

EXHIBIT A

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION**

ANNIE LOIS GRANT, *et al.*,

Plaintiffs,

v.

BRAD RAFFENSPERGER, *et al.*,

Defendants.

CIVIL ACTION

FILE NO. 1:22-CV-00122-SCJ

DECLARATION OF JOHN B. MORGAN

Pursuant to 28 U.S.C. § 1746, I, JOHN B. MORGAN, make the following declaration:

1.

My name is John B. Morgan. I am over the age of 21 years, and I am under no legal disability which would prevent me from giving this declaration. If called to testify, I would testify under oath to these facts.

2.

I hold a B.A. in History from the University of Chicago. As detailed in my CV, attached as Exhibit 1, I have extensive experience over many years in the field of redistricting. I have worked on redistricting plans in the redistricting efforts following the 1990 Census, the 2000 Census, the 2010

Census and the 2020 Census. I have testified as an expert witness in demographics and redistricting.

3.

I am being compensated at a rate of \$325 per hour for my services in this case.

4.

The redistricting geographic information system (GIS) software package used for this analysis is Maptitude for Redistricting 2021 from Caliper Corporation. The redistricting software was loaded with the census PL94-171 data from the Census Bureau and the census geography for Georgia. I was also provided with election data files available to the Georgia General Assembly during the redistricting process. The full suite of census geography was available, including counties, places, voting districts, water bodies, and roads, as well as census blocks, which are the lowest level of geography for which the Census Bureau reports population counts. Census blocks are generally bounded by visible features, such as roads, streams, and railroads and they can range in size from a city block in urban and suburban areas to many square miles in rural areas.

5.

I have been asked to review the House of Representatives and State Senate plans considered and adopted by the Georgia General Assembly and compare them to the proposed remedial plans drawn by Blakeman Esselstyn.

6.

In preparing this analysis, I was given the block-equivalency files of the Esselstyn remedial plans as well as the block-equivalency files of the 2021 adopted plans and incumbent databases used by the Georgia General Assembly during the redistricting process. I was also given the block-equivalency files of a Senate and House plan offered by the Democratic caucus during the redistricting process. The incumbent databases list the address locations and districts of the Representatives and Senators currently serving under the existing House (2015-enacted) and Senate (2014-enacted) plans. I was also given information on incumbents who are not intending to run for re-election to their current offices in 2022.

7.

I loaded the 2021 House and 2021 Senate plans enacted by the Georgia General Assembly into the Maptitude for Redistricting software using the block-equivalency files provided. I loaded the Esselstyn House remedial plan and the Esselstyn Senate remedial plan into the Maptitude for Redistricting

software using the block-equivalency files provided. I loaded the current existing House (2015-enacted) and Senate (2014-enacted) plans into the Maptitude for Redistricting software using files provided with software. I also uploaded a House plan and a Senate plan offered by the Democratic caucus during the redistricting process using the block-equivalency files provided. I loaded the current incumbent databases provided.

8.

Using the Maptitude for Redistricting software, I created district summary files in the for the 2021 adopted plans, the Democratic proposed plans, and the Esselstyn remedial plans. These summary files listed information for each district such as: the deviation from ideal district size, total population, voting-age population, any-part Black voting age population as well as percentage values for the latter.

9.

Using the district summary files, I tallied the number of majority-Black districts using any-part Black voting age population for each plan. For the Democratic proposed plans, each plan has fewer majority-Black districts than those proposed by the Esselstyn remedial plans. In addition, the House Democratic proposed plan has fewer majority-Black districts than both the Esselstyn remedial House plan and the 2021 adopted House plan.

10.

The chart below shows the total number of majority-Black districts in the 2021 adopted Senate plan, the Democratic proposed Senate plan, and the Esselstyn remedial Senate plan as well as the number of districts in the percentage ranges using the any-part Black voting age population.

Chart 1. Number of Majority-Black Senate Districts.

Majority-Black Senate Districts			
% AP Black VAP	2021 Adopted Plan	Proposed Democratic Plan	Esselstyn Remedial Plan
Over 75%	0	1	0
70% to 75%	3	2	1
65% to 70%	3	3	2
60% to 65%	3	1	4
55% to 60%	3	3	4
52% to 55%	1	3	3
50% to 52%	1	2	3
Total # Districts	14	15	17

11.

The 2021 adopted Senate plan includes 14 majority-Black districts, the proposed Democratic Senate plan includes 15 majority-Black districts, and the Esselstyn remedial Senate plan has 17 majority-Black districts.

12.

The chart below shows the total number of majority-Black districts in the 2021 adopted House plan, the Democratic proposed House plan, and the Esselstyn remedial House plan as well as the number of districts in the percentage ranges using the any-part-Black voting age population.

Chart 2. Number of Majority-Black House Districts

Majority-Black House Districts			
% AP Black VAP	2021 Adopted Plan	Proposed Democratic Plan	Esselstyn Remedial Plan
Over 75%	2	6	2
70% to 75%	9	7	5
65% to 70%	7	7	8
60% to 65%	8	3	8
55% to 60%	11	9	10
52% to 55%	10	10	10
50% to 52%	2	3	11
Total # Districts	49	45	54

13.

The 2021 adopted House plan includes 49 majority-Black districts using any-part-Black voting age population, the proposed Democratic House plan includes 45 majority-Black districts, and the Esselstyn remedial House plan has 54 majority-Black districts.

14.

Using the incumbent databases provided, I ran incumbent reports in the Maptitude for Redistricting software for the 2021 adopted plans and the Esselstyn remedial plans. The incumbent report shows which district the current elected incumbents would be placed in under a new plan. During the redistricting process, several House members announced their intention not to run for re-election to the state house in 2022: Micah Gravely, Wes Cantrell, Thomas Benson, Matthew Dollar, William Boddie, and Susan Holmes. In the Senate, Senators Bruce Thompson, Tyler Harper, Burt Jones and Jen Jordan are running for statewide offices in 2022 instead of running for re-election to the state senate. As these incumbent intentions were known during the redistricting process, their pairings would not cause members to run against each other in 2022.

15.

The 2021 adopted Senate plan pairs no incumbents who are running for re-election in the state Senate; and the 2021 adopted state House plan makes only four incumbent pairings. The Esselstyn remedial Senate plan pairs more incumbents than the 2021 adopted Senate plan – Senators Marty Harbin (R) and Valencia Seay (D) are in one district. The chart below shows the pairings

of incumbents who have not declared their intentions to retire from the State Senate or run for another office in 2022.

Chart 3. Senate incumbent pairings

Incumbent Pairings	Adopted Senate Plan	Esselstyn Senate Plan
Pairing #1	NONE	Marty Harbin -R Valencia Seay -D
Pairing #2		
Total incumbents Paired	0	2

16.

The 2021 adopted Senate plan pairs no incumbents that are running for re-election and the Esselstyn remedial Senate plan pairs two incumbents.

17.

Using the incumbent databases provided, the incumbent reports from Maptitude for Redistricting show that Esselstyn remedial House plan pairs many more incumbents than the 2021 adopted House plan. The chart below shows the pairings of incumbents who have not declared their intentions to retire from the State House or run for another office in 2022.

Chart 4. House incumbent pairings

Incumbent Pairings	Adopted House Plan	Esselstyn House Plan
Pairing #1	Rebecca Mitchell -D Shelly Hutchison -D	Mike Glanton -D Demetrius Douglas -D
Pairing #2	Gerald Green -R Winifred Dukes -D	Rebecca Mitchell -D Shelly Hutchison -D
Pairing #3	James Burchett -R Dominic LaRiccica -R	El-Mahdi Holly -D Regina Lewis-Ward -D
Pairing #4	Danny Mathis – R Robert Pruitt - R	Miriam Paris -D Dale Washburn -R
Pairing #5		Robert Dickey -R Shaw Blackmon -R
Pairing #6		Noel Williams – R Robert Pruitt - R
Pairing #7		Gerald Green -R Winifred Dukes -D
Pairing #8		James Burchett -R Dominic LaRiccica -R
Total incumbents Paired	8	16

18.

The Esselstyn remedial House plan pairs 16 incumbents, while the 2021 adopted House plan pairs only eight incumbents out of the 180 House members.

19.

I ran core constituency reports in the Maptitude for Redistricting software to compare the 2021 adopted plans and the Esselstyn remedial plans. The core constituency reports compare one plan to another; showing how much

population in a district from the first plan is the same in a district (or districts) in the second plan. (As an example, the 2021 adopted Senate plan includes some districts that were also included in the Senate map drafted by the Democratic caucus. When comparing those plans, the core constituency report shows that 100% of the population in those districts from the 2021 adopted plan are the same in the proposed Democratic plan.) The Esselstyn remedial plans differ substantially from the 2021 adopted plans. An analysis of the Esselstyn remedial Senate plan shows that 22 districts were changed from the 2021 adopted Senate plan. An analysis of the Esselstyn remedial House plan compared to the 2021 adopted plans found that 26 districts were changed from the 2021 adopted House plan.

20.

I ran the split geography reports in the Maptitude for Redistricting software for the 2021 adopted plans and the Esselstyn remedial plans. The split geography report shows how many political subdivisions - counties and census voting districts (often referred to as voting precincts) are split.

21.

The Esselstyn remedial plans split more political subdivisions (counties and precincts / voting districts) than the adopted plans. The 2021 adopted

Senate plan splits 29 counties and 47 voting precincts. The Esselstyn remedial Senate plan splits 34 counties and 49 precincts.

22.

The 2021 adopted House plan splits 69 counties and 184 voting precincts. The Esselstyn remedial House plan splits 70 counties and 191 voting precincts.

23.

I ran compactness reports in the Maptitude for Redistricting software for the 2021 adopted plans and the Esselstyn remedial plans. The Polsby-Popper and Reock compactness measures were shown in the reports for each district. The Polsby-Popper and Reock compactness measures are standard measurements comparing the district to the area of a circle.¹

¹ The Maptitude for Redistricting Users Guide describes the Polsby-Popper test in this way: “The Polsby-Popper test computes the ratio of the district area to the area of a circle with the same perimeter: $4\pi \text{Area}/(\text{Perimeter}^2)$. The measure is always between 0 and 1, with 1 being the most compact. The Polsby-Popper test computes one number for each district and the minimum, maximum, mean and standard deviation for the plan.” And the same guide describes the Reock test in this way: “The Reock test is an area-based measure that compares each district to a circle, which is considered to be the most compact shape possible. For each district, the Reock test computes the ratio of the area of the district to the area of the minimum enclosing circle for the district. The measure is always between 0 and 1, with 1 being the most compact. The Reock test computes one number for each district and the minimum, maximum, mean and standard deviation for the plan.”

24.

While the overall compactness scores on the Esselstyn remedial Senate plan and the 2021 adopted Senate plan are similar, several districts on the Esselstyn remedial Senate plan are far less compact than the 2021 adopted Senate plan. The overall compactness scores on the Esselstyn remedial House plan and the 2021 adopted House plan are similar; however, of the 26 districts changed in the Esselstyn remedial House plan, 16 districts are less compact on the Reock measurement and 15 districts are less compact on the Polsby-Popper measurement. The chart below shows the compactness scores of the newly created majority-Black districts which Esselstyn identified in his report and the compactness scores of the corresponding district number in the 2021 adopted plans.

Chart 5. Compactness score summary

New Black-Majority District	Adopted Plan Reock	Esselstyn Remedial Plan Reock	Adopted Plan Polsby-Popper	Esselstyn Remedial Plan Polsby-Popper
Senate 23	0.37	0.34	0.16	0.17
Senate 25	0.39	0.57	0.24	0.34
Senate 28	0.45	0.38	0.25	0.19
House 64	0.37	0.22	0.36	0.22
House 74	0.50	0.30	0.25	0.19
House 117	0.41	0.40	0.28	0.33
House 145	0.38	0.34	0.19	0.21
House 149	0.32	0.42	0.22	0.23

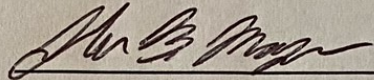
25.

In summary, the Esselstyn remedial plans differ substantially from those adopted by the General assembly. The Esselstyn remedial plans split more counties and precincts and they pair more incumbents. While some geography in the Esselstyn remedial plans aligns with the 2021 adopted plans, the Esselstyn remedial Senate plan changes 22 districts to create three new Black-majority Senate districts and the Esselstyn remedial House plan changes 26 districts to create five new Black-majority House districts. In conclusion, this is my preliminary analysis of these plans. I reserve the right to continue adding to this analysis as the case proceeds.

[Signature on next page]

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 18th day of January, 2022.



JOHN B. MORGAN

EXHIBIT 1

JOHN B. MORGAN
Curriculum Vitae

Redistricting Background and Experience

- Performed redistricting work in 20 states, in the areas of map drawing, problem-solving and redistricting software operation.
- Performed demographic and election analysis work in 40 states, for both statewide and legislative candidates

2021-2022 Redistricting Cycle

- Mapping expert for Michigan Independent Citizens Redistricting Commission
- Mapping expert for Virginia Redistricting Commission
- Mapping expert for New Jersey Congressional Redistricting Commission
- Mapping expert for New Jersey Legislative Redistricting Commission
- Staff analyst for New Mexico Senate Republican caucus – Dec. 2021 special session
- Mapping consultant to Indiana State Senate Republican caucus
- Mapping consultant to redistricting commissioners in Atlantic County, New Jersey
- Drafted county commission districts for Sampson County, North Carolina

2011-2012 Redistricting Cycle

- Served as a consultant for:
 - Connecticut Redistricting Commission
 - Ohio Reapportionment Board
 - New Jersey Legislative Redistricting Commission
 - New Jersey Congressional Redistricting Commission
 - Pennsylvania Legislative Reapportionment Commission
- Drafted Wake County, North Carolina school board districts
- Drafted county commission districts in Sampson and Craven counties in North Carolina and Atlantic County in New Jersey
- Worked with redistricting commissions in Atlantic and Essex counties, New Jersey.
- Worked on statewide congressional, legislative, and local plans in the following states: Connecticut, Indiana, Kansas, Missouri, New Jersey, New Mexico, North Carolina, Ohio, Pennsylvania, South Carolina, and Virginia
- Plans drafted by Morgan adopted in whole or part by the following states: Connecticut, Indiana, New Jersey, New Mexico, North Carolina, South Carolina, Virginia.

2001-2002 Redistricting Cycle

- Worked on statewide congressional and legislative redistricting plans in the following states: Florida, Georgia, Indiana, Iowa, New Jersey, North Carolina, Pennsylvania, Rhode Island, and Virginia.
- Dealt with redistricting issues as a member of the Majority Leader's legislative staff in Virginia House of Delegates. Drafted alternate plans for use by the minority parties in Rhode Island. Drafted alternate plans for use by legislative leadership in considering plans drawn by redistricting commission staff in Iowa.

1991-1992 Redistricting Cycle

- Worked on statewide congressional and legislative redistricting plans in the following states: Florida, Illinois, Indiana, Michigan, New Jersey, New York, Pennsylvania, Wisconsin.
- Focused primarily on Voting Rights Act issues with Black, Hispanic and Asian communities.
- Federal court incorporated portion of legislative plan drafted in part by Morgan for Wisconsin into final decree, finding the configuration superior to other plans in its treatment of minority voters.

Expert Experience and Trial Testimony

- Recognized as an expert in demographics and redistricting in *Egolf v. Duran*, New Mexico First Judicial District Court, Case No. D-101-CV-2011-02942, which dealt with New Mexico's legislative plans.
- In *Egolf v. Duran*, the Court adopted a House redistricting plan principally drafted by Morgan.
- Filed expert reports in *Georgia State Conference of NAACP v. Fayette County Board of Commissioners*.
- Filed expert reports and expert testimony in *Page v. Board of Elections*, Eastern District of Virginia; provided expert testimony at trial.
- Testified at trial in *Bethune Hill v. Virginia Board of Elections* and *Vesilind v. Virginia Board of Elections*.
- Filed expert report in *Georgia NAACP v. Gwinnett County*.

Education

- Bachelor of Arts degree in History from the University of Chicago
- Graduated with honors.
- Bachelor's Honors thesis on "The Net Effects of Gerrymandering 1896-1932."
- Demographic study on LaSalle, Illinois was published in *The History of the Illinois and Michigan Canal, Volume Five*.

Employment

- President of Applied Research Coordinates, a consulting firm specializing in political and demographic analysis and its application to elections and redistricting, 2007 to present
- Redistricting consultant for many legislatures and commissions: 1991, 2001, 2011, 2021
- Executive Director, GOPAC (Hon. J.C. Watts, Chairman), 2004-2007
- Vice-President of Applied Research Coordinates, 1999-2004
- National Field Director, GOPAC (Rep. John Shadegg, Chairman) 1995-1999
- Research Analyst, Applied Research Coordinates 1991-1995
- Research Analyst, Republican National Committee 1988-1989, summers