

General Assembly Redistricting Plan

Created by: Andrew Green

I have assembled what I believe to be a General Assembly District Plan that is fully compliant with the Ohio Constitution and the three Ohio Supreme Court orders that have ordered this commission to adopt a constitutional plan, something that has not been done despite the four attempts that have been made. To highlight how my plan complies with each section of the Ohio Constitution, I will systematically go through each constitutional provision, beginning with Article XI, Section 3(B)(1) and provide the necessary evidence that shows how my plan is compliant with that particular section.

Article XI, Section 3(B)(1): Population Equality

Based on the 2020 US Census, the population of Ohio is 11,799,448. This means the State House ratio of representation is 119,186 and the State Senate ratio of representation is 357,559. The Ohio Constitution, in Article XI, Section 3(B)(1), allows for a population deviation of up to 5% above or below these ratios in a given district. Each district in my plan achieves a population within this range. The most and least populous districts are noted below with their populations and deviations from the relevant ratio of representation:

- Most Populous:
 - House: District 15 (pop. 125,145; dev. +5,959/+4.999%)
 - Senate: District 24 (pop. 375,372; dev +17,813/+4.98%)
- Least Populous:
 - House: District 2 (pop. 113,231; dev. -5,955/-4.997%)
 - Senate: District 3 (pop. 339,920; dev. -17,639/-4.93%)

Article XI, Section 3(B)(3): Contiguity

After thorough analysis, I have concluded that each district in my plan is contiguous and has a boundary that is a single, nonintersecting, continuous line.

Contiguity

Each district should be contiguous, meaning it must be a single, unbroken shape. Some exceptions are allowed, such as the inclusion of islands in a coastal district. Two areas connected only by a single point (touching just their corners) are not considered contiguous.

99 of 99 districts are contiguous

✔ Contiguity

Each district should be contiguous, meaning it must be a single, unbroken shape. Some exceptions are allowed, such as the inclusion of islands in a coastal district. Two areas connected only by a single point (touching just their corners) are not considered contiguous.

33 of 33 districts are contiguous

Article XI, Section 3(C): Numbering of House Districts

All house districts are numbered appropriately, with House Districts 1-12 each entirely or partially contained in Franklin County, House Districts 13-23 each entirely or partially contained in Cuyahoga County, and so on through House District 78 in Wayne County, the least populous county that can contain the entirety of a house district. The remaining territory of the state is contained within the remaining 21 House Districts, according to Article XI, Section 3(C)(3).

The table below depicts the House Districts that are wholly and partially contained in each county with a population greater than 95% of one House ratio of representation. According to Section 3(C)(1), at most one district in each of these counties can be shared with other counties. My plan complies by having either zero districts or one district in each of these counties that is not wholly contained within that county.

County	House District(s) Wholly Contained	House District Partially Contained
Franklin	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	12
Cuyahoga	13, 14, 15, 16, 17, 18, 19, 20, 21, 22	23
Hamilton	24, 25, 26, 27, 28, 29, 30	#N/A
Summit	31, 32, 33, 34	35
Montgomery	36, 37, 38, 39	40
Lucas	41, 42, 43	44
Butler	45, 46, 47	40
Stark	48, 49, 50	51
Lorain	52, 53	54
Warren	55, 56	#N/A
Lake	57	23
Mahoning	58, 59	#N/A
Delaware	60	61
Clermont	62	63
Trumbull	64	65
Medina	66	67
Licking	68	69
Greene	70	71
Portage	72	35
Fairfield	73	74
Clark	75	71
Wood	76	44
Richfield	75	#N/A
Wayne	76	#N/A

Additionally, no county with a population less than one House ratio of representation is split more than once, which is something Section 3(C)(3) requires where feasible.

Article XI, Section 3(D)(2): Splitting Townships and Municipal Corporations with Populations Between 50% and 100% of the Ratio of Representation

Article XI, Section 3(D)(2) requires that the number of townships and municipal corporations with populations between 50% and 100% of the House ratio of representation that are split be minimized. My plan splits no such township or municipal corporation, hence minimizing such splits. The table below lists the townships and municipal corporations that are split in my plan and shows that none of them fall in this 50%-100% range.

Split Township/Municipal Corporation	County	Population	% of Ratio of Representation
Akron	Summit	190,469	159.81%
Avon	Lorain	24,847	20.85%
Cincinnati	Hamilton	309,317	259.52%
Cleveland	Cuyahoga	372,624	312.64%
Columbus	Franklin	880,329	738.62%
Dayton	Montgomery	137,644	115.49%
Euclid	Cuyahoga	49,692	41.69%
Lebanon	Warren	20,841	17.49%
Massillon	Stark	32,146	26.97%
Miamisburg	Montgomery	19,923	16.72%
Newark	Licking	49,934	41.90%
Toledo	Lucas	270,871	227.27%
Whitewater Township	Hamilton	6,375	5.35%

Article XI, Section 3(D)(3): Splitting Townships and Municipal Corporations

Article XI, Section 3(D)(3) allows for up to one township or municipal corporation to be split in each House District if a district cannot be made by combining whole townships and municipal corporations. My plan has a total of 1 township and 12 municipal corporations that are split because I was unable to form the districts to have populations within the allowable population deviation without doing so. Below is a table that details the districts that have a township or municipal corporation that is split and what that township or municipal corporation is.

District	County	Split Township/Municipal Corporation
1	Franklin	Columbus
2	Franklin	Columbus
3	Franklin	Columbus
4	Franklin	Columbus
5	Franklin	Columbus
6	Franklin	Columbus
7	Franklin	Columbus
8	Franklin	Columbus
9	Franklin	Columbus
10	Franklin	Columbus
11	Franklin	Columbus
12	Franklin	Columbus
14	Cuyahoga	Cleveland
15	Cuyahoga	Cleveland
16	Cuyahoga	Cleveland
17	Cuyahoga	Cleveland
18	Cuyahoga	Cleveland
19	Cuyahoga	Cleveland
20	Cuyahoga	Euclid
21	Cuyahoga	Cleveland
22	Cuyahoga	Cleveland
23	Cuyahoga	Euclid
24	Hamilton	Cincinnati
26	Hamilton	Cincinnati
27	Hamilton	Whitewater Township
28	Hamilton	Cincinnati
29	Hamilton	Cincinnati
30	Hamilton	Whitewater Township
31	Summit	Akron
33	Summit	Akron
34	Summit	Akron
37	Montgomery	Miamisburg
38	Montgomery	Dayton
39	Montgomery	Dayton
40	Montgomery	Miamisburg
48	Stark	Massillon
49	Stark	Massillon
52	Lorain	Avon
53	Lorain	Avon
55	Warren	Lebanon
56	Warren	Lebanon
68	Licking	Newark
69	Licking	Newark

To provide another perspective for the inform in the table above, the table below lists the townships and municipal corporations that are split and which House Districts contain portions of each township or municipal corporation.

Split Township/Municipal Corporation	County	Number of Districts	District Numbers
Akron	Summit	3	31, 33, 34
Avon	Lorain	2	52, 53
Cincinnati	Hamilton	4	24, 26, 28, 29
Cleveland	Cuyahoga	8	14, 15, 16, 17, 18, 19, 21, 22
Columbus	Franklin	12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Dayton	Montgomery	2	38, 39
Euclid	Cuyahoga	2	20, 23
Lebanon	Warren	2	55,56
Massillon	Stark	2	48, 49
Miamisburg	Montgomery	2	37, 40
Newark	Licking	2	68, 69
Toledo	Lucas	4	41, 42, 43, 44
Whitewater Township	Hamilton	2	27, 30

While there is no corresponding provision regarding split townships and municipal corporations in Senate Districts, through the requirement of Section 4(A) that each Senate District be comprised of three contiguous house districts, there is an inherent requirement that any given Senate District split not more than three townships or municipal corporations if possible. For the sake of completeness, I have created the same two charts as above as they pertain to Senate Districts. No Senate District in my plan splits more than two townships or municipal corporations, and there are only two such districts.

District	County	Split Township(s)/Municipal Corpotation(s)
1	Franklin	Columbus
2	Lucas	Toledo
3	Franklin	Columbus
8	Hamilton	Cincinnati, Whitewater Township
9	Hamilton	Cincinnati, Whitewater Township
11	Lucas	Toledo
15	Franklin	Columbus
16	Franklin	Columbus
18	Summit	Akron
21	Cuyahoga	Cleveland
23	Cuyahoga	Cleveland
24	Cuyahoga	Cleveland

Split Township/Municipal Corporation	County	Number of Districts	District Numbers
Akron	Summit	2	18, 28
Cincinnati	Hamilton	2	8, 9
Cleveland	Cuyahoga	3	21, 23, 24
Columbus	Franklin	4	1, 3, 15, 16
Toledo	Lucas	2	2, 11
Whitewater Township	Hamilton	2	8, 9

Article XI, Section 3(E): Excessive Splitting of Townships and Municipal Corporations

Article XI, Section 3(E) allows for House Districts to split more townships and municipal corporations if it is impossible to follow comply with Section D. I have fully complied with Section D in my plan, so Section E is not applicable to my plan.

Article XI, Section 4(A): Nested House Districts Create Senate Districts

As required by Article XI, Section 4(A), my plan has 33 Senate Districts that are each comprised of the same territory as three contiguous House Districts. The table below depicts the three House Districts that make up each Senate District.

Senate District	1st House District	2nd House District	3rd House District
1	10	11	12
2	44	76	79
3	1	7	2
4	45	46	47
5	37	40	90
6	36	38	39
7	25	55	56
8	28	29	30
9	24	26	27
10	70	71	75
11	41	42	43
12	96	97	98
13	52	53	54
14	62	63	80
15	4	5	6
16	3	8	9
17	81	82	84
18	33	35	72
19	60	61	93
20	73	74	83
21	18	21	22
22	67	66	77
24	14	15	16
23	13	17	19
25	20	23	57
31	92	94	95
27	78	88	89
28	31	32	34
29	48	49	50
30	85	86	87
26	68	69	91
32	64	65	99
33	51	58	59

Article XI, Section 4(B)(1): Counties with a Population Greater than one Senate Ratio of Representation

Article XI, Section 4(B)(1) requires that Franklin and Cuyahoga Counties each have three Senate Districts wholly contained within them. Similarly, there must be two Senate Districts entirely within Hamilton County and 1 Senate District within each Summit, Montgomery, Lucas, Butler, and Stark Counties. Further, Section 4(B)(1) requires that any remaining portion of those counties each be contained within only one other district. A table listing the Senate districts wholly and partially contained within these counties is below.

County	Senate District(s) Wholly Contained	Senate District Partially Contained
Franklin	3, 15, 16	1
Cuyahoga	21, 23, 24	25
Hamilton	8, 9	7
Summit	28	18
Montgomery	6	5
Lucas	11	2
Butler	4	5
Stark	29	33

Article XI, Section 5: Numbering Senate District not up for election until 2024 (even-numbered Senate Districts)

Article XI, Section 5 provides that the Senators that are not up for reelection this year will be assigned to represent the new district that contains the largest portion of their old district whenever possible and leaves the discretion to the commission to assign Senators to districts if this is not possible. My plan makes this process quite simple. For this redistricting cycle, the even-numbered Senate districts must be assigned in this manner. The table below depicts how much of each old Senate District is in the corresponding new Senate District.

Senate District	% of New District in Old District	% of Old District in New District
2	53.19%	57.16%
4	92.19%	94.77%
6	54.42%	54.00%
8	46.26%	46.05%
10	87.40%	88.70%
12	44.79%	39.97%
14	64.83%	67.56%
16	62.25%	73.43%
18	51.76%	51.28%
20	61.95%	62.62%
22	96.46%	100.00%
24	44.84%	43.56%
26	33.65%	34.12%
28	47.95%	44.06%
30	60.00%	58.66%
32	100.00%	85.94%

The districts that are highlighted in the table above denote where there is not a majority of the old district in the new district or there is not a majority of the new district in the old district. This does not mean, however, that the new district does not contain the largest portion of the old district. Below I go deeper into each of the highlighted districts and indicate what percentage of the old district is in each of the new districts:

- Old District 8 (largest portion in new District 8)

- 46.26% in New District 8
- 32.72% in New District 9
- 21.02% in New District 7
- Old District 12 (largest portion in new District 12)
 - 44.79% in New District 12
 - 31.20% in New District 31
 - 12.19% in New District 19
 - 11.82% in New District 10
- Old District 24 (largest portion in New District 24)
 - 44.84% in New District 24
 - 37.90% in New District 23
 - 13.41% in New District 25
 - 3.85% in New District 21
- Old District 26 (largest portion in New District 26)
 - 36.65% in New District 26
 - 23.51% in New District 19
 - 22.57% in New District 31
 - 17.27% in New District 2
- Old District 28 (largest portion in **New District 18—NOT New District 28**)
 - **52.05% in New District 18**
 - 47.95% in New District 28

As shown above, there is only one new even-numbered district that does not contain the largest portion of the same-numbered old district. Had the New Districts 18 and 28 been switched, the New District 28 would contain the largest portion of the Old District 28, but the New District 18 would contain 0% of the Old District 18. In order to avoid a situation where a Senator would be assigned to a district in which they would be representing 0% of the people that elected them, I chose to assign districts as I did, to ensure that the New District 18 contains a majority of the old District 18 and that the New District 28 still contains very nearly a majority of the old District 28.

Though not required by Article XI, Section 5, I chose to number the odd-numbered districts in the same way (but only after numbering the even numbered districts). The table below depicts how much of each old Senate District is in the corresponding new district.

Senate District	% of New District in Old District	% of Old District in New District
1	0.00%	0.00%
3	23.22%	26.62%
5	51.95%	48.76%
7	70.74%	72.78%
9	46.71%	48.04%
11	73.78%	72.74%
13	84.24%	85.87%
15	39.16%	45.85%
17	54.10%	55.38%
19	52.15%	59.49%
21	84.77%	75.91%
23	32.10%	36.87%
25	59.56%	54.97%
27	33.08%	33.84%
29	93.66%	90.97%
31	0.00%	0.00%
33	100.00%	93.82%

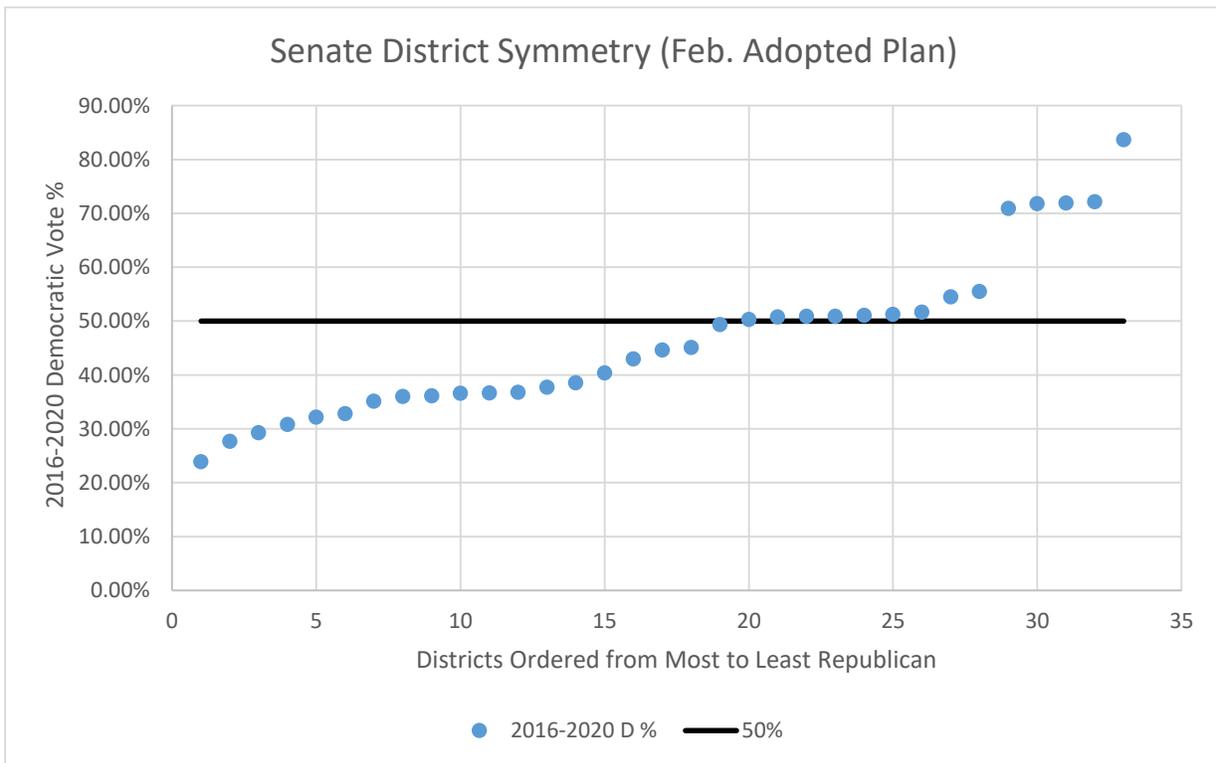
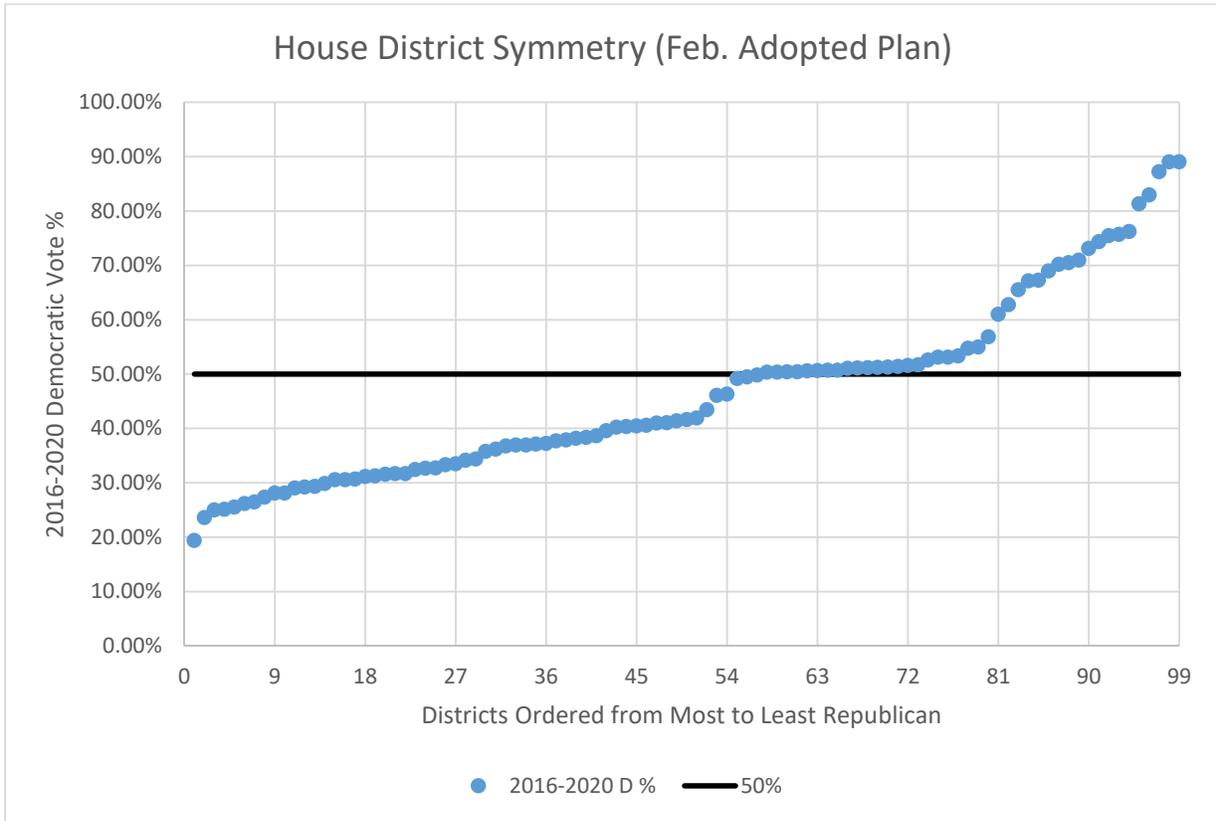
Article XI, Section 6(A): Prohibition on Favoring/Disfavoring a Political Party

The main issue the court has found with the maps adopted by the commission thus far, as it pertains to Section 6(A), has to do with partisan symmetry/asymmetry. Based on 6 statewide elections between 2016 and 2020, 2016 President, 2016 US Senate, 2018 Governor, 2018 Attorney General, 2018 US Senate, and 2020 President (slightly different than the set of elections used by the commission), the following table depicts the number of competitive districts in six narrow ranges centered around 50% vote share for each of the three adopted plans, the latest Sykes-Russo-Glassburn plan that was voted down by the commission, the Rodden III plan, and my new plan.

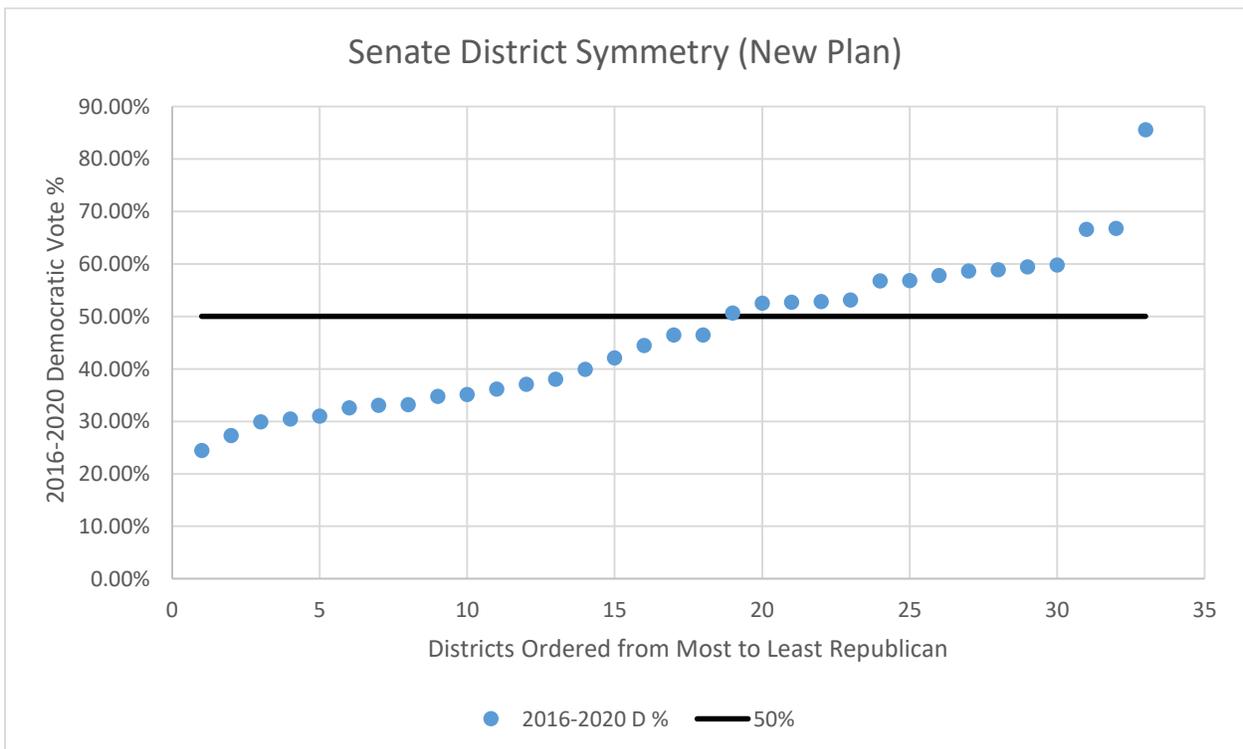
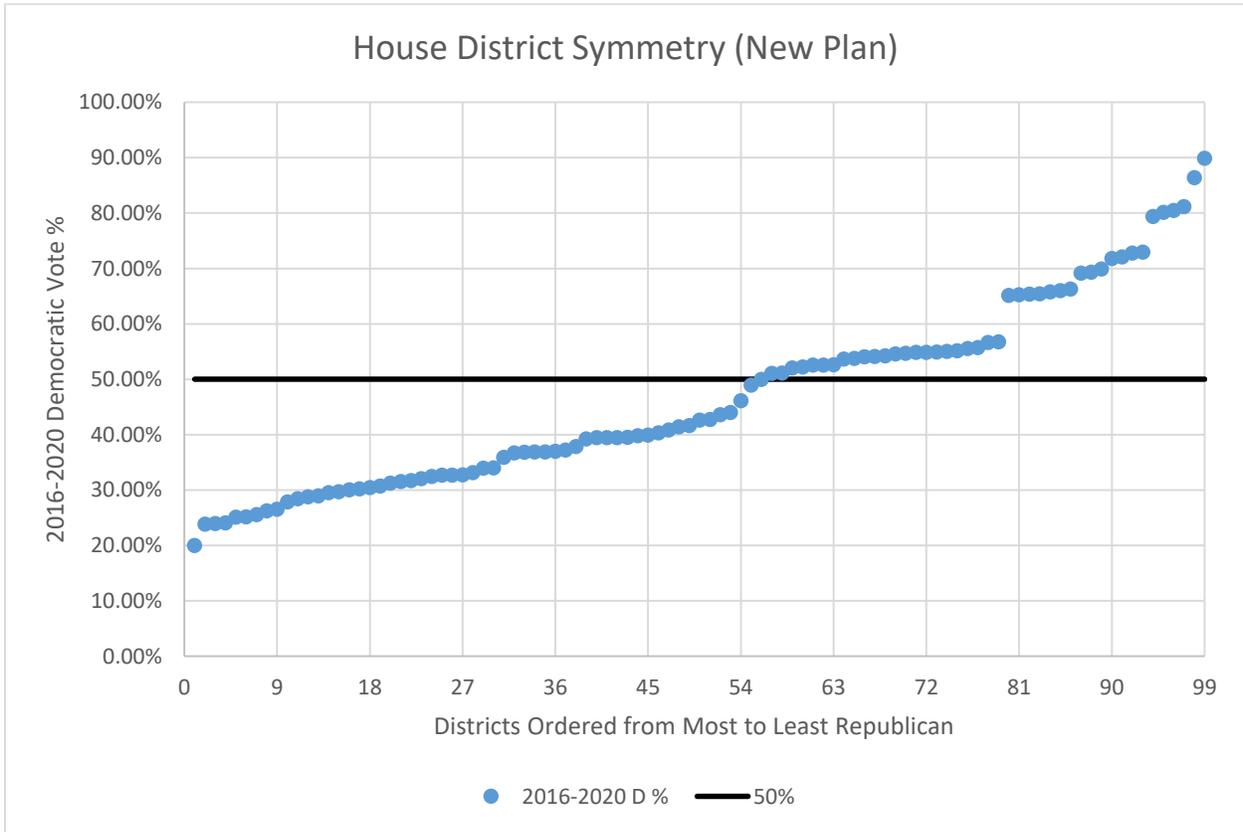
	Sept. Adopted Plan	Jan. Adopted Plan	Feb. Adopted Plan	Sykes-Russo-Glassburn Plan	Rodden III Plan	New Plan
House						
52-53% GOP	1	0	0	1	1	0
51-52% GOP	0	0	0	0	0	1
50-51% GOP	2	6	3	3	1	0
50-51% Dem	3	6	8	2	2	1
51-52% Dem	0	2	8	5	1	2
52-53% Dem	2	3	1	1	8	5
Senate						
52-53% GOP	2	1	0	0	0	0
51-52% GOP	1	0	0	0	0	0
50-51% GOP	1	2	1	1	2	0
50-51% Dem	0	2	3	2	1	1
51-52% Dem	0	2	3	1	0	0
52-53% Dem	0	0	0	0	0	3

Below are 2 graphs (one for the House and one for the Senate) that can be used to visualize the asymmetry in the plan most recently adopted by the commission. The slope of the points representing districts goes nearly to zero as it crosses the 50% threshold, meaning there are a lot more districts that are split nearly 50/50 between the two parties than in any similarly small vote share range. The extreme

disproportionate number of these ultra-competitive districts that fall just above the 50% vote share line is indicative of a very asymmetrical plan.



In contrast, the charts below are the same plots for my new plan. These charts do not possess the extreme flattening of the slope like the charts above, indicating it is a much more symmetric plan.



I have created these charts for each of the plans that I have discussed. They are available in Appendix A.

Article XI, Section 6(B): Proportionality

The table below details the number of districts that lean Republican or lean Democratic in each of the aforementioned plans according to the average of the six aforementioned statewide elections from 2016-2020. This table shows that my new plan is the plan that best matches the proportionality requirement (54% Republican to 46% Democratic) with a 55-44 (55.6%-44.4%) split in the House and an 18-15 (54.5%-45.5%) split in the Senate.

	Sept. Adopted Plan	Jan. Adopted Plan	Feb. Adopted Plan	Sykes-Russo-Glassburn Plan	Rodden III Plan	New Plan
House						
GOP-leaning	64	64	57	57	57	55
Dem-leaning	35	35	42	42	42	44
Senate						
GOP-leaning	24	22	19	19	20	18
Dem-leaning	9	11	14	14	13	15

Another way to look at proportionality is to look at how the percentage of districts carried by various statewide candidates match up to the percentage of the vote they received. Below are two tables depicting the 6 aforementioned statewide elections for the most recent commission adopted plan, the February plan.

House Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	38.38%	54.08%	61.62%	R+7.5
2018 AG	47.83%	44.44%	52.17%	55.56%	R+3.4
2018 Sen	53.41%	50.51%	46.59%	49.49%	R+2.9
2018 Gov	48.07%	45.45%	51.93%	54.55%	R+2.6
2016 Sen	39.04%	19.19%	60.96%	80.81%	R+19.8
2016 Pres	45.73%	34.34%	54.27%	65.66%	R+11.4

Senate Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	39.39%	54.08%	60.61%	R+6.5
2018 AG	47.83%	42.42%	52.17%	57.58%	R+5.4
2018 Sen	53.41%	51.52%	46.59%	48.48%	R+1.9
2018 Gov	48.07%	45.45%	51.93%	54.55%	R+2.6
2016 Sen	39.04%	15.15%	60.96%	84.85%	R+23.9
2016 Pres	45.73%	36.36%	54.27%	63.64%	R+9.4

All six Republican statewide candidates won more districts than their share of the vote in both the latest adopted House plan and Senate plan. Notably, in the 2018 US Senate Election, Senator Brown, despite his victory of a similar margin to those of Attorney General Yost and former President Trump, was unable to win the same 3-12% more districts than his share of the vote that the other two candidates did. In fact, Senator Brown won a *smaller percentage* of districts than his share of the vote.

In comparison, the two tables below depict the same data for my new plan.

House Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	43.43%	54.08%	56.57%	R+2.5
2018 AG	47.83%	45.45%	52.17%	54.55%	R+2.4
2018 Sen	53.41%	52.53%	46.59%	47.47%	R+0.9
2018 Gov	48.07%	44.44%	51.93%	55.56%	R+3.6
2016 Sen	39.04%	21.21%	60.96%	78.79%	R+17.8
2016 Pres	45.73%	43.43%	54.27%	56.57%	R+2.3

Senate Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	42.42%	54.08%	57.58%	R+3.5
2018 AG	47.83%	45.45%	52.17%	54.55%	R+2.4
2018 Sen	53.41%	54.55%	46.59%	45.45%	D+1.1
2018 Gov	48.07%	45.45%	51.93%	54.55%	R+2.6
2016 Sen	39.04%	15.15%	60.96%	84.85%	R+23.9
2016 Pres	45.73%	42.42%	54.27%	57.58%	R+3.3

Unlike the other tables above, these tables indicate a plan that tends to track very closely to proportional seat share (within ~2-3%) for elections that fall between 55%-45% in either direction, where many of Ohio's elections have fallen in recent years. Overall, this indicates a plan that is proportional and is likely to give a winning party a *small* boost in seats unless they win by overwhelming margins that are not particularly common in Ohio.

I have created these same tables for each of the other proposed plans that I have discussed. They are included in Appendix B.

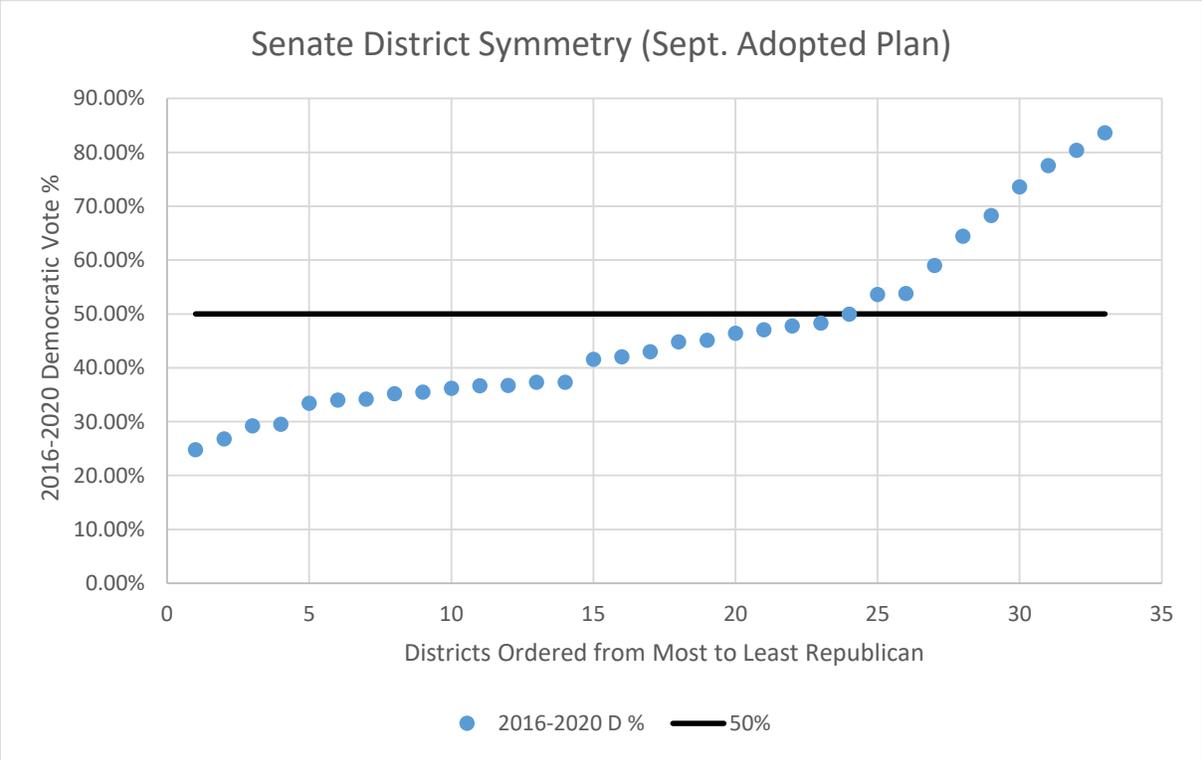
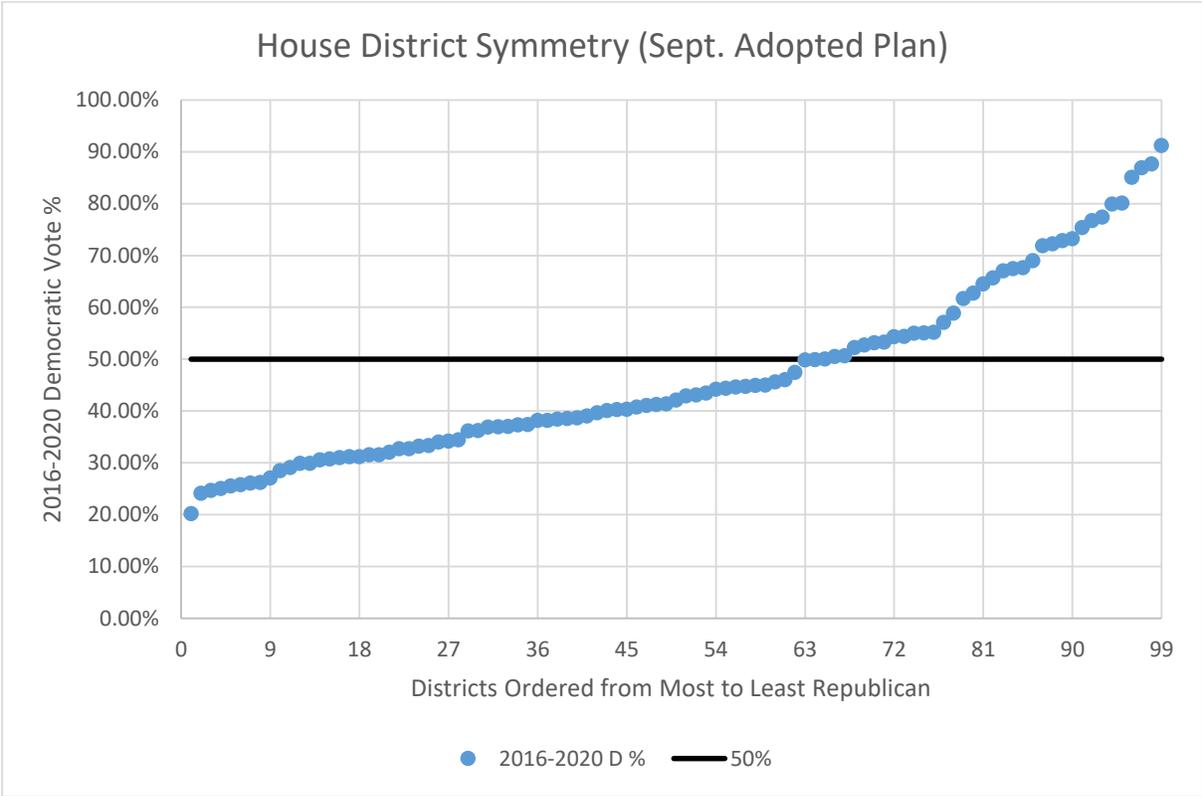
Article XI, Section 6(C): Compactness

Below is a table depicting the averages of two common measures of district compactness, Reock and Polsby-Popper, for each of the plans I have discussed. My new plan and the Rodden III plan both score noticeably better on compactness than the other plans. The scores in the table are highlighted based on their values, with the highest (best) scores in green and the lowest (worst) scores in red.

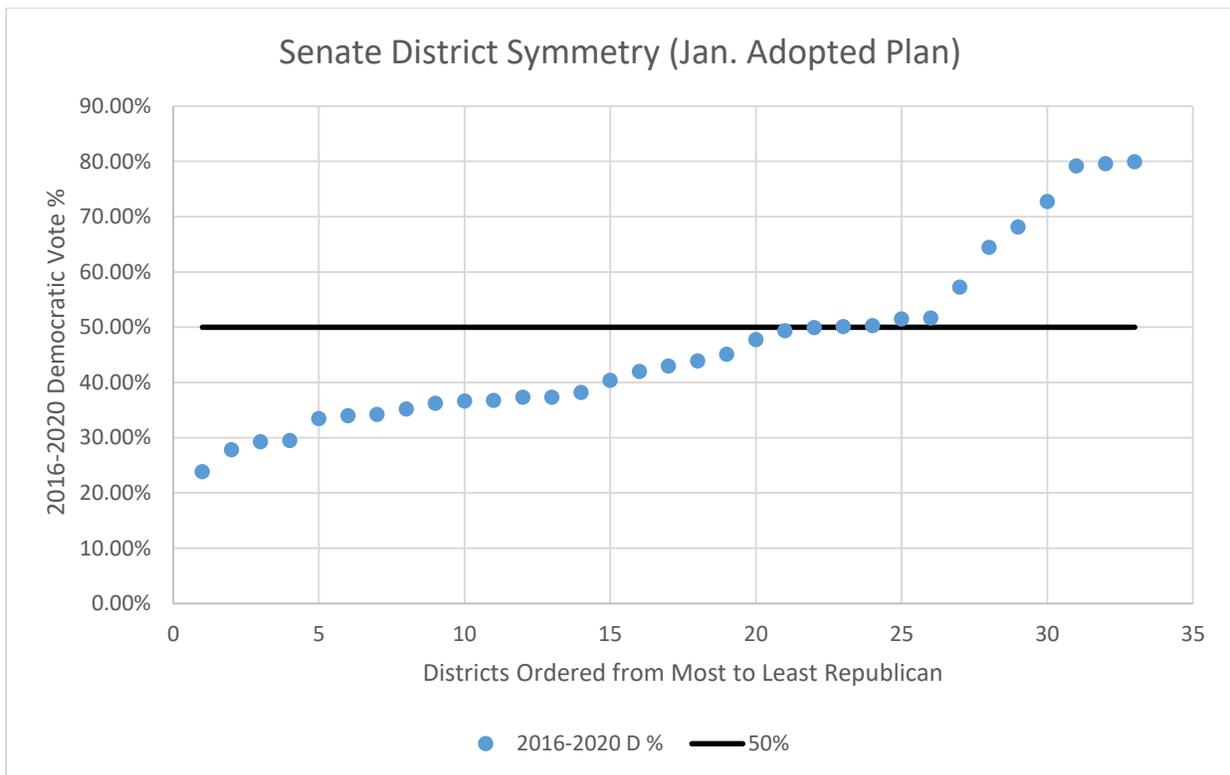
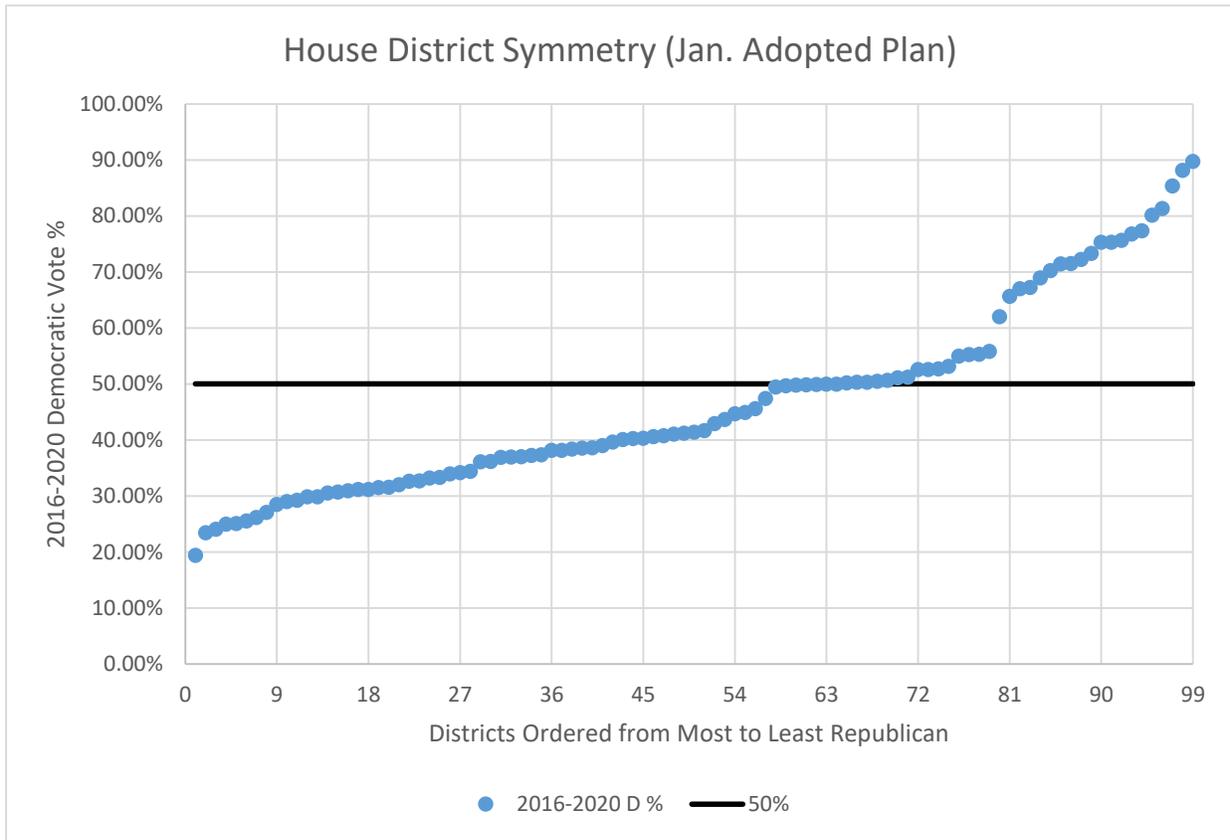
	Sept. Adopted Plan	Jan. Adopted Plan	Feb. Adopted Plan	Sykes-Russo-Glassburn Plan	Rodden III Plan	New Plan
House Plan						
Reock	0.3766	0.3803	0.3791	0.3706	0.4013	0.4029
Polsby-Popper	0.2952	0.2984	0.3057	0.299	0.3478	0.3391
Senate Plan						
Reock	0.3724	0.3861	0.3831	0.402	0.4227	0.4168
Polsby-Popper	0.3081	0.2983	0.2765	0.3211	0.3678	0.3675

Appendix A

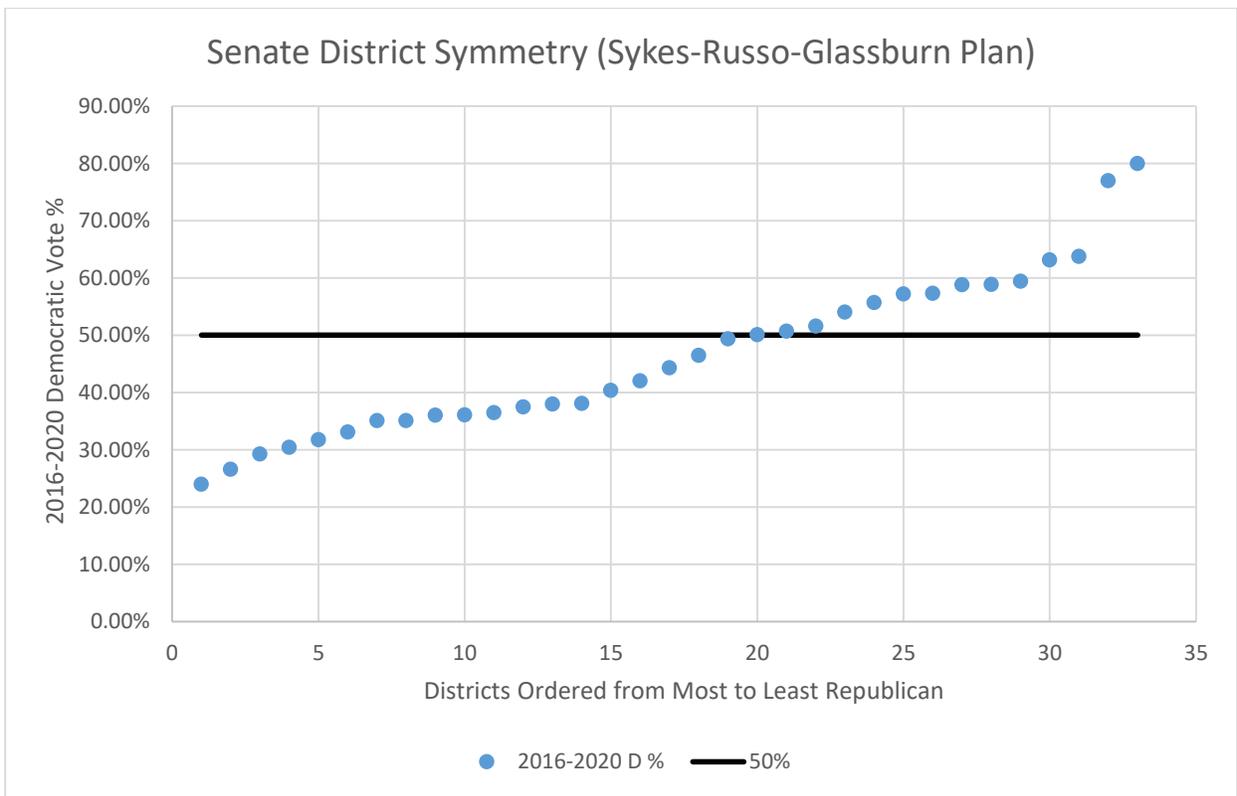
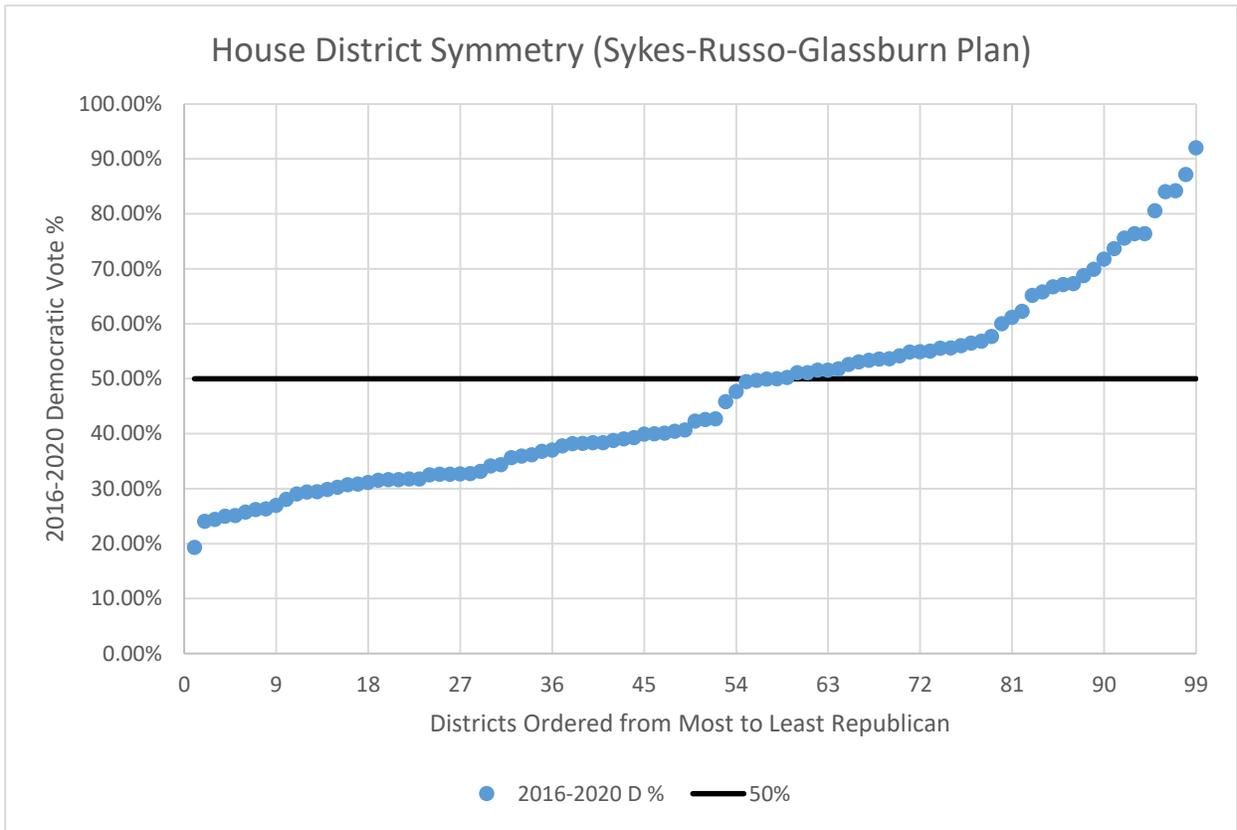
Below are the symmetry charts for the September plan adopted by the commission:



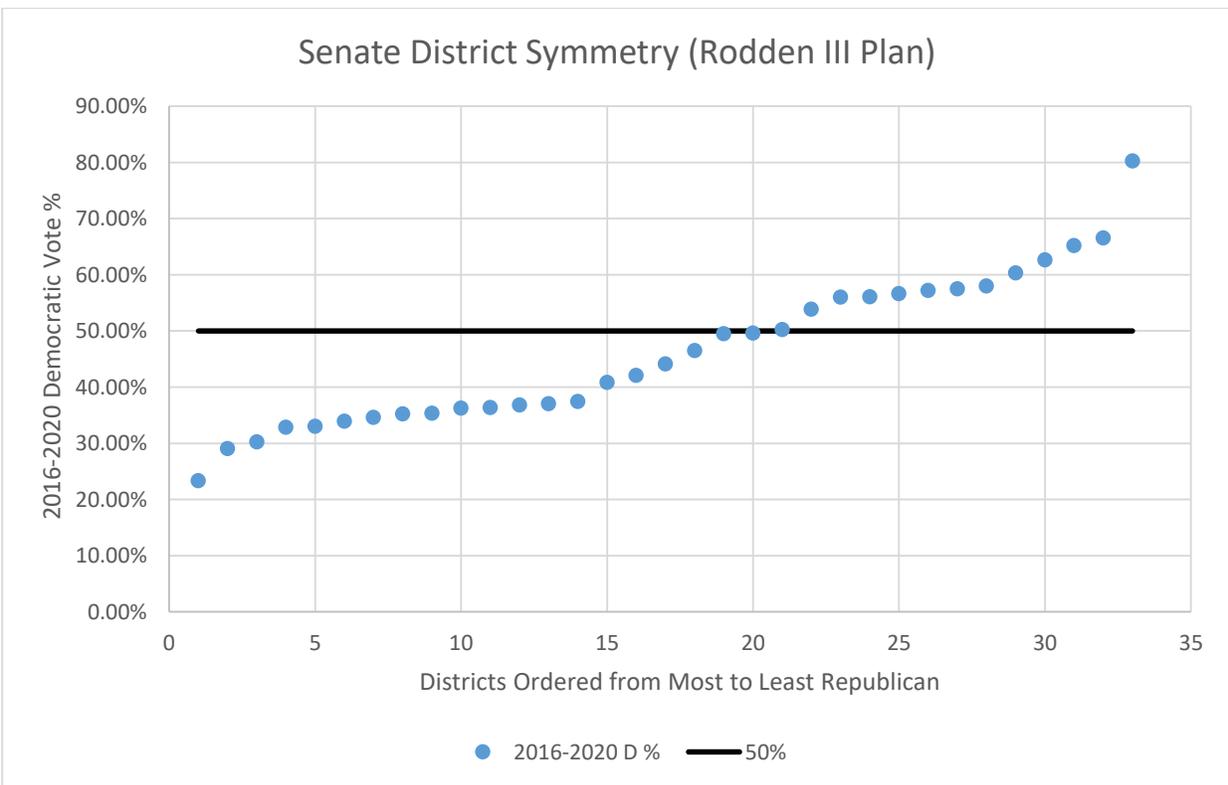
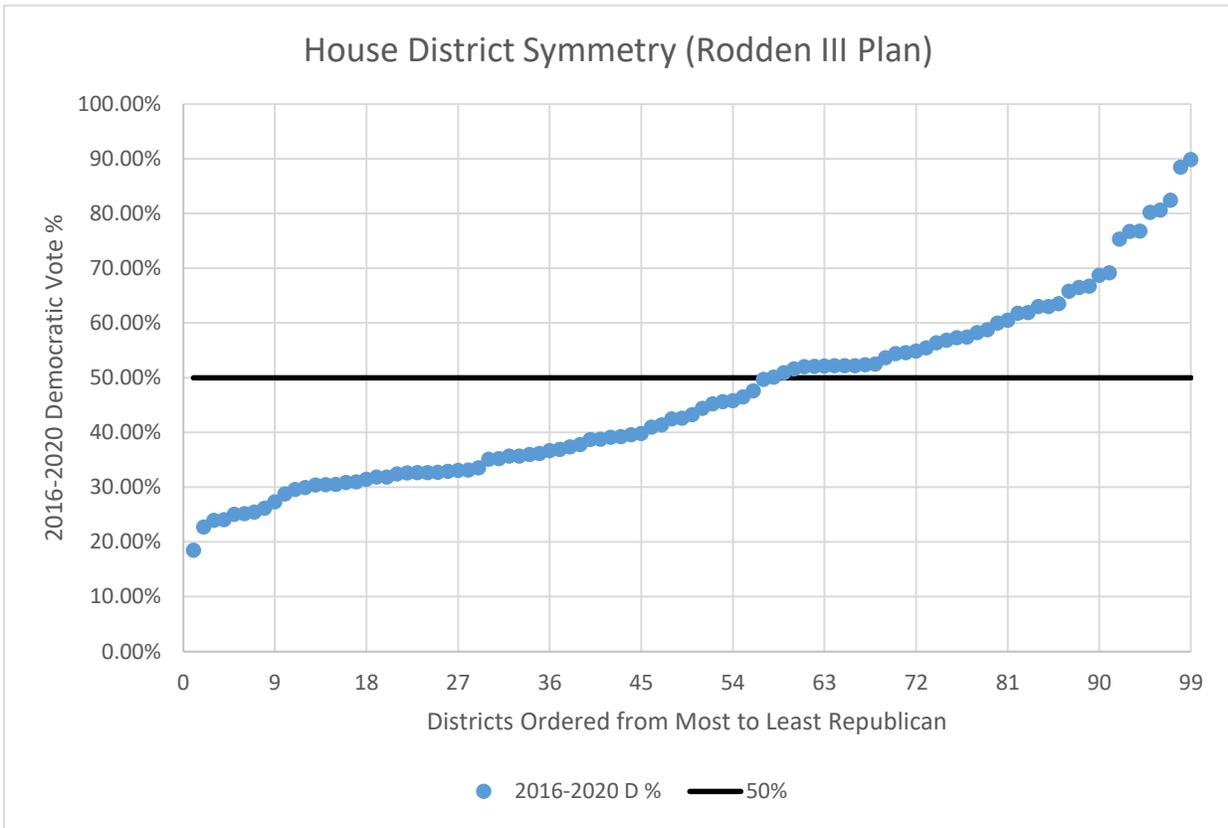
Below are the symmetry charts for the January plan adopted by the commission:



Below are the symmetry charts for the Sykes-Russo-Glassburn plan:



Below are the symmetry charts for the Rodden III plan:



Appendix B

Below are the proportionality tables for the September plan adopted by the commission:

House Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	36.36%	54.08%	63.64%	R+9.6
2018 AG	47.83%	37.37%	52.17%	62.63%	R+10.5
2018 Sen	53.41%	49.49%	46.59%	50.51%	R+3.9
2018 Gov	48.07%	37.37%	51.93%	62.63%	R+10.7
2016 Sen	39.04%	22.22%	60.96%	77.78%	R+16.8
2016 Pres	45.73%	33.33%	54.27%	66.67%	R+12.4

Senate Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	33.33%	54.08%	66.67%	R+12.6
2018 AG	47.83%	36.36%	52.17%	63.64%	R+11.5
2018 Sen	53.41%	51.52%	46.59%	48.48%	R+1.9
2018 Gov	48.07%	36.36%	51.93%	63.64%	R+11.7
2016 Sen	39.04%	21.21%	60.96%	78.79%	R+17.8
2016 Pres	45.73%	30.30%	54.27%	69.70%	R+15.4

Below are the proportionality tables for the January plan adopted by the commission:

House Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	37.37%	54.08%	62.63%	R+8.5
2018 AG	47.83%	41.41%	52.17%	58.59%	R+6.4
2018 Sen	53.41%	50.51%	46.59%	49.49%	R+2.9
2018 Gov	48.07%	42.42%	51.93%	57.58%	R+5.7
2016 Sen	39.04%	19.19%	60.96%	80.81%	R+19.8
2016 Pres	45.73%	31.31%	54.27%	68.69%	R+14.4

Senate Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	36.36%	54.08%	63.64%	R+9.6
2018 AG	47.83%	39.39%	52.17%	60.61%	R+8.4
2018 Sen	53.41%	51.52%	46.59%	48.48%	R+1.9
2018 Gov	48.07%	42.42%	51.93%	57.58%	R+5.7
2016 Sen	39.04%	21.21%	60.96%	78.79%	R+17.8
2016 Pres	45.73%	33.33%	54.27%	66.67%	R+12.4

Below are the proportionality tables for the Sykes-Russo-Glassburn plan:

House Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	40.40%	54.08%	59.60%	R+5.5
2018 AG	47.83%	44.44%	52.17%	55.56%	R+3.4
2018 Sen	53.41%	51.52%	46.59%	48.48%	R+1.9
2018 Gov	48.07%	45.45%	51.93%	54.55%	R+2.6
2016 Sen	39.04%	22.22%	60.96%	77.78%	R+16.8
2016 Pres	45.73%	39.39%	54.27%	60.61%	R+6.3

Senate Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	39.39%	54.08%	60.61%	R+6.5
2018 AG	47.83%	42.42%	52.17%	57.58%	R+5.4
2018 Sen	53.41%	54.55%	46.59%	45.45%	D+1.1
2018 Gov	48.07%	45.45%	51.93%	54.55%	R+2.6
2016 Sen	39.04%	21.21%	60.96%	78.79%	R+17.8
2016 Pres	45.73%	39.39%	54.27%	60.61%	R+6.3

Below are the proportionality tables for the Rodden III plan:

House Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	43.43%	54.08%	56.57%	R+2.5
2018 AG	47.83%	43.43%	52.17%	56.57%	R+4.4
2018 Sen	53.41%	53.54%	46.59%	46.46%	D+0.1
2018 Gov	48.07%	43.43%	51.93%	56.57%	R+4.6
2016 Sen	39.04%	21.21%	60.96%	78.79%	R+17.8
2016 Pres	45.73%	41.41%	54.27%	58.59%	R+4.3

Senate Districts Proportionality Analysis by Statewide Elections					
Election	D % of Vote	D % of Seats	R% of Votes	R % of Seats	Difference from Proportionality
2020 Pres	45.92%	39.39%	54.08%	60.61%	R+6.5
2018 AG	47.83%	42.42%	52.17%	57.58%	R+5.4
2018 Sen	53.41%	54.55%	46.59%	45.45%	D+1.1
2018 Gov	48.07%	45.45%	51.93%	54.55%	R+2.6
2016 Sen	39.04%	18.18%	60.96%	81.82%	R+20.9
2016 Pres	45.73%	36.36%	54.27%	63.64%	R+9.4