UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF LOUISIANA

PRESS ROBINSON, EDGAR CAGE, DOROTHY NAIRNE, EDWIN RENE SOULE, ALICE WASHINGTON, CLEE EARNEST LOWE, DAVANTE LEWIS, MARTHA DAVIS, AMBROSE SIMS, NATIONAL ASSOCIATION FOR THE ADVANCEMENT OF COLORED PEOPLE ("NAACP") LOUISIANA STATE CONFERENCE, AND POWER COALITION FOR EQUITY AND JUSTICE, *Plaintiffs,* v. KYLE ARDOIN, in his official capacity as Secretary of State for Louisiana, *Defendant.*	Civil Action No. 3:22-cv-00211-SDD-RLB Chief Judge Shelly D. Dick Magistrate Judge Richard L. Bourgeois, Jr.
EDWARD GALMON, SR., CIARA HART, NORRIS HENDERSON, and TRAMELLE HOWARD, *Plaintiffs,* v. KYLE ARDOIN, in his official capacity as Secretary of State for Louisiana, *Defendant.*	Civil Action No. 3:22-cv-00214-SDD-SDJ Chief Judge Shelly D. Dick Magistrate Judge Scott D. Johnson

SUPPLEMENTAL REPORT OF M.V. HOOD III

I, M.V. Hood III, affirm the conclusions I express in this report are provided to a reasonable degree of professional certainty. In addition, I do hereby declare the following:

Exhibit
LEG_78

I. SCOPE AND OVERVIEW

I have been asked by counsel for the Legislative Intervenors to update my original report in this matter to include three additional proposed plans. As in my original report, I provide the same comparisons for district congruity (Section II) and racial composition (Section III).[1]

Note: Throughout this report I refer to different congressional plans. The plan challenged in this matter is referred to as the enacted plan, or the 2022 plan. The previous plan from 2011 is the benchmark plan. Plaintiffs' additional proposed plans are denoted as Robinson-2A[2] and Galmon-4. In addition, comparisons are also provided for a plan submitted by LSU and Tulane in an amicus brief.

II. DISTRICT CONGRUITY ANALYSES

District core retention scores for the three plans are presented in Table 1, along with the previous calculations for the enacted plan.[3] Table 1 also presents mean (average) core retention values for the four plans along with the standard deviation and range.

Table 1. District Core Retention Comparisons

District	Enacted	Robinson-2A	Galmon-4	LSU/Tulane
1	97.9%	74.2%	71.5%	53.9%
2	98.8%	81.4%	85.3%	66.3%
3	100%	74.9%	80.9%	74.3%
4	93.8%	72.3%	69.3%	73.5%
5	89.1%	49.1%	52.3%	79.2%
6	98.5%	61.0%	58.6%	62.6%
Mean	96.4	68.8	69.7	68.3
S.D.	4.1	11.7	12.6	9.2
Range	10.9	32.3	33.0	25.3

Looking at the mean values, the three proposed plans have lower overall core retention levels as compared to the enacted plan. This is also the case if one compares specific districts in any of the proposed plans to the corresponding district from the enacted plan. Comparing the standard deviation statistics and the ranges across plans indicates that core retention scores for the plaintiff-proposed plans have a greater degree of variance as compared to the enacted plan.
In sum, under the enacted plan, 96% of constituents will have the ability to return their previous incumbent to office if they so choose. In contrast, plaintiff-proposed plans only allow 68% to 70% of constituents this same opportunity.

Table 2 compares the shared geography between the enacted and plaintiff-proposed plans to the benchmark plan using the Similarity Index. District-by-district comparisons demonstrate that each district in the enacted plan has a higher S.I. score than the corresponding district in each of

[1]Data relied upon to compile this report were received through counsel.
[2]For this report I am analyzing the latest map submitted on May 6, 2022 by Mr. Fairfax.
[3]The calculations in Table 1 are based on total population.

the four plaintiff-proposed plans. Districts in the enacted plan are more geographically congruent with their corresponding district configurations from the benchmark plan than are the districts from the three alternative plans. This fact is also demonstrated by the lower mean S.I. scores for the three alternative plans as compared to the enacted plan.

Table 2. District Comparisons-Geographic Similarity Index

District	**Enacted**	**Robinson-2A**	**Galmon-4**	**LSU/Tulane**
1	88.4%	54.7%	54.6%	20.8%
2	99.3%	36.6%	46.8%	9.5%
3	95.9%	46.8%	53.1%	66.8%
4	94.2%	51.4%	44.8%	62.3%
5	87.8%	49.8%	50.3%	67.0%
6	64.4%	16.9%	16.6%	40.9%
Mean	88.3	42.7	44.4	44.6
S.D.	12.5	14.1	14.1	24.9
Range	35.0	37.8	38.0	57.4

Summary. This section has demonstrated that in terms of both population and geography, the benchmark and enacted plans are highly congruent. On these same metrics the three proposed plans analyzed in this report deviate to a greater degree from the benchmark plan.

III. DISTRICT RACIAL COMPOSITION

In this section I document the percentage of Black population contained within each congressional district for the benchmark, enacted, and three proposed plans based on 2020 Census data.[4] For these comparisons I calculate the percentage of the total population (Table 3) and the voting age population (Table 4) that is Black as defined by the U.S. Department of Justice.

Looking at the three proposed plans, percent Black by district has a greater degree of variance as compared to the benchmark plan. Comparing the enacted plan to the benchmark plan, the absolute difference, by district, ranges from 0.0 to 1.3. The average difference across all districts is 0.48. Congruent statistics for the proposed plans are: Robinson-2A (1.5 to 19.3, mean=7.5); Galmon-4 (2.0 to 17.7, mean=7.5); and LSU/Tulane (0.1 to 18.8, mean=6.8).

Using total Black population, there is one majority black district in both the benchmark and the enacted plans (CD 2 with a Black population of 59.1%). For the two additional plaintiff-proposed plans, there are two majority-Black districts in each (CD 2 and CD 5), ranging from 50.3% to 53.7% Black population. There are no majority-Black districts present in the LSU/Tulane amicus brief plan.

Table 3. District Percentage Black Comparisons, 2020 Total Population

District	Benchmark	Enacted	Robinson-2A	Galmon-4	LSU/Tulane
1	15.0%	13.7%	17.5%	18.9%	15.8%
2	**59.1%**	**59.1%**	**51.9%**	**50.3%**	41.7%
3	25.5%	25.7%	19.0%	20.6%	23.5%
4	34.4%	34.9%	32.9%	32.4%	32.9%
5	34.4%	34.4%	**53.7%**	**52.1%**	34.3%
6	25.6%	24.7%	17.5%	18.2%	44.4%

Table 4 examines the Black voting age population by district across the five plans. In absolute value terms, the Black VAP differences, by district, between the benchmark and enacted plans range from 0.1% to 1.2% (mean=0.5% across all six districts). Comparing the three proposed plans offered by the plaintiffs to the benchmark plan reveals a much greater degree of divergence on district racial composition. For example, comparing Robinson-2A to the benchmark plan, the Black VAP differences by district in absolute value terms range from 2.4 to 18.7, with a mean difference of 7.2. These same calculations for the remaining plans are as follows: Galmon-4 (1.8 to 17.1, mean=7.2) and LSU/Tulane (0.1 to 18.0, mean=6.6).

Based on voting age population, both the benchmark and enacted plans contain one majority-Black district, CD 2, at 57.0% Black in both plans. The Robinson-2A plan contains two majority-Black districts (CD 2 at 50.02% and CD 5 at 51.1%). Neither the Galmon-4 plan nor the LSU/Tulane plan contain any majority-Black districts based on voting age population. CD 2 at 48.3% BVAP and CD 5 at 49.5% BVAP in the Galmon-4 plan fall short of a majority.

Table 4. District Percentage Black Comparisons, 2020 Voting Age Population

District	Benchmark	Enacted	Robinson-2A	Galmon-4	LSU/Tulane
1	13.7%	12.5%	16.1%	17.3%	14.6%
2	**57.0%**	**57.0%**	**50.02%**	48.3%	39.7%
3	23.8%	23.9%	17.6%	19.1%	21.7%
4	32.6%	33.1%	31.3%	30.8%	31.2%
5	32.4%	32.3%	**51.1%**	49.5%	32.3%
6	24.1%	23.3%	16.3%	16.9%	42.1%

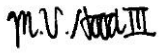
Summary. The plans introduced by the plaintiffs saw a much wider degree of variance from the enacted plan in terms of district racial composition. Using voting age population data, one plaintiff-proposed plan (Robinson-2A) contains two majority-Black districts, although one is barely above a majority. The second, Galmon-4, does not contain a single majority-black district. The amicus plan presented by the LSU and Tulane group also does not contain any majority-Black districts.

[4]The figures for the benchmark plan presented in Tables 3 and 4 use 2020 Census data.

IV. DECLARATION

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.

Executed on May 9, 2022.



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