

VOTERS NOT POLITICIANS

Date: June 7, 2024

To: Michigan Independent Citizens Redistricting Commission

From: Jamie Lyons-Eddy, Executive Director of Voters Not Politicians

Subject: Recommendation to examine finalist map performance in close races

Voters Not Politicians was founded to end partisan gerrymandering in Michigan. At the heart of our mission is a fundamental belief in democracy and fair elections: The people of Michigan should get the government they voted for, and district maps should not provide a disproportionate advantage to any political party.

Dr. Lisa Handley provided you with a composite index, which is an average of elections across time. That's a helpful way to compare maps at a glance. However, like all averages, the composite index can be distorted by outliers and can obscure individual data points. Now that you've narrowed the maps to a smaller set of options, you can give yourselves more information.

We encourage you to "look under the hood" to see how your maps perform in close elections. **If a map is not fair in close elections, it's not a fair map.**

It's appropriate to look at close elections because in the last twelve years, neither major party has won the statewide Michigan Senate vote by more than 2.67%¹. But of the 16 elections in your dataset, only 4 out of the 16 have been within 3% (2020 President, 2020 Senate, 2018 Attorney General, and 2016 President). Data from these elections provide the best prediction of how the finalist maps will perform in real state senate elections.

¹ In [2014](#), the winning party won 50.74% of the statewide two-party vote for contested state senate seats. In [2018](#), the winning party won 51.34%. In [2022](#), the winning party won 50.13%, or 50.84% if uncontested seats are included. These numbers are from the Michigan Secretary of State's official results, and (following the process Dr. Handley uses) we exclude third-party and write-in votes.

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We have assembled your own data (directly from your website) to show how each of your 12 maps would perform in each of these close elections, and using a “Within 3%” composite, which is an average of those four elections. Below is a table summarizing our findings under that “Within 3%” composite.

Map	Mean-median	Efficiency gap	Seats-votes ratio	Lopsided margins
Cardinal (373)	2.65%	5.93%	3.42%	4.36%
Crane (385)	1.98%	3.38%	0.78%	3.44%
Curry (366)	3.14%	6.11%	3.42%	4.71%
Dove (364)	2.65%	8.76%	6.05%	6.12%
Finch v2 (399)	2.69%	5.93%	3.42%	4.46%
Heron (376)	0.82%	0.81%	-1.85%	2.03%
Kellom (403)	1.29%	3.54%	0.78%	3.29%
Lange (400)	3.13%	6.11%	3.42%	4.70%
Orton (393)	2.66%	6.34%	3.42%	4.73%
Starling v3 (395)	2.00%	3.52%	0.78%	3.39%
Szetela (404)	0.40%	0.74%	-1.85%	2.30%
Wagner (401)	2.68%	6.20%	3.42%	4.94%

Note: In every table in this document, red indicates partisan bias in favor of the Republican Party, and blue indicates bias in favor of the Democratic Party. Darker colors indicate more bias.

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Summary of findings

Overall, there are two clear findings:

1. Our analysis of your data on close races shows very clear differences among the maps.
2. Maps 376 (“Heron”) and 404 (“Szetela”) are consistently the fairest two maps across all four of your metrics.

On May 16, Dr. Handley urged you to look at mean-median and the efficiency gap as the best metrics to evaluate partisan fairness. Our analysis of your data using the **mean-median** test shows that only maps 376 (“Heron”) and 404 (“Szetela”) have a mean-median bias of less than 1% in close races.

Our analysis of your data using the **efficiency gap** shows that maps 376 (“Heron”) and 404 (“Szetela”) have an efficiency gap of less than 1%, and all other maps have an average efficiency gap greater than 3%.

On May 21, Dr. Handley told you that when looking at the **seats-votes ratio**, the most important test is whether the seats-votes ratio favors the party that won the popular vote, or whether it favors the party that lost the popular vote. A fair map has a seats-votes ratio that favors the party that won a majority of the vote - or more simply, a fair map is one where the party that gets a majority of the vote gets a majority of the seats. Our analysis of your data shows that only maps 376 (“Heron”) and 404 (“Szetela”) are fair by this test.

The **lopsided margins** test similarly shows that maps 376 (“Heron”) and 404 (“Szetela”) have the lowest bias. However, the gap between these two maps and the others is less dramatic on this metric than on the other three metrics.

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Mean-median

Below is a chart of each map's performance on the mean-median test, with results for each of the four close elections, the MICRC composite produced by Dr. Handley, and the "Within 3%" composite (an average of the four close races). The maps are sorted from **most fair to most unfair** by their "Within 3%" score.

Map	<i>Within 3%</i>	MICRC composite	MICRC 2020 Pres	MICRC 2020 Sen	MICRC 2018 AG	MICRC 2016 Pres
Szetela (404)	0.40%	1.02%	0.58%	-0.13%	1.39%	0.97%
Heron (376)	0.82%	-0.26%	1.17%	0.47%	0.07%	1.94%
Kellom (403)	1.29%	1.48%	0.70%	0.85%	1.77%	1.89%
Crane (385)	1.98%	2.86%	0.76%	1.98%	2.33%	2.60%
Starling v3 (395)	2.00%	1.32%	1.35%	2.00%	1.78%	2.34%
Cardinal (373)	2.65%	2.61%	1.95%	2.60%	1.81%	3.09%
Dove (364)	2.65%	2.45%	2.22%	2.39%	2.78%	3.40%
Orton (393)	2.66%	3.36%	1.03%	2.68%	2.40%	3.05%
Wagner (401)	2.68%	3.40%	1.52%	2.67%	2.99%	3.06%
Finch v2 (399)	2.69%	2.66%	1.96%	2.65%	1.86%	3.14%
Lange (400)	3.13%	3.31%	1.71%	3.13%	3.05%	3.48%
Curry (366)	3.14%	3.31%	1.32%	3.14%	3.05%	3.47%

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Efficiency gap

Below is a chart of each map's performance on the efficiency gap test, with results for each of the four close elections, the MICRC composite produced by Dr. Handley, and the "Within 3%" composite (an average of the four close races). The maps are sorted from **most fair to most unfair** by their "Within 3%" score.

The results here show a major discrepancy between the MICRC composite and the close elections. While the close-election bias in all twelve maps shifts toward the Republican Party, the shift is most remarkable for maps 403 ("Kellom"), 373 ("Cardinal"), and 399 ("Finch v2").

Map	<i>Within 3%</i>	MICRC composite	MICRC 2020 Pres	MICRC 2020 Sen	MICRC 2018 AG	MICRC 2016 Pres
Szetela (404)	0.74%	-0.83%	-0.59%	1.22%	1.15%	0.77%
Heron (376)	0.81%	-0.76%	-0.54%	1.28%	1.23%	3.35%
Crane (385)	3.38%	1.82%	-0.56%	3.86%	3.79%	3.50%
Starling v3 (395)	3.52%	1.88%	2.21%	4.01%	0.87%	3.49%
Kellom (403)	3.54%	-0.79%	-0.51%	4.03%	3.94%	3.45%
Cardinal (373)	5.93%	-0.82%	4.66%	6.44%	3.77%	5.91%
Finch v2 (399)	5.93%	-0.82%	4.66%	6.44%	3.77%	5.93%
Curry (366)	6.11%	1.89%	2.14%	6.62%	6.49%	3.41%
Lange (400)	6.11%	1.89%	2.14%	6.62%	6.49%	6.37%
Wagner (401)	6.20%	1.92%	2.20%	4.00%	6.59%	6.23%
Orton (393)	6.34%	1.87%	-0.61%	6.86%	3.84%	3.59%
Dove (364)	8.76%	4.58%	4.84%	6.41%	3.61%	6.04%

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Seats-votes ratio

Below is a chart of each map's performance on the seats-votes ratio, with results for each of the four close elections, the MICRC composite produced by Dr. Handley, and the "Within 3%" composite (an average of the four close races). The maps are sorted from **most fair* to most unfair** by their "Within 3%" score.

Map	<i>Within 3%</i>	MICRC composite	MICRC 2020 Pres	MICRC 2020 Sen	MICRC 2018 AG	MICRC 2016 Pres
Szetela (404)	-1.85%	-5.02%	-3.89%	-1.78%	-1.71%	-0.11%
Heron (376)	-1.85%	-5.02%	-3.89%	-1.78%	-1.71%	2.52%
Kellom (403)	0.78%	-5.02%	-3.89%	0.85%	0.92%	2.52%
Crane (385)	0.78%	-2.39%	-3.89%	0.85%	0.92%	2.52%
Starling v3 (395)	0.78%	-2.39%	-1.26%	0.85%	-1.71%	2.52%
Cardinal (373)	3.42%	-5.02%	1.37%	3.48%	0.92%	5.15%
Finch v2 (399)	3.42%	-5.02%	1.37%	3.48%	0.92%	5.15%
Curry (366)	3.42%	-2.39%	-1.26%	3.48%	3.56%	2.52%
Lange (400)	3.42%	-2.39%	-1.26%	3.48%	3.56%	5.15%
Orton (393)	3.42%	-2.39%	-3.89%	3.48%	0.92%	2.52%
Wagner (401)	3.42%	-2.39%	-1.26%	0.85%	3.56%	5.15%
Dove (364)	6.05%	0.24%	1.37%	3.48%	0.92%	5.15%

*As we pointed out on Page 2 of this document, according to Dr. Handley, the direction of the seats-votes ratio is more important than the number. If maps are fair, the party that won the most votes should be the party that wins the most seats.

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Lopsided margins

Below is a chart of each map's performance on the lopsided margins test, with results for each of the four close elections, the MICRC composite produced by Dr. Handley, and the "Within 3%" composite (an average of the four close races). The maps are sorted from **most fair to most unfair** by their "Within 3%" score.

Map	<i>Within 3%</i>	MICRC composite	MICRC 2020 Pres	MICRC 2020 Sen	MICRC 2018 AG	MICRC 2016 Pres
Heron (376)	2.03%	3.80%	1.99%	2.35%	2.88%	2.08%
Szetela (404)	2.30%	4.01%	2.17%	2.54%	3.34%	1.04%
Kellom (403)	3.29%	3.76%	2.00%	3.61%	4.14%	2.06%
Starling v3 (395)	3.39%	5.02%	3.28%	3.63%	3.10%	2.26%
Crane (385)	3.44%	5.09%	2.04%	3.65%	4.49%	2.27%
Cardinal (373)	4.36%	3.65%	4.29%	4.61%	3.93%	3.32%
Finch v2 (399)	4.46%	3.73%	4.37%	4.71%	4.02%	3.42%
Lange (400)	4.70%	5.05%	3.28%	4.91%	5.70%	3.61%
Curry (366)	4.71%	5.05%	3.29%	4.95%	5.70%	2.20%
Orton (393)	4.73%	5.10%	2.06%	4.92%	4.49%	2.27%
Wagner (401)	4.94%	5.23%	3.49%	3.87%	5.85%	3.90%
Dove (364)	6.12%	6.18%	4.63%	5.00%	4.43%	3.70%