

# EXHIBIT 6

**UNITED STATES DISTRICT COURT  
MIDDLE DISTRICT OF NORTH CAROLINA**

SHAUNA WILLIAMS, et al.,

*Plaintiffs,*

v.

REPRESENTATIVE DESTIN HALL, in his  
official capacity as Chair of the House Standing  
Committee on Redistricting, et al.,

*Defendants.*

Civil Action No. 23 CV 1057

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NORTH CAROLINA STATE CONFERENCE OF  
THE NAACP, et al.,

*Plaintiffs,*

v.

PHILIP BERGER, in his official capacity as the  
President Pro Tempore of the North Carolina  
Senate, et al.,

*Defendants.*

Civil Action No. 23 CV 1104

**CORRECTED EXPERT REPORT OF ANTHONY E. FAIRFAX  
on the Development of Illustrative Plans for  
State Senate and House Districts for the State of North Carolina  
and other Demographic Analyses**

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October 28, 2024

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**Table 35 – Senate Illustrative Plans’ and 2023 Enacted Plans’ Criteria Comparison**

<b>Criteria</b>	<b>Senate Plan A</b>	<b>Senate Plan B</b>	<b>Enacted Plan</b>
U.S. Constitution, Alabama Constitution, and the Federal Voting Rights Act - Section 2 ( <i>Gingles</i> Prong 1)	2 Maj Black NE Region	1 Maj Black NE Region	0 Maj Black NE Region
Equal Population	Y (9.99%)	Y (9.99%)	Y (9.99%)
Contiguity	Y	Y	Y
Compactness^ - (Reock – Polsby-Popper) # District More Compact by Measure:			
- Plan Mean	0.40 - 0.31	0.41 - 0.32	0.40 - 0.31
- District by District	3 - 3	4 of 50	3 - 3/ 0 - 0
- Comparing Maj Black Districts	1 - 1	1 - 1	1 - 1/ 0 - 0
- Minimum Enacted Plan Values: Compared to 10 Maj Black SDs	2 - 2	2 - 2	0 - 0/ 0 - 0
COIs/Political Subdivision Splits			
Census Places (cities, towns, CDPs)	79	79	79
- Landmark Areas	246	241	242
- Voting Districts (VTDs)	12	12	12
County Splits	17	15	15

Source: Illustrative and Enacted Plans extracted from Maptitude for Redistricting reports

^See the Gingles Analysis section Illustrative Plan Districts - “Geographically Compact” (Compactness Analysis).

\*The compactness and COI/Political Subdivision metrics between the Illustrative Plan A and the 2023 Enacted Plan are extremely close and are not the same but very similar in performance.

### **XIII. Apportionment Analysis**

143. I also analyzed several clusters contained within the 2023 Senate and House Enacted Plans regarding malapportionment of the districts. The analysis started with the recreation of the House and Senate plans using the Maptitude software. Once I recreated the plans, I was able to generate and observe alternative configurations that could be created.

#### **A. Wake County House Districts Cluster**

144. I reviewed the 2023 Enacted Plan population deviations in the Wake County House district cluster. (See Table 36). Wake County wholly contains 13 House districts (SD 37, 41, 34, 66, 21, 38, 11, 40, 36, 39, 33, 49, and 35). The population deviation of the districts ranges from a high of 3.81% to a low of -4.48% with an overall deviation of 8.29%. Wake County’s average ideal population size is extremely close to the state’s at 86,878 (1,129,410 divided by 13 districts) with an average

deviation of -117 or -0.13%. Thus, each HD within the Wake Cluster could have a population deviation as low as -0.13%.

**Table 36 - Wake County, North Carolina House District Population Deviation**

District	Population	Ideal Value	Deviation	% Deviation
37	90,307	86,995	3,312	3.81%
41	89,876	86,995	2,881	3.31%
34	89,807	86,995	2,812	3.23%
66	88,717	86,995	1,722	1.98%
21	87,764	86,995	769	0.88%
38	86,444	86,995	-551	-0.63%
11	86,381	86,995	-614	-0.71%
40	86,359	86,995	-636	-0.73%
36	86,038	86,995	-957	-1.10%
39	85,371	86,995	-1,624	-1.87%
33	85,001	86,995	-1,994	-2.29%
49	84,251	86,995	-2,744	-3.15%
35	83,094	86,995	-3,901	-4.48%
Cluster Average	86,878	86,995	-117	-0.13%

Source: North Carolina 2023 Enacted Plan Maptitude Dataview

145. I was able to create and observe multiple options that would allow me to shift one or two VTDs that would bring the district population closer to the ideal population and the overall population deviation closer to zero. Some of the possible VTD movements that I observed would not only result in a lower population deviation, but also make the districts slightly more compact. In addition, the movements would not result in additional splits of political subdivisions (cities and towns) or noticeable communities of interest (CDPs or landmark areas). Finally, all of the movements resulted in contiguous districts.

146. Simple modification could be made to the Wake County cluster which would lower the overall population deviation. Thus, I find no redistricting criteria justification for the Wake County cluster to include a population deviation that is as high as 8.29%.

**B. Forsyth – Stokes House District Cluster**

147. I also reviewed the population deviation in the Forsyth-Stokes House district cluster. (See Table 37). The Forsyth-Stokes cluster wholly contains 5 House districts (SD 71, 75, 72, 74, and 91). The population deviation of the districts ranges from a high of 2.10% to a low of -4.68% with an overall deviation of 6.78%. Forsyth-Stokes Cluster's average ideal population size is 85,422 (427,110 divided by 5 districts) with

an average deviation of -1,573 or -1.81%. Thus, potentially each HD within the Forsyth-Stokes Cluster could have a population deviation as low as -1.81%.

**Table 37 - Forsyth – Stokes Cluster, North Carolina House District Population Deviation**

District	Population	Ideal Value	Deviation	% Deviation
71	88,823	86,995	1,828	2.10%
75	87,378	86,995	383	0.44%
72	84,444	86,995	-2,551	-2.93%
74	83,545	86,995	-3,450	-3.97%
91	82,920	86,995	-4,075	-4.68%
Cluster Average	85,422	86,995	-1,573	-1.81%

Source: North Carolina Enacted Plan Mapitude Dataview

148. Once again, I was able to create and observe several options that would allow me to shift one or two VTDs that would bring the district population closer to the ideal population and the overall population deviation closer to zero. Some of the possible VTD movements that I observed would not only result in a lower population deviation, but also make the districts slightly more compact. In addition, the movements would not result in additional splits of political subdivisions (cities and towns) or noticeable communities of interest (CDPs or landmark areas). Finally, all of the movements resulted in contiguous districts.

149. Simple modification could be made to the Forsyth and Stokes cluster which would lower the overall population deviation. Thus, I find no redistricting criteria justification for the Forsyth and Stokes cluster to include a population deviation that is as high as 6.78%.

C. Brunswick, New Hanover, and Columbus Senate District Cluster

150. I also reviewed the population deviation in the Brunswick, New Hanover, and Columbus Senate cluster. The Brunswick, New Hanover, and Columbus cluster wholly contains two Senate districts (SD 7 and 8). (See Table 38). The population deviation of the districts ranges from a high of 2.76% to a low of -4.94% with an overall deviation of 7.70%. Brunswick-New Hanover Cluster's average ideal population size is 206,509 (413,018 divided by 5 districts) with an average deviation of -2,279 or -1.09%. Thus, potentially each SD within the Brunswick-New Hanover Cluster could have a population deviation as low as -1.09%.



**Table 38 - Brunswick-New Hanover Cluster Senate District's Population Deviation**

<b>District</b>	<b>Population</b>	<b>Ideal Value</b>	<b>Deviation</b>	<b>% Deviation</b>
7	214,542	208,788	-10,312	-4.94%
8	198,476	208,788	5,754	2.76%
Cluster Average	206,509	208,788	-2,279	-1.09%

Source: North Carolina Enacted Plan Maptitude Dataview

151. Once again, I was able to create and observe several options that would allow me to shift one or two VTDs that would bring the district population closer to the ideal population and the overall population deviation closer to zero. Specifically, the areas in Wilmington added to SD 8 could be allocated between the two districts in this cluster in a more compact manner. In essence, this addition could be located in other areas and constructed in a more compact manner.
152. As with the other areas that I reviewed, some of the possible VTD movements that I observed would not only result in a lower population deviation, but also make the districts slightly more compact. In addition, the movements would not result in additional splits of political subdivisions (cities and towns) or noticeable communities of interest (CDPs or landmark areas). Finally, all of the movements resulted in contiguous districts.
153. Simple modification could be made to the Brunswick, New Hanover, and Columbus cluster which would lower the overall population deviation. Thus, I find no redistricting criteria justification for the Brunswick, New Hanover, and Columbus cluster to include a population deviation that is as high as 7.70%.

**D. Iredell-Mecklenburg Senate District Cluster**

154. I also reviewed the population deviation in the Mecklenburg and Iredell Senate cluster. (See Table 39). The Mecklenburg and Iredell cluster wholly contains six Senate districts (SD 37, 38, 39, 40, 41 and 42). The population deviation of the districts ranges from a high of 4.99% to a low of .28% with an overall deviation of 4.71%. Iredell-Mecklenburg Cluster's average ideal population size is 217,029 (1,302,175 divided by 6 districts) with an average deviation of 8,241 or 3.95%. Thus, each SD within the Iredell-Mecklenburg Cluster could have a population deviation as low as 3.95%.

**Table 39 - Iredell-Mecklenburg Cluster Senate District's Population Deviation**

<b>District</b>	<b>Population</b>	<b>Ideal Value</b>	<b>Deviation</b>	<b>% Deviation</b>
37	219,210	208,788	10,422	4.99%
39	219,123	208,788	10,335	4.95%
40	218,881	208,788	10,093	4.83%
38	217,905	208,788	9,117	4.37%
41	217,678	208,788	8,890	4.26%
42	209,378	208,788	590	0.28%
Cluster Average	217,029	208,788	8,241	3.95%

Source: North Carolina Enacted Plan Maptitude Dataview

155. Once again, I was able to create and observe several options that would allow me to shift one or two VTDs that would bring the district population closer to the ideal population and the overall population deviation closer to zero.
156. As with the other areas that I reviewed, some of the possible VTD movements that I observed would not only result in a lower population deviation, but also make the districts slightly more compact. In addition, the movements would not result in additional splits of political subdivisions (cities and towns) or noticeable communities of interest (CDPs or landmark areas). Finally, all of the movements resulted in contiguous districts.
157. Simple modification could be made to the Mecklenburg and Iredell cluster which would lower the overall population deviation. Thus, I find no redistricting criteria justification for the Mecklenburg and Iredell cluster to include a population deviation that is as high as 7.70%.

#### **XIV. Congressional Analysis**

158. I reviewed the North Carolina General Assembly criteria for drawing Congressional districts.<sup>34</sup> I also analyzed various district analytics including compactness, COI, and demographic measures comparing the court ordered CD 1 of the North Carolina's Interim Congressional 2022 and the CD 1 of the 2023 Enacted Plan, as well as the Triad CDs 5 and 6 of the Interim Congressional 2022 and the Triad CDs 5, 6, 9, and 10 of the 2023 Enacted Plan. A map of the 2023 Enacted Plan, with BVAP indicated with color shading within VTDs, is shown below in Figure 18.

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<sup>34</sup> The North Carolina General Assembly criteria for drawing Congressional districts are available here: <https://webservices.ncleg.gov/ViewDocSiteFile/81643>. They are reproduced in Appendix B.

census place splits in the 2022 Interim Plan versus the 2023 Enacted Plan with 51 and 53 respectively.

\* \* \*

176. The findings and conclusions in this Report are based upon information that has been made available to me or known by me to date. My work in this matter is ongoing and I reserve the right to modify, update, or supplement my analyses, findings, and any conclusions as additional information is made available to me or as I perform further analysis.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct according to the best of my knowledge, information and belief.

Dated: 10/28/24

Signed:

  
Anthony Fairfax

### **Index of Appendices**

Appendix A - Resume of Anthony E. Fairfax (original version)

Appendix B – North Carolina Senate and House Redistricting Criteria (original version)

Appendix C - Maps of the Enacted and Illustrative Plans (original version)

Appendix D - Redistricting Criteria Comparison Reports (original version)

Appendix E - COIs and Socioeconomic & Other Maps (10/28/24 Version)