects a minority representative to the state house. In fact, every district with a BVAP of more than 26.53% elects a minority to office with the exception of District 49 in Genesee County. And the racial bloc voting analysis of House District 49 indicates that the white incumbent, John Cherry, is the candidate of choice of Black voters, even in the 2018 Democratic primary when he faced several African American candidates.

Table 9: Threshold of Representation for State House Districts, 2021

| State House District | Total VAP | Black VAP | Percent Black VAP | Name | Party | Race | Percent of Vote 2020 |
|----------------------------|--------------|--------------|-------------------------|--------------------|-------|----------|----------------------------|
| 7 | 60347 | 57256 | 94.27% | Helena Scott | D | Black | 93.00% |
| 8 | 62448 | 58042 | 92.42% | Stephanie A. Young | D | Black | 96.70% |
| 3 | 54130 | 49536 | 90.93% | Shri Thanedar | D | Asian | 93.30% |
| 9 | 62529 | 46806 | 74.22% | Karen Whitsett | D | Black | 94.20% |
| 10 | 69209 | 46977 | 67.41% | Mary Cavanagh | D | Hispanic | 84.80% |
| 1 | 59788 | 38993 | 64.76% | Tenisha R. Yancey | D | Black | 75.80% |
| 35 | 78306 | 49325 | 62.50% | Kyra Harris Bolden | D | Black | 82.90% |
| 34 | 49491 | 30419 | 60.96% | Cynthia R. Neeley | D | Black | 86.70% |
| 2 | 57031 | 33142 | 57.70% | Joe Tate | D | Black | 74.10% |
| 5 | 49290 | 27190 | 54.12% | Cynthia A. Johnson | D | Black | 93.40% |
| 6 | 67505 | 36182 | 52.86% | Tyrone Carter | D | Black | 100.00% |
| 4 | 68749 | 32761 | 47.27% | Abraham Aiyash | D | ME | 89.80% |
| 29 | 72319 | 26621 | 36.04% | Brenda Carter | D | Black | 72.90% |
| 95 | 58640 | 21320 | 35.50% | Amos O'Neal | D | Black | 70.10% |
| 49 | 64844 | 19308 | 29.47% | John D. Cherry | D | White | 68.90% |
| 54 | 72426 | 21212 | 28.79% | Ronnie Peterson | D | Black | 77.70% |
| 12 | 73883 | 20207 | 26.97% | Alex Garza | D | Hispanic | 62.40% |
| 11 | 73586 | 19760 | 26.53% | Jewell Jones | D | Black | 65.20% |
| 92 | 66135 | 16957 | 25.34% | Terry J. Sabo | D | White | 65.30% |
| 27 | 73337 | 18051 | 24.35% | Regina Weiss | D | White | 74.40% |
| 16 | 74617 | 17556 | 23.25% | Kevin Coleman | D | White | 62.50% |
| 75 | 76956 | 18127 | 22.56% | David LaGrand | D | White | 74.60% |
| 68 | 71672 | 16808 | 22.44% | Sarah Anthony | D | Black | 75.90% |
| 18 | 75251 | 16519 | 21.76% | Kevin Hertel | D | White | 60.30% |
| 22 | 68758 | 14588 | 21.00% | Richard Steenland | D | White | 59.90% |
| 60 | 74176 | 15887 | 20.97% | Julie M. Rogers | D | White | 71.40% |

²⁴ Without the confirmation provided by a racial bloc voting analysis, it could conceivably be the case that the minority legislator is not the candidate of choice of minority voters.

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Interpreting Table 10, for the Michigan state senate, is less straightforward. The four districts with BVAP percentages over 47% elect African Americans to office. However, Stephanie Chang, the state senator in District 1, which is 44.68% BVAP, was not the candidate of choice of Black voters in the 2018 Democratic primary, though she is the candidate of choice in the general election.

Table 10: Threshold of Representation for State Senate Districts, 2021

| State Senate District | Total VAP | Black VAP | Percent Black VAP | Name | party | race | Percent of vote 2018 |
|-----------------------------|--------------|--------------|-------------------------|------------------|-------|-------|----------------------------|
| 5 | 203828 | 111418 | 54.25% | Betty Alexander | D | Black | 77.4% |
| 2 | 169357 | 86961 | 50.82% | Adam Hollier | D | Black | 75.7% |
| 3 | 186758 | 90737 | 48.14% | Sylvia Santana | D | Black | 81.8% |
| 4 | 180199 | 85691 | 47.00% | Marshall Bullock | D | Black | 78.3% |
| 1 | 193087 | 87075 | 44.68% | Stephanie Chang | D | Asian | 72.0% |
| 11 | 229870 | 82336 | 35.48% | Jeremy Moss | D | White | 76.7% |
| 27 | 175918 | 54071 | 30.42% | Jim Ananich | D | White | 71.2% |
| 9 | 219325 | 50800 | 22.95% | Paul Wojno | D | White | 65.9% |
| 6 | 217734 | 46997 | 21.29% | Erika Geiss | D | Black | 61.4% |

C. Recompiled Election Results

As noted above, once draft districts have been drawn, there is a second approach available for ascertaining whether a proposed district is likely to provide minority voters with an opportunity to elect their candidates of choice to legislative or congressional office. This approach relies on recompiling election results from previous elections to see if the candidates preferred by minority voters would win in the draft district. This process entails (1) identifying "bellwether" elections, (2) disaggregating the precinct level results for these elections down to the census block level and then (3) re-aggregating the results up to conform to proposed district boundaries to determine if the minority-preferred candidate would win. This recompilation can only be done

MICRC

09/02/21-1300 Meeting

Captioned by Q&A Reporting, Inc., www.qacaptions.com

Exhibit 3

>> VICE CHAIR SZETELA: We will bring the Michigan Independent Citizens Redistricting Commission to order at 1:06 p.m.

Greetings to Ann Arbor. We are happy to be here today. There are several groups that are making this meeting possible. I would like to thank Tom Ivako, Bonnie Roberts and Logan Woods of the center for local, state and urban policy here at the University of Michigan. She was a representation of Meyers, campus vote project. It's gratifying that so many groups are here to assist the MICRC in engaging people in redistricting here in Michigan.

This Zoom webinar is being live streamed at YouTube at www.YouTube.com/MICHSO office/videos.

For anyone in the public watching who would prefer to watch via a different platform than they are currently using, please visit our social media at Redistricting MI to find the link for viewing on YouTube.

Our live stream today includes closed captioning. Closed captioning, ASL interpretation, and Spanish and Bengali and Arabic translation services will be provided for effective participation in this meeting. Please E-mail us at Redistricting@Michigan.Gov for additional viewing options or details on accessing language translation services for this meeting.

People with disabilities or needing other specific accommodations should also contact Redistricting at Michigan.gov.

This meeting is also being recorded and will be available at www.Michigan.gov/MICRC for viewing at a later date and this meeting is being transcribed and closed-captioned transcriptions will be made available and posted on Michigan.gov/MICRC along with the written public comment submissions.—

There is also a public comment portal that may be accessed by visiting Michigan.gov/MICRC, this portal can be utilized to post maps and comments which can be viewed by both the Commission and the public.

Members of the media who may have questions before, during or after the meeting should direct those questions to Edward Woods III, our Communications and Outreach Director for the Commission at WoodsE3@Michigan.gov or 517-331-6309.

For the purposes of the public watching and for the public record I will now turn to the Department of State staff to take note of the Commissioners

The first and Foremost criteria are the U.S. Constitution and Federal law and the Voting Rights Act is Federal law.

And it applies everywhere in the country including Michigan.

It prohibits any voting standard practice or procedure including a redistricting plan that results in the denial or dilution of minority voting strength.

A redistricting plan that dilutes minority voting strength is one that either cracks or packs a geographically concentrated minority group.

A top example to the left is or to the right is an example of a District, a set of districts that cracks the minority community by dividing it among four districts, five districts so that they cannot elect a minority preferred candidate in any of those districts.

The lower example on the right is an example of a District or District center that packs minority voters so that they have an impact on only one District and no impact on any of the other districts despite the fact that you could probably have drawn two districts in which they had the ability to elect communities, to elect candidates of choice.

When the Voting Rights Act was amended in 1982 to make it clear that you did not have to show that the redirectors intended to discriminate only that the plan that they drew actually resulted in discrimination.

The Supreme Court first considered this case in 1986 in a case called Thornburg versus Jingles and had to prove three conditions in order to satisfy Section Two and get a District drawn in which they could have the ability to elect a candidate of choice.

First is that the group must be sufficiently large and geographically compact to form a majority in a single member District.

This is in essence so there was actually a remedy available.

There is a solution to the problem of how do we elect candidates of choice.

The second is that the minority group must be politically cohesive.

That is, they must vote for the same candidates.

And, third, whites must vote as a bloc to usually defeat the minority-preferred candidates.

If they were not voting as a bloc to defeat these candidates, these candidates would win, and you wouldn't need to draw a minority District.

So how do we know how the minority group is voting? How do we know how whites are voting? What you do is conduct a racial bloc voting analysis.

And my job in this particular situation is to actually carry out what's called a racial bloc voting analysis that is analyze voting patterns by race to determine if voting is polarized. If whites are voting against a cohesive minority community.

I mentioned that first of all we have, of course, a secret ballot.

We don't know the race of the voters when they cast the ballot.

So, we have to use estimation techniques.

And the two most standard estimation techniques are ecological regression analysis and ecological inference analysis. Ecological simply means you are using aggregate data.

What we are going to do is we are going to look at precincts rather than individuals. And we are going to look to see if there are patterns across the precincts in which the demographic composition of the precinct is related to the voting patterns of those precincts.

So, on the left we see ecological regression each precinct in the jurisdiction has been placed on the scatter plot on the basis of the percent Black turnout this is the jurisdiction in the south where we actually know turn out by race.

And the vertical axis is vote for Warnock this is an election that occurred in January of 2021 it's the race for U.S. Senate in Georgia.

This is real data in a specific County.

You can see a pattern here and the pattern is the higher the percent Black across the precincts the more votes you see for Warnock that is the estimation technique we used to determine how whites and Blacks are voting in this particular jurisdiction.

This practice, this particular technique had one disadvantage associated with it and that voting was very polarized, you would get estimates that were outside the logical pounds and would find something like 105 Blacks vote 105% of Black voters voted for Warnock. And negative 5 white voters voted for Warnock.

So, in the 1990s Professor King developed ecological inference, that you see on the right side. And this process, each precinct is actually represented by a line rather than a point using more information about the precinct to get this line. And that is all the possible combinations of Black and white votes that could have produced the result for that particular precinct as represented by a line as opposed to a point.

And then the computer generates a best guesstimate of what the actual composition of the votes for the Black candidate were, was.

So, this is the analysis that I performed in Michigan.

Now you need a few pieces of information in order to perform this.

And that is that you need to have an area that has a sufficient number of minority voters to actually estimate voting behavior by race.

I looked at eight counties.

There were several counties in the west of Michigan that had growing minority population around Grand Rapids, Muskegon County and Kent County and it turns out there was not a sufficient number of minority votes to estimate behavior voting behavior on the basis of race in those two counties.

The same is true of I looked at six counties in the east.

I was able to produce estimates for Wayne, Oakland, Genesee and Saginaw Counties, I was not able to do so for Washtenaw and Macomb Counties there was not a sufficient amount of Black turn out to estimate Black and white behavior in those two counties so

what I'm going to give you is the results of analysis for statewide for the entire State of Michigan and for these four counties.

Because actually what you want to do you want to do an area specific analysis because it turns out that voting patterns are different depending where you are in the state.

For example, it may be the case using the example I gave you before of the Georgia election.

Turns out that in the rule areas of Georgia the election was very polarized while in the urban area around Fulton it was much less polarized.

In fact, it wasn't polarized at all in certain areas.

So, it matters where you are in the state as to how much polarization there is and when you're drawing districts it matters what it looks like in that specific area.

The Court is quite adamant about doing a District-specific and am analysis and this is why I looked at these counties.

I looked at 13 elections there have been 13 statewide and Federal elections over the decade.

These include U.S. Senate, U.S. president, U.S. Senate, and three statewide contests, the gubernatorial contests the Attorney General and Secretary of State and the treasurer.

Four statewide contests.

Now the courts have indicated that the most probative contest to look at are contests include minority candidates.

So, you've had four contests statewide contests over the last decade that included minority candidates.

These are the most probative.

You have also listed them here.

You had the 2012 race for U.S. president.

You had a 2014 Secretary of State contest.

You had the 2018 and 2020 U.S. Senate contests.

Then you had two contests that included minority candidates as running mates.

This is the 2018 gubernatorial contest and the 2020 Presidential contest.

So, these I looked at all 13 statewide contests, but these are the most probative according to the courts.

Ordinarily I would look at statewide democratic primaries as well.

I could not look at republican primaries there is not enough minority participation in republican primaries to actually analyze voting patterns by race.

So, I look at democratic primaries.

And in this case, you've only had one statewide democratic primary.

This entire decade and that was in 2018 for Governor.

So. I looked at that contest as well.

This is what the results look like.

And I'm going to explain how to read this table.

Every election that I looked at for every area has a table that looks like this.

So, this is statewide.

This is the election listed here, 2018 Governor.

And here are the candidates.

Here are the parties of the candidates.

Here are the races of the candidates.

Here is the votes that they received statewide.

Now, there are actually four estimates for Black voters and there are four estimates for white voters.

I talked to you about ecological regression and mentioned the problem you have with ecological regression and there sit 104 of Black voters supporting Whitmer.

I didn't mention homogenous precinct.

This is actual these are the actual results of precincts across the state that are overwhelmingly one race.

So these are precincts across the state that are 90% or more voting age population Black in composition.

So that's how I derived the homogenous and this is actual data so looking at 90% plus precincts 90 per sent plus Black age population precincts 95.6% of those voters supported Whitmer.

There are actually two different forms of ecological inference analysis.

One is called two by two.

And that is the one that was developed in the 1990s.

It's since been refined so that I can account for differential turn out and that's what is in the last column 95.3%.

Now all of these are derived from different techniques.

You wouldn't expect them to be exactly the same, but they are all telling a very similar story and that is overwhelming Black support for Whitmer.

On the other side of this table, we will get our estimates.

I report the estimates for the white voters.

So let me see if I can get this to work.

But it's not doing this.

Okay, so we've got 41.1% in the overwhelmingly white precincts, 41.1% of the voters supported Whitmer.

The AR estimate is 38.9.

The two by two is 40.6.

And let me see and the C is 44.8% so these are estimates.

Now I forgot to mention down here the votes for office this is the percentage of voting age population that actually turned out and cast a ballot for that particular office.

So, you can see there is a difference in turn out rates.

And that is around 35% of Black voting age population turned out and cast a ballot for the Governor in 2018.

While the number was higher almost double for white voters.

This contest is racially polarized.

If Blacks voting alone had voted alone Whitmer would have been elected.

She was.

And then of course if whites voted alone, it would have been the republican candidate who was elected.

Below I have the primary for this election.

I have the gubernatorial primary of 2018.

We have the three candidates listed-here:

We have they are all democrats.

We have their race.

We have the percentage of votes they received.

And you will see that this contest is also polarized.

This contest you have a plurality of the Black voters supporting Thanedar and majority of the white voters supported Whitmer.

So, this contest is also polarized.

Okay, now I did this, and you will see tables in the report that I eventually produce for every election but I'm going to show you summaries of this in a little bit.

So, over all statewide in the 13 elections that I looked at, 12 were polarized.

And those elections that are most probative to the courts, that is those that included minority candidates, 6 out of the 6 were polarized in the democratic primary which there was only one it was polarized.

And I money -- mentioned I looked at four counties and these are the results of the analysis in four counties in Genesee County we have nine of the 13 contests polarized with five of the six with minority candidates.

The democratic primary was polarized.

And Saginaw it's 11 out of 13 of the contests, six out of six of those contests with minority candidates.

And the democratic primary was polarized.

In Oakland all 13 of the general elections were polarized including the six with minority candidates but the democratic primary was not.

And finally in Wayne County where voting is less polarized you will see that 7 of the 13 contests were polarized, three of those were minority candidates and the democratic primary was polarized.

What this tells me is that voting is polarized in Michigan.

And what that means is the Voting Rights Act comes into may in districts that provide minority voters with the opportunity to elect their candidates must be drawn.

Okay, so voting is polarized.

REDISTRICTING PLAN COMPLIES WITH THE VOTING RIGHTS ACT

Dr. Lisa Handley

Redistricting Criteria Priority Pyramid: Voting Rights Act of 1965

Section 2 prohibits any voting standard, practice or procedure, including a redistricting plan, that results in the denial or dilution of minority voting strength.

All state and local jurisdictions are covered by Section 2 of the Voting Rights Act.

Act of 1965 U.S. Constitution: equal population Voting Rights Act of 1965 Communities of interest Communities of interest No disproportionate advantage to any political party No favoring or disfavoring incumbents or candidates Consideration of county, city, township boundaries Reasonable compactness

Redistricting Plans that Violate the Voting Rights Act

Redistricting plans cannot:

crack, or

Plan that cracks minority community across 5 districts

pack

a geographically concentrated minority community across districts or within a district in a manner that dilutes their voting strength.



Plan that packs minority community into single district

m

Thornburg v. Gingles: Three-Pronged Test

U.S. Supreme Court held that plaintiffs must satisfy three preconditions to qualify for relief under Section 2 of the Voting Rights Act:

- The minority group must be sufficiently large and geographically compact to form a majority in a single-member district
- The minority group must be politically cohesive
- Whites must vote as a bloc to usually defeat the minority-preferred candidates

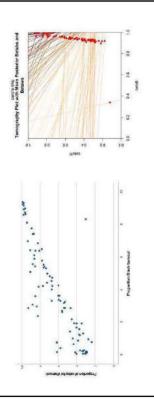
A racial bloc voting analysis is used to ascertain whether minority voters are politically cohesive and if white voters bloc vote to usually defeat minority-preferred candidates.

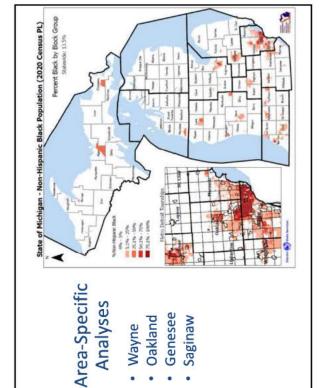
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Analyzing Voting Behavior by Race

Two standard statistical techniques for estimating voting patterns of minority and white voters:

- Ecological regression analysis (ER)
- Ecological inference analysis (EI)





Elections Analyzed to Date

- All federal and statewide general election contests, 2012-
- Four election contests included minority candidates:
- 2012 U.S. President (Barack Obama)
- 2014 Secretary of State (Godfrey Dillard)
- 2018 U.S. Senate (John James)
- > 2020 U.S. Senate (John James)
- Two contests included minority candidates as running mates
- > 2018 Governor (Gretchen Whitmer/Garlin Gilchrist)
 - 2020 U.S. President (Joseph Biden/Kamala Harris)

Only Democratic primary for statewide office this past decade: 2018 race for governor

Example of RBV Results: 2018 General and Democratic Primary for Governor

| Statewide | | | | E | Estimates for Black Voters | Black Voter | 8 | B | timates for | Estimates for White Voters | 5 |
|-------------------|-------|--------|----------|----------|-----------------------------------|-------------|--------------|------|-------------|-----------------------------------|--------------|
| | Party | Race | Vote | HP | ER | EI 2x2 | EI RvC | HP | ER | EI 2x2 | EI PAC |
| 2018 General | Same | Sugar | 5150-170 | S 2000 1 | 5 7000 | 1000000 | Page open 28 | 1306 | 8 . perps 5 | State on State St. | Si wasanin i |
| Sovernor | | 300000 | | 8 | | | 8 | | B | | 6 |
| Whitmer/Gilchrist | Q | W/AA | 53.3% | 92.6 | 104.3 | 98.6 | 95.3 | 41.1 | 38.9 | 40.6 | 44.8 |
| Schuette/Lyons | 8 | M | 43.8% | 2.5 | -6.4 | 9.0 | 1.8 | 56.0 | 57.9 | 56.2 | 52.8 |
| others | 5 000 | 100 | 15000.00 | 1.9 | 2.1 | 2.6 | 2.9 | 2.9 | 3.2 | 2.9 | 2.5 |
| votes for office | | | | 36.6 | 31.6 | 35.2 | 35.2 | 61.9 | 61.7 | 63.3 | 63.3 |

| 2018 Democratic Primar | ry for G | overno | , | 2 | timates for | Estimates for Black Voters | ,, | Est | timates for | Estimates for White Voters | ,, |
|------------------------|----------|--------|-------|------|-------------|-----------------------------------|--------|------|-------------|----------------------------|--------|
| | Party | Race | Vote | ΗЬ | ER | EI 2x2 | EI Roc | НР | ER | EI 2x2 | EI Roc |
| STATEWIDE | L | | | 8 | | | | | 200 | | 8 |
| Abdul El-Sayed | 0 | ME | 30.2% | 21.0 | 24.2 | 23.5 | 26.0 | 25.7 | 27.1 | 30.2 | 28.5 |
| Shri Thanedar | q | A | 17.7% | 42.5 | 44.2 | , | | 15.8 | 12.9 | 10.8 | 9.4 |
| Gretchen Whitmer | Q | W | 85.0% | 36.5 | 31.6 | 33.5 | 35.0 | 58.6 | | 59.4 | 62.0 |
| outes for office | | | | 0 86 | 325 | 3 76 | 345 | 920 | 023 | 14.0 | 14.0 |

- votes for office = percentage of voting age population who turned out and cast a vote for the office.

 HP = vote percentages from homogeneous precincts
 E = sestimates derived from exological regression analysis
 EI 2AZ = estimates derived from stander EI (as developed by Prof. Gary King)
 EI RAZ = estimates derived from EI etchnique that takes into account differences in participation by race

Number of Racially Polarized Elections

| | General Elections with Minority Candidates | All Statewide General Election Contests | Statewide Democratic Primary |
|-----------|---|---|------------------------------------|
| Statewide | 9/9 | 12/13 | 1/1 |
| Genesee | 9/9 | 9/13 | 1/1 |
| Saginaw | 9/9 | 11/13 | 1/1 |
| Oakland | 9/9 | 13/13 | 0/1 |
| Wayne | 3/6 | 7/13 | 1/1 |
| | | | |

Number of polarized contests / total number of contests

6

Complying with the Voting Rights Act

- If, based on the racial bloc voting (RBV) analysis, it is determined voting is racially polarized, and candidates preferred by a politically cohesive minority group are usually defeated by white voters not supporting these candidates, a district(s) that offers minority voters an opportunity to elect their candidates of choice must be drawn.
- If such districts already exist, and minority-preferred candidates are winning only because these districts exist, then these minority districts must be maintained in a manner that continues to provide minority voters with an opportunity to elect their preferred candidates.

Drawing Minority Opportunity Districts

- Line drawers cannot simply set an arbitrary demographic target (e.g., 50% black voting age population) for all minority districts across the jurisdiction (Alabama Legislative Black Caucus v. Alabama, 2015).
- A district-specific, functional analysis is required to determine if a proposed district will provide minority voters with the ability to elect minoritypreferred candidates to office.

11

District-specific, Function Approaches

- Estimates of participation rates, minority cohesion and white crossover voting for minority-preferred candidates derived from the RBV analysis can be used to calculate the percent minority population needed in a specific area for minority-preferred candidates to win a district in that area.
- Election results from previous contests that included minority-preferred candidates ("bellwether elections" as identified by the RBV analysis) can be recompiled to reflect the boundaries of the proposed district to determine if minority-preferred candidates would consistently carry this proposed district.

2

| | | turnout re | ate for off | turnout rate for office and percent vote for black-preferred candidates | aroant vote | o for black | Apreferred candidates | percent of |
|-------------------------|-------|------------|-------------|---|-------------|-------------|--------------------------|-------------|-------------|-------------|-------------|-------------|
| Michigan STATEWIDE | otsbi | | | | L | | | cand would |
| Percent Black VAP | pued | | 8 | Black votes | | W | White votes | have | have | have | have | have |
| UM OI DBDBBU | ď | o o good | | | e sepera | | | received if |
| | 10 | cast for | | | cast for | | | 55% hack | 50% block | d5% hack | 40% hlack | 35% hank |
| | 0067 | office | æ | all others | office | à | ell others | | | VAP | VAP | VAP |
| GENERAL ELECTIONS | | | | | | | | | | | | |
| 2020 President | Μ | 55.2 | 96.2 | 3,8 | 0.67 | 40.0 | 000 | 629 | 63,1 | 60.4 | 67.9 | 55.4 |
| 2020 US Senate | Μ | 220 | 93.9 | 6.1 | 78.1 | 39.4 | 60.6 | 64.6 | 619 | 59.3 | 56.8 | 54.4 |
| 2018 Governor | W | 35.2 | 95.3 | 4.7 | 63,3 | 44.8 | 55.2 | | 62,8 | 909 | | 56.4 |
| 2018 Secretary of State | W | 35.1 | 95.6 | 4.4 | 62.2 | 6'67 | 56.1 | 0.39 | 9739 | 60.2 | 58,0 | 55.9 |
| 2018 Attorney Genera | W | 34.6 | 94.4 | 9'9 | 219 | 39.4 | 60,6 | 819 | 59.2 | 56.7 | 54.4 | 52.2 |
| 2018 US Senate | W | 0'98 | 94.3 | 2'9 | 189 | 43.7 | 26.3 | 1,48 | 618 | 59,5 | | 55.3 |
| 2016 President | W | 54,1 | 97.3 | 2,7 | 2 29 | 34.3 | 65,7 | 92,58 | 62,4 | 59.3 | 56,3 | 53.4 |
| 2014 Governor | M | 35.1 | 95.7 | 4.3 | 1.64 | 38.5 | 61.5 | 85.2 | 62,3 | 59.6 | 57.0 | 54.4 |
| 2014 Secretary of State | AA | 34.8 | 95.8 | 4.2 | 8.74 | 33.5 | 66.5 | 62.8 | 265 | 56.8 | 53.9 | 51.0 |
| 2014 Attorney Genera | W | 34.6 | 95.2 | 4.8 | 8'25 | 0.35 | 65.0 | 63,3 | 6.09 | 57.4 | 54.6 | 519 |
| 2014 US Senate | M | 0'98 | 36.5 | 3.5 | 48.5 | 2.2 | 52.7 | 7 02 | 6 29 | 65,6 | 63.3 | 61.1 |
| 2012 President | AA | 59,1 | 97.8 | | | | | | | 999 | | 61.5 |
| ahanak SII Child | /// | 50 0 | 0 00 | ľ | L | L | ı | 312 | l | 000 | l | 1 30 |

percent of vote B-P cand would have received if district was 35% black VAP

percent of vote B-P cand would have received if district was 40% black VAP

vote B-P cand would have received if district was 45% black

percent of vote B-P cand would have received if district was 50% black VAP

percent of vote B-P cand would have received if district was 55% black VAP

White votes

e of B-P candidate

GENESEE COUNTY Percent Black VAP needed to win

votes cast for office

t vote for bleck-preferred candidates

tumout rate for office and

58.7 64.0 64.0 64.0 64.0 65.5 65.5 65.5 65.7 70.1

61.1 64.9 64.7 64.7 65.0 65.0 65.0 65.0 65.0 72.9 72.9

65.0 65.0 68.5 68.5 67.1 65.0 70.7 70.7 74.7 74.7

66.3 67.5 67.2 67.2 67.3 67.3 72.3 73.3 76.5 76.5 76.5 76.5 76.5

57.9 59.6 59.0 59.0 54.2 54.8 54.8 54.8 54.8 54.8 54.8 54.8

GENERAL ELCTIONS

2020 Peadenti W
2018 General W
2018 Search VI State W
2018 Search VI State W
2018 Search W
2018 The Search W
2019 Covernor W
2014 Covernor W
2014 Altorites Covernor W
2014 Search VI State AA
2014 Altorites Covernor W
2014 Search M
2014 Search M
2014 Search M
2014 Search M
2015 Peadenti AA
2017 US Search M

| State | Statewide | | Ì | Est | stimates for Black Voters | Back Voter | • | Est | Estimates for White Voter | White Votes | |
|-------------------|-----------|------|-------|------|---------------------------|------------|--------|------|---------------------------|-------------|--------|
| | Party | Race | Vote | dH. | ER | El 2x2 | ET RNC | Н | ER. | £12x2 | EI RAC |
| 2018 General | | | | | | | | | | | |
| Governor | | | | | | | | | | | |
| Whitmer/Gilthrist | ۵ | W/AA | 53.3% | 9.56 | 104.3 | 98.6 | | 41.1 | 38.9 | 40.6 | |
| Schaete/Lyons | a: | W | 43.8% | 2.5 | -6.4 | 0.6 | 1.8 | 56.0 | 57.9 | 56.2 | |
| others | | | | 1.9 | 2.1 | 2.6 | | 2.9 | 3.5 | 2.9 | 2.5 |
| votes for office | | | | 36.6 | 32.6 | 35.2 | 1 | 67.9 | 61.7 | 63.3 | |

13

15

| | | tumontr | ate for off | fice and po | turnout rate for office and percent vote for black-preferred candidates | for black | it-preferred candidates | percent of |
|-------------------------------------|------------|---------|-------------|-------------|---|-----------|----------------------------|--|--|--|--|--|
| OAKLAND COUNTY Percent Black VAP | etebibne | | - | Black votes | | * | White votes | cand would | cand would | 8 | cand would | cand would |
| needed to wm | 9 of B-P o | votes | | | votes oast for | | | received if district was 55% black | received if district was 50% black | received if district was 45% black | received if district was 40% black | received if district was 35% black |
| | 1808 | office | ď | all others | | ₽₽ | all others | VAP | VAP | | | |
| GENERAL ELECTIONS | | | | | | | | | | | | |
| 2020 President | W | 911 | 93.4 | 93 | ¥*98 | 45.9 | 24.1 | 8"69 | 67.4 | 65.1 | 62.8 | |
| 2020 US Senate | W | 71.4 | 92.1 | | | 43.5 | | | 65.6 | | | П |
| 2018 Governor | W | 53.2 | 1.46 | 6.3 | 888 | 47.4 | 52.6 | | 67.8 | 9 99 | | |
| 2018 Secretary of State | W | | 94.2 | | | 47.5 | | | 68.0 | | | |
| 2018 Attorney Genera | W | 52.5 | | | | 43,0 | | | 65.3 | 62.8 | | |
| 2018 US Senate | W | 53.2 | 93,0 | | | 45,5 | 54.5 | 68,6 | 66.2 | | 61.7 | |
| 2016 President | W | 65.6 | 198 | 4.9 | 73.5 | 39.1 | 609 | 683 | 65.5 | | 60.0 | |
| 2014 Governor | W | 46.3 | 8*86 | 5.2 | 24.6 | 30.6 | 69.4 | 63.3 | 60.1 | 56.9 | 53.8 | |
| 2014 Secretary of State | AA | 6'94 | 94'6 | | 53.1 | 26.4 | | | 58.0 | | | |
| 2014 Attorney Genera | W | 45.8 | 1.46 | | | 32,9 | 67.1 | 64.5 | 61.4 | | 55.4 | |
| 2014 US Senate | W | 46.5 | 95.0 | 5.0 | 53.7 | 46.7 | 53,3 | 71.5 | 69.1 | | 64.4 | |
| 2012 President | AA | 68.9 | 2.98 | 4.3 | 75.7 | 42.1 | 57,9 | 20.3 | 67.6 | | 62,3 | |
| 2012 US Senate | W | 8.73 | 8'96 | 4.2 | 74.0 | 47.6 | 52.4 | | 20,6 | | | |

percent of vote B-P cand would have received if district was 35% black VAP

vote B-P cand would have received if district was 40% black VAP

percent of vote B-P cand would have received if district was 45% black

vote B-P cand would have received if district was 50% black

percent of
vote B-P
cand would
have
received if
district was
55% black
VAP

votes cast for office

votes cast for office

etabibnao 9-8 to eos

SAGINAW COUNTY Percent Black VAP needed to win

turnout rate for office and percent vote for blackpreferr

56.3 56.3 57.5 57.2 55.0 60.1 56.7 56.7 56.7 66.1 66.1 66.1

58.7 60.6 60.6 60.7 58.7 58.7 58.7 58.5 58.5 66.8 7.1.8

90.8 90.8 90.7 90.7 90.4 94.1 94.1 94.1 94.1 95.7 95.4

GENERAL ELECTIONS

2020 President W
2020 US Senside W
2018 Severary VI
2018 Severary VI
2018 Severary VI
2018 US Senside W
2018 US Senside W
2014 US Senside W

7.4.0 6.6.0 6.6.0 6.0.0 6.0.0 6.0.0 6.0.0 6.0.0

61.5 63.2 62.7 62.3 62.3 65.1 65.1 65.1

16

| | | turnout ra | ate for off | e and pe | tumout rate for office and percent vote for backpreferred candidates | for black | hpreferred candidates | percent of | percent of | percent of | percent of | percent of |
|-----------------------------------|-------------|-------------------|-------------|-------------|--|-----------|--------------------------|----------------------------------|----------------------------------|---|----------------------------------|---|
| WAYNE COUNTY Percent Black VAP | etab ibnac | | # | Black votes | | W | White votes | cand would have | cand would have | 쁑 | cand would have | cand would have |
| Needed to win | 9 B to east | votes cast for | 3: | all others | votes cast for office | 3: | ell others | district was 55% black VAP | district was 50% black VAP | received if district was 45% black VAP | district was 40% black VAP | received if district was 35% black VAP |
| GENERAL ELECTIONS | | | | | | | | | | | | |
| 2020 President | W | 58,0 | 97.5 | 2.5 | 76.6 | 47.5 | 52.5 | 71.5 | 0'69 | 999 | 643 | 62.0 |
| 2020 US Senate | W | 57.8 | 95.2 | 4.8 | 972 | 47.2 | | 70.4 | 0'89 | | 63.4 | 612 |
| 2018 Governor | W | 33.2 | 97.0 | 8 | | 53.5 | | | | 3 | 2,53 | 63 |
| 2018 Secretary of State | M | 33.1 | 97.0 | 3,0 | | 53.6 | l. | 2.02 | 2.89 | 8'99 | 0'99 | 63.3 |
| 2018 Attorney Genera | W | 32.7 | 95.5 | 4,5 | Ç., | 49.4 | 50,6 | 67,6 | 65,4 | 63,4 | 61.5 | 59 |
| 2018 US Senate | W | 33.1 | 95.8 | 4.2 | | 52.3 | | 69.3 | | | 9'89 | 61.9 |
| 2016 President | W | 0'29 | 98.4 | 1.6 | | 39.7 | 9 | | | - 0 | 61.8 | 58.7 |
| 2014 Governor | M | 35.8 | 36.5 | 3.5 | 2.25 | 41.3 | | 2.78 | 0*59 | | 2'69 | 57.2 |
| 2014 Secretary of State | AA | 35.5 | 96.8 | 3.2 | 46.1 | 36.8 | 63.2 | 6'99 | 679 | 0.09 | 2/5 | 54.4 |
| 2014 Attorney General | W | 35,3 | 95.7 | 4,3 | 629 | 41.0 | 8 | | 64.8 | | 5'65 | 25.0 |
| 2014 US Senate | W | 35.7 | 98,0 | 2.0 | į | 53.4 | 9'94 | 74.9 | 727 | 5'02 | - 5 | 99 |
| 2012 President | AA | 60,4 | 99.0 | 1.0 | 65.7 | 51.9 | 48,1 | 76.8 | 74,5 | 72.1 | 869 | 67.5 |
| 2012 US Senate | W | 59.9 | 98.1 | 1.9 | 64.4 | 57.6 | 42.4 | 79.1 | 77.1 | 75.1 | 73.1 | 71.1 |

17

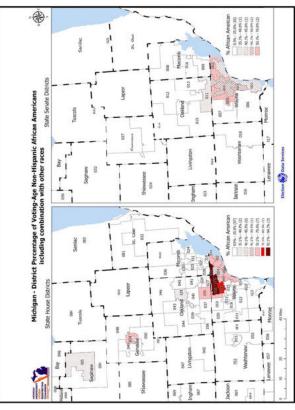
| | | 4 | | 0f work 2018 77.4 77.4 77.5 77.0 71.0 72.0 7 |
|-------------|--|--|--|--|
| | Michael Macdonald Dayna Polehanki John Bizon Jim Runestad | × 0 × × | White White White | 51.0 50.6 58.6 51.7 |
| | Peter J. Lucido Aric Nesbitt Mike Shirkey | ~ ~ ~ | White White | 56.7 62.7 |
| | Ruth Johnson Peter Margregor Tom Barrett Mallow Memorrow | * * * C | White White White White | 58.4 |
| н | Rick Outman Dale W. Zorn | « « | White | 58.8 |
| ++ | Roger Victory Dan Lauwers | ~ ~ . | White | 680 |
| н | Ferin Daley | e e | White | 56.2 |
| — | Lana Theis Curt VanderWall | ee ee | White | 56.0 |
| | | 65.105 11.219 11 | 46 S.150 Explanate Cheng 10.034 S.023 Extrem Mean 10.034 S.023 Extrem Mean 10.034 S.023 Extrem Mean 12.030 Extra Section S.033 S | 6.5 LINE SECURATION COUNTY 1.0 Co. 1.0 C |

Threshold of Representation: State Senate

- All districts over 48% Black elect minority candidates
- 67% of districts over 35% Black elect minority candidates
- No state senate districts between 36 and 45% Black

| Threshold of | 0 50000 | | Kanracantation. | יירטו כייווימיויי | | C+o+o | ממנע ווממטע | | | | | ■ All districts over 36% | | Black elect minority | | candidates | | ODO at districts of 1000 - | 83% OI districts over 25% | Disolo de point minorità | DIACK EJECT HILLIOHITY | candidates | calididates | | No state house districts | Sold of the sold o | between 37 and 47% | | Black | | | | | | | | | | |
|------------------|---------|--------------|--------------------|-------------------|----------------|---------------|-------------------|--------------------|--------------------|----------|--------------------|--------------------------|-----------------------|----------------------|--------------------|-----------------------|-----------------------------|----------------------------|---------------------------|--------------------------|------------------------|---------------|---------------|---------------|--------------------------|--|-----------------------------|---------------|-----------------|--------------------|--------------------|--------------------|---------------------|--------------------|----------------|-------------|---------------------|-----------------------|-----------------------|
| Percent | 2020 | 93.0 | 7.96 | 93.3 | 94.2 | 84.8 | 75.8 | 82.9 | 86.7 | 74.1 | 93.4 | 10000 | 868 | 72.9 | 70,1 | 6.89 | 77.7 | 62.4 | 65.2 | 65.3 | 74.4 | 74.6 | 62.5 | 75.9 | 60.3 | 71.4 | 59.9 | 60.3 | 56.6 | 56.3 | 63.9 | 51,3 | 59.2 | 62.8 | 1.82 | 54.2 | 57.5 | 72.4 | 9'09 |
| | Race | Black | Black | Asian | Black | Hispanic | Black | Black | Black | Black | Black | Black | ME | Black | Black | White | Black | Hispanic | Black | White | White | White | White | Black | White | White | White | White | White | White | White | White | Aslan | White | White | White | White | White | White |
| | Party | D | 0 | 0 | 0 | 0 | a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | D | a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | O | 0 | O | 96 | 0 | 0 | 0 | | Ð | ac | 0 | | 0 | 80 |
| | Name | Helena Scott | Stephanie A. Young | Shri Thanedar | Karen Whitsett | Mary Caranagh | Tenisha R. Yancey | Kyra Harris Bolden | Cyrrthia R. Meeley | Joe Tate | Cynthia A, Johnson | 53.60% Tyrone Carter | 47.65% Abraham Aiyash | 36.81% Brends Carter | 36.36% Amos O'Neal | 29.78% John D. Cherry | 29,29% Ronnie Dean Peterson | 22,35% Alex Garza | Jewell Janes | Terry J. Sabo | 24.61% Regina Weiss | David LaGrand | Kevin Coleman | Sarah Anthony | 23,95% Kevin Hersel | 21.42% Julie M. Rogers | 21,22% Richard M. Steenland | Lori M. Stone | Pauline Wendzel | William J. Sowerby | Samantha Stockloff | 16.23% lim Haadsma | 15,13% Rangery Puri | 14.19% Rachel Hood | Steven Johnson | Tim Sneller | 10.97% Szeve Marino | 19.22% Felicia Brabec | 9.97% Julie Alexander |
| Percent Black | VAP | 94.88% | 92,94% | 91.51% | 74.85% | 9887.19 | 65.22% | 62.99% | 61,46% | 58.11% | 55,16% | 83.60% | 47.65% | 36.81% | 36,36% | 29,78% | 29.29% | 22,35% | 26,85% | 25,64% | 24,61% | 23.56% | 23.53% | 23.45% | 23.95% | 21.42% | 21.22% | 19,98% | 18.92% | 18,33% | 18,15% | 16.23% | 15,13% | 14,19% | 13.39% | 13.22% | 10.97% | 10.22% | 9,666 |
| Black | VAP | 57756 | 58012 | 96564 | 468UE | 46933 | 38983 | 49325 | 30419 | 33142 | 27390 | 36182 | 32761 | 25621 | 23320 | 19308 | - | 20503 | 19760 | 16957 | 18081 | 18327 | 17556 | 16808 | 16519 | 15887 | 14588 | 14012 | 12312 | 13047 | 14166 | 11301 | 11721 | 11258 | 10619 | 8173 | 8002 | | 6497 |
| Total | VAP | 60347 | 62448 | 54130 | 62529 | 60269 | 88765 | 28306 | 19491 | 57031 | 49290 | 67509 | 68749 | 22319 | 58540 | 64844 | 72426 | 73883 | 73586 | 66135 | 73337 | 36956 | 24617 | 21622 | 75251 | 74176 | 85789 | 70132 | 16059 | 71180 | 78065 | 69641 | 77493 | 79357 | 79315 | 7285E | 73558 | 79483 | 65167 |
| | | | | | | | Н | | Н | Н | - | н | Н | н | - | Н | Н | н | Н | | Н | Н | н | | Н | Н | | Н | Н | | Н | Н | Н | | Н | | Н | Н | - |

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Exhibit 5



NORTH CAROLINA LAW REVIEW

Volume 79 Number 5

Article 12

6-1-2001

Drawing Effective Miority Districts: A Conceptual Framework and Some Empirical Evidence

Bernard Grofman

Lisa Handley

David Lublin

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DRAWING EFFECTIVE MINORITY DISTRICTS: A CONCEPTUAL FRAMEWORK AND SOME EMPIRICAL EVIDENCE

BERNARD GROFMAN, LISA HANDLEY, AND DAVID LUBLIN

When applying the Voting Rights Act, courts and commentators alike have too often fixated on the distinction between "majority-minority" districts and "majority-white" districts, while paying relatively little attention to the likely electoral outcomes that any given districting plan will actually generate. In this Article, three political scientists provide a conceptual framework for predicting minority electoral success, taking into account the participation rates and voting patterns of minority and white voters, as well as incorporating the multi-stage election process (primaries plus general elections, and sometimes runoff elections). The Authors also analyze empirical election data to demonstrate how the model can be applied to address voting rights disputes.

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^{*} The listing of co-authors is alphabetical: Bernard Grofman, School of Social Sciences, University of California, Irvine, C.A.; Lisa Handley, Frontier International Electoral Consulting, Washington, D.C.; David Lublin, Department of Government, American University, Washington, D.C. This research was partially funded by grant 99-6109, Program in Political Science, National Science Foundation (to Lublin) and grant SBR 97-30578 (to Grofman and Anthony Marley), Program in Methodology, Measurement and Statistics, National Science Foundation. Basic research for this Article was begun under an earlier grant to Grofman from the Ford Foundation. We are indebted to Clover Behrend and Annabel Azim for library assistance. Many of the ideas discussed in this Article, including the graphic representation of the formal model, originated in discussions between the co-authors and Sam Hirsch, an attorney with the Washington, D.C. office of Jenner & Block.

general election⁷⁴—and sometimes the highest percentage is in the runoff, sometimes in the general election. Both Bishop and McKinney, for example, needed a higher percentage black to win the Democratic runoff than to win the general election in their districts in 1992.

| | & Crosso | ver: Selec | cted South | nern Cor | | Win, Incorp I Primary, I tes | |
|---------------------------|--------------|--------------------------|--------------------------|---|---|--|--|
| Congressional District | Year | % Black Participation | % White Participation | % Black Needed To Equalize Turnout | % Black Votes for Black Candidate* (Cohesion) | % White Votes For Black Candidate* (Crossover) | % Black Needed Given Both Coresion & Crossover |
| DEMOCRATI | C PRIMARY | | | 1 | | | |
| FL 3 (Brown) | 1992 Primary | 28.7 | 21.6 | 42.9 | 93.5 | 34.4 | 31.9 |
| GA 2 (Bishop) | 1992 Primary | 39.8 | 44.4 | 52.7 | 84.4 | 31.2 | 43.7 |
| GA 11 (McKinney) | 1992 Primary | 27.3 | 38.2 | 58.3 | 89.7 | 60.4 | 27.4 |
| GA 4 (McKinney) | 1996 Primary | 30.5 | 12.8 | 29.6 | 93.3 | 24.6 | 27.0 |
| DEMOCRAT | IC RUNOFF | | | 385 | | | * |
| FL 3 (Browa) | 1992 Runoff | 24.0 | 14.5 | 37.7 | 92.0 | 15.8 | 36.7 |
| GA 2 (Bishop) | 1992 Runoff | 35.3 | 30.3 | 46.2 | 79.0 | 25.5 | 45.7 |
| GA 11 (McKinney) | 1992 Runoff | 20.9 | 34.6 | 62.3 | 90.8 | 26.5 | 49.3 |
| GENERAL I | ELECTION | | 288000 | | . 1402/3177/090 | | |
| FL 3 (Brown) | 1992 General | 57.8 | 68.6 | 54.3 | 97.1 | 25.6 | 41.7 |
| GA 2 (Bishop) | 1992 General | 55.9 | 62.6 | 52.8 | 98.3 | 32.4 | 36.5 |

^{*} The estimates of % white & black votes for black candidates is the % of whites & blacks voting for any of the black candidates, not simply the sinning black candidate.

48.9

53.2

96.7

36.0

31.2

33.0

37.5

57.8

66.4

1992 General

(McKinn

(McKinney)

60.3

58.3

The highest of the three percentages necessarily interests us most because it is the percentage needed for the black-preferred candidate to win all three elections—the Democratic primary, the Democratic runoff and the general election—and attain a seat in the legislature. The fact that the highest percentage black needed to win is not always found in the general election illustrates the importance of examining

^{74.} The percent black needed to win the Democratic primary is somewhat misleading if more than one black candidate ran in the primary—the estimates for the percentage of whites crossing over and the percentage of blacks voting cohesively are a reflection of the percentage of whites and blacks voting for any of the black candidates, not simply the winning black candidate. For example, in the 1992 Democratic primary in the Georgia 11th, 60.4% of the whites voted for one of the four black candidates running, but not necessarily the black candidate (McKinney) who won.

all stages of the election process, and not simply relying on an analysis of the general election.

Before we conclude that black Democratic candidates can win in congressional districts that are not majority black, several cautionary notes must be added. First, black candidates may not have been persuaded to compete for congressional office in the South if majority black districts had not been created—and black candidates cannot win if they cannot be convinced to run. Second, black voters may not have turned out to vote in such high numbers if they did not think black-preferred candidates had a chance to win. Third, a district that was less than majority black may have attracted more experienced and well-funded white candidates, and that in turn could lower the level of white crossover voting and result in the defeat of black Fourth, white incumbents can play a major role in retarding the prospects for black electoral success. Only one of the congressional contests examined included a white incumbent; if white incumbents had run in more of these districts, the black electoral success rate almost certainly would have been much lower. For example, in the Georgia 10th, which is 38% black, a black Democratic candidate was easily defeated by the white Republican incumbent in the 1998 general election. Finally, and perhaps most importantly, we must not over-generalize from the congressional data to other offices. As the data from state legislative districts in South Carolina demonstrate, sometimes legislative districts well in excess of 50% black are necessary to provide black voters with an equal opportunity to elect black candidates to office—a district-specific analysis is essential to make this determination.

C. Factors that Affect the Opportunity to Elect Minority-Preferred Candidates: Data from South Carolina State Legislative Elections

Our examination of the outcome of elections in black majority districts for the South Carolina House of Representatives during the 1990s reinforces the importance of a jurisdiction-specific analysis of the factors that affect the opportunity to elect minority-preferred candidates to office. Table 7 lists the election results for all majority black state house districts in South Carolina for the 1992, 1994, 1996 and 1998 elections.⁷⁵

^{75.} Table 7 does not include results from special elections, including the round of special elections held in 1997 due to court-ordered redistricting.

Exhibit 6

From: Pastula, Julianne (MICRC)

Sent: Monday, September 13, 2021 5:19 PM

To: Szetela, Rebecca (MICRC); Rothhorn, MC (MICRC)

Cc: Badelson1

Subject: Privileged & Confidential: Significant Concerns from General Counsel and VRA Counsel

THIS EMAIL IS A PRIVILEGED AND CONFIDENTIAL ATTORNEY-CLIENT COMMUNICATION THAT CONSTITUTES ATTORNEY WORK PRODUCT AND CONTAINS LEGAL ADVICE.

PLEASE DO NOT COPY, DISTRIBUTE, SHARE OR DISCLOSE THE PRIVILEGED & CONFIDENTIAL INFORMATION IN THIS EMAIL.

Dear Chair Szetela and Vice Chair Rothhorn,

Bruce and I are very concerned and alarmed about the drafting of packed districts that is occurring during today's mapping session. While the work is preliminary and future steps can be taken to remediate - this will become much more difficult the more packed districts that are drawn. In addition to not being able to justify the numbers coming out of today to a court, these drafts also create expectations on behalf of the public that will also be difficult to address moving forward.

The disaggregated election data was not available last Thursday when the Commission first moved into areas where the VRA is implicated. This was the data Lisa highlighted during her presentation on Sept 2nd which is critical for the Commission (and Bruce) to move forward. Today, the data appears to be loaded but there was no coordination of a presentation by Kim (which he offered over the weekend) to introduce the data and orient the Commission to it in advance of your mapping work. It has been 2 weeks and the Commission still does not have the critical updates it needs to the software even scheduled. This cannot be accepted by Commission any longer.

This complete breakdown of communication and the lack of information the Commission needs to perform its work is unacceptable and will continue to negatively impact its work unless it is addressed. The Commission desires to create best practices which will be measured by a successful defense of its maps after all legal challenges are done not by any other metric. The complete opposite is being done by the lack of information and coordination. The Commission is running out of time and have an enormous amount of work to do. The current course of action is against the advice of counsel and your RPV expert.

Everyone is making personal sacrifices but there needs to be uniform emergency among a majority of the Commission and unanimous understanding of the law. The current environment is not allowing either to take center stage.

The Commission should consider extending its meeting time for Mon-Wed, consolidating locations (instead of driving 6 hours round trip for a 6 hour meeting) and consider adding Friday meetings in order for the work to get done.

I recommend we have a call to discuss this email as soon as possible and would be happy to coordinate it to accommodate everyone's busy schedules.

Sincerely,

Julianne Pastula General Counsel State of Michigan Independent Citizens Redistricting Commission 517.331.6318 PastulaJ1@Michigan.gov

Julianne Pastula

General Counsel
State of Michigan
Independent Citizens Redistricting Commission
517.331.6318
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MICRC

09/30/21 10:00 am Meeting

Captioned by Q&A Reporting, Inc., www.gacaptions.com

Exhibit 7

>> VICE CHAIR ROTHHORN: As Vice Chair of the Commission, we will bring the Michigan Independent Citizens Redistricting Commission to order at 10:02 a.m.

This Zoom webinar is being live streamed on YouTube at redistricting MI.

For anyone in the public watching who would prefer to watch via a different platform than they are currently using, please visit our social media at Redistricting MI to find the link for viewing on YouTube.

Our live stream today includes closed captioning. Closed captioning, ASL interpretation, and Spanish and Arabic and Bengali translation services will be provided for effective participation in this meeting. Please E-mail us at Redistricting@Michigan.Gov for additional viewing options or details on accessing language translation services for this meeting.

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There is also a public comment portal that may be accessed by visiting Michigan.gov/MICRC, this portal can be utilized to post maps and comments which can be viewed by both the Commission and the public.

Members of the media who may have questions before, during or after the meeting should direct those questions to Edward Woods III, our Communications and Outreach Director for the Commission at WoodsE3@Michigan.gov or 517-331-6309.

For the purposes of the public watching and for the public record I will now turn to the Department of State staff to take note of the Commissioners present.

- >> MS. SARAH REINHARDT: Good morning, Commissioners. Please say present when I call your name. If you are attending the meeting remotely, please Announce during roll call you are attending remotely and disclose your physical location. I will call on Commissioners in alphabetical order starting with Doug Clark.
 - >> COMMISSIONER CLARK: Present.
 - >> MS. SARAH REINHARDT: Juanita Curry.

I understand that that may cause some level of uneasy and disappointment in people who are watching these hearings and are voters of Michigan.

But that's part of redistricting.

The Voting Rights Act and the U.S. Constitution say what they do.

And that has been my ongoing advice to the Commission.

Thank you.

- >> VICE CHAIR ROTHHORN: Commissioner Witjes? Then Commissioner Orton.
- >> COMMISSIONER WITJES: Based on advice of General Counsel this needs to be finalized and be reviewed so we can quote unquote start fixing it I move that we stop working on the house map and let it go in for analysis over the next two days so we can fix it next week.
- >> VICE CHAIR ROTHHORN: Okay that was a motion and I just want to make sure that because I think the fixing there was a District 18 that I think needed to be quote unquote fixed.
 - >> MS. JULIANNE PASTULA: And 16.
 - >> VICE CHAIR ROTHHORN: And 16.
 - >> MS. JULIANNE PASTULA: Pardon me 6 and 18 specifically.
 - >> VICE CHAIR ROTHHORN: Yeah 6 and 18.

And then in District — and I do think that Commissioner Eid pointed out there is a community of interest in Hamtramck in District 10 we might sort of try to pull into 2 just to comply and I don't think it's going to be a voting rights thing but that's meaning I think it's going to be okay but I just want to acknowledge that, that I think is where the spirit of fixing, it's in this map and it's District 18, District 16, and District 1. No.

General Counsel please help.

>> MS. JULIANNE PASTULA: What I would recommend is that the Commissioner consider doing is for the active matrix to scroll starting with 1 and glance at the districts, anything that is higher than 40% for the Black voting age population and the population difference I mean just to glance at and just go down the list and then when we get to I anticipate number 6, number 18, and others that those quote unquote fixes can be dealt with and then this map can be ready for the partisan fairness analysis.

That would be my recommendation.

And if the Commission was desiring of having an alternate house map, then the map that is the product of this analysis could be used to start the clone for the new one. But this would that changed.

Did you scroll John?

>> MR. MORGAN: Sorry I moved the two yesterday where we were comparing Commissioners Szetela's plan with the previously done plan and I was making this matrix show the combined so we could do what you described which is look at each individual District I can also bring it up in the active matrix.

- >> VICE CHAIR ROTHHORN: Thank you for that helpful direction General Counsel? It's Commissioner Curry's turn and so I want to acknowledge Commissioner Orton first and turn it back to you Commissioner Curry and direct of fixing 6 and 18 so yeah it will be your turn after Commissioner Orton Commissioner Curry.
- >> COMMISSIONER ORTON: So General Counsel I guess, I can't see you guys over there but I think we have been asking for specifics and the specific that I heard is that 6 and 18 need to be further unpacked? And you gave a number and 1 through all of them and if it's over a certain percent we need to look at that. So can you tell me again what that number was.
- >> MS. JULIANNE PASTULA: My suggestion was and Mr. Morgan was very helpful with it, however the data is best displayed but that the Commission start with the data chart and look at the list starting with one and I would recommend anything with a higher than 40% Black voting age population be looked at.

This will also give the Commission an opportunity to look at their population numbers at this time and that way by the time we get to District 110 we will know this map is okay for -- to have Dr. Handley run the partisan fairness measures.

So that would be my recommendation is just scrolling down the data and if there is anything, again, that looks percentages that look kind of high, the Commission can take a closer look.

But again with the modifications that the Commission has made, again, looking at the current data percentages would be what I would recommend and then when we see those districts, we can address them and make sure that all of them are addressed is my goal.

By going through the chart in this fashion.

>> VICE CHAIR ROTHHORN: Okay so our Chair has returned.

So I'm going to turn it over to Chair Szetela and.

>> CHAIR SZETELA: Yep so, I will take over from here.

First, I'd like to remind everyone, take it off? Commissioner Woods were you going to ask me to remind everybody?

- >> MR. EDWARD WOODS: Yes.
- >> CHAIR SZETELA: That is what I was about to do remind everybody we are required to wear masks in the building so if everybody could get their masks on, I would appreciate that.

This map we have open right now just so I'm oriented this is a full map we have of the full state with the changes I had suggested yesterday.

Is that.

>> MR, MORGAN: Yes, that's correct.

I made the changes as directed.

We stipulated I would do that.

But it does bring our percentages down in most districts below 40% and we have a few like 53, 52, I think the highest is 53.

So I did send that over to John if you guys want to look at it.

I think it might be easier than having us do it individually.

Again I'm not vouching for these districts.

I just I tried.

I did what Mr. Adelson asked and tried to lower the numbers.

And we've got some crazy show string districts but if everybody wants to look at that, I think it might and have Mr. Adelson look at it and see if this is what you are thinking we might do to be compliant that might be helpful.

- >> MS. SARAH REINHARDT: Is this draft distinct from the version submitted the day before yesterday?
 - >> CHAIR SZETELA: Yes.
- >> MS. SARAH REINHARDT: Okay, per our process they must be submitted to the Secretary of State one day before so they can be publicly posted.
 - >> CHAIR SZETELA: Okay
- >>VICE CHAIR ROTHHORN: Commissioner Clark I saw your hand and want to make sure General Counsel gets in while we are waiting for mapping for Commissioner Eid because I think partisan fairness was something we wanted to address Commissioner Clark do you have something quick?
 - >> COMMISSIONER CLARK: Rebecca.
 - >> CHAIR SZETELA: Yes.
- >> COMMISSIONER CLARK: Changes you made you just referred to are they just in the Detroit area?
 - >> CHAIR SZETELA: Yes.
 - >> COMMISSIONER CLARK: Okay thank you.
- >> VICE CHAIR ROTHHORN: Okay while we are waiting for our mapping software to boot up Commissioner or General Counsel would you like to address partisan fairness?
- >> MS. JULIANNE PASTULA: I would thank you so much Vice Chair Rothhorn. So very briefly I wanted to highlight again for the benefit of the public that partisan fairness according to subsection 13 of the Constitution, which sets forth the ranked criteria that the Commission is legally required to follow, the language regarding partisan fairness is districts shall not provide a disproportionate advantage to any political party.

A disproportionate advantage to a political party shall be determined using accepted measures of partisan fairness.

That language does not require and actually prohibits the Commission from considering the election results while they are mapping.

Accepted measures of pardon sand fairness and measures are run on statewide plan. Which the Commission run on statewide plans.

They cannot map in the manner in which the public is advocating.

They are legally prohibited from doing so.

The partisan fairness measures when run again the Commission's expert Dr. Lisa Handley will be here tomorrow to run those partisan fairness measures on the statewide plans.

And then the Commission will be able to make amendments, if necessary, based on those measures.

And again the language is shall not provide a disproportionate advantage.

This language is key.

This language is what must be followed and the Commission cannot vary this language or modify the Constitution or not follow the Constitution or else the entire map will be put in jeopardy.

In legal jeopardy.

So it really is critical I think for the public to understand and appreciate the position that the Commission is in.

And that they are required to follow the Constitution as adopted.

By the voters in Michigan.

Again, to the goal was to end partisan gerrymandering and not draw maps based on political considerations which is what this Commission has done to date and will continue to do, get the partisan fairness results and then their legal team can advise on appropriate next steps.

Thank you Mr. Vice Chair se Szetela thank you General Counsel so Anthony I think we will hand it over to you to direct the line drawers.

Looks like Mr. Morgan over there.

- >> MR. BRUCE ADELSON: Madam Chair can I interject.
- >> CHAIR SZETELA: Yes.
- >> MR. BRUCE ADELSON: Thank you for your ongoing efforts and there is something that occurred to me that I wanted to make clear.

One of the things that this Commission is doing, which is quite different than the typical approach to redistricting, you are essentially unpacking districts.

You are essentially leveling the playing field as the Voting Rights Act was intended when it was passed in 1965.

And the Supreme Court has said that is a more challenging process than just packing people of color together willy-nilly.

Frankly that is not difficult to do.

But you are doing the opposite.

And I think it's really important that everybody realize that.

And that, that is why the process is challenging and the process does involve many steps here and there, so I just wanted to make that clarification because I think it is a very salient one.

MICRC

10/20/21 1:00 pm Public Hearing

Exhibit 8

Captioned by Q&A Reporting, Inc., www.gacaptions.com

>> CHAIR SZETELA:

Thank you, good afternoon I apologize in the delay, on getting started. As Chair of the Commission, we will bring the Michigan Independent Citizens Redistricting Commission to order at 1:25 p.m.

This Zoom webinar is being live streamed on YouTube at the www.Michigan.gov/MICRC Commission YouTube channel.

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Members of the media who may have questions before, during or after the meeting should direct those questions to Edward Woods III, our Communications and Outreach Director for the Commission at WoodsE3@Michigan.gov or 517-331-6309.

For the purposes of the public watching and for the public record I will now turn to the Department of State staff to take note of the Commissioners present.

>> MS, SARAH REINHARDT: Good afternoon, Commissioners.

Please say present when I call your name. If you are attending the meeting remotely, please announce you are attending remotely and disclose your physical location where you are attending from.

I will call on Commissioners in alphabetical order starting with Doug Clark.

>> COMMISSIONER CLARK: Present.

Dispensing them in less compact districts that radiate out for the City of Detroit to suburban parts of Macomb and Oakland County.

As a result the maps feature 0 Black majority districts.

I'm asking Detroiters to stay and if we cannot consist have a consistent on the map I would recommend that we should look.

>> CHAIR SZETELA: Your allotted 90 seconds has ended could you please conclude your statement.

Ma'am, out of respect for the fellow ma'am you are being disruptive we have a lot of people here who want to speak today so please honor the time limits.

Thank you.

Five, six, seven and eight.

- >> Number five you can go ahead when you reach the podium.
- >> Good afternoon, Commission and staff my name is Sharon Wilson.

I was born, raised and educated in the City of Detroit.

I now serve on the board of Delta manor which is a senior apartment complex located on the west side of the City.

am vested.

Please note issues important to the African/American community have not been given sufficient attention.

Commissioners, now is the time to address these injustices via a correction of the proposed maps.

VRA districts must be created to allow Black voters to elect representatives of their choice.

Thus consideration of voting participation and election results must be taken into consideration.

Currently you have cracked multiple districts and have weakened our voice.

support the promote the vote maps for Congress, map 100615.

And the Michigan State University institute for social policy and public research recommendation that the MICRC reevaluate its approach towards compliance with the VRA.

No excuses.

We are demanding fair and equitable maps.

Thank you for listening.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number six.
- >> Good afternoon my name is Christine Peck and I'm a resident of Birmingham I was also an active volunteer in the 2018 prop two ballot initiative.

I participated in the process and continue to be invested because I believe a basic requirement of a true democracy is the right for citizens to choose their elected officials by vote.

However, if the proposed map this Commission has published stands it's as if the democratic party and independents on this Commission had their voices completely silenced.

Primarily in the City of Detroit.

This proposed map spreads the African/American block into multiple districts where their voting influence is greatly diminished and probably violates what is left of the Federal Voting Rights Act.

By the Trump support Court it was supposed to protect a voting groups ability to elect candidates but this Commission proposed map will rob the African/American community of the biggest City the edge in the population of Detroit allowing carpet baggers from suburbs and Lansing to dictate policy where and how state and Federal funds are spent for so many necessary endeavors in our City.

For shame.

This is not what we sent you here to do.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 12.
- >> My name is Marianne and live in hunting ton Woods Michigan.

I appreciate what you're doing Commissioners and as I delved into the maps, I cannot imagine the complexity of the work however today I want to focus on my State House District 21 on all of the maps.

The efficiency gap is between 5.7 and 7.4% this is definitely completely wrong. If you keep in mind that many elections in our state are decided by less percentages than that, that needs to be reconsidered so first of all District 21 you drew part of 7 cities Detroit, Huntington Woods, Berkeley, Royal Oak, Oak Park, and Clawson, parts of all of these cities which amounts to an African/American population between 48-50% depending on the particular map. You have not drawn a majority minority District even though I believe that some of your work has been to do vertical as opposed to horizontal districts.

But this did not accomplish the goal of having any kind of minority majority districts so what I believe that you need to do is you need to create horizontal districts in the area between Woodward and green field north of 8 mile and the same thing, the same area south of 8 mile.

So this could give you a majority Black District.

Otherwise you will be totally disenfranchising the votes of Black Americans thank you.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Commenters 13, 14, 15 and 16 may approach the microphone and number 13 when you reach the podium you are free to speak.
 - >> Good afternoon, Commission my name is Norman from Detroit.

I'm here today to ask you guys to make sure you are listening to the people out here in the community.

I understand that you guys have a tough job to do.

This is not my first time speaking to you guys.

And how you have done the districts using 35 percentage of how you are drawing is inaccurate based on the primary of what happened last year and Michigan has low primaries so I'm asking you to go back and redraw the maps not as fast as you can but as accurate as you can and increase it up to 50% and you get the accurate message you need out here.

Also think about the people you represent.

Hear what we are saying and not go by idly and hear what I say.

That is all I ask.

Thank you.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 14.
- >> Hi can you hear? You got my thing on the screen.

Can you throw yours up Congressional up on the screen next to it before you start the clock.

- >> MS. SARAH REINHARDT: We are only able to share one map at a time.
- >> Yeah, so this is the Congressional you know map I came up with.

It's not really the best option but at least it's something different this is Anthony in southwest Detroit and care about southwest and Down River.

Your Congressional maps have the same configuration throughout Apple, Birch, Cedar, Maple and V1RAS240 all use the same configuration for Congressional one and it's not the UP Commissioner Lange and Kellom when you were on the thing yesterday Congressional District one is right here in Detroit and they use the same for six out of your 7, 8 maps.

There was nothing methodical about it Commissioner Rothhorn and you said it was methodically drawn and we lean on the data and it drove us here.

I watched every meeting the data did not drive you to what you draw for Congressional District one for Detroit.

If I want to ride a bus from the bottom to the top, I have to make a transfer.

If I ride a bus from the bottom of mine where Down River is to the top, I can pick 3, 4, 5, 6 buses to take me all the way.

That is one basis by which I just came up with that.

And so you copied and pasted it.

Then Commissioner Eid you just switched out Warren for Romulus and that is different not really.

Commissioner Lange I appreciate you for at least trying to draw something different so please make wholesale change.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 15.
- >> Nina from south Oakland.

In the State House and Senate maps two different communities of interest are being treated unfairly.

Specifically in District 110.

Every one of these maps divides.

>> CHAIR SZETELA: Your 90 seconds is up.

Thank you for addressing the Commission. Number 17, 18, 19 and 20 and number 17 when you reach the microphone you may begin speaking.

>> Hello Commissioners and thank you for your work.

I appreciate the effort to remove politics from the political process.

However, I also want to express my concerns of elimination of a District and possible of decreased representation of a minority community that needs it the most in Detroit.

My name is and my family and I live in the City of Rochester. I'm a member of the Sikh faith.

I'm here today to speak on behalf of my religious community in Oakland and Macomb Counties because we have not yet advocated for ourselves in this progress. As a smaller community we used to be together to amplify our voice and have our Congress person notice us as a constituency group.

Our concerns are not only for our own religious community, but the communities at large which we live in. That is why I'm supporting the Birch version of the draft map, which keeps the Sikh places of worship in Oakland, Macomb Counties together by keeping Troy, Rochester, Rochester Hills and Sterling Heights in one District. We will see many comments from my community on the Birch map. I ask you to consider Michigan six of community of interest on the final Congressional map. Thank you for the opportunity to comment today.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 18.
- >> This Commission was set up to prevent partisan fairness gerrymandering.

The members on this committee should be ashamed of the stacking cracking and packing these so called maps put forward and show.

People see through this.

How much influence has Alec had on Commissioners and the map, ALEC, how much influence have they had on you guys? Start over.

Those maps are garbage.

Go with the maps with the AFLCIO, promote the vote and the Showers, Schwartz maps. Start with those and start over.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 19.
- >> Good afternoon, Commission my name is Yvette Anderson.

We need you to draw maps that are 51% Black.

We know that you can draw better maps for Black Michiganders.

Honor the Voting Rights Act to ensure Black people are able to elect leaders that look like themselves.

Let's not return to the Jim crow politics of old.

Going from 17 majority Black districts to 0 is unacceptable.

It's important to me that Detroit be able to elect its own representatives and I'm not sure your maps will guaranty that.

Look at the AFLCIO fair maps project for ideas on how to get to partisan fairness while respecting real communities of interest.

Thank you.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 23.
- >> I am Susan.

I live in northwest Detroit in north Rosedale Park and I'm a proud member of Congressional District 13.

I've lived in Detroit since 1975.

I know you have a very difficult job and I know you're doing it to the best of your ability. However, the currently drawn map cracks my neighborhood and puts my neighborhood in a Congressional District combined with suburban Livonia which I think is 95 percentage white.

I and my neighbors in Detroit in this northwest Detroit are truly a community of interest and have different concerns and needs than suburban Livonia.

I know the intent of this map is not racist.

But it is functionally racist because it dilutes the Black vote.

And will decrease Black representation.

There are examples of maps that are fairer.

Check out the AFLCIO and one fair vote as possible guides.

I think it is incumbent upon you to draw maps that are fair for my neighbors or me and for all Detroiters.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 24.
- >> My name is Rick blocker.

And excuse me.

come today to ask again that you draw majority-minority maps and districts.

We have Black people in the State of Michigan representing 14% of the population.

We currently represent 12% of the people in the State Senate and the State House.

We represent six percent of people in the Congress of the United States.

Under your current proposal that number could be eliminated to no representatives in the Congressional and very few, if any, in the State House and State Senate.

You must do better.

We deserve fair representation.

The people in this area have fought hard.

We cannot go backwards.

We are sick and tired of being sick and tired.

We need fair maps now.

We need for you to stop, no excuses, draw fair maps.

Make sure we have Black representation.

If that current Congressional maps you have, neither one of them and I looked at all the maps on the portal goes to 50%.

If you have to go to other communities where Black people are to get 50%, you need to do so.

It is not acceptable for us to have the maps that does not reflect our community and does not protect Black people in this area.

Thank you.

>> CHAIR SZETELA: Thank you for addressing the Commission. Numbers 25, 26, 27, and 28 please approach the microphone and number 25 you can begin speaking. And just to orient people online watching proceedings, we are at 25 and at it for about 35 minutes.

We currently have 116 people signed up for in person public comment.

So it is likely that we will not get to online remote public comments before the 3:30 close and I think we are probably going to push a little past 3:30 to give people more time to speak so orient the people online we are 25 and have 116 in person. Go ahead number 25.

>> Thank you, good afternoon, everyone my name is Michael and I'm here with my vice president Tonya Ray and Michelle Thomas and Pam Smith and other members of labor unions.

Michigan independent Redistricting Commission you are failing us.

Congress will not end the filibuster so John Lewis Voting Rights Act and freedom to vote act are laying in the waste land.

States right has been the excuse for not passing that legislation and it has been historically been the reason for the disenfranchise of Black Brown Jews and others and needs to focus on Michigan rights and do the right thing for the state and citizens. Fair should be the benchmark your plan negates what fairness and voting democracy in the communities.

Your plan for the next ten years denies Black Brown in Michigan the opportunity to select representatives from their neighborhoods to send to Lansing, Washington or the school boards.

You can incorporate the AFLCIO maps project or the Michigan Black caucus or even come to the UAW or CBT and we will improve your product to present to the people that will provide racial justice and ensure nonpartisan fairness.

Do the right thing.

Do not put barriers on our boundaries and chains on our voting machines.

Please do not sell the citizens of Michigan by offering a youth that divides us and greatness and power of our democracy.

We all know the big lie.

We ask you today why.

We are asked to have maps on behalf of the politicians or the people in power.

We must protect the voice of people.

Do the right thing.

Listen, think and act.

Thank you.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 26.
- >> Good afternoon my name is Carla Meijer and I'm from Troy and Oakland County.

New House District 32 which is all of Troy is perfect.

Thank you.

New Congressional District 6 not so much.

Troy and Oakland County share new districts with Macomb County.

I lived in Troy since the early 70s but I have always been employed in Oakland I'm sorry always been employed in Macomb County and I know we are not communities of common interest nor do we share common characteristics.

The new Congressional District 6 needs work.

It needs work.

As proposed currently proposed it weighs heavily republican.

Troy should be with Oakland County as proposed on the Juniper maps all other maps it's with Macomb and affiliates with Oakland County and school and library affiliations bus teams Commerce and our Oakland County water resource efforts and goes to Lake St. Clair and the City of St. Clair shores a Lake voting community with nothing similar to Troy.

My ask is that Troy and other Oakland cities that have been placed in CD6 be moved to neighboring CD3 it just makes sense.

Over all maps must be completely nonpartisan and must, must comply with the Voting Rights Act rules.

Thank you.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 27.
- >> Good afternoon, Commissioners.

My name is Betty Edwards, I'm a lifelong Detroiter who has voted in every election since I was 18.

I'm a concerned citizen.

And also a member of Delta Sigma Theta sorority. It was created for Black people to elect representatives that look like them and of their choosing.

Your current maps crack Detroit and make this impossible by radically changing districts.

Today that means congresswoman Tali, Senator Stephanie Chang and Guise and rep Sarah Anthony's community should not be carved up into districts that do not keep their communities' interests together.

>> Good afternoon my name is Danielle Steven I'm a retired public servant, native Detroiter and member of multiple civic including Delta significant that and Detroit alumni chapter and Detroit Branch NAACP.

I thank you for this opportunity to provide comment again.

But after review of the maps you submitted, I do not believe they best represent the interests of African/American voters and they're about to select other African/Americans to represent them.

A report recently issued by the Michigan State University's institute for public policy and social research concludes that the methodology used by the Commission, quote, breaks apart the geographical compact Black majority in the City of Detroit dispensing them with less compact districts.

That radiate outward from the City of Detroit towards suburban parts Macomb County and Oakland County.

As a result this engineered partial dilution of concentrated Black vote the maps future 0 Black majority districts.

The purpose of the Voting Rights Act was to ensure equity and the ability for African/Americans to fully participate and a state with African/American population of 13.79 percentage there should be some consideration of our community.

We also point out the majority of this percentage resides in Southeast Michigan and in Detroit furthering our argument.

We strongly recommend that the Commission look to the promote the vote maps. I have my full statement in the portal.

>> CHAIR SZETELA: Thank you for doing that.

And to clarify we welcome people to also submit their statements into the portal particularly if you feel you don't have time to complete it or just in general because it gives us a written record and you can access that outside the room here there are people there who can assist you or go to the website at www.Michigan.gov/MICRC. And you can submit your comments there as well.

Thank you, number 48.

>> Good afternoon Honorable Commissioner I'm Eddie McDonough and I think I'm your last speaker before we break.

I would just like to say I've been around for a little while.

70 years old.

Thank you.

I've had the opportunity of growing up in Pontiac.

But I have lived in Wayne County, I've lived in other parts of Oakland County and lived in Canton, I've lived in Farmington Hills, I've got a relatives all over Southeast Michigan. The one thing that I know plain and simple is in all of my living whoever we chose to represent us were part of us from those various communities.

That needs to stay the same.

Speaking as respectfully and as candidly as possible we know the lawsuits are coming so why are we compromising on the integrity of this constitutional amendment.

I urge you not to compromise our chance at representation for the sake of numbers.

As you know because of the lack of census representation there is no Federal protections, no Federal Voting Rights Act, no grant funding or research no recognition for Arab Americans and the battle for basic equity will be even harder because all the current maps will restrict the only opportunity to gain legislative representation.

The only avenue we have left for a voice.

I'm frustrated because we are making history at the local level with record numbers of Arabs voting and running for office and done what we are told to do on the table instead we are put at the menus.

- >> CHAIR SZETELA: Your allotted 90 seconds is up please conclude your statement.
- >> P6764 and P6762 which have been collectively drafted by our community thank you.
 - >> CHAIR SZETELA: Thank you for addressing the Commission. .

Number 56.

- >> Okay looks like we don't have 56 so 57 if you want to go ahead.
- >> Hello, my name is Anthony Watkins.

And I'd like to thank you for the opportunity to share my important comments on the public hearing.

I would like to comment on how the Commission has gone from 17 majority Black districts primarily based in Detroit to 0.

That's a problem.

That is a serious problem.

The Detroit neighborhoods and communities should be drawn together.

Majority Black districts are important.

And we can draw them.

NAACP has drawn them.

Several community groups have drawn them.

Fellow Detroit citizens have drawn them.

But these maps need to be seriously looked at and seriously considered and not just request to be submitted.

So we are aware we can beat this and we are aware that we need to have this done.

Because districts do not have a majority of Blacks.

In large part having elected Black individuals,

Black issues are important.

And led by Black people.

And it's Black people continuously able to lead on these issues.

thank you.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Numbers 58, 59, 60 and 61.
 - >> What number are you sir?
 - >> 59.
 - >> CHAIR SZETELA: I don't see 58 so go ahead number 59.
 - >> I'm Percy Johnson, UAW cap chairman, Local 22.

I'm also a member of liberty temple Baptist church.

We were involved with getting the petitions for you guys to be able to have the position that you have today.

And I need you to get me out of the hot seat because right now the encouragement that I gave our voters in Detroit and people who signed the petition and were willing to participate and be in one of your you know we took names of people to also be a Commission in our church and union halls.

And they were encouraged this will give them a chance to have a fair vote to represent their communities.

And we, seriously I got over 8, 900 signatures on our petitions for this to be on the ballot.

And 90% of them were Detroiters.

So please I'm asking you to please give Detroiters a 50% or plus better to represent their vote when they vote.

So to weaken them and give them a weak vote would hurt them.

I'm from Troy but yet I know if I see -- when I see something that is not justly done or unfair, I'm going to speak up for them and represent them.

My heart and soul is in Detroit and Detroit deserves to have fair, good representation and they can't get it if you take away their strength of their vote.

Give them a 51 plus vote.

Thank you.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 60.
- >> All right we will move on to 61, 62, 63, 64 and just in case there is in I confusion it's my understanding when people were first arriving that people who were higher than 50 were told we might not get to them.

So I'm keeping track of everyone who is not here so if those people happen to show up at 5:00 you will be given a chance to speak.

So I don't want people to think because they are not here, we won't give you a chance to speed because I know some people were given that guidance what number are you ma'am.

- >> 64.
- >> CHAIR SZETELA: 54.
- >> No 64.
- >> CHAIR SZETELA: 61, 62 or 63.

It has the second largest Asian community of any City and Township behind Troy which you basically kept whole in the State House and it's 28 percentage Asian and the number has risen significantly over the decade and projected to grow.

African/American voters which I agree with the folks in the room we need more of and better off there are few communities in Michigan that have large populations of color from different racial backgrounds like Hispanic and Asian community.

I want the Commissioner to consider Novi and Troy has significant Asian population and this community should be kept whole to keep it intact and elect districts that we can select a candidate of choice.

I think the map that has gone the most right direction is the one that is proposed by Commissioner Szetela for the State House.

But it's missing several Novi and precincts out to livings ton county and for Ann for partisan fairness and do not include it with Livingston County and I would take Commissioner Szetela and swap precincts in lion Township for remaining in Novi it does not deserve to be split three ways and have much with Livingston County border and increases the Asian share of population and fits within the population deviation I did double check.

Thank you for your time and being here to take comments.

- >> CHAIR SZETELA: Thank you for addressing the Commission. At this time I'll call up 66, 67, 68 and 69 and 66 as soon as you reach the microphone you can start speaking.
- >> Good afternoon my name is Reno, 892 out of Saline Michigan and asking the Commission to withdraw the maps so it's fair for democrats and republicans the entire purpose of the independent redistrict Commission is making things fair.

And their work is not complete until they have maps that are fair across the board. I'm also asking for the Ypsilanti centric districts Ypsilanti voters should not have their voices silenced by getting packed into the shadow of Ann Arbor. It's okay if they have Ypsilanti and only a portion of Ann Arbor share districts. But they should not have Ypsilanti and all of Ann Arbor packed together.

This is because Ypsilanti is a major population centered with different demographics than Ann Arbor.

Some newer maps made the split and hope they will follow through. Thank you.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Number 67.
- >> Hello, my name is Yancey and representing 892 and concerned how you sliced Detroit into thin strips and put with heavy white areas in the suburban.

The democratic Commissioners and in particular need to stay strong and veto any unfair maps until we get fairness.

And under 13 Commissioners should approve any maps that has a boundless advantage to a particular party.

All of the maps so far have been approved by democrats of the Commission and all of them favor the republic party.

Where is the fairness in that? The fairness is a priority above all local boundaries and compactness.

Do not be afraid to unpack the City.

And by doing so it may make a weird shape in the map but that is okay.

What is not okay if the map does not represent Michigan, it's important Detroit be able to elect its own representative and I'm not sure your maps warrant that.

I believe Detroiters should be represented by Detroiters who understand their concerns. Thank you.

>> CHAIR SZETELA: Thank you for addressing the Commission. Number 68 or 69. Do we have number 70, 71, 72 or 73? If you could just let me know your number, ma'am.

73 thank you.

>> Hi, I'm Sherri from Livingston County and while as I listen to the people speaking here today, I realize I don't have as much on the line as many of them.

So I'm hoping that you all take it to heart and listen to what these people are saying. As a member of the League of Women Voters, I was very strong support of the independent redistricting committee.

And my -- I do live in a currently horribly gerrymandered District that has taken away my voice and my community.

And although the maps are significantly better than they were, they are still skewed in the U.S. Congress and the Senate to favor the GOP by 5-8%.

That's not good enough.

We want fair maps.

The partisan fairness is one of the criteria in the Michigan Constitution.

And I hope you all take that to heart.

Basic principle is that the party that receives the most votes statewide should receive the most seats in the Michigan legislature.

I would urge you to look again at the AFLCIO and the one fair vote maps.

And I'm requesting that you please make partisan fairness a priority in your map. Thank you.

- >> CHAIR SZETELA: Thank you for addressing the Commission. A call for 70, 71 and 72 what number are you ma'am?
 - >> 74.
 - >> CHAIR SZETELA: Go ahead.
 - >> My name is Ethyl.

I'm a resident of White Lake Michigan in northern Oakland County.

I want to mention that I appreciate the work you're doing.

>> I'm number 95 and I'm a republican and did not vote for proposal two but people of the state did and it's the law of the land and a process that has to go forward and so I commend you for doing work but your work needs work and the one thing you failed to do or at least not at the start but as you got going and sort of listened to your experts first of all Voting Rights Act expert I think I would fire your first order of business after these hearings should be to fire the voting rights expert because he has it dead wrong that is why this community here is dissected as bad as. It has been smashed like a toothpaste tube all over southeast Michigan and I think that is wrong.

But you stopped looking at people and stopped looking at communities and started looked at numbers on a spreadsheet. And all you wanted to do is come up with numbers on the spreadsheet. From the partisan fairness you are. And you couldn't have over 40% African/American in any District, so on and so forth. And then you started dividing things up. And I just want to point out District 15 on the State House map, which begins Schoolcraft and Greenfield in Detroit, an area I grew up very close to. And goes through Oak Park, Berkley, Southfield Township, Bloomfield Township and Birmingham and ends at Long Pine and Loser.

Schoolcraft and Greenfield have very little, if nothing in common with Long Pine and Loser, so get back to work and understand politics.

I know you were not supposed to be involved, and it's clear you weren't. So get back to work and draw fair districts and draw African/American districts. It needs to be done.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Sir. If you would like to go ahead and speak and let me know what number you are as well, that will be helpful.
 - >> Hi. Excuse me. My name is Bruce.

My number is 101.

- >> CHAIR SZETELA: We can't hear you it's okay to take your mask off while speaking in the microphone.
 - >> With the mask.

How you doing my name is Bruce I want to thank the Commission for letting me speak today and I'm blind and I see clearly what is going on with redistrict.

And y'all can see but y'all are blind.

My parents came here from Georgia and Tennessee.

I represent Detroit and northwest area.

And I'm going to speak for the kids that don't have a vote that we are supposed to represent they are our future and for y'all to have districts where I'm not represented by my color and my community, I hope y'all do the right thing and represent the minorities and people of Detroit and the people of my District to represent me and the kids who can't speak for themselves.

I am grateful to see everybody coming out to let you all know how we feel about Districting stuff here.

Szetela, Rebecca (MICRC)

From: Pastula, Julianne (MICRC)

Sent: Wednesday, October 20, 2021 10:12 PM

To: Pastula, Julianne (MICRC)

Subject: Privileged & Confidential: VRA/Partisan Fairness

Follow Up Flag: Follow up Flag Status: Flagged

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Dear Commissioners and Staff,

Congratulations on a very successful first public hearing! As expected, many of the comments centered around the VRA and partisan fairness. Many speakers advocated for strong consideration of the MDP backed AFL-CIO and Promote the Vote maps which are based on criteria and methodologies that are simply not in the MI Constitution (resulting in partisan fairness numbers so different from the MICRC maps which adhered to the MI Constitution and still score very well).

I circulated a privileged and confidential summary prepared by Bruce Adelson in regard to the Voting Rights Act on October 14th. Under MI law, this memorandum (which is an attorney-client communication) can serve as a basis to convene a closed session. This would enable the MICRC to have a frank and direct discussion with their legal counsel in regard to the memo and address the issues surrounding VRA compliance in more detail. This would benefit the MICRC by having one conversation where all members present hear the same information at the same time, benefit from hearing questions of your colleagues and, more importantly, receiving the answers and legal advice from your team. This is a far more effective communication option than one-on-one conversations which lack the depth or breadth of a collective conversation.

If the Commission would like to pursue this option, coordination of this conversation would be needed to facilitate participation of remote members and preparation of the appropriate script to satisfy the legal requirements of holding closed session in MI. This could be arranged in very short order.

Please do not hesitate to reach out with any questions or concerns.

Sincerely,

Julianne Pastula

General Counsel
State of Michigan
Independent Citizens Redistricting Commission
517.331.6318
PastulaJ1@Michigan.gov

Szetela, Rebecca (MICRC)

From: Pastula, Julianne (MICRC)

Sent: Monday, October 18, 2021 10:07 AM

To: Pastula, Julianne (MICRC)

Subject: Privileged & Confidential Information and Update

Follow Up Flag: Follow up Flag Status: Flagged

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Good morning Commissioners and Staff!

Congratulations on all of your hard work to date. As we move into the second round of public hearings and the final deliberation/adjustment period I wanted to provide the following information and reminders:

- Please do not respond to comments in the portal. Similar to the presentations, this creates a record that will
 give your opponents the ammunition for your sworn deposition and trial testimony on your intent and rationale
 for your mapping selections and on whom you chose to engage.
- Some individual Commissioner maps were submitted after 10 am deadline on Thursday due to ongoing software and data issues. Given each of your individual constitutional rights to submit maps and the difficulty in resolving technical issues for some Commissioners, I strongly recommend any maps received after the deadline be welcomed by the Commission. In addition, the Constitution does not empower the Commission to reject these individual commissioner maps. All published collaborative and individual maps will receive feedback from the public and vetting by the Commission itself.
- Another language reminder:
 - The rationale provided during the deliberations and adjustment period must be very specific and provide the legal justifications your mapping decisions. The privileged and confidential document titled Legal Considerations and Discussion of Justifications Re: Criteria circulated on October 7th provides appropriate legal guidance. The compliance tracking form can also assist in capturing rationale and must be completed for each final map. This rationale is the basis for your decisions that will be highlighted in court (used to challenge or support your work), as has happened with other state commissions, such as in Arizona. Remember, Arizona's transparent, thorough compliance justifications enabled the Arizona Commission to successfully defend all its maps, achieve DOJ preclearance for the first time in state history, and win 9-0 before the US Supreme Court. Let's follow their lead and match their track record.
 - O During the post public hearing deliberation and adjustment period (only 8 days) it is appropriate to highlight that you are responding to public comments, looking to unite/reunite communities of interest and/or increasing diversity. Statements about eliminating blacks or adding whites cannot be made at the table or placed on the public record. There is already too much on the record that can be used against the Commission's work taken out of context and without full appreciation of the MICRC's process.

- It is critical for compliance with the 5th criteria (districts shall not favor/disfavor incumbents or candidates) that Commissioners not consider, know, discuss, analyze, look at, listen to or otherwise allow incumbent information to infiltrate your process, deliberations or work product.
- I would urge the Commission to avoid hyperbole and personal attacks during deliberation and adjustment period. As expected, criticism and attempts to split the Commission into factions will be increasing, particularly during the public hearings.
- If you choose to speak to the media, please remember Friday's great PR training sessions by Edward and Mike (which also reinforced the Subsection 11 messaging that started in January). In addition to "I don't know" or "playing it by ear" and giving an answer that could potentially damage the ongoing work of the MICRC, an appropriate answer can reference legal advice given or redirect to your lawyers (Edward always reaches out to me and I anticipate Mike would not hesitate to as well). By design, the Commission is comprised of 13 regular citizens that should not be expected to have a command of a body of law dating back to the 1960s.
- If you would like to discuss the contents of the Privileged & Confidential VRA memo circulated on October 14th
 Bruce and I are available to you. We are concerned that the misinformed media narrative will result in
 additional complications in the Commission's compliance with the VRA. Remember the MICRC has been
 consistent in its data driven process. The draft proposed maps are based on RBV analysis and the law. Creating
 districts with overwhelmingly minority or "safe" districts is not supported by either the data or the law. This
 media narrative is being advanced by lobbyists and politicians driving emotion in a very sensitive and critical
 area.

PLEASE consult with your lawyers if you have any questions, concerns, or uncertainties. Our job and ethical obligation is to advise and guide you through this final, more difficult mapping phase.

Sincerely,

Julianne Pastula

General Counsel
State of Michigan
Independent Citizens Redistricting Commission
517.331.6318
PastulaJ1@Michigan.gov

From: Szetela, Rebecca (MICRC)

Sent: Wednesday, December 15, 2021 10:10 PM

To: Pastula, Julianne (MICRC); Lett, Steven (MICRC); Rothhorn, MC (MICRC); Woods, Edward

(MICRC); Hammersmith, Suann (MICRC); Clark, Douglas (MICRC); Kellom, Brittni (MICRC);

Orton, Cynthia (MICRC)

Subject: Re: P&C: Update on Proposed Legislation

Julianne:

I do not appreciate you attempting to put words in my mouth. I did not say I no longer have concerns. In fact, I have grave concerns regarding your conduct.

Specifically, I am deeply concerned to have learned that you personally became aware of critical issues with Dr. Handley's VRA analysis earlier this week and, in addition to not notifying the Commission about this alarming development, have also directed staff members, vendors, and the SOS not to alert Commissioners as to the issue until the week of December 28th - almost two weeks away. It's my understanding that Dr. Handley has informed you, staff, vendors, and members of the SOS that her analysis was deeply flawed and that, as a result of her flawed analysis, not a single one of our Senate maps are VRA compliant. Accordingly, the Commission will likely need to redraw and republish, at a minimum, our Senate maps with BVAP numbers closer to 45-48%, which will require significant map revisions. The alternative is for us to approve non-VRA compliant maps and let our lawyers attempt to defend them, which would be an affront to this entire process.

This information should have immediately been communicated to the Commission and certainly should have been placed on the agenda for tomorrow. The fact that you have instructed other staff members and the SOS to not disclose this information to the Commission for a further two weeks is outrageous and is a perfect example of you exceeding the scope of your duties and making decisions that should be made by the Commission. As an attorney, you have an ethical obligation to keep your client informed. Squirreling away critical information for weeks and hiding it from the client does not satisfy this obligation.

In addition, it's my understanding that you were hoping to conceal this information from the public by having yet another closed session the week of the 28th, which contradicts our mission, vision, and values.

I was planning on discussing this situation with you in person in the morning to encourage you to share this information immediately with Commissioners. Unfortunately, your email made me reconsider that path.

See you in the morning.

Rebecca

From: Pastula, Julianne (MICRC) < Pastula J1@michigan.gov>

Sent: Wednesday, December 15, 2021 8:59 PM

To: Szetela, Rebecca (MICRC); Lett, Steven (MICRC); Rothhorn, MC (MICRC); Woods, Edward (MICRC); Hammersmith,

Suann (MICRC)

Cc: Clark, Douglas (MICRC)

Subject: RE: P&C: Update on Proposed Legislation

Dear Rebecca,

My offer to connect was in response to your statement during the Dec 2nd meeting that I had stepped outside of my role as General Counsel. I was confused by those allegations. I'm glad to hear it's no longer a concern and I look forward to seeing you in the morning.

Sincerely,

Julianne Pastula

General Counsel
State of Michigan
Independent Citizens Redistricting Commission
517.331.6318
PastulaJ1@Michigan.gov

From: Szetela, Rebecca (MICRC) <SzetelaR@michigan.gov>

Sent: Monday, December 13, 2021 11:57 AM

To: Pastula, Julianne (MICRC) <PastulaJ1@michigan.gov>; Lett, Steven (MICRC) <LettS@michigan.gov>; Rothhorn, MC (MICRC) <RothhornM@michigan.gov>; Woods, Edward (MICRC) <WoodsE3@michigan.gov>; Hammersmith, Suann

(MICRC) < Hammersmith S@michigan.gov>

Cc: Clark, Douglas (MICRC) < ClarkD32@michigan.gov> **Subject:** RE: P&C: Update on Proposed Legislation

Julianne:

Thank you for your note. While I appreciate your offer to connect, I don't believe there are any issues we need to discuss at this time? If there is something in particular you are concerned about that I am unaware of, you are certainly free to reach out to me at my number below. Keep in mind I am back to working full time and may be tied up in meetings, so please leave a message if you call and I don't answer.

Rebecca Szetela Commissioner Michigan Independent Citizens Redistricting Commission szetelar@michigan.gov (517) 898-9366



MICRC
09/30/21 5:00 pm Meeting
Captioned by Q&A Reporting, Inc., www.gacaptions.com

>> CHAIR SZETELA: As Chair of the Commission, we will bring the Michigan Independent Citizens Redistricting Commission to order at 5:00 p.m.

This Zoom webinar is being live streamed on YouTube at the Michigan Independent Citizens Redistricting Commission on the YouTube channel.

For anyone in the public watching who would prefer to watch via a different platform than they are currently using, please visit our social media at Redistricting MI to find the link for viewing on YouTube.

Our live stream today includes closed captioning. Closed captioning, ASL interpretation, and Spanish and Arabic and Bengali translation services will be provided for effective participation in this meeting. Please E-mail us at Redistricting@Michigan.Gov for additional viewing options or details on accessing language translation services for this meeting.

People with disabilities or needing other specific accommodations should also contact Redistricting at Michigan.gov.

This meeting is also being recorded and will be available at www.Michigan.gov/MICRC for viewing at a later date and this meeting also is being transcribed and those closed captioned transcriptions will be made available and posted on Michigan.gov/MICRC along with the written public comment submissions.

There is also a public comment portal that may be accessed by visiting Michigan.gov/MICRC, this portal can be utilized to post maps and comments which can be viewed by both the Commission and the public.

Members of the media who may have questions before, during or after the meeting should direct those questions to Edward Woods III, our Communications and Outreach Director for the Commission at WoodsE3@Michigan.gov or 517-331-6309.

For the purposes of the public watching and for the public record I will now turn to the Department of State staff to take note of the Commissioners present.

>> MS. SARAH REINHARDT: Good Evening, Commissioners.

Please say present when I call your name. If you are attending the meeting remotely, please disclose you are present and you are attending remotely.

I will call on Commissioners in alphabetical order starting with Doug Clark.

- >> COMMISSIONER CLARK: Present.
- >> MS. SARAH REINHARDT: Juanita Curry.
- >> COMMISSIONER CURRY: Attending from Detroit Michigan.
- >> MS. SARAH REINHARDT: Anthony Eid?

People are represented in our legislatures, not geography.

My second concern is about partisan fairness.

As was discussed before too.

We need you to reconsider the maps that are currently drawn to ensure that this principle is applied.

I understand that the current drafts are pretty much all leaning towards one party. And that's the republicans.

This is contrary to the criteria established for the Commission and cannot stand.

Those elected from such districts whether they are one party or the other dominant will not feel as compelled to take into consideration conflicting sets of opinions and to be willing to compromise on legislation.

And that's what we have going on now.

Now, this is a major reason why many of us voted for the proposition, so we are asking you to please work harder on this point. Thank you.

>> CHAIR SZETELA: Thank you for addressing the Commission. Number five.

>> Hi, can you hear me all right? Is this good? Hey, everyone, my name is Max and live in Wayne County and thank you to the Commission I know this task is complicated and difficult and thank you for your time and dedication on it.

I was here this afternoon and compelled to respond to something.

The Commission was told they cannot use partisan data while making the maps.

But I just want to say that is nowhere in our state Constitution.

That prohibits saying that you cannot use partisan data while making your maps.

I do understand there are some partisan fairness measures such as the efficiency gap that you need a full complete statewide map of districts to use.

But let's not kid ourselves.

The current draft maps as they stand are heavily favored towards one party over the other and tomorrow's analysis is going to show that.

So the question I have for the Commission is: How are we supposed to ungerrymander the current draft maps if we are not able to use partisan data while you are actually making the maps themselves? I know there was a lot of fun metaphors earlier this afternoon I want to try one for myself.

This is like saying that the Constitution is requiring you to bake a cake and yet you are also being told the Constitution prohibits you from measuring ingredients or taste testing the batter that you simply are supposed to put it in the oven and hope it turns out great. Which it begs the question then what? Like what are you supposed to do for the next cake do you want to guess and check and do trial and error? To me it sound like a waste of cake baking and map drawing time.

Just like everyone else I want a delicious slice of fair constitutional cake.

From: Pastula, Julianne (MICRC)

Sent: Wednesday, October 6, 2021 7:12 PM

To: kbrace@aol.com

Cc: Hammersmith, Suann (MICRC); Szetela, Rebecca (MICRC); Rothhorn, MC (MICRC);

Reinhardt, Sarah (MDOS); Badelson1

Subject: Partisan Data/Partisan Fairness Measures

Importance: High

Dear Kim,

We urgently need to have a telephone conference this evening to address this issue. The manner in which the partisan data is being presented does not assist the Commission in determining how and where to make focused adjustments to districts. The "trial and error" approach being employed today is far too time consuming and does not have any cognizable methodology. Even worse the time spent is not resulting in productive improvements. Given that the Commission only has 3 days left to finalize its draft proposed maps this must be addressed immediately.

On or about August 6th, I expressed concern with the display of partisan data as the Commissioners were focusing on the displayed political data and because we don't have competitiveness as a criteria, drawing with partisan data was inappropriate. At the time, you indicated it could be "hidden" leading me to believe it is in the active matrix. We need to discuss a more productive way forward so the Commission can interact with partisan data in a more meaningful and time efficient way.

I have taken the liberty of sending an invite for 8:30 pm. I acknowledge you are traveling to the East coast, please advise an alternate time this evening is needed.

Sincerely,

Julianne Pastula

General Counsel
State of Michigan
Independent Citizens Redistricting Commission
517.331.6318
PastulaJ1@Michigan.gov

From: Pastula, Julianne (MICRC)

Sent: Sunday, October 3, 2021 9:49 PM

To: Kim Brace

Cc: Hammersmith, Suann (MICRC); Szetela, Rebecca (MICRC); jmorgan4@cox.net;

wkstigall@gmail.com

Subject: RE: Plan to Score

Dear Kim,

I am available to discuss tomorrow. I will be remote in the morning/early afternoon so it may be best to connect when I arrive in person or after the meeting - depending on Sue's availability of course!

Also, can you please confirm Polsby-Popper in in the software. If so, does the report display individual district scores as well as the plan min/max/median/standard deviation?

Thanks,

Julianne Pastula

General Counsel
State of Michigan
Independent Citizens Redistricting Commission
517.331.6318
PastulaJ1@Michigan.gov

From: Kim Brace <kbrace@aol.com>
Sent: Sunday, October 3, 2021 9:22 PM

To: Szetela, Rebecca (MICRC) <SzetelaR@michigan.gov>; jmorgan4@cox.net; wkstigall@gmail.com

Cc: Kim Brace <kbrace@aol.com>; Hammersmith, Suann (MICRC) <HammersmithS@michigan.gov>; Pastula, Julianne

(MICRC) <PastulaJ1@michigan.gov>

Subject: Re: Plan to Score

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Rebecca - OK, your plan is uploaded and viewable by the public on the MyDistricting site..

Attached is also the report on political fairness that I ran on your plan.

Sue & Julianne — One of the things that staff and I need to discuss on Monday is how much of some of the additional reports do you want to unveil. Like this political fairness report there are a bunch of other data, tables and reports that are possible in EDGE, but we should talk about what do we want to release.

Thanks

Kimball Brace Election Data Services, Inc. 6171 Emerywood Ct Manassas, VA 20112-3078

(202) 789-2004 or (703) 580-7267 <-- landline

Fax: 703-580-6258 Cell: 202-607-5857

KBrace@aol.com or KBrace@electiondataservices.com

www.electiondataservices.com

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----Original Message-----

From: Szetela, Rebecca (MICRC) < SzetelaR@michigan.gov >

To: Kim Brace <kbrace@aol.com>; jmorgan4@cox_net <jmorgan4@cox_net>; wkstigall@gmail.com

<wkstigall@gmail.com>

Cc: Kim Brace < kbrace@aol.com > Sent: Sun, Oct 3, 2021 7:20 pm Subject: Re: Plan to Score

Yes, unveil it

From: Kim Brace < kbrace@aol.com > Sent: Sunday, October 3, 2021 7:13:01 PM

To: Szetela, Rebecca (MICRC) <<u>SzetelaR@michigan.gov</u>>; <u>jmorgan4@cox.net</u> <<u>jmorgan4@cox.net</u>>;

wkstigall@gmail.com <wkstigall@gmail.com>

Cc: Kim Brace < kbrace@aol.com >

Subject: Re: Plan to Score

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Hey Rebecca --

Will do, now that I'm in our Lansing hotel.

Dustin sent me a CD plan he worked on yesterday, and Sue wanted me to upload it to our MyDistricting site for the public. Are you ok with unveiling your plan?

Let me know.

Thanks

Kimball Brace
Election Data Services, Inc.
6171 Emerywood Ct
Manassas, VA 20112–3078
(202) 789-2004 or (703) 580-7267 <-- landline
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KBrace@aol.com or KBrace@electiondataservices.com

www.electiondataservices.com

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----Original Message----

From: Szetela, Rebecca (MICRC) < SzetelaR@michigan.gov>

To: Kim Brace < kbrace@aol.com >; John Morgan < imorgan4@cox.net >; Kent Stigall < wkstigall@gmail.com >

Sent: Sun, Oct 3, 2021 6:38 pm

Subject: Plan to Score

Can you run this through the software and send back the spreadsheet reflecting the Partisan Balance scores? Thanks!

Rebecca Szetela Commissioner Michigan Independent Citizens Redistricting Commission szetelar@michigan.gov (517) 898-9366



From: Pastula, Julianne (MICRC)

Sent: Monday, October 4, 2021 7:23 PM

To: Rothhorn, MC (MICRC); Szetela, Rebecca (MICRC)

Cc: Badelson1

Subject: P&C: Congressional Map Considerations

Importance: High

Dear Rebecca and MC,

Bruce and I have reached back out to in an effort to get context on his map submissions. Given that his initial map analyzed by Dr. Handley received near perfect scores, why should he try to better what is arguably incomparable, particularly if subsequent maps do not score as well as the initial analyzed map. Our concern is that the map was influenced by partisan data or considerations that are not allowed under MI criteria. While it is clear the AFL/CIO maps were drawn focused on partisan data (both competitiveness and proportionality by districts) to better their overall partisan fairness scores (also near perfect) – this cannot taint the Commission's collaborative work. A map that does not follow the criteria can never be "better" than those that do.

Bruce and I remain steadfast in our recommendation to that he not advance his map we discussed with him last week and strongly encouraged him to submit any desired drafts as an individual Commissioner map, not insert it into the collaborative pool.

Please do not hesitate to reach out with any questions or concerns.

Sincerely,

Julianne Pastula

General Counsel
State of Michigan
Independent Citizens Redistricting Commission
517.331.6318
PastulaJ1@Michigan.gov

MICRC

12/28/21 10:00 am Meeting

Captioned by Q&A Reporting, Inc., www.gacaptions.com

Exhibit 16

>> CHAIR SZETELA: As Chair of the Commission, I call the meeting of the Michigan Independent Citizens Redistricting Commission to order at 10:06 a.m.

This Zoom webinar is being live streamed on YouTube at Michigan Independent Citizens Redistricting Commission YouTube channel.

For anyone in the public watching who would prefer to watch via a different platform than they are currently using, please visit our social media at Redistricting MI.

Our live stream today includes closed captioning. Closed captioning, ASL interpretation, and Spanish and Arabic and Bengali translation services will be provided for effective participation in this meeting. Please E-mail us at Redistricting.gov or details for language translation services for this meeting.

People with disabilities or needing other specific accommodations should also contact Redistricting at Michigan.gov.

This meeting is also being recorded and will be available at www.Michigan.gov/MICRC for viewing at a later date and this meeting also is being transcribed and those closed captioned transcriptions will be made available and posted on Michigan.gov/MICRC along with the written public comment submissions.

There is also a public comment portal that may be accessed by visiting Michigan.gov/MICRC, this portal can be utilized to post maps and comments which can be viewed by both the Commission and the public.

Members of the media who may have questions before, during or after the meeting should direct those questions to Edward Woods III, our Communications and Outreach Director for the Commission at WoodsE3@Michigan.gov or 517-331-6309.

For the purposes of the public watching and for the public record I will now turn to the Department of State staff to take note of the Commissioners present.

- >> MS. SARAH REINHARDT: Good morning, Commissioners. please say present when I call your name. If you are attending the meeting remotely, please disclose you are attending remotely and as well as your physical location you are attending from. I will call on Commissioners in alphabetical order starting with Doug Clark.
 - >> COMMISSIONER CLARK: Present.
 - >> MS. SARAH REINHARDT: Juanita Curry.
 - >> COMMISSIONER CURRY: I'm present, attending remotely from Detroit Michigan.
 - >> MS. SARAH REINHARDT: Anthony Eid?

Brittini Kellom?

- >> COMMISSIONER KELLOM: Present, attending remotely from Detroit, Michigan.
- >> MS. SARAH REINHARDT: Rhonda Lange?

My name is mark Payne a resident of Detroit, I ask that the vote process you have established be adhered to on the actual vote so the public can witness a transparent conclusion to your work.

In addition these lines will last ten years and have a lasting impact.

You can still do better especially on the State House maps Hickory is least bad but you can do better for Michigan taking a little bit more time drafting.

Please take more time to additionally address our ability to elect candidates of choice and assure compliance with the voter rights act z, as a voting rights expert Handley says in 2C we compile election results where all draft districts can be used whether your proposed will provide minority voters with the opportunity to elect.

No mention of this however no mention of this being done is made.

>> CHAIR SZETELA: Thank you for addressing the Commission. Next in line is number 28, Nicole Bedi.

>> Hi everyone.

My name is Nicole Bedi from Birmingham I'm in support of the Birch Congressional map.

We are part of the congregation of a Sikh technical of Rochester Hills.

You heard a lot from my community earlier in the process we support the Birch map because it keeps together the neighborhoods of Sterling Heights Troy and Rochester Hills so that our religious community as well as the south Asian cultural community can be a constituency with member of Congress.

I've been following this process really closely and I've actually taken the time to tally the pins on the portal.

And I want you to pay attention to the fact that there are actually 1500 comments between the Birch and Chestnut maps where 67% of comments are positive on the Birch map where only 55% are positive on or green on the Chestnut map.

There has been a lot of T attention on these verbal comments like mine organized by groups but a ton of individuals do not have the luxury to take time away.

- >> CHAIR SZETELA: Thank you for addressing the Commission. Next in line is number 29, Claudia Warren.
 - >> Good morning.

Good morning, Commissioners and thank you for your service in this extremely important process.

I am one of the many Voters Not Politicians volunteers residing in Midland County. We collected 21,000 signatures to get proposal two on the ballot.

50-60% of Midland County voters approved proposal two.

50-60% of Midland County voters understood that Michigan's redistricting process was rigging the election in favor of one party.

In Midland County and in the rest of the state we all witnessed what happens when one party dominates with a closed mindset.

Comments, thoughts? Views? Cheerleading for your plan? Commissioner Eid?

>> COMMISSIONER EID: Well, in my opinion I think the Chestnut plan is the one we should adopt.

I see it as kind of a compromise between all of the plans that we have.

For example, you know we have Ottawa County and Apple it's not split at all.

And Birch it's split twice.

Chestnut there is a compromise and only split once with part of it going in the lower District and the other half going in the Grand Rapids-Muskegon District.

Likewise I see a compromise in Midland County.

And this map almost all of Midland is kept whole except for a few sparsely populated Townships that only have about 9500 people in them total.

Which is less than some single precincts in the more populated areas of the state.

And I see that as a compromise because most of that County is kept whole.

And finally I think the next biggest difference is the BVAP is a little bit higher on districts 12 and 13 in Metro Detroit.

They are at about I believe they are, I will find it out now, they are about 45 and 43.8%. Which are just a couple of percentage points higher on Birch and Apple configuration.

And finally I think while it wasn't made to be this way, I would ends up shaking out is it also has more competitive districts than Apple or Birch.

So I think it's the best one.

I think that is what we should adopt.

And I also like Commissioner Szetela's individual map.

And I also like Birch.

>> CHAIR SZETELA: Any additional discussion? Rhonda, I can't see you Commissioner Wagner I can't see you, miss Reinhardt?

>> MS. SARAH REINHARDT: Thank you.

Per the Commission's adopted final vote procedure, if you're entering into step two for U.S. Congressional, the first step or step 2A states a motion will be made that each Commission shall state the top plans under consideration and then proceed into discussion after disclosure of your top two favorite plans.

Did you hear me okay? Do you want to repeat it.

>> CHAIR SZETELA: Thank you for the reminder I would entertain a motion for Commissioners to state their top two favorites among the Congressional plans. Motion made by Commissioner Eid and seconded by Commissioner Witjes is there any discussion or debate on the motion? Hearing none let's vote we have a motion by Eid and seconded by Commissioner Witjes to request that Commissioners identify their top two favorite Congressional plans all in favor please raise your hands and say aye. Opposed raise your hands and say nay.

- >> COMMISSIONER LANGE: Nay.
- >> CHAIR SZETELA: Commissioner Lange.

>> CHAIR SZETELA: No, we are not voting at this point, identifying the top two favorite maps and move into a discussion.

And per our planned document we are supposed to do it in alphabetical order so starting with collaboratives that would be in Apple.

Is there any discussion or debate on the Apple?

- >> MS. SARAH REINHARDT: Commissioner Wagner for your reference, in the voting procedure document, the final vote procedure we are moving into 2B which the Commission will discuss each published plan for the District type under consideration in alphabetical order.
 - >> COMMISSIONER WAGNER: Thank you.
 - >> CHAIR SZETELA: I'm not seeing any hands on the Apple.

Okay, do you want to talk about the Birch, any comments about the Birch? Commissioner Rothhorn?

>> VICE CHAIR ROTHHORN: So I think the reason I'm choosing Birch is because there has been in the southeast Michigan area it's the most populated area.

And I guess concerned about the way that and recognizing that Grand Rapids is our second most populated City.

But with I believe Detroit and then I think Warren and Sterling Heights it has the top four cities are the most populated area and I think Birch treats that area that the communities of interest that are preserved or the community of interest that we heard from during our process are most reflected in that Birch map.

I recognize that it's not perfect as many have said.

But that is why because it's the most populated area that has the most communities of interest, the most diverse communities of interest preserved that is why I'm leaning towards Birch.

- >> CHAIR SZETELA: Commissioner Witjes then Commissioner Clark then Commissioner Lett.
- >> COMMISSIONER WITJES: I'm basing my decision I know we are talking about Birch here for a good second but going to hit two birds with one stone.
- I'm taking my own personal beliefs here out of almost everything we are doing when coming to voting. There has been an overwhelmingly positive response to Chestnut. More so than Birch.

So that would be the reason why I put Chestnut above Birch however both maps are decent.

- >> CHAIR SZETELA: Commissioner Clark?
- >> COMMISSIONER CLARK: Yeah, and I'd like to talk about Birch and Chestnut together.
- The reason I selected Chestnut was I felt it had more swing districts that depending who the candidates are I could go republican or democrat and that is one of the things we

heard from the public a lot, they used the word competitiveness and I just associated that word with the way Anthony configured this.

So I think that's a very positive thing and something the public talked about quite a bit.

- >> CHAIR SZETELA: Commissioner Lett?
- >> COMMISSIONER LETT: Yeah, I agree with Commissioner Clark and Commissioner Witjes.
- Clearly the sentiment from the public was for Chestnut.

 Really without many reservations at all as I recall.

And it seems I recall that people would say you know Birch looks good but Chestnut looks better.

And number two I think our deliberations as we develop Birch and develop Chestnut, I think we made the corrections to the Birch that provided us with Chestnut and therefore I believe that is the one that should be voted in.

>> CHAIR SZETELA: Okay, so I have some comments on this.

I think in terms of the public comment it's been frankly equal and actually favors the Birch and that was something I believe Chris Andrews mentioned today that when you tally that 67% of the comments related to the Birch are positive 55% of the comments related to Chestnut are so I think the Birch actually has more favorable comments. I think the Chestnut in particular it wasn't something that we drew as a collaborative map.

It was something this Commissioner Eid did on his own and adopting it and making it a collaborative map.

Unlike the Birch where we did draw it in live meetings and discussed at length what we were doing and why we were doing it we never had that sort of background with the Chestnut and I think you see that reflected the in the communities of interest on the two maps because for the Birch we have particular configurations particularly Detroit and Oakland County where we have you know little jut outs here and there and done with a deliberate purple and we went through the communities of interest.

We were specifically discussing the Bengali and Asian and Chaldean, the Hispanic communities, the Arab and Muslim in Dearborn in particular and really trying to preserve those communities of interest and we ended up with the lines we drew.

Where I feel the Chestnut disease not preserve those communities of interest in the same way and I think from a defensibility perspective that makes it difficult to go in and say Yeah, we considered the Bengali in Birch we carved out its own District for it yet we completely threw that in the dumpster when it came to Chestnut.

If it was important for us to incorporate in the Birch it should have been incorporated in the Chestnut as well and a big weakness with the plan.

I feel that is a big weakness that a lot of people have identified with the Chestnut in particular including outside entities that have looked at both maps.

Have consistently rated the Chestnut as being the lowest on communities of interest in terms of taking those into account.

And I think that is concerning because we have the Birch which does well with communities of interest.

We have the Apple which does well with the communities of interest then we have the third ranked which is the Chestnut.

So I think if you are looking at all things being equal which they mostly are because the public impression of it is equal if slightly favoring Birch and we have different metrics we are looking at.

Whether it be population, whether it be efficiency gap, whether it be mean median. They are pretty equal.

And so the big differentiating factor for me is the COIs and we have one map that I think does a really good job of respecting the COIs and in addition to that was well documented as to why we were doing that.

And very open to the public then we have another map that frankly I think compromises COIs.

In favor of competitiveness which is not even one of our constitutional criteria.

Nowhere in our constitutional criteria is competitiveness and I'm sure our General Counsel will jump in on that point so that is not something we should be considering as a factor.

And when people are asking us to consider that they are asking us to deviate from the 7 ranked criteria we are supposed to be following.

So I think they are both good maps.

It's not going to kill me either way if we adopt one or the other but I definitely think in terms of complying with our constitutional mandate I think the Birch is superior.

And I would encourage everybody to think about that and consider whether we want to make sure that we are going with the map with better COIs versus the map that is more competitive.

Commissioner Witjes I think you had your hand up first then Commissioner Eid. I'm sorry can we let Commissioner Curry go first thank you.

>> COMMISSIONER CURRY: I just want to reply that I agree with Madam Chair in her response to the Birch map.

I agree wholeheartedly with that.

>> CHAIR SZETELA: Thank you Commissioner Curry.

Commissioner Witjes then Commissioner Eid.

>> COMMISSIONER WITJES: Between the two I think communities of interest are represented both quite well in the Birch and the Chestnut map.

That being said when it came to percentages that were brought up today in public comment by the individual from Haslett I'm wondering if he went on to the actual public

comment not the portal but the website with the proposed maps where you can place the pins.

I'm taking it in account when we actually had our first maps to that we published and all of our public comments hearings we went on the next five plus everything that we've heard in our public meetings that we had every two weeks Chestnut is indeed superior out of the two in regards to what the public has said.

- >> CHAIR SZETELA: Commissioner Eid?
- >> COMMISSIONER EID: A couple things.

One I just want to point out that the Detroit configuration that is in Chestnut was also in map Juniper that went on the second round of public comments which was a collaborative map and we came back and selected this map and made it a collaborative map on Chestnut based on what Commissioners said was the preferred Detroit configuration.

So that is the first thing.

Second, just looking at how people said their preferences, there were 7 preferences, 7 first place preferences for Chestnut.

And four for Birch.

And out of those for Chestnut there were more than -- there were two independents two republicans and one democrat and just wanted to point that out.

Finally I think the independent analysis actually shows the opposite.

I think independent analysis are good tools we should use but most of the ones I read specifically IPPSR report from MSU preferred the Chestnut map.

I looked at other things, the Princeton gerrymander project, which has the maps as A's, which are good.

And 538 also has them all being the same.

So I think from an independent analysis standpoint they are all pretty good all three of them.

As far as community of interest goes, I think the Chestnut map is better in supporting communities of interest because the biggest community of interest here is the you know the minority community in Detroit.

And the BVAP being higher I think it does a better job of having that community of interest being represented.

While we have the Bengali community of interest represented very well in other versions of maps.

You know we said all along that not everybody is going to get every single thing they want in every map but I think it's a good compromise.

There are other pluses to as far as Oakland and Troy is included with the Oakland County District which is something that at Oakland University the community made very clear to us, they want to be in with most of Oakland County.

There are negatives though, you know.

It's not a perfect map.

I don't like how Chestnut has upper Oakland County.

I think the Birch map is superior to Chestnut in that regard.

But overall looking at all things in totality, I prefer Chestnut and going by what most people said 7 people said Chestnut was their preference.

So I'm wondering if we can get any wiggle room, maybe have somebody change their mind so we can come to consensus something like that.

- >> CHAIR SZETELA: Commissioner Lange?
- >> COMMISSIONER LANGE: This is why I have a problem of listing the top two it's like a round Robin and I don't think that this is how we should do it.

I don't think we should be forced to say which ones we are.

And put somebody on the spot saying oh, well, 7 Commissioners think this one is the way to go so we just need to swing the last one.

That is round Robin in my opinion and I don't like it.

I just want to put that out there.

>> CHAIR SZETELA: Thank you for your comment, Commissioner Lange.

So I do want to address the MSU report because I did read that in full like I read everything.

And the primary reason why MSU tipped in favor of Chestnut is because number one they are of the opinion that we are required to have 50% BVAP in order to have voting rights compliance and they favored Chestnut because it has a slightly higher BVAP in District 12 and 13 so to me I disregard that entirely because I trust the expert opinion of Mr. Adelson and he what's said we do not have to have 50% so the fact they are favoring one map over another because it has a slightly higher BVAP when that is not what we are supposed to be -- that is not a goal we are trying to achieve, I disregarded that analysis entirely.

Otherwise their analysis was there was no difference between the Birch and Chestnut they were functionally the same in terms of every factor they looked at.

All right, I feel like we talked about Birch and Chestnut so do we want to talk about I think Lange would be next on the list.

Any discussion, comments about Lange? And anything about Szetela? Did you have a comment Commissioner Eid?

>> COMMISSIONER EID: I was going to say I like the Szetela version.

It would rank after Chestnut and Birch because I think the collaborative maps should be ranked first but just generally speaking, I think I saw what you are trying to do.

I saw you did a good job of trying to put together the best parts of both maps.

- >> CHAIR SZETELA: All right so let's go back to our.
- >> MS. JULIANNE PASTULA: Madam Chair.
- >> CHAIR SZETELA: Let's go to Clark.

- >> COMMISSIONER CLARK: I liked the Lange map and represented some of the areas that I think needed more representation than they have had.
- I think she did a decent job on that.
 - >> CHAIR SZETELA: Commissioner Witjes?
 - >> COMMISSIONER WITJES: Okay this is okay so we just discussed the

Congressional maps now we are going to move on to Senate then the house basically do the same thing.

Does that make sense? Now we actually discussed the Congressional map, wouldn't it make more sense to go through the voting process now?

- >> CHAIR SZETELA: I think Ms. Reinhardt wants to chime in and General Counsel probably wanted to chime in too.
- >> MS. SARAH REINHARDT: Yes, Commissioner Witjes that is how what the voting plan contemplates is that we will go through all of the steps for each plan sequentially and then move on to the next District type.

So first we would go through all the steps for U.S. Congressional and then move on to the next set, which I believe is State Senate.

>> CHAIR SZETELA: Just to clarify going through all the steps you are saying voting at this point.

Okay that is what I understood.

Commissioner Lange?

>> COMMISSIONER LANGE: There was the topic of potentially making changes to the maps.

At the beginning that said we would be coming back to after discussion.

So when do we come back to that?

- >> CHAIR SZETELA: Commissioner Witjes?
- >> COMMISSIONER WITJES: I'm going to make a motion right now that we do not make any changes to the maps.
 - >> CHAIR SZETELA: Is that all maps or just these Congressional maps?
 - >> COMMISSIONER WITJES: All maps.
- >> CHAIR SZETELA: Okay so we have a motion by Commissioner Witjes seconded by Commissioner Vallette to oh, gosh, how do I want to say this not make any changes to the map I guess, any maps, just any District type maps any discussion or debate on the motion?
- >> COMMISSIONER WAGNER: My hand has been up a while this is Commissioner Wagner.
 - >> CHAIR SZETELA: I can't see you.

Please go ahead.

>> COMMISSIONER WAGNER: Thank you I also wanted to get back to actually amending the maps because as everyone on the Commission is aware I've got a letter of demand out there.

From: Pastula, Julianne (MICRC)

Sent: Monday, September 20, 2021 12:25 AM

To: Pastula, Julianne (MICRC)

Subject: Privileged & Confidential: Update

Follow Up Flag: Follow up Flag Status: Flagged

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Dear Commissioners and Staff,

I wanted to provide updates on the following issues:

Competitiveness. I have consistently stated that competitiveness is not a constitutional criteria in Michigan. Attempting to add this consideration as a criteria creates a significant legal problem and leaves the MICRC wide open to a court challenge. First, there is no legal basis for including competitiveness in the criteria that the MICRC is constitutionally mandated to follow. This would likely be viewed as arbitrary and capricious by a court, particularly after receiving legal advice against inserting competitiveness. To date, it has been included in the not only the drawing of districts but establishing it as part of the MICRC record as well as the rationale by which districts were evaluated. Second, as I indicated again during the second meeting last Thursday, the data in the active matrix is disaggregated election results utilized for VRA compliance analysis and is not an approved method to evaluate political advantage (competitiveness). The full election dataset is not currently included in the data cube. I acknowledge that the MICRC has received public comment advocating for competitiveness to be considered. Again, there is no legal basis for this and inserting it as a consideration undermines our legal risk management strategy. Political considerations are expressly excluded from diverse population/COI criteria so that argument would also fail and put the MICRC's work at risk. Political boundaries (county, city, townships) are a discrete criterion so attempting to align under diverse population/COI criteria absent demonstration of shared characteristics is also highly inadvisable as the MICRC will have to defend its' decision to identify entire counties or other political units as a COI when it is defending its maps. Other examples of redistricting principles that are not included in Michigan's criteria and therefore cannot be considered are nesting, establishing multi-member districts, and maintaining cores of districts.

In his prior work, Mr. Adelson evaluated political competitiveness in a state that has competitiveness as a specific constitutional redistricting criterion, He well understands the difference between complying with that state's requirements and Michigan's and will share those distinctions with the MICRC. Again, competitiveness is NOT in Michigan's constitution and cannot be included now by the MICRC in its drafting. Looking at VRA selected election results is NOT an approved method for evaluating "disproportionate advantage" and "fairness" and must be avoided.

Partisan Fairness. This is one of the constitutional criteria in Michigan but it cannot and should not be intertwined with competitiveness. The mathematical models accepted by the courts are employed on statewide plans to determine symmetry and measure partisan fairness by establishing whether a statewide seats to vote comparison and relevant statistical analysis demonstrate disproportionate advantage. As I indicated during the second meeting on Thursday, the

data in the active matrix is disaggregated election results utilized for VRA compliance analysis. Courts have held that election results cannot be used to demonstrate disproportionate advantage or competitiveness. The partisan fairness measures will require another update by EDS.

Additional Analysis by Dr. Handley. Dr. Handley is available to perform the partisan fairness analysis as well as additional evaluation of voting patterns by race and ethnicity to identify whether homogeneous populations that are too small for RBV analysis or are not a separate racial category in the census (i.e., concentration of Hispanic voters or MENA population being categorized as White in the census form). A draft Appendix to amend the EDS contract is being finalized for the Commission to discuss and consider.

Incumbents. The language of the 5th constitutional criteria "[d]istricts shall not favor or disfavor an incumbent elected official or a candidate" also demonstrates the intent of the constitutional amendment to remove partisan considerations from the MICRC's work. The most effective way to accomplish this and shield the MICRC from individual requests of individuals stating where they intend to run is to not take into consideration any incumbent data and rely upon the partisan fairness measures in the 4th criteria. Any intentional actions taken by the MICRC relative to incumbents will need to be explained and rationale provided for the record. This will be almost impossible in heavily gerrymandered areas of Michigan allowing for a challenge of favoring out state candidates. Additionally, there is no meaningful way to gauge compliance with this criteria once that information is taken into consideration intentionally. Your legal team advises against incumbent considerations and has asked the Communications and Outreach Director to stop including articles outlining the impact of the MICRC's work on current or prospective elected officials.

Compactness. The Polsby-Popper test is currently in the EDS software. This test is essential to evaluate legal compliance with the final constitutional criteria. Mr. Adelson has indicated it is a best practice method used across the country and compactness cannot be legally evaluated without it.

Reconciliation of Legacy Data. EDS has indicated that the reconciliation between the legacy data released August 12th and the PL 94-171 data released September 16th is complete and the data sets have been verified. As you recall, this was an important part of mitigating legal risk and demonstrating that the data set is accurate, particularly earlier this year when there was uncertainty about the releases.

Another Michigan Supreme Court Order. On Saturday, I received an Administrative Order from the MSC stating that until emergency rules are adopted, the MSC will be issuing case management orders for any lawsuits brought by or against the MICRC. A copy of the Order is attached for your convenience. These case management orders will set forth dates/deadlines and procedural requirements and will be extremely helpful. However, it does note the likelihood of shorter timeframes and "nonuniform" periods which underscores the need to secure local counsel as soon as practicable. The Baker Hostetler contract has been signed but the engagement letter has not been finalized. The proposed engagement letter was not consistent with the contract terms or the terms set forth in the RFP. I forwarded recommended edits so that process is ongoing and I am hopeful it will be concluded this week.

Analysis of VRA Compliance. Barring any travel delays, Mr. Adelson will arrive at tomorrow's meeting about 1 pm which coincides with the end of the recess period for lunch. He has reviewed the Senate and Congressional plans drafted last week, is happy to address questions the Commissioners may have and he also has questions for the Commission. He will share his thoughts in regard to the draft districts drawn last week and discuss overall VRA compliance at the beginning of the afternoon session.

Lastly, another reminder to be thoughtful in your terminology to ensure it is not freighted as each of you are creating a record that you will need to defend not only collectively as a public body but also as individual Commissioners. Again, I urge that public engagement consist of active listening as opposed to talking. The MCIRC has shifted into the mapping phase of its work, advocacy efforts have significantly increased, and the increased risk of creating a record that will undermine the MICRC's work is too great.

As always, I remain committed to the work of the MICRC and each of you individually. Please do not hesitate to reach out to me.

Sincerely,

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