April 15, 2022

***Robinson, et al. v. Ardoin*, No. 3:22-cv-00211-SDD-SDJ**
***Galmon, et al. v. Ardoin*, No. 3:22-cv-00214-SDD-SDJ**

UNITED STATES DISTRICT COURT FOR THE
MIDDLE DISTRICT OF LOUISIA0NA

EXPERT REPORT
OF
WILLIAM COOPER

William Cooper

EXHIBIT

GX-1

DECLARATION OF WILLIAM S. COOPER

WILLIAM S. COOPER, acting in accordance with 28 U.S.C. § 1746, Federal Rule of Civil Procedure 26(a)(2)(B), and Federal Rules of Evidence 702 and 703, does hereby declare and say:

I. INTRODUCTION

1. My name is William S. Cooper. I have a B.A. in Economics from Davidson College. As a private consultant, I currently serve as a demographic and redistricting expert for the Plaintiffs. I am compensated at a rate of $150 per hour.

A. Redistricting Experience

2. I have testified at trial as an expert witness on redistricting and demographics in federal courts in about 50 voting rights cases since the late 1980s. Five of these lawsuits resulted in changes to statewide legislative boundaries: *Rural West Tennessee African-American Affairs v. McWherter*, *Old Person v. Cooney*, *Bone Shirt v. Hazeltine*, *Alabama Legislative Black Caucus v. Alabama*, and *Thomas v. Bryant.* Approximately 25 of the cases led to changes in local election district plans.[1]

[1] I have also served as an expert witness on demographics in trials relating to issues other than voting and redistricting. For example, in an April 2017 opinion in *Stout v. Jefferson County Board of Education* (Case no.2:65-cv-00396-MHH), a school desegregation case involving the City of Gardendale, Alabama, the court made extensive reference to my testimony.

3. In 2022, I have testified at trial as an expert in redistricting and demographics in four cases challenging district boundaries under Section 2 of the Voting Rights Act: *Caster v. Merrill*, No. 21-1356-AMM (N.D. Ala.), *Pendergrass v. Raffensperger*, No. 21-05337-SCJ (N.D. Ga.), *Alpha Phi Alpha Fraternity v. Raffensperger*, No. 21-05339-SCJ (N.D. Ga.), and *NAACP v Baltimore County*, No. 21-cv-03232-LKG (Md.). I also testified at trial as an expert in demographics in *NAACP v. Lee*, No. 4:21cv187-MW/MAF (N.D. Fla.).

4. I have served as a redistricting and demographics consultant or expert in several voting cases in Louisiana. In 1993, I developed police jury election plans for the parishes of East Carroll, Madison, West Feliciana, and Point Coupee.[2] In 1994 and 1995, I developed school board plans for the parishes of Bossier, East Carroll, West Carroll, and Iberville.[3] In 1996, I served as an expert for the plaintiffs and developed an illustrative *Gingles* 1 plan for the town council in St. Francisville.[4] In 1998, I developed an illustrative plan for the 23rd Judicial District.[5]

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[2] *Rodney v. McKeithen*, No. 3:1992-CV-735 (M.D. La.).

[3] *Knight v. McKeithen*, No. 3:1994-cv-00848 (M.D. La.) and *Reno v. Bossier Parish School Board*, 528 U.S. 320 (2000).

[4] *Wilson v. St. Francisville*, No. 92-765 (M.D. La.).

[5] *Prejean v. Foster*, No. 02-31065 (5th Cir. 2003).

5. In 2005, I served as an expert for the plaintiffs and developed an illustrative *Gingles* 1 plan for the school board in St. Landry Parish.[6] In the 2010 redistricting cycle, I served as the *Gingles* 1 expert for the plaintiffs in a Section 2 lawsuit involving the 32nd Judicial District in Terrebonne Parish.[7]

6. For additional historical information on my testimony as an expert witness and experience preparing and assessing proposed redistricting maps for Section 2 litigation, see a summary of my redistricting work attached as **Exhibit A**.

B. <u>Purpose of Report</u>

7. The attorneys for the Plaintiffs in this case have asked me to determine whether the African-American population in Louisiana is "sufficiently large and geographically compact"[8] to allow for the creation of two U.S. House majority-Black districts.

8. In addition, the attorneys have asked me to review historical and current demographics reported in the decennial census published by the U.S. Census Bureau, as well as socioeconomic characteristics reported in the annual releases of

[6] *NAACP v. St. Landry Parish*, VR-LA-0097. Docket / Court, 6:2003cv00610 (W.D. La.).

[7] *Terrebonne Parish NAACP v. Jindal*, No. 3:14-cv-00069 (M.D. La.).

[8] *Thornburg v. Gingles*, 478 U.S. 30, 50 (1986).

the American Community Survey ("ACS") for African Americans and non-Hispanic Whites.[9]

9. **Exhibit B** describes the sources and methodology I employed in the preparation of this report.

C. <u>Expert Summary Conclusions</u>

10. African Americans in Louisiana are sufficiently numerous and geographically compact to allow for two majority-Black U.S. House districts in a six-district plan.

11. As reported by the Census Bureau in the 1-Year *2019 American Community Survey ("2019 ACS")*, in Louisiana, non-Hispanic Whites significantly outpace African Americans across most key indicators of socio-economic well-being. These disparities are also found at the regional and local level as reported in the *2019 ACS* and the 5-Year *2015-2019 ACS*.

D. <u>Organization of Report</u>

12. The remainder of this declaration is organized as follows: **Section II** reviews state and parish demographics from 1990 to 2020; **Section III** reviews historical congressional plans in Louisiana from the 1980s to the 2010s. **Section IV** reviews the 2011 Plan and the Enacted 2022 Plan ("2022 Plan"); **Section V**

[9] In this report, "Black" and "African American" are synonymous, as are "Latino" and "Hispanic."

presents three *Gingles* 1 illustrative plans based on the 2020 Census, all of which include two voting-age majority-Black congressional districts; and **Section VI** reviews statewide and regional socioeconomic disparities by race.

II. DEMOGRAPHIC PROFILE OF LOUISIANA

A. Decennial Census -- Population Distribution

(a) 1990 to 2020 – Statewide Population by Race and Ethnicity

13. The table in **Figure 1** presents the population of Louisiana by race and ethnicity for the decennial censuses between 1990 and 2020.

Figure 1

Louisiana – 1990 to 2020 Census
Population by Race and Ethnicity

All Ages	1990	Percent of Total Populatio	2000	Percent of Total Populatio	2010	Percent of Total Population	2020	Percent of Total Population
Total Population	4,219,973	100.00%	4,468,976	100%	4,533,372	100%	4,657,757	100.00%
NH White*	2,776,022	65.78%	2,794,391	62.53%	2,734,884	60.33%	2,596,702	55.75%
Total Minority Pop.	1,443,951	34.22%	1,674,585	37.47%	1,798,488	39.67%	2,061,055	44.25%
Latino	93,044	2.20%	107,738	2.41%	192,560	4.25%	322,549	6.92%
NH Black*	1,291,470	30.60%	1,443,390	32.30%	1,442,420	31.82%	1,452,420	31.18%
NH Asian*	39,302	0.93%	54,256	1.21%	69,327	1.53%	85,336	1.83%
NH Hawaiian and PI*#	NA	NA	24,129	0.54%	28,092	0.62%	1,706	0.04%
NH American Indian and Alaska Native	17,539	0.42%	1,076	0.02%	1,544	0.03%	25,994	0.56%
NH Other*~	2,596	0.06%	4,736	0.11%	6,779	0.15%	16,954	0.36%
NH Two or More Races#	NA	NA	39,260	0.88%	57,766	1.27%	156,096	3.35%
SR Black (Single-race Black)	1,299,281	30.79%	1,451,944	32.49%	1,452,396	32.04%	1,464,023	31.43%
AP Black (Any Part Black)	NA	NA	1,468,317	32.86%	1,486,885	32.80%	1,543,119	33.13%

* Single-race, non-Hispanic.
# In 1990, "Asian" included Hawaiian and Pacific Islander.
~ In 1990, "Other" included persons of two or more races.
NA means not available in 1990.

14. According to the 2020 Census, non-Hispanic Whites comprise 55.75%

of the population in Louisiana. African Americans are the next largest racial/ethnic category, representing 33.13% of the population in 2020—the second highest proportion of any state in the nation.

15. As shown in **Figure 1**, the statewide single-race Black ("SR Black") percentage increased from 30.79% in 1990 to 31.43% (33.13% Any Part Black ("AP Black")) in 2020.[10] The minority population climbed from 34.22% in 1990 to 44.25% in 2020, with a corresponding drop in the non-Hispanic White ("NH White") population from 65.78% to 55.75%.

16. **Figure 2** reports the statewide voting age population ("VAP") by race and ethnicity for 1990 to 2020.

17. Reflecting a younger and growing population, the statewide 2020 Black voting age population ("BVAP") is 31.25% (1.88 points lower than the overall Black population percentage). By contrast, the NH White VAP is 62.88% (2.56 points higher than the corresponding percentage for the overall NH White population).

18. As shown in **Figure 2**, the statewide SR BVAP increased from 27.87% in 1990 to 30.07% (and to 31.25% AP Black VAP) in 2020. During that same

[10] In this declaration, "African American" or "Black" refers to persons who are Any Part Black (i.e., persons of one or more races that are some part Black), including Hispanic Black, unless otherwise specified. It is my understanding that following the U.S. Supreme Court decision in *Georgia v. Ashcroft*, 539 U.S. 461 (2003), the "Any Part" definition is the appropriate Census classification to use in Section 2 cases.

time period, the NH White VAP dropped more than ten percentage points, from 68.79% in 1990 to 58.31% in 2020.

Figure 2

Louisiana – 1990 to 2020 Census
Voting Age Population by Race and Ethnicity

Voting Age	1990	Percent of Voting Age Population	2000	Percent of Voting Age Population	2010	Percent of Voting Age Population	2020	Percent of Voting Age Population
Voting Age Population	2,992,704	100.00%	3,249,177	100.00%	3,415,357	100.00%	3,570,548	100.00%
NH White*	2,058,777	68.79%	2,128,485	65.51%	2,147,661	62.88%	2,082,110	58.31%
Total Minority Pop.	933,927	31.21%	1,120,692	34.49%	1,267,696	37.12%	1,488,438	41.69%
Latino	66,242	2.21%	77,083	2.37%	138,091	4.04%	223,662	6.26%
NH Black*	828,866	27.70%	959,622	29.53%	1,019,582	29.85%	1,066,511	29.87%
NH Asian*	25,731	0.86%	39,702	1.22%	53,638	1.57%	67,983	1.90%
NH Hawaiian and PI*#	NA	NA	800	0.02%	1,152	0.03%	1,322	0.04%
NH American Indian and Alaska Native	11,376	0.38%	16,315	0.50%	19,952	0.58%	19,531	0.55%
NH Other*~	1,712	0.06%	2,803	0.09%	4,526	0.13%	11,524	0.32%
NH Two or More Races#	NA	NA	24,367	0.75%	30,755	0.90%	97,905	2.74%
SR Black (Single-race Black)	833,938	27.87%	965,052	29.70%	1,026,233	30.05%	1,073,754	30.07%
AP Black (Any Part Black)	NA	NA	973,149	29.95%	1,040,701	30.47%	1,115,769	31.25%

* Single-race, non-Hispanic.
# In 1990, "Asian" included Hawaiian and Pacific Islander.
~ In 1990, "Other" included persons of two or more races.
NA means not available in 1990.

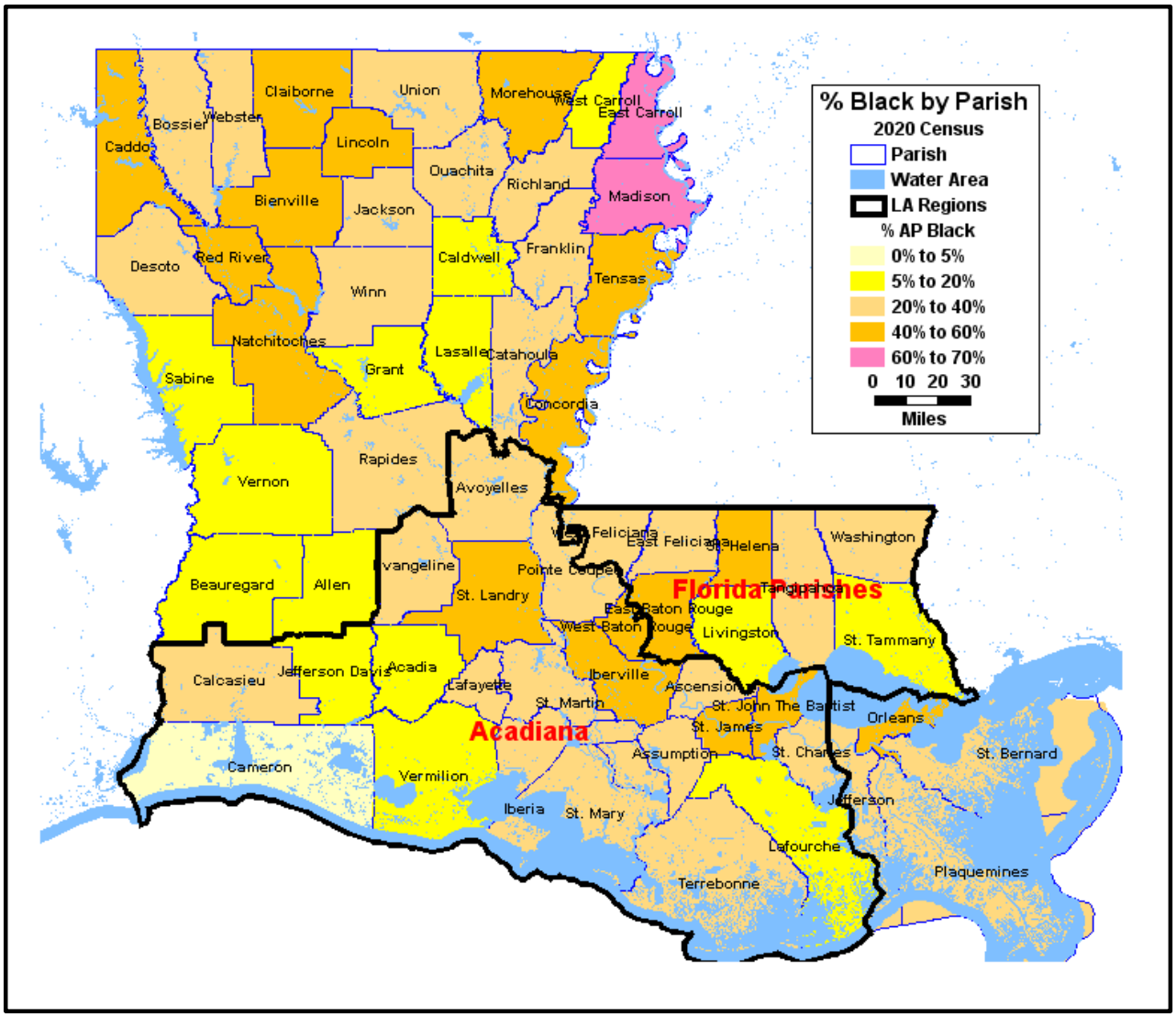
(b) 1990-2020 Parish-Level Population by Race and Ethnicity

19. The map in **Figure 3** shows the 2020 Black population percentage by parish. The bold boundary lines demarcate two key multi-parish cultural regions—the 22 parishes of Acadiana (as designated by the state of Louisiana in 1971)[11] and the eight parishes that comprise the Florida Parishes.[12]

[11] The 22 Parishes of Acadiana are Acadia, Ascension, Assumption, Avoyelles, Calcasieu, Cameron, Evangeline, Iberia, Iberville, Jefferson Davis, Lafayette, Lafourche, Pointe Coupee, St. Charles, St. James, St. John the Baptist, St .Landry, St. Martin, St. Mary, Terrebonne, Vermilion,

Figure 3

2020 Percent Black by Parish



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and West Baton Rouge. *See* Acadiana Legislative Delegation, https://house.louisiana.gov/acadiana/. Lafayette, Acadia, Iberia, St. Landry, St. Martin, Vermilion, Evangeline and St. Mary are the "Cajun Heartland," which makes up only about a third of the entire Acadiana region. *See id.*

[12] The eight Florida Parishes are East Baton Rouge, East Feliciana, Livingston, St. Helena, St. Tammany, Tangipahoa, Washington, and West Feliciana. *See* Florida Parishes, Se. La. Univ., http://www.southeastern.edu/acad_research/programs/csls/parishes/index.html.

20. **Exhibit C-1** reports 2020 population by race and ethnicity for the 64 parishes. **Exhibits C-2** (2010), **C-3** (2000), and **C-4** (1990) report historical population by race and ethnicity for the 64 parishes.

C. 1990 to 2020 Population Change

(a) 1990 to 2020 – Statewide Population Change

21. As shown in **Figure 4**, Louisiana experienced modest population growth between 1990 and 2020—up 10.37% from 4.22 million to 4.66 million.

Figure 4

Louisiana – 1990 to 2020 Census
Population Change by Race

	Total Pop.	NH White	Total Minority	SR Black	AP Black
1990 Census	4,219,973	2,776,022	1,443,951	1,299,281	NA
2000 Census	4,468,976	2,794,391	1,674,585	1,451,944	1,468,317
2010 Census	4,533,372	2,734,884	1,798,488	1,452,396	1,486,885
2020 Census	4,657,757	2,596,702	2,061,055	1,464,023	1,543,119
1990 - 2000 Gain	249,003	18,369	230,634	152,663	NA
% 1990 - 2000 Gain	5.90%	0.66%	15.97%	11.75%	NA
% of Statewide 1990 - 2000 Gain	100.0%	7.4%	92.62%	61.31%	NA
2000 - 2010 Gain/Loss	64,396	-59,507	123,903	452	18,568
% 2000 - 2010 Gain/Loss	1.44%	-2.13%	7.40%	0.03%	1.26%
% of Statewide 2000 - 2010 Gain	100.0%	Net loss	192.4%	0.7%	28.8%
2010 to 2020 Gain/Loss	124,385	-138,182	262,567	11,627	56,234
% 2010 to 2020 Gain/Loss	2.74%	-5.05%	14.60%	0.80%	3.78%
% of Statewide 2010 - 2020 Gain	100%	Net loss	211.09%	9.35%	45.21%
1990 to 2020 Gain/Loss	437,784	-179,320	617,104	164,742	NA
% 1990 to 2020 Gain/Loss	10.37%	-6.46%	42.74%	12.68%	NA
% of Statewide 1990 - 2020 Gain	100%	Net loss	140.96%	37.63%	NA

22. The statewide population growth between 1990 and 2020 (blue shaded rows) can be attributed entirely to a 42.74% gain in the minority population. Over the three decades, the SR Black population increased by 164,742 (12.68%), representing nearly half of the total population gain of 437,784. By contrast, the NH White population fell by 179,320 (-6.46%) between 1990 and 2020.

III. Historical Congressional Plans

A. <u>Census 2010 Redistricting</u>

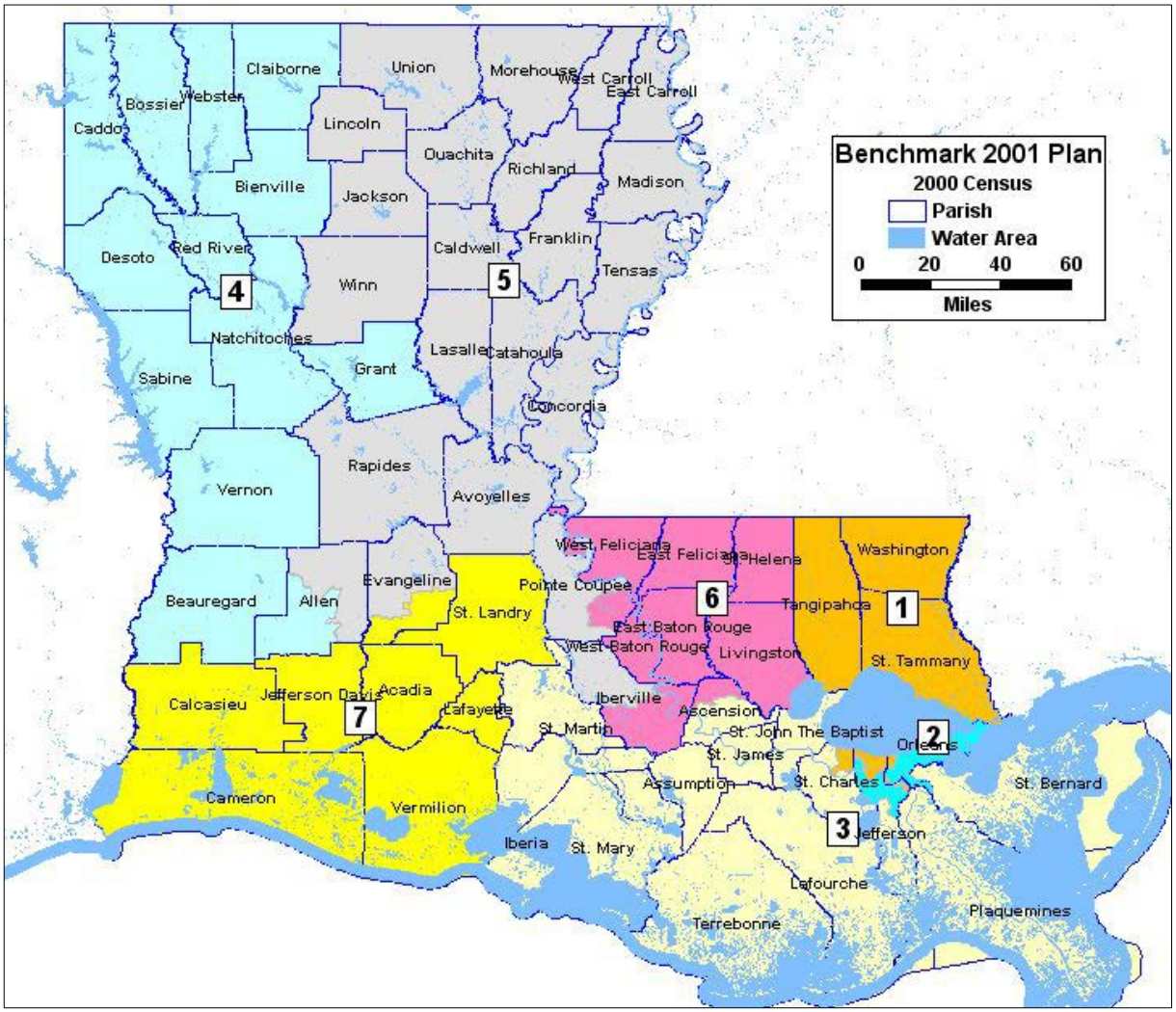
(a) 2001 Plan

23. In the 2010 reapportionment, Louisiana lost a congressional seat, going from seven to six districts, as a result of the tepid 1.44% increase in the statewide population between 2000 and 2010.

24. The map in **Figure 5** (below) depicts the seven-district 2001 Plan, which was in place for congressional elections held between 2002 and 2010.

Figure 5

Louisiana – 2001 Plan



25. For comparison, **Exhibit D-1** is a state-produced map depicting the 2001 Plan adopted by the Louisiana State Legislature. **Exhibit D-2** contains state-produced summary population statistics for the 2001 Plan, according to the 2000

Census.[13] For additional historical comparisons, **Exhibits E-1 and E-2** and **Exhibits F-1 and F-2** contain maps of Louisiana's congressional plans from 1984 to 2001.[14]

26. **Figure 6** shows 2010 summary population statistics by district for the 2001 Plan. According to the 2010 Census, under the 2001 Plan, majority-Black CD 2 had a BVAP of 56.22% which represented a 23.68 percentage point margin over the NH White VAP of 32.54%. The remainder of the 1.19 million African Americans who did not live in CD 2 (AP Black pop 295,158) were distributed across the other six districts.[15]

Figure 6

2001 Plan – 2010 Census

District	Population	Dev.	% Dev.	18+ Pop	% 18+ Black	% 18+ NH White
1	686961	39336	6.07%	527745	14.75%	75.15%
2	493352	-154273	-23.82%	378758	56.22%	32.54%
3	637371	-10254	-1.58%	471568	25.88%	66.97%
4	667109	19484	3.01%	501489	32.65%	61.92%
5	644296	-3329	-0.51%	484081	33.10%	63.63%
6	727498	79873	12.33%	548994	33.33%	60.87%
7	676785	29160	4.50%	502722	24.05%	71.47%

[13] *See* 2001 Redistricting Information, La. House, https://web.archive.org/web/20060924052737/http://house.legis.state.la.us/hredist/redist-finalBESEplans.htm#FINAL%20CONGRESS.

[14] **Exhibit E-1** depicts the 8-district Court-ordered 1984 Plan. **Exhibit E-2** shows the 1996 Court-ordered Plan. **Exhibit F-1** is the map for the 103rd Congress that was ruled unconstitutional by the U.S. District Court of the Western District of Louisiana in 1994. **Exhibit F-2** shows the plan for the 104th Congress that was ruled unconstitutional by the same Western District court in 1996.

[15] In **Section III** and **Section IV**, for population statistics cited from the 2010 and 2020 Census, "Black" means "Any Part Black."

27. According to the 2010 Census, under the seven-district 2001 Plan, African Americans of voting age (465,275) in the contiguous area encompassed by CDs 3, 5, and 6 constituted 44.7% of the statewide Black voting age population.

28. Put another way, the 2010 Black population (all ages) in CDs 3, 5, and 6 was 666,096—enough to almost match the ideal district size of 755,562 in a six-district plan in the 2010 redistricting cycle.

(b) 2011 Plan

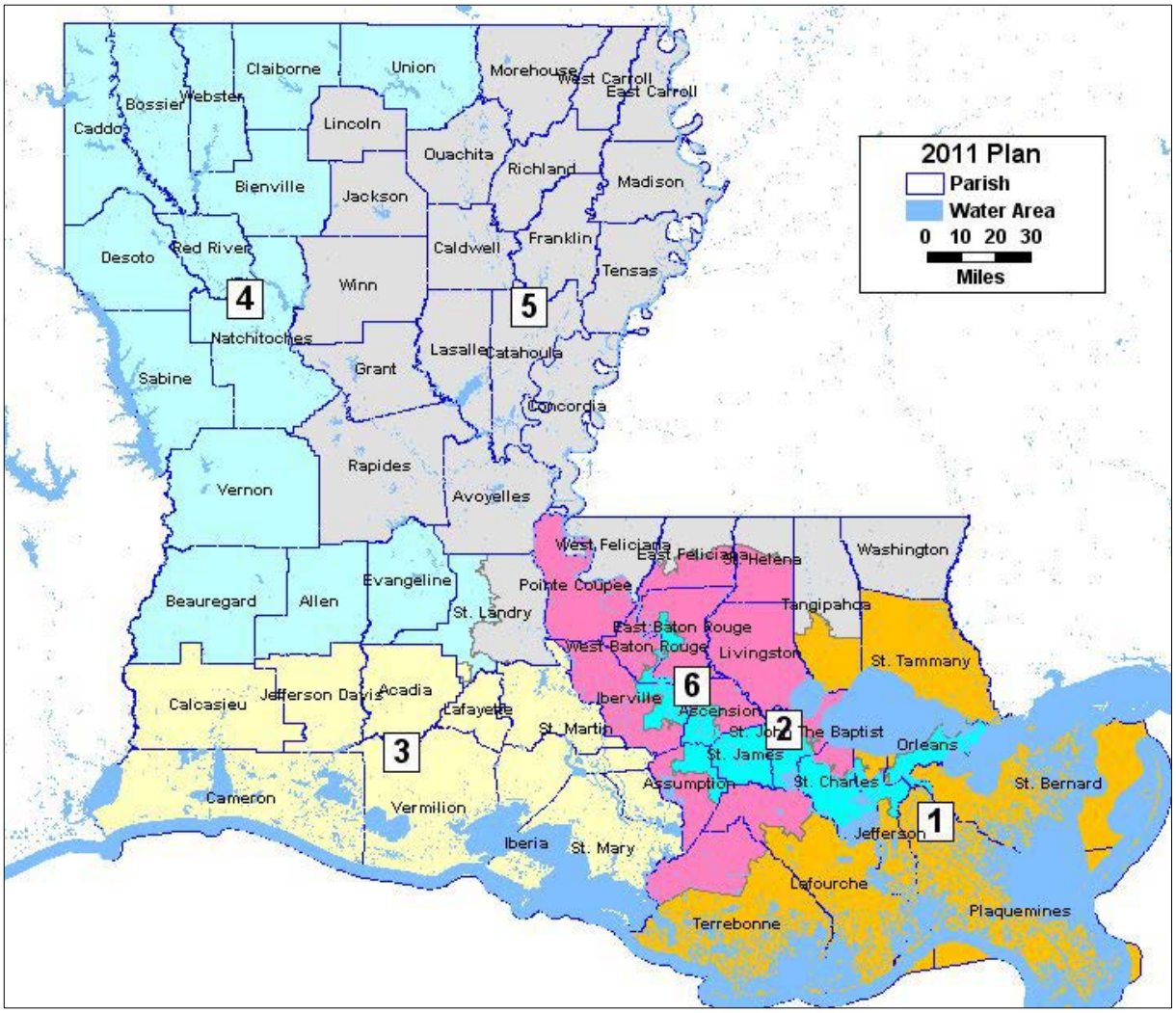
29. With the loss of a congressional seat in the 2010 reapportionment and significant population dislocations in the aftermath of Katrina, Louisiana was set for major changes in the new six-district congressional plan. The districts had to increase in geographic size in order to account for population loss in New Orleans and the increase in ideal district population size under a six-district plan.

30. In the 2011 Plan, African Americans were concentrated into CD 2 by stringing together predominantly Black precincts from New Orleans to Baton Rouge through parts of the River Parishes (St. Charles, St. John the Baptist, and St. John), then on to parts of Ascension, Assumption, and St. Gabriel, with a narrow corridor connection from Brusly to Port Allen in West Baton Rouge before crossing the Mississippi River via I-10 into Baton Rouge.

31. The BVAP of CD 2 climbed to 59.67%—up from 56.22% under the 2001 Plan. Similarly, the BVAP minus NH White VAP margin in CD 2 climbed to 27.9% – up from 23.68% under the 2001 Plan. The map in **Figure 7** depicts the 2011 Plan.

Figure 7

Louisiana U.S. House -- 2011 Plan



32. The 2011 Plan split nine of the ten parishes in CD 2. By contrast, under the 2001 Plan, CD 2 split just two parishes. Indeed, CD 2 under the 2011

Plan was so contorted that it ranked as the seventh least compact district in the nation, according to a 2012 study.[16]

33. As shown in **Figure 8**, the remainder of the Black population outside of CD 2 was distributed across five districts and, as in the 2001 Plan, not one of the five other districts had a BVAP above 34%.

Figure 8

2011 Plan – 2010 Census

District	Population	Dev.	18+ Pop	% 18+ Black	% 18+ Latino	% 18+ NH White
1	755445	-117	579661	12.19%	7.27%	76.63%
2	755538	-24	569601	59.67%	5.76%	31.77%
3	755596	34	561690	23.38%	2.84%	71.52%
4	755605	43	566830	32.65%	2.79%	62.24%
5	755581	19	567667	33.67%	1.87%	63.05%
6	755607	45	569908	21.52%	3.64%	71.96%

34. This fragmentation of the Black population across the five other districts was achieved by wrapping CD 6 around CD 2. CD 6 started on the south shore of Lake Pontchartrain in St. Charles Parish and meandered northwest to West Feliciana Parish before looping south into Terrebonne and Lafourche Parishes. Of the 13 parishes in CD 6, 11 were split.

[16] *See Redistricting the Nation 2012 Whitepaper Addendum*, p. 2. https://cdn.azavea.com/com.redistrictingthenation/pdfs/Redistricting_The_Nation_Addendum.pdf.

35. The bizarre shape of CD 6 impacted CD 5, which extended from parishes along the Arkansas border in north Louisiana, then split the Florida Parishes of East Feliciana, West Feliciana, St. Helena, and Tangipahoa, and ended with the inclusion of Washington Parish on the Mississippi state line.

36. In sum, the 2011 Plan packed Black voters in CD 2 and cracked Black voters across the remaining districts, with repercussions for other traditional redistricting principles, such as compactness and political subdivision splits.

(c) Potential for Two Majority-Black Districts in the 2010s

37. As shown in the six-district illustrative plan described in **Exhibit G-1** (population summary)**, Exhibit G-2** (map), and **Exhibit G-3** (parish splits), in 2010 the Black population was sufficiently numerous and geographically compact to allow for two majority-Black districts.[17]

C. <u>Census 2020 Redistricting</u>

(a) 2011 Plan

38. **Figure 9** updates the enacted 2011 Plan with 2020 Census data to show the malapportionment of the 2011 plan under the 2020 Census.

[17] I developed the illustrative plan in the **Exhibit G** series, which was submitted to the Defendant while I served as the *Gingles* 1 expert for the plaintiffs in *Johnson v. Ardoin*, Civ. Action No. 18-625-SDD-EWD (M.D. La.).

Figure 9

2011 Plan – 2020 Census

District	Population	Dev.	18+ Pop	% 18+ Black	% 18+ Latino	% 18+ NH White
1	812,585	36,292	629,822	14.63%	10.55%	69.24%
2	775,292	-1,001	599,438	58.65%	7.89%	29.80%
3	785,824	9,531	593,570	24.47%	4.78%	67.03%
4	728,346	-47,947	554,876	33.37%	4.23%	58.26%
5	739,244	-37,049	567,681	32.97%	3.47%	60.38%
6	816,466	40,173	625,161	24.71%	6.14%	64.54%

(b) Enacted 2022 Plan

39. The 2022 Plan is a carbon copy of the 2011 Plan, insofar as CD 2 and CD 6 are concerned. Accordingly, in the 2022 Plan, from New Orleans to Baton Rouge and beyond, there are inexplicable twists and turns in CD 2 and adjacent wrap-around CD 6 (¶¶ 34-35 *supra*). As shown in **Exhibit H-7**, both CD 2 and CD 6 split 9 of 10 parishes. All told, 15 parishes are split in the 2022 Plan, replicating the deviations in the 2011 Plan, which also split 15 parishes.

40. As shown in **Figure 10**, the remainder of the Black population outside of CD 2 is distributed across five districts and, as in the 2011 Plan, not one of the five other districts has a BVAP above 34%.

Figure 10

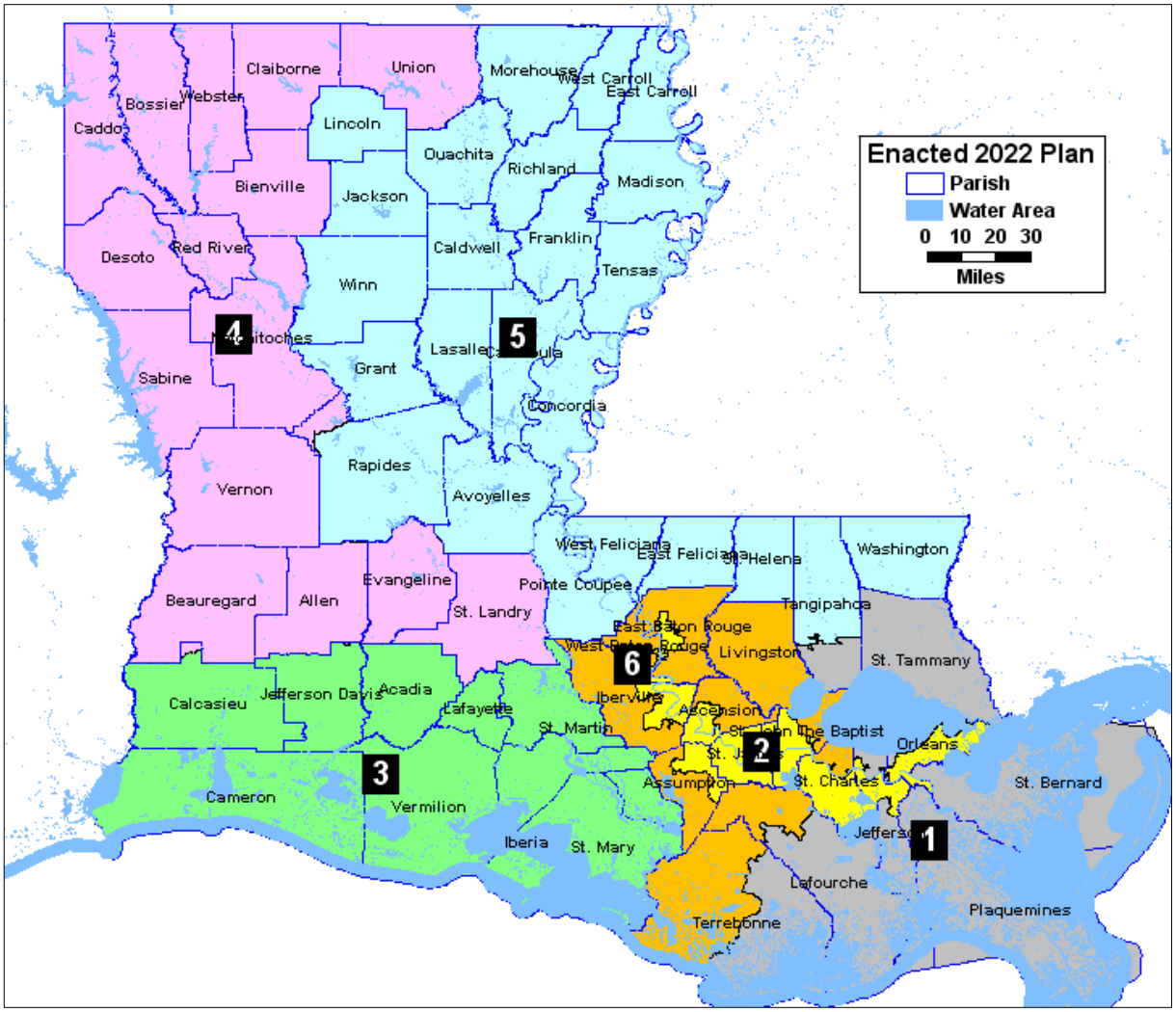
2022 Plan – 2020 Census

District	Population	Dev.	18+ Pop	% 18+ Black	% 18+ Latino	% 18+ NH White
1	776319	26	601744	13.43%	10.81%	70.06%
2	776328	35	600126	58.67%	7.93%	29.71%
3	776297	4	586509	24.58%	4.81%	66.89%
4	776200	-93	590852	33.80%	4.08%	58.11%
5	776295	2	597344	32.93%	3.57%	60.32%
6	776318	25	593973	23.95%	6.29%	65.02%

41. The BVAP minus NH White VAP margin in CD 2 inched up to 28.98%, from 27.9% under the 2011 Plan and 23.7% in the 2001 Plan, meaning the 2022 Plan packs even more Black Louisianians into CD 2 than it did under the 2011 Plan. The map in **Figure 11** (below) depicts the 2022 Plan.

Figure 11

Louisiana U.S. House -- Enacted 2022 Plan



42. Under one-third (31.5%) of Black persons of voting age in Louisiana live in majority-Black CD 2. By contrast, 91.5% of NH White persons of voting age live in the remaining five majority-White congressional districts.

43. In sum, like the 2011 Plan, the 2022 Plan cracks and packs Black voters, with repercussions for other traditional redistricting principles such as compactness and parish splits.

44. **Exhibit H-1** contains detailed 2020 population statistics by district for the 2022 Plan. To facilitate comparison with Plaintiffs' illustrative plans, the map in **Exhibit H-2** is a higher resolution version of the **Figure 11** map. **Exhibit H-3** contains maps in sequential order that zoom in on each of the six congressional districts. **Exhibit H-4** zooms in on the New Orleans MSA, which is split between CD 1, CD 2, and CD 3. **Exhibit H-5** zooms in on the Baton Rouge MSA, which is split between CD 2, CD 5 and CD 6. **Exhibit H-6** identifies the parish-level population by district. **Exhibit H-7** identifies district splits by parish and VTD. **Exhibit H-8** identifies municipal splits by district**. Exhibit H-9** identifies regional district splits (Core Based Statistical Areas ("CBSAs")) comprised of Metropolitan Statistical Areas ("MSAs") and Micropolitan Statistical Areas. [18]

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[18] Metropolitan Statistical Areas are defined by the U.S. Office of Management and Budget and reported in historical and current census data produced by the Census Bureau. MSAs "consist of the county or counties (or equivalent entities) associated with at least one urbanized area of at least 50,000 population, plus adjacent counties having a high degree of social and economic

45. For reference, **Exhibit I-1** is a Census Bureau-produced map depicting the nine MSAs and ten Micropolitan Statistical Areas in Louisiana.

46. Also, for reference, two additional plans enacted in 2022 (Louisiana State Board of Elementary and Secondary Education and Public Service Commission) are shown in state-produced maps found in **Exhibit I-2** and **Exhibit I-3**.[19]

IV. PLAINTIFFS' ILLUSTRATIVE PLANS

A. Illustrative Plans – Summary Descriptions

(a) *Gingles* 1 and Traditional Redistricting Principles

47. The illustrative plans demonstrate the first *Gingles* precondition, i.e., the Black population is sufficiently numerous and geographically compact to allow for the creation of one additional majority-Black district. [20]

48. There are a variety of ways to draw two majority-Black congressional districts in Louisiana while adhering to traditional redistricting principles.

49. The three illustrative plans I have developed comply with traditional redistricting principles, including one-person one-vote, compactness, contiguity,

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integration with the core as measured through commuting ties." A micropolitan area must have an urbanized area of at least 10,000 but less than 50,000 persons. *See* About, U.S. Census Bureau, https://www.census.gov/programs-surveys/metro-micro/about.html.

[19] *See* Enrolled Bills and Maps from the First Extraordinary Session of 2022, https://redist.legis.la.gov/EnrolledBills.

[20] As noted, in **Section III** and **Section IV,** for population statistics cited from the 2020 Census, "Black" means "Any Part Black."

the non-dilution of minority voting strength, and preservation of communities of interest.

50. The illustrative plans are drawn to follow, to the extent possible, parish and municipal boundaries. Where parishes and municipalities are split, this is done to comply with the one-person one-vote requirement, and I have generally used whole 2020 VTDs as sub-parish components.[21] Where VTDs are split to comply with one-person one-vote, I have followed municipal boundaries, census block group boundaries, or census block boundaries.

(b) <u>Joint Rule No. 1 Redistricting Criteria</u>

51. I have reviewed the Legislature's Census 2020 redistricting criteria as embodied in the Legislature's Joint Rule No. 21 "Redistricting criteria" ("**JR 21**").[22] In my opinion, the illustrative plans fully comply with **JR 21**, specifically with respect to the following:

- ***Sec. E(2)*** *– The plan shall provide that each congressional district shall have a population as nearly equal to the ideal district population as practicable.*

52. It is not mathematically possible to draw six congressional districts in Louisiana with precisely the same population in each district. Accordingly, the

[21] VTDs are 2020 precincts or precinct proxies defined by the Census Bureau in the PL94-171 redistricting file, with corresponding geographic shapefiles.

[22] *See* Joint Rule No. 21, https://www.legis.la.gov/Legis/Law.aspx?d=1238755.

illustrative plans comply with the equal population principle as nearly as is practicable: five districts in each illustrative plan have populations that match the ideal district population size of 776,293, while a sixth district in each illustrative plan has a district population size of 776,292 (-1 person), accounting for the remainder of the divisor.

- *Sec. G(1) – To the extent practicable, each district within a redistricting plan submitted for consideration shall contain whole election precincts as those are represented as Voting Districts (VTDs).*

53. The illustrative plans limit populated VTD splits to as few as seven (Illustrative Plan 3).[23] I have included VTD splits only where necessary to ensure zero deviation to comply with one-person, one-vote requirements, but, with minor modifications, the three illustrative plans can be drawn with zero precinct splits. In doing so, district population deviations would remain *de minimis.*

- *Sec. H – All redistricting plans shall respect the established boundaries of parishes, municipalities, and other political subdivisions and natural geography of this state to the extent practicable. However, this criterion is subordinate to and shall not be used to undermine the maintenance of communities of interest within the same district to the extent practicable.*

54. The illustrative plans respect political subdivision and natural boundaries. Populated municipal splits are limited to as few as 23 (Illustrative Plan 1)—seven fewer municipal splits than the 2022 Plan. The illustrative plans

[23] A populated split divides population in a VTD or municipality into two or more districts. Generally, unpopulated splits involve splits due to bodies of waters or municipal boundaries.

limit parish splits to as few as 10 (Illustrative Plans 1 and 2), compared to 15 parish splits in the 2022 Plan.

55. The illustrative plans also respect multi-parish regional communities of interest defined as Core Based Statistical Areas ("CBSAs") by the Office of Management and Budget and the U.S. Census Bureau and depicted in the map in **Exhibit I-1**. The 2022 Plan splits 18 CBSAs, compared to 14 splits in Illustrative Plan 1, 16 in Illustrative Plan 2, and 17 in Illustrative Plan 3.

(c) Illustrative Plans – Key Features

56. Key features of the three illustrative plans are summarized below:

- Under the illustrative plans, District 2 is anchored in the New Orleans MSA, including the River Parishes. District 5 is built around the Baton Rouge MSA, extending north to the Monroe MSA.
- Each illustrative plan contains two districts with a majority Black VAP, a majority of Black registered voters (as of July 2021),[24] and a majority of non-Hispanic Single-race Black citizens of voting age (2016-2020 ACS Special Tabulation).[25]
- The illustrative plans are minimum-deviation plans. Five of the six districts have a perfect deviation of zero—exactly matching the ideal population size of 776,293—with a sixth district underpopulated by just 1 person.
- The plans split fewer parishes than the 2022 Plan, which splits 15. There are 10 split parishes in Illustrative Plan 1, 11 in Illustrative Plan 2, and 10 in Illustrative Plan 3.

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[24] *See* Louisiana Voter Registration File at the VTD Level, Redistricting Data Hub, https://redistrictingdatahub.org/dataset/louisiana-voter-registration-file-at-the-vtd-level/.

[25] Citizen Voting Age Population by Race & Ethnicity, U.S. Census Bureau (Mar. 17, 2022), https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html.

- The illustrative plans split the same number or fewer populated areas in municipalities. Of the 304 municipalities (cities, towns, and villages) identified in the 2020 Census, the 2022 Plan splits 30. Illustrative Plan 1 splits 24, Illustrative Plan 2 splits 30, and Illustrative Plan 3 splits 29.
- The illustrative plans adopt the modern era practice (starting with the 1984 court-ordered Plan) of joining District 1 in New Orleans with the North Shore of Lake Pontchartrain by way of the Causeway.
- All six incumbents reside in the district which corresponds to their current district number.
- The illustrative plans minimize populated VTD splits, while maintaining minimum population deviation. Illustrative Plan 1 splits 13 VTDs, Illustrative Plan 2 splits 7, and Illustrative Plan 3 splits 12.
- Despite the boundary changes necessary to create a second majority-Black district, each illustrative plan maintains a majority of the voting age population in CD 2 and CD 5 as drawn in the 2022 Plan. Core retention in the remaining four districts is even higher.

57. The following sections describe the illustrative plans, with a primary focus on the characteristics of the two majority-Black districts.

B. <u>Illustrative Plans – Individual Details</u>

(a) Illustrative Plan 1

58. The map in **Figure 12** (below) depicts Illustrative Plan 1. District 2 is 50.16% BVAP and District 5 is 50.04% BVAP.

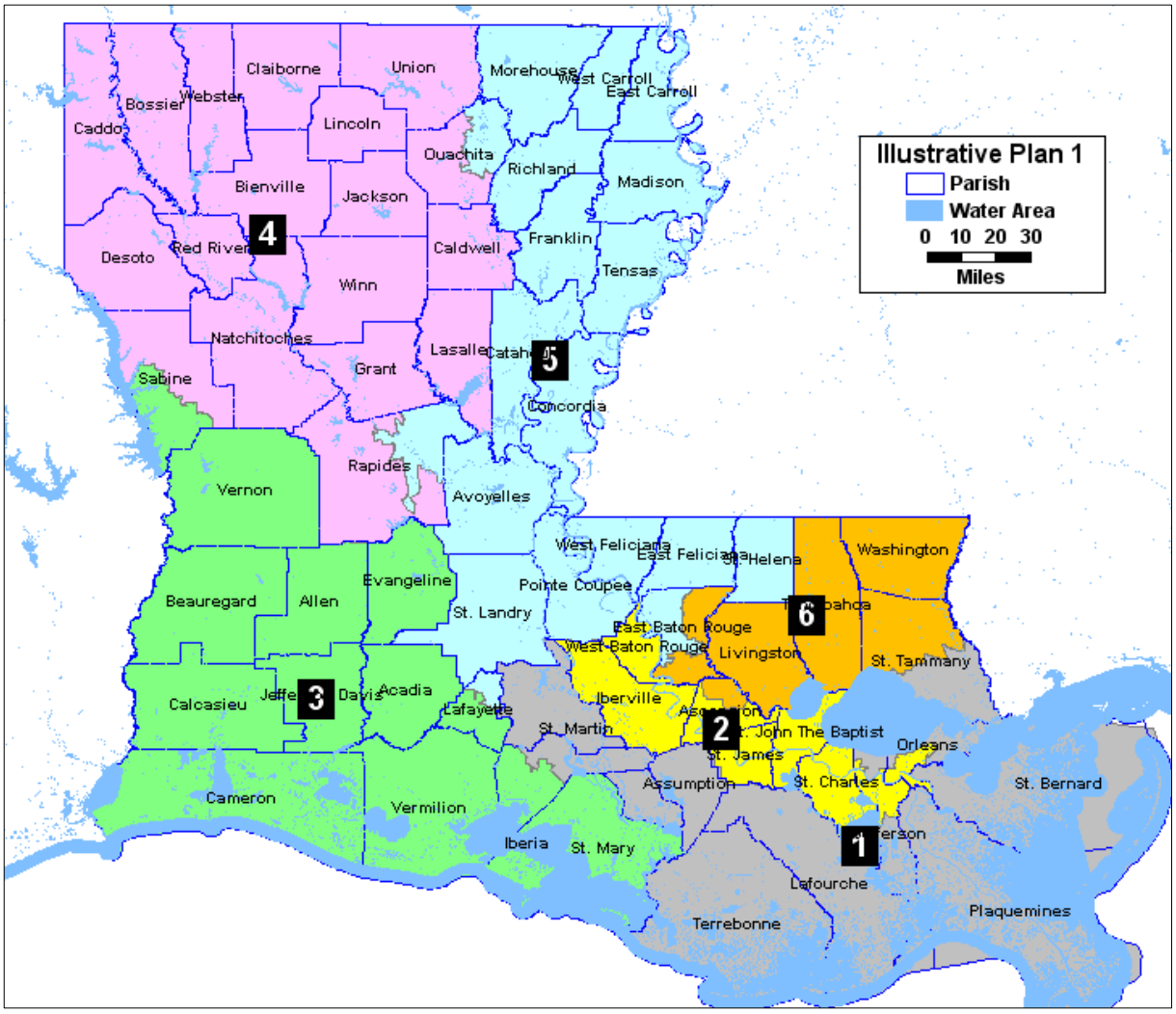
59. Majority-Black District 2 extends west from New Orleans to Iberville Parish and north to West Baton Rouge. Of the eight parishes in District 2, three are split: Ascension, Jefferson, and Orleans. (**Exhibit J-6**)

60. Majority-Black District 5 extends north from the Baton Rouge MSA to the Monroe MSA, west to the Parishes of St. Landry, Lafayette and Rapides, and east to majority-Black St. Helena Parish.

61. District 5 encompasses 17 parishes, splitting just four: East Baton Rouge, Ouachita, Rapides, and Lafayette. (**Exhibit J-6**).

Figure 12

Illustrative Plan 1



62. The table in **Figure 13** presents 2020 summary population statistics for Illustrative Plan 1.

Figure 13

Illustrative Plan 1 – 2020 Census

District	Population	Dev.	18+ Pop	% 18+ Black	% 18+ Latino	% 18+ NH White
1	776292	-1	599826	18.18%	10.05%	66.13%
2	776293	0	603092	50.16%	8.58%	37.40%
3	776293	0	586519	19.75%	5.23%	70.79%
4	776293	0	596695	31.82%	4.13%	59.89%
5	776293	0	592316	50.04%	3.40%	43.97%
6	776293	0	592100	17.24%	6.11%	72.10%

63. **Exhibit J-1** contains detailed 2020 population statistics by district for Illustrative Plan 1. The maps and statistical summaries in the **Exhibit J** series are in the same sequence and format as the **Exhibit H** series.

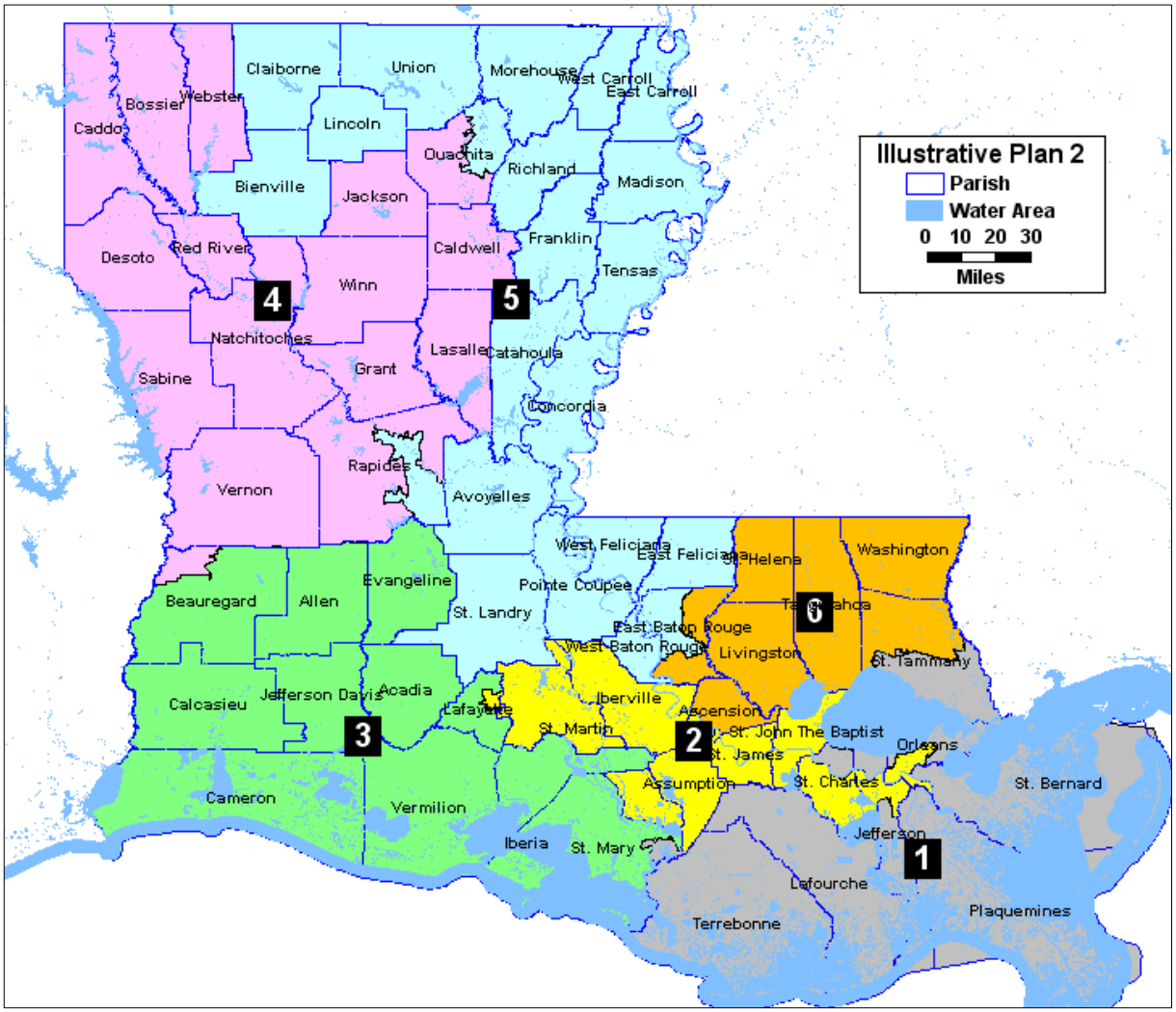
(b) Illustrative Plan 2

64. The map in **Figure 14** (below) depicts Illustrative Plan 2. District 2 is 50.65% BVAP and District 5 is 50.04% BVAP.

65. Majority-Black District 2 is anchored in New Orleans. West Baton Rouge Parish, which is in District 2 under Illustrative Plan 1, is swapped out of District 2 and replaced with the Parishes of St. Martin and Assumption and part of Lafayette. District 2 splits five of ten parishes: Ascension, Jefferson, Lafayette, Orleans, and St. Charles. (**Exhibit K-6**)

Figure 14

Illustrative Plan 2



66. Majority-Black District 5 is anchored in Baton Rouge. In contrast to District 5 in Illustrative Plan 1, District 5 extends further west from Monroe to add four parishes in north Louisiana (Union, Lincoln, Claiborne, and Bienville). District 5 is comprised of 19 parishes, with three parish splits. (**Exhibit K-6**)

67. The table in **Figure 15** shows 2020 summary population statistics for Illustrative Plan 2.

Figure 15

Illustrative Plan 2 – 2020 Census

District	Population	Dev.	18+ Pop	% 18+ Black	% 18+ Latino	% 18+ NH White
1	776293	0	598980	16.51%	10.91%	66.74%
2	776293	0	606036	50.65%	7.72%	37.92%
3	776293	0	585553	21.59%	5.06%	69.44%
4	776293	0	592745	28.65%	4.36%	62.34%
5	776293	0	593183	50.04%	3.40%	44.06%
6	776292	-1	594051	19.67%	6.05%	69.87%

68. **Exhibit K-1** contains detailed 2020 population statistics by district for Illustrative Plan 2. The maps and statistical summaries in the **Exhibit K** series are in the same sequence and format as the **Exhibit H** series.

(c) Illustrative Plan 3

69. The map in **Figure 16** (below) depicts Illustrative Plan 3. District 2 is 50.16% BVAP and District 5 is 51.63% BVAP. The table in **Figure 17** presents 2020 summary population statistics for Illustrative Plan 3.

70. Majority Black District 2 is identical to District 2 in Illustrative Plan 1.

71. In contrast to Illustrative Plans 1 and 2, majority-Black District 5 extends further east to include eastern Tangipahoa Parish. District 5 is comprised of 19 parishes, with five parish splits. (**Exhibit L-6**)

Figure 16

Illustrative Plan 3

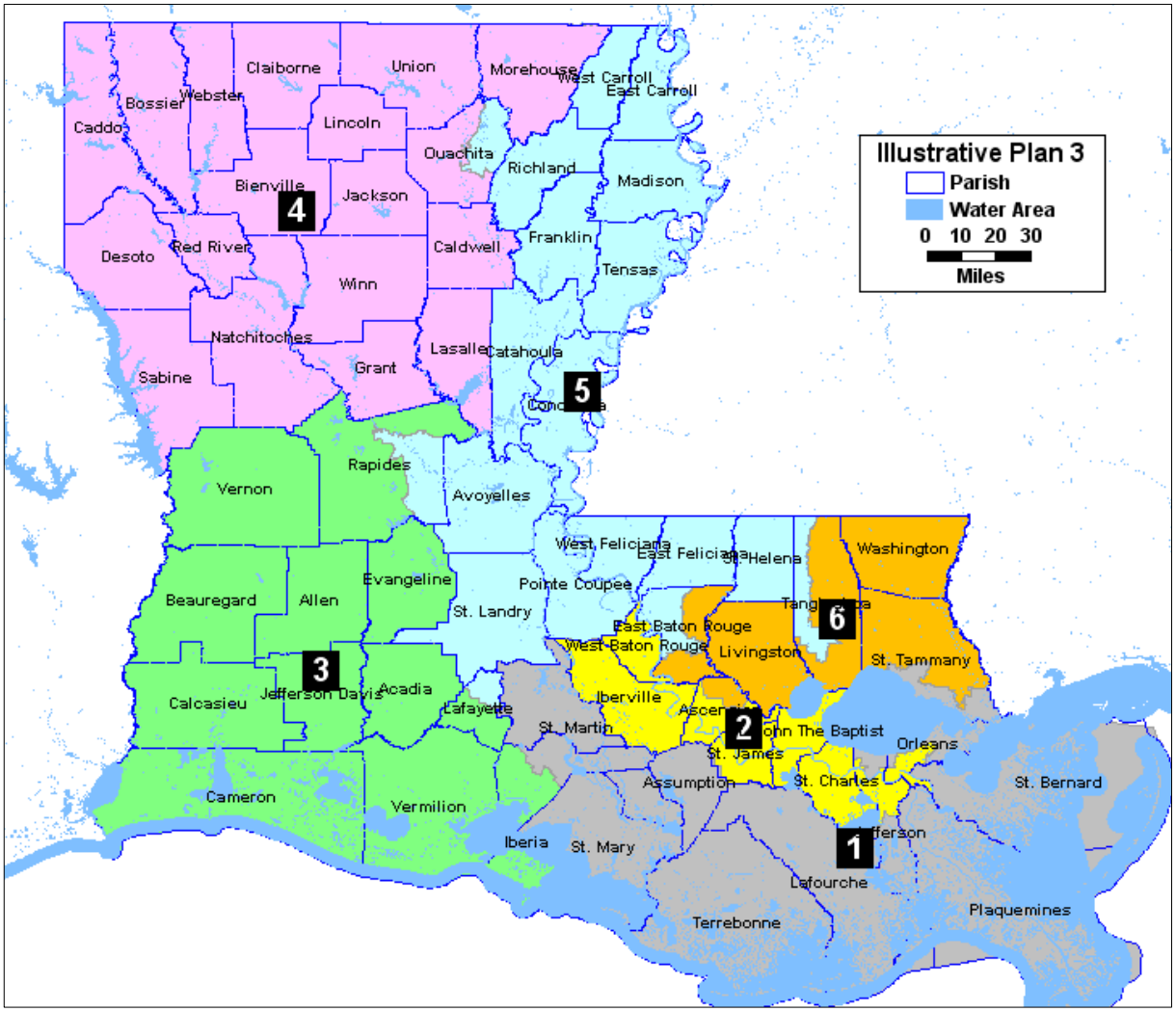


Figure 17

Illustrative Plan 3 – 2020 Census

District	Population	Dev.	18+ Pop	% 18+ Black	% 18+ Latino	% 18+ NH White
1	776293	0	599586	18.52%	10.08%	65.79%
2	776293	0	603092	50.16%	8.58%	37.40%
3	776293	0	586927	17.98%	4.93%	72.74%
4	776293	0	597083	32.96%	3.98%	59.03%
5	776293	0	589070	51.63%	3.67%	42.31%
6	776292	-1	594790	16.09%	6.25%	72.88%

C. Additional Plan Information

(a) Compactness Measures

72. The districts in the illustrative plans are reasonably shaped and compact. **Exhibit M** reports district-by-district compactness scores generated by Maptitude for the Illustrative Plans (**Exhibits M-1**, **M-2**, and **M-3**) and the 2022 Plan (**Exhibit M-4**).

73. Each exhibit reports three compactness scores: Reock, Polsby-Popper, and Convex Area/Hull.[26] Higher scores indicate higher compactness.

74. The table in **Figure 18** (below) summarizes the Reock and Polsby-Popper scores (the two most commonly referenced measures) for the three

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[26] "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." *Maptitude For Redistricting* software documentation (authored by the Caliper Corporation).

The Polsby-Popper test computes the ratio of the district area to the area of a circle with the same perimeter: 4pArea/ (Perimeter2). 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. *Id.*

The Area/Convex Hull test computes the ratio the district area to the area of the convex hull of the district (minimum convex polygon which completely contains the district). The measure is always between 0 and 1, with 1 being the most compact. The Minimum Convex Polygon test computes one number for each district and the minimum, maximum, mean and standard deviation for the plan. *Id.*

illustrative plans, alongside scores for the 2022 Plan and other statewide plans adopted by the Louisiana Legislature in 2022.

Figure 18

Compactness Scores – Illustrative Plans vs Adopted 2022 Plans

	Reock				Polsby-Popper		
		Low	High			Low	High
2022 Plan							
All Districts (mean avg.)	.37	.18	.50		.16	.06	.34
CD 2	0.18				0.06		
2022 BOE Plan							
All Districts (mean avg.)	.40	.21	.54		.19	.08	.32
2022 Public Service Plan							
All Districts (mean avg.)	.39	.21	.53		.16	.07	.24
2022 State Senate Plan							
All Districts (mean avg.)	.36	.11	.59		.19	.05	.35
2022 State House Plan							
All Districts (mean avg.)	.40	.14	.64		.29	.06	.63
Illustrative Plan 1							
All Districts (mean avg.)	.36	.23	.54		.19	.09	.29
District 2	0.23				0.15		
District 5	0.33				0.09		
Illustrative Plan 2							
All Districts (mean avg.)	.41	.23	.53		.19	.09	.27
District 2	0.23				0.12		
District 5	0.33				0.09		
Illustrative Plan 3							
All Districts (mean avg.)	.38	.23	.52		.18	.08	.31
District 2	0.23				0.15		
District 5	0.30				0.08		

75. Compared to the mean Reock score for the 2022 Plan (.37), Illustrative Plans 2 has a higher mean average (.41), and Illustrative Plans 1 (.36) and 3 (.38) are about the same. In all instances, the Reock scores of the two majority-Black districts under the illustrative plans are higher than the .18 Reock score in CD 2 under the 2022 Plan.

76. Compared to the mean Polsby-Popper score for the 2022 Plan (.16), all three illustrative plans score higher. Moreover, under all three illustrative plans, the Polsby-Popper scores of the two majority-Black districts are higher than the .06 Polsby-Popper score for CD 2 and adjacent CD 6 (.07) under the 2022 Plan.

77. Also, as shown in **Figure 19**, the compactness scores for the majority-Black districts in the 1990s congressional plans (103rd and 104th Louisiana U.S. House) that were ruled unconstitutional are far below the corresponding illustrative plan scores. (See maps in **Exhibit F-1** and **Exhibit F-2**.)

Figure 19

Compactness Scores – 1990s Plans

	Reock				Polsby-Popper		
		Low	High			Low	High
103rd Congress							
All Districts (mean avg.)	.34	.13	.51		.11	.01	.22
District 2	.19				.06		
District 4	.13				.01		
104th Congress							
All Districts (mean avg.)	.35	.13	.54		.14	.04	.22
District 2	.27				.07		
District 4	.13				.04		
1996 Court-ordered Plan							
All Districts (mean avg.)	.44	.28	.56		.26	.10	.50
District 2	.28				.10		

(b) Political Subdivision Splits

78. The table in **Figure 20** compares district splits by parish and 2020 VTDs (**H-7** and corresponding illustrative series), municipalities (**H-8** and corresponding

illustrative series), and CBSAs (**H-9** and corresponding illustrative series) under the 2022 Plan and illustrative plans.

Figure 20

Political Subdivision Splits

	Parish Splits	Populated 2020 VTD Splits	Populated Municipal Splits	Single-Parish Populated Municipal Splits*	CBSA splits
2022 Plan	15	0	30	25	18
Illustrative Plan 1	10	13	24	18	14
Illustrative Plan 2	11	7	30	22	16
Illustrative Plan 3	10	12	29	23	17

* **Excludes** splits in 12 municipalities where the splits are a result of municipal lines crossing into an adjacent parish.

79. As **Figure 20** reveals, the illustrative plans are across-the-board superior to the 2022 Plan in terms of parish splits, municipal splits, and CBSA splits.

80. The illustrative plans split populated areas in only a handful of the 3,540 VTDs.[27] Precinct splits are inevitable at this stage because *Gingles* 1 illustrative plans should be drawn to meet absolute population equality, *i.e.*, +/- 1 person from the ideal district size.

81. The 2022 Plan did not split any of the 3,540 VTDs defined in the 2020 PL94-171 file because the Louisiana Legislature did not require that the adopted plan meet absolute population equality. The 2022 Plan has a population deviation

[27] A populated split divides population in a VTD or municipality into two or more districts. Generally, unpopulated splits involve splits due to bodies of waters or municipal boundaries.

of 128 persons (the smallest district is 93 people below idea and the largest district is 35 people above).

82. To reiterate, the three illustrative plans contain precinct splits only in service of the goal of minimizing populations deviations. If *de minimis* district deviations from the ideal district size were permitted, the three illustrative plans could easily be modified in a manner that would eliminate precinct splits.

(d) Citizen Voting Age Population

83. As shown in **Figure 21** (below), estimates from the 5-year 2016-2020 Special Tabulation of the ACS confirm that the single-race non-Hispanic Black citizen voting age population ("BCVAP") in Districts 2 and 5 under the illustrative plans is above 50% and higher than the 2020 Census BVAP percentages.[28] The BCVAP margin over the NH White CVAP ranges from 14.13 percentage points (District 2 in Illustrative Plan 2) to 4.75 percentage points (District 5 in Illustrative Plan 1).[29]

[28] These figures are based on a disaggregation of block group level 2016-2020 CVPA estimates to 2020 census block-level VAP. *See* Citizen Voting Age Population by Race & Ethnicity, U.S. Census Bureau (Mar. 17, 2022), https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html. The midpoint of the 2016-2020 survey period is July 1, 2018. Thus, estimates reported in the five-year ACS are nearly four years behind current 2022 citizenship rates. The ACS Special Tabulation does not provide an "any part" estimate, so the SR NH Black CVAP understates the AP Black CVAP.

[29] According to the 2016-2020 Special Tabulation of the ACS (with a July 1, 2018 survey), District 2 and District 5 are majority NH SR BCVAP in all three illustrative plans.

Figure 21

2016-2020 Citizen Voting Age Population by Plan

	% NH SR Black CVAP	% NH White CVAP	NH Black CVAP to NH White CVAP Margin	July 2021 Black Registered Voters
2022 Plan				
District 2	61.89%	31.34%	30.55%	61.52%
Illustrative Plan 1				
District 2	53.35%	39.31%	14.04%	52.33%
District 5	50.94%	46.19%	4.75%	51.84%
Illustrative Plan 2				
District 2	53.66%	39.53%	14.13%	52.72%
District 5	51.26%	45.92%	5.34%	51.53%
Illustrative Plan 3				
District 2	53.40%	39.31%	14.09%	52.33%
District 5	52.78%	44.86%	7.92%	53.35%

V. SOCIOECONOMIC PROFILE OF LOUISIANA

84. Non-Hispanic Whites significantly outpace African Americans in Louisiana across a broad range of socioeconomic measures, as reported in the 1-year 2019 ACS.[30] This disparity is summarized below and depicted with further

[30] *See* Selected Population Profile in the United States, U.S. Census Bureau, https://data.census.gov/cedsci/table?text=s0201&t=-0A%20-%20All%20available%20non-Hispanic%20Origin%3A005%20-%20Black%20or%20African%20American%20alone%20or%20in%20combination%20with%20one%20or%20more%20other%20races&g=0400000US01%245000000,22&y=2019

The 1-year 2019 ACS is the most current release available. The 2020 ACS was canceled due to the COVID-19 pandemic.

detail in charts in **Exhibit N-1** and the table in **Exhibit N-2**.[31]

(a) Income

- 29.4% of African Americans in Louisiana live in poverty, compared to 12.7% of Whites. (**Exhibit N-1 at p. 22 and Exhibit N-2 at p. 8**)

- 42.7% of African-American children live in poverty, compared to 15.0% of White children. (**Exhibit N-1 at p. 22 and Exhibit N-2 at p. 8**)

- African-American median household income is $32,782, compared to the $61,967 median income for White households. (**Exhibit N-1 at p. 14 and Exhibit N-2 at p.7**)

- Per capita income disparities in Louisiana track the disparities seen in median household income. African-American per capita income is $19,381, compared to White per capita income of $34,690. (**Exhibit N-1 at p. 17 and Exhibit N-2 at p. 8**)

- 27.0% of African-American households rely on food stamps (SNAP), triple the 8.6% SNAP participation rate of White households. (**Exhibit N-1 at p. 15 and Exhibit N-2 at p. 7**)

(b) Education

- Of persons 25 years of age and over, 17.8% of African Americans have not finished high school, compared to 11.1% of their White counterparts. (**Exhibit N-1 at p. 5 and Exhibit N-2 at p. 3**)

- At the other end of the educational scale, for ages 25 and over, 17.2% of African Americans have a bachelor's degree or higher, compared to 28.9% of Whites. (**Exhibit N-1 at p. 5 and Exhibit N-2 at p. 3**)

[31] For statistics from the 1-year ACS, as elsewhere in this declaration, "White" refers to NH White. "Black" or "African American" refers to Any Part Black.

(c) Employment

- The Black unemployment rate (for the population over 16, expressed as a percent of the civilian labor force) is 8.0%, compared to a 4.2% White unemployment rate. (**Exhibit N-1 at p. 11 and Exhibit N-2 at p. 5**)

- Of employed African Americans, 26.5% are in management or professional occupations, compared to 40.4% rate of Whites. (**Exhibit N-1 at p. 13 and Exhibit N-2 at p. 6**)

(d) Housing

- In Louisiana, about half of African-American householders (49.0%) are homeowners, while three-fourths of White households (76.6%) are owner-occupied. (**Exhibit N-1 at p. 21 and Exhibit N-2 at p. 9**)

- Median home value for African-American homeowners is $133,000, compared to the $186,700 median home value for Whites. (**Exhibit N-1 at p. 25** and **Exhibit N-2 at p. 10**)

(e) Transportation/Communication

- About one in six African-American households (16.4%) lacks access to a vehicle, while 4.7% of White households are without a vehicle. (**Exhibit N-1 at p. 23 and Exhibit N-2 at p. 9**)

- There is a 7-point Black-White gap in households with a computer – 84.3% versus 91.6%. (**Exhibit N-1 at p. 27** and **Exhibit N-2 at p. 10**)

- With respect to broadband internet connections, African-American households trail White households – 72.6% versus 84.3%. (**Exhibit N-1 at p. 27** and **Exhibit N-2 at p. 10**)

85. Also attached as exhibits are charts depicting socioeconomic disparities in the Baton Rouge MSA (**Exhibit O**) and New Orleans MSA (**Exhibit P)**, which form the building blocks for the two majority-Black districts in the illustrative plans. Both exhibits are based on the 1-year 2019 ACS.

86. In addition, parish and municipal socioeconomic characteristics by race and ethnicity are available in charts that I have prepared, based on the 2015-19 ACS, via this link: http://www.fairdata2000.com/ACS_2015_19/Louisiana/.

# # #

I reserve the right to continue to supplement my reports in light of additional facts, testimony and/or materials that may come to light.

Executed on: April 15, 2021

WILLIAM S. COOPER