### IN THE UNITED STATES DISTRICT COURT FOR THE MIDDLE DISTRICT OF LOUISIANA

DR. DOROTHY NAIRNE, et al.,

Plaintiffs,

v.

R. KYLE ARDOIN, in his official capacity as Secretary of State of Louisiana,

Defendant.

Civil Action No. 3:22-cv-00178-SDD-SDJ

Chief Judge Shelly D. Dick

Magistrate Judge Scott D. Johnson

### <u>DEFENDANTS' JOINT MEMORANDUM IN OPPOSITION TO PLAINTIFFS'</u> OMNIBUS MOTION TO EXCLUDE PROPOSED EXPERT TESTIMONY

Defendant R. Kyle Ardoin, in his official capacity as Secretary of State of Louisiana ("Defendant Ardoin"); Defendant-Intervenors Patrick Page Cortez and Clay Schexnayder, in their respective official capacities as President of the Louisiana Senate and Speaker of the Louisiana House of Representatives ("Legislative Defendant-Intervenors"); and Intervenor-Defendant the State of Louisiana, through Louisiana Attorney General Jeff Landry (collectively "Defendants") hereby jointly oppose Plaintiffs' Omnibus Motion to Exclude Proposed Expert Testimony, Rec. Doc. 150-1, and Memorandum in Support, Rec. Doc. 150-2. Plaintiffs' Motion erroneously seeks to exclude relevant and highly probative expert testimony from three of Defendants' well-qualified experts: Mr. Sean Trende, Dr. Douglas Johnson, and Dr. Tumulesh Solanky. As shown herein, Plaintiffs' merits arguments are legally wrong and prematurely postured, and Defendants' experts, as well as their reports and proposed testimony, are qualified and offer reliable and relevant evidence in this case. Accordingly, Plaintiffs' Motion should be denied in its entirety.

#### **BACKGROUND**

By bringing a Section 2 claim, Plaintiffs assumed the burden to satisfy the three *Gingles* preconditions, as they acknowledge, *see* Rec. Doc. 150-2 - Memorandum in Support of Motion to Exclude ("Mot.") 1; *Allen v. Milligan*, 599 U.S. 1, 18 (2023) (citing *Thornburg v. Gingles*, 478 U.S. 30 (1986)). Beyond that, Plaintiffs "must also show, under the 'totality of the circumstances,' that the political process is not 'equally open' to minority voters." *Allen*, 599 U.S. at 18 (citation omitted). Attempting to meet this burden, Plaintiffs engaged numerous experts, including Mr. William Cooper and Dr. Lisa Handley. Mr. Cooper presents illustrative districts he alleges demonstrate that "the minority group [is] sufficiently large and [geographically] compact to constitute a majority in a reasonably configured district." *Allen*, 478 U.S. at 18 (citation omitted). (*See generally* Rec. Doc. 150-14 – Expert Report of William Cooper ("Cooper Rep.") 4-5). Dr. Handley presents a racially polarized voting ("RPV") analysis that allegedly shows that "the minority group . . . is politically cohesive" and that white voting bloc usually defeats the minority's preferred candidate in the regions where Mr. Cooper created new illustrative majority-minority districts. (*See generally* Rec. Doc. 150-21 – Report of Dr. Lisa Handley ("Handley Rep.") 3-7).

In response, Defendants engaged rebuttal experts to show that Plaintiffs have not met their burden under *Gingles*. Defendant Ardoin engaged Mr. Trende to determine whether the minority populations within Mr. Cooper's illustrative majority-minority districts are compact and (if so) whether they are sufficiently large to constitute a majority of the proposed illustrative district. (Rec. Doc. 150-4 – Expert Report of Sean Trende ("Trende Rep.") 7; Rec. Doc. 150-4 – Sean

<sup>&</sup>lt;sup>1</sup> The three preconditions are: (1) that the minority group is sufficiently large and geographically compact to constitute a majority in a single member district; (2) that the minority group is politically cohesive; and (3) that the white majority votes sufficiently as a bloc to enable it—in the absence of special circumstances (such as the minority candidate running unopposed)— usually to defeat the minority group's preferred candidate. *Gingles*, 478 U.S. at 50-51.

Trende Deposition Tr. ("Trende Dep. Tr.") 23:4–24:25). Plaintiffs do not dispute that this is the scope of Mr. Trende's expert opinion. (Mot. 6; Rec. Doc. 105-6 – Expert Rebuttal Report of Sean Trende ("Trende Rebuttal Rep.") 2–3).

Mr. Trende used qualitative and quantitative approaches in his reports. The qualitative approach looks to visual illustrations of the Black Voting Age Population ("BVAP") in the enacted and illustrative districts. (Trende Rep. 13). For his quantitative analyses, Mr. Trende used the statistical software R to run algorithms aimed at assessing and measuring minority population compactness. (*Id.* at 17-19; Trende Dep. Tr. 30:25–32:3). Specifically, Mr. Trende used the moment of inertia measure and an areal variation of the Chen & Rodden method. (Trende Rep. 17–19). Using these qualitative and quantitative approaches, Mr. Trende concluded *inter alia* that (1) Mr. Cooper's illustrative minority-majority districts "are not based upon compact minority populations" and (2) the minority populations within Mr. Cooper's illustrative minority-majority districts "are not large enough to constitute a majority of the district." (*Id.* at 7–8, 138).

Legislative Defendant-Intervenors engaged Dr. Johnson to analyze and rebut Mr. Cooper's demographic and mapdrawing work. (Rec. Doc. 150-8 – Expert Report of Dr. Johnson ("Johnson Rep.") 1–2). Dr. Johnson, a professional demographer, redistricting professional, and political scientist, analyzed the data Mr. Cooper used to generate his redistricting plans, his proffered explanations for mapmaking decisions, his demographic analysis, and the configuration of Mr. Cooper's illustrative districts. (*Id.*; Dr. Johnson Deposition Tr. ("Johnson Dep. Tr.") 15:17–16:2, 48:13–61:8). Dr. Johnson issued a rebuttal to Mr. Cooper's initial report that made several findings, including but not limited to: (1) Mr. Cooper claimed to have used socioeconomic data to inform his mapmaking, but did not have that data in his software; (2) Mr. Cooper's claims about the racial effect of population changes in Louisiana from 1990 to 2020 were inaccurate and

incomplete; (3) Mr. Cooper did not use a reliable methodology in the field of demography to define the "key multi-parish cultural regions" he allegedly relied on; (4) Mr. Cooper likewise disregarded the boundaries of those "key regions" in configuring his illustrative plans; (5) Mr. Cooper's illustrative plans surgically divide Louisiana voters on the basis of race to configure multiple districts at just above 50% BVAP; and (6) those illustrative district boundaries could not be explained by the "traditional redistricting criteria" Mr. Cooper claimed to have implemented, leaving race as the only plausible explanation. (*See generally* Johnson Rep. ¶¶ 22–94).

Dr. Johnson also issued a surrebuttal report that responded to certain criticisms of his work by Mr. Cooper. In that surrebuttal, Dr. Johnson (among other things) rebuts Mr. Cooper's claim that he did not "know the exact racial percentage of any VTD while [he] was drawing the [illustrative] map" by marshaling examples from Mr. Cooper's illustrative plans and concluding from Dr. Johnson's considerable national experience drawing and analyzing redistricting plans that Mr. Cooper's assertions are incorrect. (*See* Rec. Doc. 150-7 – Dr. Johnson Expert Surrebuttal Report ("Johnson Surrebuttal Rep.") ¶¶ 29–36).

Defendant Ardoin also engaged Dr. Solanky to perform statistical analyses of "the voting patterns and the composition of the enacted state house (H.B. 14) and senate (S.B. 1) plans in Louisiana" and to evaluate the expert reports of Dr. Lisa Handley and Mr. Cooper. (ECF No. 150-16 – Expert Report of Dr. Solanky ("Solanky Rep.") 3). Specifically, Dr. Solanky analyzed Dr. Handley's statistical analysis of Mr. Cooper's illustrative maps to determine whether her calculations were correct and, because Dr. Handley failed to run her ecological inference analysis on a district-specific level, whether the assumptions that Dr. Handley made about voting patterns in her "areas of interests" translated into reliable evidence of racially polarized voting. (Rec. Doc. 150-15 – Dr. Solanky Deposition Tr. ("Solanky Dep. Tr.") 22:12–:22, 29:7–32:6). To do so, Dr.

Solanky first framed his analysis with statewide voter registration and voter turnout trends based on party affiliation and race. (*Id.* at 51:21–52:22). Dr. Solanky then analyzed voting patterns by race using Dr. Handley's data and statistical methodology, ecological inference RxC modeling, for several parishes where Mr. Cooper created illustrative majority-minority districts to evaluate Dr. Handley's results. (Solanky Rep. 11-17). The last section of Dr. Solanky's report looks at precincts within certain parishes, again containing Mr. Cooper's illustrative districts, to specifically study the "potential impact of urbanization on how white and black voters vote." (*Id.* at 17–18). Dr. Solanky again uses ecological inference RxC modeling, but this time by VTD densities to determine the impact of the rural/urban divide. (*Id.* at 17–28). In sum, Dr. Solanky concludes that Dr. Handley relies on faulty assumptions that wholly bias her results and result in "misleading conclusion[s] of voter polarizations"—namely that all voters across an entire parish or region vote in the same manner and that her voter allocation method for early and absentee voters was reliable. (*Id.*; Rec. Doc. 150-20 – Expert Rebuttal Report of Dr. Solanky ("Solanky Rebuttal Rep.") 2–9).<sup>2</sup>

#### **LEGAL STANDARD**

Plaintiffs argue the familiar *Daubert* standard, Mot. 1–2, but forget that "the trial court's gatekeeper role is significantly diminished in bench trials." *Whitehouse Hotel Ltd. P'Ship v. Comm'r*, 615 F. 3d 321, 330 (5th Cir. 2010). In assessing the admissibility of expert testimony, a court must make a "preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue." *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 593-94 (1993); Fed. R. Evid. 702. This gatekeeping function is meant to ensure that expert testimony is qualified,

<sup>&</sup>lt;sup>2</sup> In both of Dr. Solanky's reports, he notes that he would have assessed additional parishes and elections had he had sufficient time to review Dr. Handley's work. (Solanky Rep. 30; Solanky Rebuttal Rep. 2).

reliable, and relevant. *Daubert*, 509 U.S. at 589; *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 355 (5th Cir. 2007). In all events, the inquiry is "flexible in that [t]he relevance and reliability of expert testimony turns upon its nature and the purpose for which its proponent offers it." *VeroBlue Farms USA Inc. v. Wulf*, No. 3:19-cv-764, 2023 WL 348963, at \*9 (N.D. Tex. Jan. 20, 2023) (citation omitted). The "rejection of expert testimony is the exception rather than the rule." *United States v. Perry*, 35 F. 4th 293, 330 (5th Cir. 2022).

#### **ARGUMENT**

### I. <u>PLAINTIFFS' "RELEVANCE" ARGUMENTS ARE WRONG AND UNRELATED</u> TO *DAUBERT*.

Plaintiffs erroneously make their *Daubert* motions a proxy fight over hotly disputed merits questions on which Plaintiffs have the decidedly weaker hand. They accuse Defendants of "asking this Court to stray from the clear tests" of Section 2 caselaw, Mot. 1, but, as shown below, Plaintiffs' arguments fail those tests. Defendants are right on the law.

For present purposes, however, what matters is that "arguments regarding the merits of the case [] have little, if anything, to do with the *Daubert* motion before the Court." *Rushing v. Yeargain*, No. 19-cv-653, 2022 WL 4545612, at \*2 (M.D. La. June 10, 2022). This Court recently had to "remind[] . . . parties that the purpose of the *Daubert* motion is not to resolve the factual or legal issues that are presented in the case." *Id.* The *Daubert* question is simply whether expert testimony will "assist the trier of fact to understand the evidence or to determine a fact in issue," *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 591 (1993), not which party is *right* on any contested issue, *see Prantil v. Arkema France S.A.*, No. 4:17-cv-2960, 2022 WL 1570022, at \*25 (S.D. Tex. May 18, 2022) (denying *Daubert* motion that "puts the cart before the horse in attempting to address Plaintiffs' RCRA claim under *Daubert*"); *Villalpando v. Exel Direct, Inc.*, No. 12-cv-4137, 2016 WL 1598663, at \*22 (N.D. Cal. Apr. 21, 2016) ("[T]he Court has not yet

ruled on the legal question of whether the specific expenses Plaintiffs seek to recover are available under section 2802 and therefore it is premature that this [expert] testimony is irrelevant under *Daubert*.").

Plaintiffs are free to argue at trial that the first *Gingles* precondition is satisfied by a compact "illustrative majority-minority *district*," even if the minority *population* is not compact, Mot. 7, or that evidence of racial predominance is "irrelevant to the current *Gingles* inquiry," *id.* at 10. But this is not the posture to decide those questions. Parties are entitled to present expert evidence—indeed, any evidence—that "relies on one side of a story." *Salvani v. Corizon Health, Inc.*, No. 17-cv-24567, 2019 WL 4101794, at \*4 (S.D. Fla. Aug. 29, 2019). Plaintiffs' disagreement with Defendants' theories does not render Defendants' evidence inadmissible.

The evidence and pertinent fact-in-issue is whether Mr. Cooper has shown that the "minority group [is] sufficiently large and [geographically] compact to constitute a majority in a reasonably configured district." *Allen*, 599 U.S. at 18 (citation omitted). The contested expert evidence plainly speaks to that question and will assist the Court in deciding it. To exclude that evidence—as Plaintiffs demand—would be reversible error. *See, e.g., Huss v. Gayden*, 571 F.3d 442, 456 (5th Cir. 2009) (finding reversible error in exclusion of defense expert whose testimony "might have been determinative of the difficult causation questions" in the case (internal quotation marks omitted)); *Curreri v. Int'l Broth. of Teamsters, Chauffeurs, Warehousemen & Helpers*, 722 F.2d 6, 12 (1st Cir. 1983) (exclusion of certain testimony prejudicial error where it "substantially impair[s]" a defendant's "ability to prove its lack of liability").

#### A. Mr. Trende's analysis is relevant to the first Gingles precondition.

Mr. Trende's opinions easily satisfy the *Daubert* relevance inquiry. As noted, one question under the first precondition is whether the "minority group" is compact. *Allen*, 599 U.S. at 18. Mr. Trende used qualitative and quantitative approaches to address that question. He prepared visual

illustrations of the Black voting-age population in Plaintiffs' illustrative districts and employed a sophisticated statistical technique (the moment-of-inertia technique) to conclude that the illustrative majority-minority districts "are not based upon compact minority populations" and that compact minority populations "are not large enough to constitute a majority of the district." (Trende Rep. 8). Expert opinion does not get much more relevant than that.

Plaintiffs seek its exclusion, not because it is irrelevant, but because they fear it undermines their case. But the threat Mr. Trende's opinions pose to Plaintiffs' case on the merits only *confirms* its relevance. Plaintiffs are not entitled to rig the trial record by having all evidence that assists their case admitted and all evidence that undermines it excluded. *See, e.g.*, *Huss*, 571 F.3d at 456.

To coax this Court into that untenable result, Plaintiffs misconstrue the first *Gingles* precondition, asking the Court to hold that compactness refers to the "district" not "the minority population, generally." (Mot. 10–12). That merits argument has "little, if anything, to do with the *Daubert* motion before the Court." *Rushing*, 2022 WL 4545612, at \*2. And it is flat wrong. The "compactness inquiry" of the first *Gingles* precondition "refers to the compactness of the minority population, not to the compactness of the contested district." *League of United Latin Am. Citizens* (*LULAC*) v. *Perry*, 548 U.S. 399, 433 (2006). Plaintiffs' alternative construction is backwards. The Fifth Circuit anticipated that holding in *Sensley v. Albritton*, 385 F.3d 591 (5th Cir. 2004), which found the first precondition unmet because of "uneven geographical dispersal of the African-American population" across three areas within the relevant parish. *Id.* at 597. Plaintiffs' argument is thus doubly foreclosed.

Mr. Trende demonstrated, using highly probative analyses that Plaintiffs have not rebutted, that the dispersal of the minority population in relevant locations renders it non-compact. (Trende Rep. 7–8, 138). Regardless of how many "style points" Mr. Cooper claims to have scored under

the Polsby-Popper and Reock measures of district compactness, Mr. Trende's report "focus[es] on the compactness of the Black community, rather than the whole district Mr. Cooper has drawn" and is highly relevant to the issues in this case. (Trende Rep. 8; Trende Dep. Tr. 23:4–:16, 24:17–:25).

Plaintiffs are wrong to suggest that *Allen* overruled *LULAC*. (*See* Mot. 11–12). While this is not the posture to decide that question, it must be decided against Plaintiffs. *Allen* reaffirmed *LULAC*, holding that "the minority *group* must be sufficiently ... compact." 599 U.S. at 18 (emphasis added). Undeterred by that clarity, Plaintiffs change the subject to a discussion of whether "an urban city" and "a rural community" may be joined in an illustrative district. (Mot. 11–12). Whatever that discussion might mean, it has nothing to do with Mr. Trende: he did not simply opine about rural and urban communities. His opinion, again, is that Plaintiffs' illustrative districts "are not based upon compact minority populations." (Trende Rep. 8). Under *Allen* (as under *LULAC* and *Sensley*), that is the relevant inquiry, and Mr. Trende's approach is not only relevant, but right.<sup>3</sup>

#### B. <u>Dr. Johnson's analysis is relevant to the first Gingles precondition.</u>

Dr. Johnson's opinions likewise plainly satisfy *Daubert*'s relevance standard. In his opening report, Dr. Johnson evaluates Mr. Cooper's illustrative plans and his claims about demographic trends in Louisiana, as well as Mr. Cooper's asserted adherence to "traditional redistricting principles" and "preservation of communities of interest." (Johnson Rep. 8–42;

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<sup>&</sup>lt;sup>3</sup> To the extent Plaintiffs argue that relevant *Gingles* inquiry goes *beyond* the compactness of the minority population, that would not bear on the admissibility of Mr. Trende's work. An expert's opinions "need not prove the [party's] case by themselves; they must merely constitute one piece of the puzzle that the plaintiffs endeavor to assemble . . . ." *City of Tuscaloosa v. Harcros Chemicals, Inc.*, 158 F. 3d 548, 565 (11th Cir. 1998); *accord Stilwell v. Smith & Nephew, Inc.*, 482 F. 3d 1187, 1192–93 (9th Cir. 2007); *Walker v. Soo Line R. Co.*, 208 F. 3d 581, 587 (7th Cir. 2000). Moreover, Mr. Trende's analysis also signals that Mr. Cooper's illustrative districts are not reasonably configured, because districts joining non-compact minority populations are by definition not reasonably configured.

Cooper Rep. ¶ 69). Dr. Johnson shows that, although Mr. Cooper claims socioeconomic data informed his plans, none of that data was loaded into Mr. Cooper's redistricting software, as would have been necessary if Mr. Cooper's assertions were truthful. (*See* Johnson Rep. ¶¶ 22–26). Dr. Johnson also criticizes Mr. Cooper's claims about the racial effect of population changes in Louisiana from 1990 to 2020, *id.* at ¶¶ 27–29, Mr. Cooper's reliance on internet sources like Wikipedia for defining "key multi-parish cultural regions" for his analysis, *id.* at ¶¶ 33–34, and his ignoring the boundaries of the "key regions" he claimed to honor, *id.* at ¶¶ 35–46.

In addition, Dr. Johnson leverages his decades of experience drawing hundreds of redistricting plans, including for redistricting commissions, to assess Mr. Cooper's adherence to the "traditional redistricting criteria" Mr. Cooper claims drove his line-drawing. (*Id.* at ¶¶ 68–94). Time and time again, he shows how Mr. Cooper's proffered explanations for the construction of the illustrative plans' district boundaries do not comport with his assertions, leaving race as the lone plausible explanation. (E.g., id. at  $\P$  69 (Cooper's SD-38 was drawn "without any reference to compactness, major roads, communities, neighborhoods, clear visible features or any other traditional redistricting principle," leaving "race" as the "only reason Mr. Cooper provides for drawing the line where he drew it")). Dr. Johnson also offers quantitative data, including charts and figures, to show how surgically Mr. Cooper sliced the Louisiana map to separate voters on the basis of race and to align his district BVAPs as close to the 50% "line" as possible. (See id.). Dr. Johnson demonstrated that when Mr. Cooper drew his second set of illustrative plans, he moved more than 110,000 Louisiana residents—almost half of whom were Black—into different districts from the first set of illustrative plans, and that those changes reduced the geographic compactness of Mr. Cooper's illustrative districts. (See id. at ¶¶ 9, 14–21). And, in his surrebuttal report, Dr. Johnson (among other things) rebuts Mr. Cooper's claim that he did not "know the exact racial

percentage of any VTD while [he] was drawing the [illustrative] map" by marshaling examples drawn from Mr. Cooper's illustrative plans as well as Dr. Johnson's considerable experience drawing and analyzing redistricting plans around the country. (*See* Johnson Surrebuttal Rep. ¶¶ 29–36).

All of that undermines—if not defeats—Plaintiffs' assertion that Mr. Cooper's alternative districts are "reasonably configured," as they must be to satisfy the first precondition. *Allen*, 599 U.S. at 18. *Daubert* would be satisfied on far less. Again, Plaintiffs' admissibility arguments simply exhibit a concern on their part that Dr. Johnson's opinions undermine their claims, which is the best of reasons to *admit* Dr. Johnson's opinions. Yet again, Plaintiffs argue their case on the merits, Mot. 14–18, which is the wrong place for them to start—and the right place for the Court to end, *Rushing*, 2022 WL 4545612, at \*2. Plaintiffs' arguments fail in any event. They reduce Dr. Johnson's opinions to those concerning intent, assert that Dr. Johnson did not show predominant racial intent, and then propose that predominant racial intent would not matter. (*See* Mot. 14–18). Each link of this chain breaks on inspection.

First, Dr. Johnson's opinions are not limited to a finding of predominant racial intent, as demonstrated. While his surrebuttal report does opine that "race was the predominant factor" in Mr. Cooper's illustrative plans, Johnson Surrebuttal Rep. 2, his two reports establish more broadly that Mr. Cooper's illustrative plans do not "comport[] with traditional districting criteria." *Allen*, 599 U.S. at 18. Mr. Cooper claims to have focused his map-drawing on traditional criteria, but Dr. Johnson demonstrates much of the information he cites (such as socioeconomic data) was not even loaded in his redistricting software. Dr. Johnson opines that Mr. Cooper's illustrative districts were drawn with no regard to compactness, communities of interest, major roads, or neighborhoods. Moreover, Dr. Johnson's opinions about the role of race are interrelated with those, given that a

district fails the first precondition where "the only common index is race." *LULAC*, 548 U.S. at 435. That is the core *Gingles* inquiry, and Dr. Johnson speaks directly to it.

Second, Plaintiffs make the premature and incorrect assertion that Dr. Johnson's opinions can be boiled down to "the proposition that an intentional effort to satisfy the *Gingles* preconditions renders the illustrative maps unlawful." (Mot. 14). Dr. Johnson did not say that, and Plaintiffs' false characterization of his large corpus of work is no basis to exclude it. *Allen* reaffirms that a district fails the first precondition "by disregarding traditional districting principles such as compactness, contiguity, and respect for political subdivisions," *Allen*, 599 U.S. at 27, and Dr. Johnson's opinion is that Mr. Cooper did not implement the districting principles he claims he implemented. Plaintiffs are entitled to disagree, but they are not entitled to rid the record of opposing viewpoints.

Third, Plaintiffs argue that as a matter of law, an illustrative districting plan may be constructed in a racially predominant manner because (they say) "the *Milligan* majority never reached the question of whether illustrative maps developed to satisfy the first *Gingles* precondition must survive the racial predominance analysis." (Mot. 15). Even if that were true, it would only doom their argument as premature. A question the Supreme Court will need to decide on the merits obviously cannot be decided on a pre-trial *Daubert* motion. Besides, the Supreme Court in *Allen* did decide the issue, holding that "the line between racial predominance and racial consciousness" governs the *Gingles* inquiry. 599 U.S. at 31 (plurality opinion). That proposition in the *Allen* plurality opinion was endorsed by four dissenting Justices for a total of eight. *Allen*, 143 S. Ct. at 1527 (Thomas, J., dissenting). Where at least "five Justices found common ground in

<sup>&</sup>lt;sup>4</sup> Even if the Court were inclined towards Plaintiffs' view, it would be improper to exclude evidence on that basis, given the possibility that a reviewing court would view the question differently.

[a] proposition," even in separate opinions, that proposition becomes the law of the land. O'Hare Truck Serv., Inc. v. City of Northlake, 518 U.S. 712, 718 (1996).

Evidence of "a conflict or inconsistency" between traditional redistricting criteria and a plan's district boundaries "may be persuasive circumstantial evidence tending to show racial predomination." *Bethune-Hill v. Va. State Bd. of Elec.*, 580 U.S. 178, 190 (2017). Dr. Johnson's reports and analysis directly address that issue, rendering them relevant.

### II. MR. TRENDE IS QUALIFIED AND OFFERS RELIABLE EVIDENCE THAT SATISFIES THE *DAUBERT* SHOWING.

Mr. Trende leveraged an established statistical methodology to measure the compactness of Louisiana's Black population in the regions at issue in this lawsuit. His analysis demonstrates that the minority populations are not sufficiently compact to form a majority of a reasonably configured legislative district as Mr. Cooper claims. (Trende Rep. 7–8, 138). As a well-credentialed expert with ample knowledge, skill, and experience, Mr. Trende is qualified to offer this analysis. *See Lavespere v. Niagara Mach. & Tool Works, Inc.*, 910 F.2d 167, 176 (5th Cir. 1990) ("Rule 702 provides that a witness may be qualified as an expert 'by knowledge, skill, experience, training, or education.' The disjunctive conjunction, which we must assume the drafters of the rule chose deliberately, suggests that an expert may be qualified on any of the five bases listed."), *abrogated on other grounds by Little v. Liquid Air Corp.*, 37 F.3d 1069 (5th Cir. 1994). Furthermore, as explained *infra*, Mr. Trende's methods are grounded in peer-reviewed literature and have been used by experts and courts as valid measures of compactness.

<sup>&</sup>lt;sup>5</sup> See Trende Rep. 4-7; Trende Dep. Tr. 36:22–46:13. Mr. Trende has testified in many Section 2 cases and is currently retained as an expert in three additional vote dilution Voting Rights Act cases in other states. Trende Dep. Tr. 51:23–53:15.

## A. The fact that Mr. Trende's quantitative methods have not been used to measure the compactness of a minority population before is not outcome determinative.

Plaintiffs make much ado about Polsby-Popper and Reock scores as the holy grails of compactness measures in redistricting cases. (Mot. 7-9). However, scholars agree that there is no single measure of compactness that is outcome determinative in the districting context. (*See, e.g.*, Ex. 1<sup>6</sup> – Murray Dep. Tr. 79:5–80:6). For example, in *Allen v. Milligan*, Amici Professors Jowei Chen, Christopher S. Elmendorf, Nicholas O. Stephanopoulos, and Christopher Warshaw<sup>7</sup> recognized that "there are *at least* three connotations" of a minority group's compactness. Amicus Curiae Br. at 13, *Allen v. Milligan*, 599 U.S. 1 (2023) (emphasis added). Additionally, the Maptitude redistricting software, often used by experts and legislatures to draw maps, is preprogrammed with over twenty different compactness measures. (Murray Dep. Tr. 80:7–82:9). Courts also regularly use a wide variety of compactness measures to assess districting plans. *See, e.g., Rodriguez v. Harris County,* 964 F. Supp. 2d 686, 740 (S.D. Tex. 2013) (discussing the area rubber band, perimeter-to-area, and population-rubber band statistical measures of compactness for Harris County commissioner districts).

The Supreme Court has recognized "it might not be surprising in a particular case, for example, that a claim made by a scientific witness has never been the subject of peer-review, for the particular application at issue may never previously have interested any scientist." *Kumho Tire*, 526 U.S. at 151. Given the uncertainty in the field, it is no surprise that Mr. Trende has not used the exact techniques he uses here to assess the compactness of the minority population "even though he has previously served as an expert in redistricting cases, advised independent

<sup>6</sup> Pertinent excerpts from Dr. Murray's Deposition are attached hereto as Exhibit 1. Those excerpts will hereinafter be referred to as "Murray Dep. Tr."

<sup>&</sup>lt;sup>7</sup> The Amicus Brief is publicly available at <a href="https://www.supremecourt.gov/DocketPDF/21/21-1086/230239/20220718132621523\_91539%20HARVARD%20BRIEF%20PROOF3.pdf">https://www.supremecourt.gov/DocketPDF/21/21-1086/230239/20220718132621523\_91539%20HARVARD%20BRIEF%20PROOF3.pdf</a>.

redistricting commissions, and drawn statewide district maps." (Mot. 7, 9). Despite having an armada of expert witnesses at their disposal, Plaintiffs do not offer any alternative ways to measure the compactness of the minority population or offer any meaningful rebuttal to Mr. Trende's analyses.

Additionally, Plaintiffs' complaints that Mr. Trende's methods "ignore other redistricting criteria that might inform a whole district, such as equal population, contiguity, communities of interest" are both irrelevant and untrue. (*Id.* at 8). Mr. Trende's quantitative methods are focused on populations within the illustrative districts, as drawn by Mr. Cooper, without questioning the wisdom of his community of interest choices or whatever else. As a defense witness in a Section 2 case, Mr. Trende is not required to draw actual districts. It is meritless for Plaintiffs to suggest otherwise.

### B. Mr. Trende's methods are based on established methodology recognized by peer-reviewed literature and courts.

Both of Mr. Trende's methods are reliable because they are based on established methodology recognized by peer-reviewed literature and courts. Plaintiffs' arguments to the contrary go to the weight, not a preliminary assessment of admissibility.

First, Mr. Trende's moment-of-inertia methodology has been peer-reviewed and, even though it is a decades-old methodology, Trende Dep. Tr. 66:13–:19, 72:19–73:6; Murray Dep. 147:18–148:25, it has only become more useful for redistricting in recent years due to modern computational technology, Trende Dep. Tr. 73:11–:19, 74:16–75:1; Trende Rebuttal Rep. 3; Murray Dep. 147:18–148:25. Contrary to Plaintiffs' assertions, Mr. Trende cited numerous peer-reviewed works in his report that support this methodology. (Trende Rep. 17–18).

Furthermore, the moment-of-inertia has been utilized in at least one redistricting case to assist a court in assessing compactness. *See In re Reapportionment of the Colorado Gen. Assembly*,

647 P.2d 209, 212 (1982) (per curiam) (discussing the use of the polar moment of inertia to assess compactness). Mr. Trende's application of the moment-of-inertia technique is based on an established methodology and Plaintiffs' counsel's legal arguments do not prove otherwise.

The same is true of Mr. Trende's areal/Chen & Rodden method. The Chen & Rodden method is a peer-reviewed method used to generate districting plans for an entire state. (*See generally* Rec. Doc. 150-5 – Chen & Rodden Article). Mr. Trende uses the portion of the Chen & Rodden approach that considers compactness with reference to the area of the region, and builds out by looking for geographically close neighbors. (Trende Rep. 19; Trende Dep. Tr. 94:14–96:22). As Mr. Trende makes clear in his report and at his deposition, this approach to compactness is in close keeping with the dictionary definition of the word "compact" at the time the 1982 Amendments to the Voting Rights Act were passed. (Trende Rep. 17–18; Trende Dep. Tr. 120:14–:24).

Plaintiffs also claim that Mr. Trende's use of qualitative choropleth maps encroaches on the court's role as factfinder. (Mot. 10). Not so. Most recently, choropleth maps (otherwise known as "heat maps") prepared by Plaintiffs' expert Mr. Cooper were cited and included in the appendix to Justice Thomas' dissenting opinion in *Allen v. Milligan*. No. 21-1086, Slip Op. at 49–51 (Appendix to opinion of Thomas, J., dissenting)<sup>8</sup>. Visual inspection of choropleth maps has also been used by other courts in a variety of contexts to assist the trier of fact with visual representation of minority populations. *See Bethune-Hill v. Virginia State Bd. of Elections*, 326 F. Supp. 3d 128, 146 (E.D. Va. 2018) (discussing "dot density" maps); *Fulton County, Georgia v. Wells Fargo & Co.*, No. 1:21-CV-1800, 2022 WL 846903, at \*16 (N.D. Ga. Mar. 22, 2022) (holding plaintiffs sufficiently alleged a statistical disparity in foreclosures in Fulton County's majority-minority

<sup>&</sup>lt;sup>8</sup> Publicly available at <a href="https://www.supremecourt.gov/opinions/22pdf/21-1086\_1co6.pdf">https://www.supremecourt.gov/opinions/22pdf/21-1086\_1co6.pdf</a>.

neighborhoods compared to neighborhoods with 30% or less minority owners through heat maps). Mr. Trende's choropleth maps are similarly meant to assist the factfinder as contemplated by Rule 702.

At the end of the day, Plaintiffs do not offer any expert testimony to show that Mr. Trende's methods are unreliable, instead relying solely on the argument of counsel. This is improper. Mr. Trende's reports and testimony plainly demonstrate that he has met the *Daubert* standard and any questions about the methodology go, at best, to its weight and not admissibility.

### III. <u>DR. JOHNSON IS QUALIFIED AND OFFERS RELIABLE OPINIONS THAT SATISFY DAUBERT.</u>

### A. <u>Dr. Johnson's analysis is based on a reliable methodology and his opinions are the appropriate subject of expert-witness testimony.</u>

Plaintiffs lob two other criticisms at Dr. Johnson's analysis. Neither hits the mark.

First, Plaintiffs allege that Dr. Johnson improperly opined about the "subjective intent" of Mr. Cooper, which they say improperly intrudes upon the Court's fact-finding role. (Mot. 14–17). But experts may properly opine on intent so long as their opinions are "inferential in nature" and are drawn from "circumstantial evidence." *Nielsen v. United States*, 976 F.2d 951, 956 (5th Cir. 1992). While experts may not "offer opinions regarding" someone's "actual mental state," expert opinion going to motive is admissible (and highly probative) so long as it is "clear from the expert's testimony that he 'was merely identifying an inference that might be drawn from the circumstances' . . . ." *United States v. Morris*, 576 F. 3d 661, 675 (7th Cir. 2009) (quoting *United States v. Lipscomb*, 14 F. 3d 1236, 1240 (7th Cir. 1994)). Accordingly, experts may testify based on their expertise about what someone "knew, when [he] knew it, and what intent [his] actions may therefore reflect." *Spreadsheet Automation Corp. v. Microsoft Corp.*, 587 F. Supp. 2d 794, 803 (E.D. Tex. 2007); *see also Gree, Inc. v. Supercell Oy*, No. 2:19-cv-71, 2020 WL 4059550, at \*2 (E.D. Tex. July 20, 2020); *Campbell v. Sikes*, 169 F. 3d 1353, 1372 (11th Cir. 1999) ("plaintiffs

necessarily must use circumstantial evidence to establish subjective mental intent"); *United States* v. *Solis*, 923 F. 2d 548, 551 (7th Cir. 1991) (finding that defendant's "intent to distribute . . . cocaine" could be established through expert opinion regarding "circumstantial evidence").

This rule is commonly applied in redistricting cases. In Cooper v. Harris, 581 U.S. 285 (2017), the Supreme Court approved a district court's reliance on expert opinion showing that a precinct's racial composition better predicted its inclusion in a challenged district than its political composition—which led the expert "to conclude that 'race, and not party,' was 'the dominant factor' in [the district's] design." Id. at 315. Contrary to Plaintiffs' assertions, that is appropriate expert opinion because it draws inferences from "circumstantial" indicia of intent. Id. Likewise, a leading decision by a three-judge district court looked to "dot density" maps provided by an expert, showing correlations between racial demographics and district lines—from which the expert inferred "telltale signs' of 'race-based maneuvering." Bethune-Hill, 326 F. Supp. 3d at 146. According to Plaintiffs, that decision was erroneous in admitting the dot-density maps and expert opinion. But courts routinely admit circumstantial evidence of motive in all kinds of contexts. Gay v. Waiters' & Dairy Lunchmen's Union, 694 F. 2d 531, 552-53 (9th Cir. 1982) (employment discrimination); Currier v. United Techs. Corp., 393 F. 3d 246, 251 (1st Cir. 2004) (same). For example, the Fifth Circuit recognized that circumstantial evidence, including "statistical evidence" of a doctor's unusual billing practices and "financial motive to falsify certifications are both circumstantial proof of knowledge" that can support a conviction for healthcare fraud. United States v. Barnes, 979 F. 3d 283, 296, 303 (5th Cir. 2020). Admissible opinion evidence need not be statistical; in Solis, for example, the circumstantial expert evidence was evidence that "someone traveling with two kilograms of cocaine . . . would find access to beepers a useful means of effectuating the transportation and eventual distribution of her deadly cargo." 923 F. 2d at 551.

Dr. Johnson's opinions about Mr. Cooper's predominant consideration of race are inferences drawn from his analysis of the facts through the lens of his expertise as a demographer and redistricting professional. Those inferences were drawn based on "conflict or inconsistency" between the traditional districting principles Mr. Cooper claimed to have followed and his illustrative districts' boundaries, *Bethune-Hill*, 580 U.S. at 190. Dr. Johnson's expertise is valuable in identifying such conflicts and inconsistencies since "traditional redistricting principles...are numerous and malleable" and a mapmaker "could construct a plethora of maps that look consistent with traditional, race-neutral principles" even where race predominated. *Id.* The "racial predominance inquiry concerns the actual considerations that provided the essential basis for the lines drawn, not *post hoc* justifications the [mapdrawer] in theory could have used but in reality did not." *Id.* at 189–90.9

Second, Plaintiffs try to impugn Dr. Johnson for not providing controlled statistical testing or other unspecified empirical analysis to support his opinions. (Mot. 18). Dr. Johnson *does* provide quantitative analysis (dozens and dozens of pages of it across his two reports), and he is *not* required to provide "controlled statistical testing." Expertise can arise from "first-hand observations and professional experiences" and is admissible despite there being "no known or potential rate of error or controlling standards." *Pipitone*, 288 F. 3d at 246. Where an expert "witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts." *Broyles v. Cantor Fitzgerald &* 

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<sup>&</sup>lt;sup>9</sup> Despite the clear precedent established in *Cooper*, even if Dr. Johnson were not permitted to opine about an ultimate question of Mr. Cooper's intent, the remedy would be exclusion of that opinion only. Dr. Johnson may in all events testify as to his work in this case, including his painstaking analysis of the claims Mr. Cooper made in this case about the factors he says he considered when drawing his illustrative plans, and the fact that Mr. Cooper's districting decisions are plainly inconsistent with the factors and reasoning Mr. Cooper provided, which leaves race as the only plausible explanation.

Co., No. 10-854-JJB-CBW, 2016 WL 3197559, at \*3 (M.D. La. June 8, 2016) (quoting Fed. R. Evid. 702 advisory committee notes (2000 amend.)).

Here, as set forth above, Dr. Johnson leverages his extensive experience as a demographer, political scientist, and redistricting professional to analyze Mr. Cooper's work and proffered explanations. Moreover, Mr. Cooper himself did not conduct controlled statistical testing of his illustrative plans, so it is odd that Plaintiffs criticize Dr. Johnson for failing to rebut Mr. Cooper's report using such testing. To the extent Plaintiffs quarrel with Dr. Johnson's analysis, they have the opportunity to cross-examine Dr. Johnson at trial. The Court should follow the "general rule" that "questions relating to the bases and sources of an expert's opinion affect the weight to be assigned that opinion rather than its admissibility and should be left for the jury's consideration." *Id.* (internal quotation omitted). Dr. Johnson's report more than clears the *Daubert* threshold of showing a reliable analytic methodology and his testimony should be admitted.

#### B. Courts have accepted Dr. Johnson as an expert witness.

Plaintiffs point out that some courts have disagreed with Dr. Johnson's expert opinions over the years, Mot. at 18–20, but that is not a basis for his exclusion here. Courts have recognized Dr. Johnson as an expert witness and allowed him to testify in redistricting and Voting Rights cases dating back over twenty years. *See, e.g., Navajo Nation v. Arizona Indep. Redistricting Comm'n*, 230 F. Supp. 2d 998, 1011 & n. 13 (D. Ariz. 2002) (crediting Dr. Johnson's opinions in Voting Rights Act case in support of the defendant's proposed interim redistricting plan and finding them "reliable"); *Luna v. County of Kern*, 291 F. Supp. 3d 1088, 1098 & n. 2, 1112 (E.D. Cal. 2018) (Dr. Johnson recognized as expert, that the experts were "among the finest in their fields of expertise with extensive experience testifying in Voting Rights Act cases," and finding points based on Dr. Johnson's analysis as "valid and worthy of consideration"). Plaintiffs' reliance on

trial-court decisions in *Common Cause v. Lewis* and *Covington v. North Carolina* as reasons to exclude Dr. Johnson are misplaced.

For one, his expert testimony was admitted in both cases. *See, e.g., Covington v. North Carolina*, No. 1:15cv399, Hr'g Tr. 74–75 (M.D.N.C. Jan. 5, 2018), attached as Ex. 2<sup>10</sup>; *Common Cause v. Lewis*, No. 18CVS14001, 2019 WL 4569584, at \*95 (N.C. Super. Ct. Wake Sept. 3, 2019), *abrogated by Harper v. Hall*, 886 S.E.2d 393 (N.C. 2023). *Lewis* in particular found Dr. Johnson was an expert in "political science, political geography, redistricting, and Maptitude for Redistricting software," that he "has served as an expert witness in redistricting litigation numerous times" and that he had "never been excluded as an expert by any court." *Id.* 11

For another, the *Covington* decision is problematic for a few reasons. The *Covington* opinion in question, *Covington v. North Carolina*, 283 F.Supp.3d 410 (M.D.N.C. 2018), was reversed in part in *North Carolina v. Covington*, 138 S. Ct. 2548 (2018). And while the *Covington* three-judge court ultimately did not agree with Dr. Johnson's analysis, during the relevant hearing, Judge Wynn praised Dr. Johnson and chastised counsel for not offering Dr. Johnson's assistance to the court-appointed special master, *Covington* Hr'g Tr. 88:18–90:20, referring to Dr. Johnson as a "great expert" and a "very smart man." (*Id.* at 90:9-17).

Thus, far from supporting the exclusion of Dr. Johnson's work and testimony, *Covington* and *Lewis* stand for the opposite premise—that experts should be allowed to present evidence, and then the court may, at trial and on the basis of a full record, apportion the weight of that evidence based on the totality of circumstances. Plaintiffs' motion should be denied.

<sup>&</sup>lt;sup>10</sup> Pertinent excerpts from the *Covington v. North Carolina* remedial hearing that took place on January 5, 2018 are attached hereto as Exhibit 2. *Covington v. North Carolina*, No. 1:15cv399 (M.D.N.C. Jan. 5, 2018). Those excerpts will hereinafter be referred to as "*Covington* Hr'g Tr."

<sup>&</sup>lt;sup>11</sup> A small portion of Dr. Johnson's rebuttal report in *Lewis* was excluded when, during trial, "errors" in that portion of the analysis were uncovered. 2019 WL 4569584, at \*96. Plaintiffs have not identified such errors here.

### C. <u>Plaintiffs cannot fault Dr. Johnson for failing to "consider" post hoc explanations for Mr. Cooper's mapmaking.</u>

Finally, Plaintiffs fault Dr. Johnson for failing to consider "all of the other available explanations" for Mr. Cooper's line-drawing decisions, and in particular for not considering "an expert report about communities of interest that specifically responded to Dr. Johnson's critiques and explained why Mr. Cooper's illustrative maps were consistent with communities of interest in Louisiana." (Mot. 20–21). But given there are over a "trillion trillions" of different ways to draw a statewide redistricting map, *Allen*, 599 U.S. at 36, it is infeasible to expect anyone to exclude *every* other hypothetical explanation, no matter how implausible, for a plan's configuration. That approach would also contravene Supreme Court precedent which rightly focuses the racial predominance inquiry on "the actual considerations that provided the essential basis for the lines drawn, not *post hoc* justifications" that the mapmaker "in theory could have used but in reality did not." *Bethune-Hill*, 580 U.S. at 189–90.

Dr. Johnson applied a straightforward and reliable methodology to evaluate Mr. Cooper's redistricting decisions—one based, in part, on testing Mr. Cooper's *own* representations about the factors he considered. (*See* Johnson Dep. Tr. at 214:10–:20 ("I'm offering the opinion that Mr. Cooper provided a list of explanations for where he drew the lines, and none of those explanations explain any of those lines")). Dr. Johnson evaluated those factors and, as he explained, "there are multiple places throughout the map where none of Mr. Cooper's other explanations explain why the line is drawn where it is and race is – and the line closely corelates with race, leaving race the only remaining explanation." (*Id.* 207:1–:7; *see also id.* at 215:19–216:2 (concluding that Mr. Cooper's "communities of interest[,] ... least change, parishes and compactness" factors "don't explain why these lines are where they are and how the [BVAP] numbers ended up so precisely at 50.1 and 50.2 and 50.3 percent")). And Dr. Johnson testified that testing a mapmaker's

documented reasons for line-drawing decisions to evaluate his work is an appropriate methodology, *id.* at 219:18–220:25, and that in his own redistricting practice, Dr. Johnson documents the "explanations" for his map-making decisions, *id.* at 212:15–:23, in a "report" that accompanies his map to allow others to verify his work. (*Id.* at 220:5–:11). This, again, directly speaks to whether the plan is "reasonably configured" within the meaning of the first *Gingles* precondition, *Allen*, 599 U.S. at 20, and separately speaks to the predominance inquiry. *Bethune-Hill*, 580 U.S. at 189–90.

Plaintiffs specifically criticize Dr. Johnson for not rebutting an expert report offered by their expert, Dr. Colten. (Mot. 21–22). But Dr. Colten's <sup>12</sup> work amounts to a *post hoc* justification for Mr. Cooper's lines that Dr. Johnson did not have to consider. *See Shaw v. Hunt*, 517 U.S. 899, 907 (1996) (criticizing the mapdrawer for "respecting communities of interest and protecting Democratic incumbents . . . only after the race-based decision had been made"). Mr. Cooper testified that he had never spoken to Dr. Colten or evaluated his cultural region analysis in constructing his original illustrative plans in 2022. (Ex. 4<sup>13</sup> – Cooper Dep. Tr. 24:7-10, 76:16-:18). Mr. Cooper testified that, when he revised his illustrative plans in June 2023, he did so based on feedback filtered to him through Plaintiffs' counsel to increase the racial performance of districts and at most unspecified feedback from Dr. Colten. (*Id.* at 145–48). But importantly, Mr. Cooper's reliance on any feedback from Dr. Colten was not disclosed in his report. (*See* Cooper Rep. ¶ 30). Dr. Colten's opinions—in an expert report originally issued at the same time as Mr. Cooper's report, and which again Mr. Cooper did not rely on to draft his plans—therefore did not explain

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<sup>&</sup>lt;sup>12</sup> In his deposition, Dr. Colten acknowledged that his assignment from counsel for plaintiffs was to assess the "communities of interest" that "encompass the districts in the illustrative maps." Pertinent excerpts from Dr. Colten's deposition are attached hereto as Exhibit 3, *see* Ex. 3 – Dr. Colten Dep. Tr. 11:5–12:4, 19:5–8

<sup>&</sup>lt;sup>13</sup> Pertinent excerpts of Mr. Cooper's deposition are attached hereto as Exhibit 4. Those excerpts will hereinafter be referred to as "Cooper Dep. Tr."

the boundary lines Mr. Cooper constructed; they were, at best, the *ipse dixit* explanations of an expert witness offered as a *post hoc* justification for the lines Mr. Cooper drew. Dr. Johnson's failure to consider *post hoc* justifications is appropriate.

#### IV. <u>DR. SOLANKY IS A QUALIFIED STATISTICIAN WHO OFFERS RELEVANT,</u> RELIABLE EVIDENCE THAT SATISFIES THE *DAUBERT* SHOWING.

Dr. Solanky offers reliable, relevant testimony that is well within his expertise. Dr. Solanky has been admitted as an expert to testify at a trial or hearing approximately ten times—even on behalf of the United States government. (*See* Solanky Rep. 32–35). Plaintiffs' attacks on Dr. Solanky are unfounded legally and factually.

### A. <u>Dr. Solanky is a Ph.D. mathematician and statistician and is qualified to</u> render an expert opinion in statistics.

Dr. Solanky is a Ph.D. mathematician and statistician who has taught at the collegiate level for approximately thirty years. (Solanky Rep. 3; Solanky Dep. Tr. 12:9–13:23, 18:3–:12). Dr. Solanky has been retained and served as an expert in statistics in over 40 cases, and has generally been considered an expert in "anything which deals with data; modeling of data, making predictions based on data, sampling of data," etc. (Solanky Rep. 31-36; Solanky Dep. Tr. 14:15–16:5, 16:13–17:3, 18:13–:15). Furthermore, Dr. Solanky has ample experience with individual level data and has published many peer-reviewed works on the subject. (Solanky Rep. 31–36; Solanky Dep. Tr. 254:12–:24).

While an expert can be disqualified from testifying based upon an "imprecise match between the expert's qualifications and the issue she planned to testify about[,]" doing so is "absurd[]" and would wrongly transform the "expert-qualification process into a 'battle of labels' where expertise is defined so narrowly that qualified experts are irrationally excluded from testifying." Williams v. Manitowoc Cranes, LLC, 898 F. 3d 607, 625 (5th Cir. 2018). See also Roman v. Western Mfg., Inc., 691 F. 3d 686, 693 (5th Cir. 2012) (rejecting a "conception of

expertise" where Ph.D. experts "could not testify about a stucco pump because stucco is not their trade, could make expert certification decisions a battle of labels—label the needed expertise narrowly and the offered expert's field broadly"). Plaintiffs attempt to narrowly define the expertise needed to assess Dr. Handley's statistical analyses as requiring specific training and experience in political science or the Voting Rights Act. (Mot. 22–23). However, Dr. Solanky is well qualified to opine on Dr. Handley's statistical analyses, because he is a professional *statistician*. (See Solanky Dep. Tr. 8:19–:25). Quarrels about Dr. Solanky's qualifications go at best to "the weight of Dr. [Solanky]'s testimony—not about its admissibility," Williams, 898 F. 3d at 625, a battle that "should be fought with the conventional weapons of cross-examination and competing testimony—not the nuclear option of exclusion." Id. (citing Daubert, 509 U.S. at 596).

### B. <u>Dr. Solanky's reliable statewide analysis is highly relevant to rebut the opinions of Dr. Handley<sup>15</sup>.</u>

Plaintiffs' arguments regarding relevance of Dr. Solanky's testimony and reports similarly misconstrue the burden of proof under *Gingles*. Dr. Solanky has not, nor is he required to, conduct a racially polarized voting analysis of the entire state of Louisiana. Instead, Dr. Solanky, like any good data scientist, explains his "thorough investigation" through the scientific method which itself explains how he tested his hypotheses. <sup>16</sup> *Daubert*, 509 U.S. at 593 (citation omitted)

<sup>&</sup>lt;sup>14</sup> Plaintiffs claim that Dr. Solanky "struggled" with precinct-level allocations because he is not a political scientist. (Mot. 28 at n. 14). That claim is false. Unlike Dr. Handley, who had an entire ACLU data team clean her precinct-level data for her, Dr. Solanky did his precinct allocations himself. (*Compare* Rec. Doc. 148-3 – Handley Dep. Tr. 13:21–15:15 *with* Solanky Dep. Tr. 159:16–:22, 172:9–:20). It was "[n]ot a very difficult exercise" and merely required checking precinct numbers to make sure they were the same; the task was laborious in that it was time consuming (Solanky Dep. Tr. 203:9–:13). Plaintiffs' suggestions

task was laborious in that it was time consuming. (Solanky Dep. Tr. 203:9–:13). Plaintiffs' suggestions otherwise greatly misconstrue Dr. Solanky's deposition testimony.

15 To the extent that Plaintiffs passingly assert Dr. Solanky's opinions on Mr. Cooper's report should be

excluded, those arguments are without merit. (*See* Mot. 23 at n. 10). While Dr. Solanky did not opine on Mr. Cooper's report directly, he did directly opine on Dr. Handley's analyses which purportedly were on the "areas of interest" in which Mr. Cooper's illustrative majority-minority districts were drawn. (Solanky Dep. Tr. 21:17–22:22).

<sup>&</sup>lt;sup>16</sup> Though various iterations of the scientific method exist, the steps generally include "naming of a hypothesis, the careful testing of that hypothesis, and the use of scientific judgment to evaluate the results

("Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified; indeed, this methodology is what distinguishes science from other fields of human inquiry."). Dr. Solanky testified ad nauseum in his deposition that statewide numbers were an important starting point in his experience for a thorough analysis. (Solanky Dep. Tr. 51:21–52:22, 55:9–56:15, 64:17–65:20, 69:14–70:2). Dr. Solanky's statewide registration and voting trends of racial and partisan preferences are directly relevant to his testing of the assumptions Dr. Handley made in her regional, not district-specific, ecological inference RxC racially polarized voting analyses. (See, e.g., Solanky Rebuttal 2). Statewide voting trends also speak to the totality of the circumstances—specifically, whether the political process is equally open to participation such that the minority group is able to participate and elect candidates of their choice. See Brnovich v. Democratic National Committee, 141 S. Ct. 2321, 2332 (2021). Dr. Solanky's statewide numbers show that in Louisiana, the political process is open to the minority group.

Moreover, Plaintiffs do not dispute the accuracy of Dr. Solanky's statewide numbers. Instead, Plaintiffs criticize Dr. Solanky for publishing the starting point for his analysis. This criticism, as irregular as it is, is not entirely surprising as Plaintiffs' own expert, Dr. Handley, failed to disclose a significant portion of her starting analysis. (Rec. Doc. 148-3 – Dr. Handley Deposition Tr. ("Handley Dep. Tr.") 13:9-:19, 18:8–:10, 19:16–20:18, 161:9-:21).

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of those tests." See, e.g., Soldo v. Sandoz Pharma. Corp., 244 F. Supp. 2d 434, 457 (W.D. Pa. 2003) (citing Daubert, 509 U.S. at 593).

<sup>&</sup>lt;sup>17</sup> Even Dr. Handley's own published work details the importance of shifting voter trends, particularly the movement of white voters to the Republican Party in analyzing Black voters' ability to elect their "candidate of choice." *See* Lublin, et al., *Minority Success in Non-Majority Minority Districts: Finding the "Sweet Spot"*, The Journal of Race, Ethnicity, and Politics 5, 275-298 (2020).

### C. <u>Dr. Solanky's parish-wide and precinct-specific analyses are relevant and reliable.</u>

Similarly, Dr. Solanky's parish-wide and precinct-specific analyses are relevant to show how Dr. Handley's conclusions are unreliable. As explained in Dr. Solanky's reports, Dr. Handley "bypasses the issue of not knowing the precincts of a large percentage of votes by allocating the early and absentee votes not coded to a precinct to the parish precincts proportionally based on the votes received by each of the candidates on Election Day." (Solanky Rep. 12; Solanky Rebuttal Rep. 3). In doing so, Dr. Handley makes the faulty assumption that all precincts vote the same. (*Id.*). Dr. Solanky uses ecological inference RxC ("EI") modeling for several parishes and precincts within parishes to show that Dr. Handley's allocation method produces unreliable results because it treats all precincts across several parishes the same. (Solanky Rep. 11–54). Plaintiffs do not dispute that Dr. Solanky correctly performed his EI analyses.

Puzzlingly, Plaintiffs take issue with the specific parishes that Dr. Solanky chose to run his EI analyses on, claiming certain parishes are "irrelevant" because they are not challenged and unreliable because these parishes were "self-selected." (Mot. 25–26, 35–36). Both arguments are inconsistent with the record in this case. Dr. Solanky gave ample testimony as to why he chose specific parishes for these parts of his reports—mainly because the parishes were mentioned in the expert reports of Dr. Handley and Mr. Cooper and, secondarily, because the data for certain precincts was easier to clean. (Solanky Dep. Tr. 113:20-114:1, 179:22–180). Plaintiffs take particular issue with Orleans and East Carroll Parishes, which Plaintiffs claim are *not* included within the challenged districts. (Mot. 25, 35–36). But Mr. Cooper's report, and Plaintiffs' own Complaint suggest otherwise. (Cooper Rep. 29, 42; *see* Rec. Doc. 14 – Amended Complaint 50). As pointed out in Dr. Solanky's deposition, Orleans and East Carroll Parishes are part of Mr. Cooper's additional illustrative majority-Black districts. (Solanky Dep. Tr. 257:17–259:12;

Cooper Rep. 29, 43). Notwithstanding Plaintiffs' counsel's confusing line of questioning at Dr. Solanky's deposition, all parishes analyzed by Dr. Solanky are part of the illustrative majority-Black districts drawn by Mr. Cooper, as shown below:

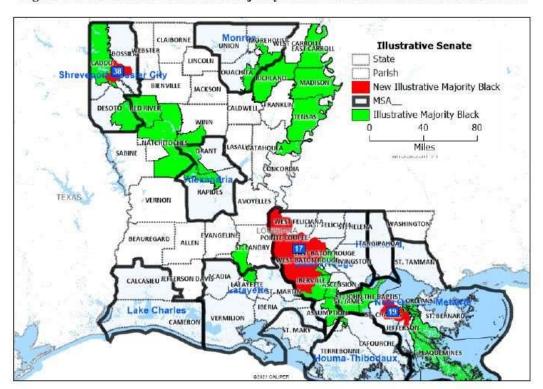


Figure 13: Location of 3 Additional Majority-Black Districts in Illustrative Senate Plan

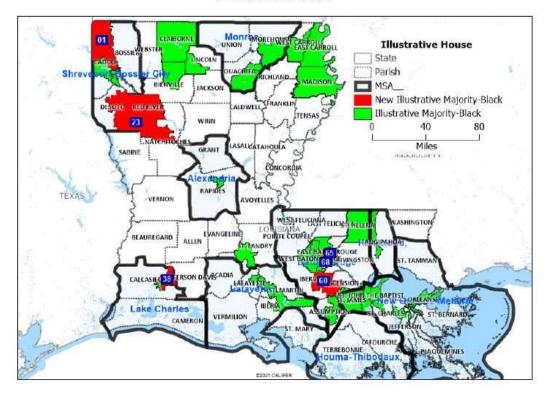


Figure 24: Location of 6 Additional Majority-Black Districts in Illustrative House

(Cooper Rep. 29, 43).

Furthermore, Dr. Solanky provided specific, reproducible criteria for the elections he chose to analyze at the parish and precinct levels. In his deposition, Dr. Solanky testified that he chose the specific statewide elections for his EI analyses based on (1) higher turnout rates, (2) mostly similar to Dr. Handley with a few variations (a few elections with no Black candidates)<sup>18</sup>; and (3) elections with easily-assignable data (fewer candidates in the "other" category) due to time constraints. (Solanky Dep. Tr. 83:17–91:23).

Lastly, Plaintiffs criticize the reliability of Dr. Solanky's precinct-level density analysis because of its confidence intervals. First, the large confidence intervals are limited to only a few

<sup>&</sup>lt;sup>18</sup> As provided in Dr. Solanky's Report, eight out of the twelve elections Dr. Solanky analyzed overlapped with Dr. Handley's choice of elections. (Solanky Rep. 13). In fact, Dr. Solanky chose to study many of the same additional elections as Dr. Alford, another expert for the defense, who Plaintiffs have not included in their motion. (*See* Rec. Doc. 150-9 – Dr. Alford Expert Report 7–10).

instances, usually on one extreme end. It is incorrect for Plaintiffs to represent that the confidence intervals are large throughout the analysis. Second, Dr. Handley's confidence intervals for her effectiveness scores also suffer from similarly large confidence intervals in places. (*See, e.g.,* Handley Rep. 58 (reporting confidence intervals ranging 27.3 points for Black voters voting for the Black Democratic candidate and 37.9 points for the White voters voting for the White Republican candidate in the November 2019 election for House District 68)). A wider confidence interval due to a low sample size merely means that a specific data point is not as informative—not that a statistic is wholly unreliable. (Solanky Dep. Tr. 177:31–179:15; 193:15–194:9).

Dr. Solanky's parish and precinct-specific analyses are directly relevant to show that Dr. Handley's estimates are "misleading" and the density analysis is directly relevant to racially polarized voting because it shows a large difference in how Black and White voters are voting within relevant parishes. (*Id.* at 157:20–158:5, 160:18–161:4, 167:8–:20). Even so, "as a general rule, questions relating to the bases and sources of an expert's opinion affect the weight to be assigned that opinion rather than its admissibility and should be left for the jury's consideration." *United States v. 14.38 Acres of Land*, 80 F. 3d 1074, 1077 (5th Cir. 1996) (quotation omitted).

### D. <u>Dr. Solanky is not required to prove the exact manner in which Dr. Handley's results were biased by her allocation method.</u>

Lastly, Plaintiffs claim that "Dr. Solanky's rebuttal of Dr. Handley must be excluded because it is unsubstantiated." (Mot. 29). This assertion is simply wrong. Dr. Handley herself admitted that she knew about the bias in the allocation method *before* Dr. Solanky and nevertheless chose to proceed with her report. (Handley Dep. Tr. 176:1-:7).

As shown by Dr. Solanky, a simple review of the backup data for just one precinct in one election shows that the allocation method applied by the ACLU data analytics department, purportedly at Dr. Handley's direction, created impossible results. Dr. Solanky concluded that Dr.

Handley allocated more total candidate votes than the total voter turnout for 81 out of 145 precincts in Caddo Parish. (Solanky Rebuttal Rep. ¶ 8, Remark 5). The remaining precincts, with the exception of Precinct 102, had votes deflated. This includes Caddo Precinct 116, which had its voter turnout deflated by 300 votes. (*Id.* at Appendix 1). Only Caddo Precinct 102 had an allocation within 1 vote difference of the total voter turnout. (*Id.*). Dr. Solanky had insufficient time to assess the full scope of Dr. Handley's allocation method due to the ten-day turn-around time between receipt of Dr. Handley's "caddo\_precincts" spreadsheet and the day that his second report was due<sup>19</sup>. (*See* Rec. Doc. 110; Solanky Rebuttal Rep. 2).

It is undisputed that Dr. Handley's allocation method infects her entire analysis. (Handley Dep. Tr. 13:9–:19, 161:9–:21 (unequivocally testifying that this allocation method formed the basis of her database that her entire RPV analysis relies upon)). Dr. Solanky provides credible and reliable testimony that Dr. Handley's allocation method creates impossible results, whereby more votes are allocated to certain candidates that far exceed the number of total voters who turned out to vote in a particular election in certain precincts. (Solanky Rebuttal Rep. 2–12). Dr. Solanky testified that this method has led to all-encompassing statistical bias. (Solanky Dep. Tr. 149:1–151:24). The Oxford Dictionary of Statistical Terms defines "bias" as "[g]enerally, an effect which deprives a statistical result of representativeness by systematically distorting it, as distinct from random error which may distort on any one occasion but balances out on the average." Oxford Dictionary of Statistical Terms 36 (Yadolah Dodge ed., 1st ed. 2003). By concluding that Dr.

<sup>&</sup>lt;sup>19</sup> Subsequent analysis shows extreme over-inflation of polarization rates between Black and White voters based on Dr. Handley's allocation method. As such, the entirety of Dr. Handley's reports amount to artificial polarization that should be excluded in their entirety.

Handley's report is "biased," Dr. Solanky is opining as an experienced statistician that Dr. Handley is systematically distorting her racially polarized voting analysis.<sup>20</sup>

Furthermore, Plaintiffs' arguments that Dr. Solanky needed to propose some alternative allocation method that Dr. Handley should have used again misconstrues the burden of proof in Section 2 cases. Plaintiffs, not Defendants, must show racially polarized voting to meet the *Gingles* preconditions. *See Abbott v. Perez,* 138 S. Ct. 2305, 2333 (2018) ("It suggested that a plaintiff might succeed on its § 2 claim because its expert failed to show that the necessary factual basis for the claim could not be established. Courts cannot find § 2 effects violations on the basis of uncertainty."). Without such a showing, Plaintiffs have no case. Dr. Solanky's reports and deposition testimony reveal troubling data practices by Dr. Handley that are directly relevant to the underpinnings of her EI analysis. As such, evidence presented by Dr. Solanky is admissible because it goes to the "factual basis" referenced in *Abbott*.

#### **CONCLUSION**

For the foregoing reasons, Plaintiffs' omnibus motion to exclude the proposed testimony of Mr. Trende, Dr. Johnson, and Dr. Solanky should be denied in its entirety.

Respectfully submitted, this the 27th day of October, 2023.

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<sup>&</sup>lt;sup>20</sup> As set forth in Defendant's Motion to Exclude Dr. Lisa Handley's Testimony and Reports and Memorandum in Support, Rec. Docs. 148 and 148-1, Dr. Handley's "supplemental report" served on September 29, 2023, was untimely and should be wholly disregarded. Furthermore, it does not confirm that "her allocation method did not bias her results" as Plaintiffs claim. (*See id.*).

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# Exhibit 1

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF LOUISIANA

CIVIL ACTION NO. 3:22-cv-00178 SDD-SDJ

DR. DOROTHY NAIRNE, JARRETT LOFTON, REV. CLEE EARNEST LOWE, DR. ALICE WASHINGTON, STEVEN HARRIS, ALEXIS CALHOUN, BLACK VOTERS MATTER CAPACITY BUILDING INSTITUTE, AND THE LOUISIANA CONFERENCE OF THE NAACP

Plaintiffs,

VS.

R. KYLE ARDOIN, IN HIS OFFICIAL CAPACITY AS SECRETARY OF STATE OF LOUISIANA

Defendant.

Deposition of ALAN T. MURRAY, Ph.D., given the above-entitled cause, pursuant to the following stipulation, before Lori L. Marino, Certified Shorthand Reporter, in and for the State of Louisiana, via Zoom videoconference on Thursday, September 21, 2023, commencing at 10:02 AM.

#### REPORTED BY:

Lori L. Marino Certified Court Reporter

```
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    JOHN WALSH
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21
22
23
24
25
```

```
1
     geographically?
 2
         Α
              Did I?
 3
         0
              Yes.
 4
              Yes, of course.
         Α
 5
         0
              Is there a consensus on whether
 6
     there's a single standard measure of
 7
     compactness that's better than any other in
     redistricting?
 8
 9
         Α
              No.
10
              How do experts account for that?
11
         Α
              I'm not really sure the nature of
12
     your question about how experts account for
     that, but the reality is what you have with a
13
14
     political district is that it's a
15
     two-dimensional shape, and any -- and
     there's -- I don't know tens of different --
16
17
     maybe, even over hundreds of different
18
     measures of compactness, and the reason why
19
     there's different measures is because it's
20
     impossible to take a two-dimensional object
21
     and characterize it by a single number. So
22
     this is the inherent challenge here is that
23
     you're taking a two-dimensional object and
24
     trying to characterize it with a
25
     zero-dimension number; and as a result, it's
```

impossible to do without some sort of error or uncertainty, and the reason there are many different measures is that different measures in theory have different nuanced ways of trying to get at shape or orientation or other characteristics.

Q So you helped me walk through Reock and Polsby-Popper a couple minutes ago. Did you consider Reock and Polsby-Popper in your analysis?

A Yes, I did.

Q Did you consider any other measure of compactness in your analysis?

A Yes, two others.

O What were there?

A One is called area over convex hull, or just convex hull, and it's equal to the area of the district over the convex hull of that area; and the convex hull is a geometric shape that, basically, has -- it preserves a property of convexity, which is mathematically defined, and it's always bigger -- as big or bigger than the particular district; and so as a result, it's the area over something that would be at best the same but likely bigger.

And the second? 1 2 And the second is something call the Α moment of inertia or -- I mean, that's what I 3 4 called it in the report, the moment of 5 interia. We'll have an opportunity in a couple 6 7 of minutes to walk through that. Oh, I'm sure we will. I can see 8 Α 9 where this is going. 10 Dr. Murray, you are providing many 11 jokes for the record today that we could use. 12 So I appreciate it. 13 What is the significance in this case 14 of your observation that there's weak 15 agreement between Polsby-Popper and Reock 16 measures of compactness? 17 I think that part of it was just to 18 highlight that, and I didn't say this in the 19 report, because I wasn't asked to, and because 20 it's probably a bit -- and it's actually quite 21 well-known in the literature that no one 22 measure is perfect; and in the plaintiff 23 report by Cooper, he included the Reock and 24 Polsby-Popper. That's why I included it in 25 this report. I also included the convex hull

```
or area over convex hull, because it was
 1
 2
     mentioned in the Cooper report; although, it
 3
     wasn't reported. That is in the report, it
 4
     says it was going to present that compactness
 5
     measure, but it actually didn't.
     included those three, because they stem from
 6
 7
     the report. I include the fourth measure,
 8
     because in my opinion, it's a better metric.
 9
     Although, I would concede that all of the
10
     metrics have limitations, and I think that the
11
     rebuttal and the fact that Mr. Cooper
12
     provided -- I don't know -- 20 different
13
     metrics of compactness through a Maptitude
14
     report just reflects that Maptitude
15
     recognizes, as well, and it's, I think,
16
     recognized broadly that the measures aren't
17
     perfect, and therefore, different measures may
18
     be more insightful under some circumstances
19
     than others.
20
              Would you have included Polsby-Popper
         0
21
     and Reock in your analysis if Mr. Cooper did
22
    not?
              I probably would, because it's sort
23
24
     of an industry de facto.
25
         0
              So by saying industry de facto,
```

```
1
     support?
 2
              None that I'm aware of directly in
         Α
     its distributed software. There could be some
 3
     library or add-on, but I'm not sure.
 4
 5
              Just to confirm, does ArcGIS support
 6
     MI as a compactness measure?
 7
              Again, there could be some library,
     or extension or add-on that has it, but I'm
 8
 9
     not sure.
              So to your knowledge, ArcGIS does not
10
11
     support MI's compactness measure?
12
              Not to my knowledge.
13
              A compactness test could also be run
14
     when you have two plans open for comparison.
15
     Did you utilize the compactness test available
     in ArcGIS?
16
17
         Α
              No.
18
              Are you familiar with the analysis
     performed by other researchers that highlight
19
20
     the limitations of MI?
21
              Well, moment of inertia has been
         Α
22
     around for a long-time, and there's research
23
     that criticizes all measures of compactness.
24
     So I guess to that end, yes.
              So you're familiar with -- strike
25
         0
```

that. You're familiar with analysis performed by other researchers highlighting the limitations of MI, and to that end, what are some of the limitations that researchers have identified with MI?

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I don't think I agreed to that, but what I did say is that there are reasons -- so MI has been around a long-time since near the 50s, and that people have applied it in various ways; and that there have generally been criticisms of all compactness measures as not being particularly meaningful, including Reock and Polsby-Popper, and that is what I said to the extent that there has been criticism of all the measures and the nature of that criticism is that many and most of these measures can be manipulated in terms of spatial representation in some way; and further some have speculated the utility of what one can really conclude; and further, I did say that all of these measures are attempting to take a two-dimensional object and summarize it by one number, which is inherently impossible to do without any uncertainty, error and so on.

1

2

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25

So sticking with the limitations with moment of inertia and focusing specifically on that, are you aware that researchers have identified that the shape of the unit of analysis is a problem with the moment of inertia test? I'm trying to think. I don't recall that in particular, no. So what does it mean the shape of the unit of analysis in relationship to the MI test? Well, that entire point of Α compactness measures are attempting to summarize shape. So I mean, all of the tests have issues with shape, because they're attempting to summarize shape, but it's impossible to do that with a single number. So in essence, all of them suffer from that. So I'm not sure I have more to add to that, but in terms of some comprehensive study showing particular elements of shape or certain characteristics of bias of shape, I have not seen that, no. Have you compared the values for MI for different shapes in equal size areas?

# Exhibit 2

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1
                  IN THE UNITED STATES DISTRICT COURT
              FOR THE MIDDLE DISTRICT OF NORTH CAROLINA
2
   SANDRA LITTLE COVINGTON, et al.,) CASE NO. 1:15CV399
3
            Plaintiffs,
4
   V.
5
   STATE OF NORTH CAROLINA, et al.,) Greensboro, North Carolina
            Defendants.
                                   ) January 5, 2018
                                      9:37 a.m.
6
7
        TRANSCRIPT OF THE HEARING ON REPORT OF SPECIAL MASTER
               BEFORE THE HONORABLE THOMAS D. SCHROEDER
                  THE HONORABLE CATHERINE C. EAGLES
8
                    UNITED STATES DISTRICT JUDGES
9
                                  and
                      THE HONORABLE JAMES A. WYNN
10
                  UNITED STATES FOURTH CIRCUIT JUDGE
11
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1	I N D EX		
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3	DEFENDANT'S WITNESSES:		PAGE:
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5	MICHAEL C. BOOSE		
6	Direct Examination by Mr. McKnight	52	
7	DOUGLAS M. JOHNSON, PH.D.		
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11	Exhibits: PD-1 PowerPoint	Identified 29	Received
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18			
19			
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21			
22			
23			
24			
25			

Covington v. NC -- Special Master hearing -- 1/5/17

```
1
   résumé as Defendants' 6.
2
             MR. STRACH: All right. Thank you, Your Honor.
3
             JUDGE EAGLES: And you can refer to them either way.
             MR. STRACH: Yes, ma'am. Thank you.
 4
5
   DOUGLAS M. JOHNSON, PH.D., DEFENDANTS' WITNESS, being first
   duly sworn, at 11:48 a.m., testified as follows:
6
7
                          DIRECT EXAMINATION
   BY MR. STRACH
8
9
        All right. Dr. Johnson, state your full name for the
10
   Court, please.
11
        Douglas Mark Johnson.
12
        And what is your current occupation?
13
        I am president of National Demographics Corporation, and
14
   I'm a fellow at the Rose Institute of state and local
15
   government at Claremont McKenna College.
16
        And could you tell the Court what you do for National
17
   Demographics Corporation?
        I'm the president of the company, and I own the company as
18
19
   well, and I lead their projects primarily on districting and
20
   redistricting.
        All right. And what do you do for the Rose Institute?
21
22
        I work with the students on research primarily related to
23
   census and redistricting issues.
24
        And you have a copy of what has been marked as Exhibit 6,
25
   which is your résumé. Is this an accurate depiction of your
```

```
1
   résumé as of today?
2
              There's one thing I would add that has happened
   since this was submitted, which I was an expert witness in a
   federal trial in Luna v. Kern County in California.
5
        Tell the Court a little bit about your educational
   background.
6
7
        Sure. I was an undergrad at Claremont McKenna College. I
   got my bachelor's in government there, received an MBA from the
9
   University of California at Los Angeles, and then a Ph.D. in
10
   political science from Claremont Graduate University.
11
        All right. What did you do your dissertation on?
12
        Lessons learned from independent redistricting
13
   commissions.
14
        And do you have any experience with census data and
15
   geography?
16
        Yes, it's a big part of my job.
17
        Have you ever given any -- had any discussions or
18
   presentations on census matters?
19
        Yes. I often speak at conferences, in particular with the
20
   National Conference of State Legislatures on census data and
21
   how it relates to communities and redistricting, and also -- I
22
   should add I'm also working for the State of Arizona as their
23
   liaison in the lead-up to 2020 redistricting.
```

24

25

the State?

All right. And what does that mean to be the liaison for

- 1 A It means I'm a point of contact for the Census Bureau, and
- 2 then I work to get the information from the counties that the
- 3 Census is using to build the census blocks and VTDs and other
- 4 things for the 2020 Census.
- 5 Q And did you -- have you ever done that previously for the
- 6 State of Arizona?
- 7 A Yes, I did the same job in the lead-up to the 2010 Census.
- 8 Q All right. Have you ever testified as an expert before in
- 9 litigation?
- 10 A Yes.
- 11 Q And on page 3 of your résumé, it says litigation
- 12 experience. Other than the case that you've just mentioned, is
- 13 this a complete list of the cases in which you've testified?
- 14 A Yes.
- 15 Q And do your cases involve redistricting cases?
- 16 A Yes.
- 17 | Q What kind of redistricting experience do you have?
- 18 A With National Demographics Corporation, I have worked and
- 19 really been the lead technical consultant and demographer for,
- 20 the last count, 195 redistricting projects primarily at the
- 21 local level of cities and school districts and water districts
- 22 but also at the county and state level.
- 23 Q And what did you do for your clients in terms of
- 24 | redistricting?
- 25  $\mid$  A It varies from client to client depending on how much of

```
1
   the kind of outreach and coordination and public information
   role they want to play. If they want to do a lot of that, we
   will do the technical and demographic sides of it that involve
   the census data and databases and drawing the maps.
5
        For others that want less of a role, we will do
   everything, that same technical demographic and map drawing
6
7
   side, including building the databases and work with them on
   outreach and public information tools, and those kinds of
9
   efforts.
10
        All right. And then if you will take a look at what's
11
   been marked as Exhibit 5, which is called "The Expert Report of
12
   Douglas Johnson Ph.D., " is this the expert report that you have
13
   submitted in this case?
14
        Yes.
15
        And I believe you've also submitted an errata that was
16
   filed recently; is that correct?
17
        Yes.
   Α
             MR. STRACH: Your Honor, I know we're not in the
18
19
   trial, but I thought it would be appropriate to move to have
20
   Dr. Johnson qualified as an expert in census data and geography
   and in redistricting.
21
22
             JUDGE EAGLES: All right. We'll certainly allow him
23
   to testify and reserve ruling on any disputes that may come up.
24
             MR. STRACH: All right. Thank you, Your Honor.
25
             We would also, for the record, move the admission of
```

```
Direct by Mr. Strach -- Dr. Johnson
```

```
Dr. Johnson's expert report.
1
2
              JUDGE EAGLES: Again, without deciding whether we are
3
   going to consider and how much weight we're going to give it,
   we'll allow you to put it into evidence so it'll be part of the
5
   evidence, and we'll evaluate later.
   BY MR. STRACH
6
7
        Dr. Johnson, let's talk about -- you've given several
   opinions in the report, but for the sake of time, because the
   Court can read your report, I want to focus on just a couple of
9
10
   those opinions.
11
        Did you give an opinion in this report about what you
12
   believe the role of race to be in the Special Master's
13
   districts?
14
        Yes.
15
        And could you just summarize that opinion for the Court,
16
   and then we'll look at a few specifics with that?
17
        Well, in reviewing the Special Master's maps, there's an
   apparent quota of the African-American percentage of the
18
19
   voting-age population that was -- that appears to be a target,
20
   that as the districts were redrawn, the districts that had
   voting rights issues that had to be addressed all seemed to end
21
22
   up in the same range that appears to be a target or quota.
23
              JUDGE EAGLES: When you're talking about voting
24
   rights, are you talking about VRA, Voting Rights Act?
25
              THE WITNESS:
                            Oh, sorry, yes, correct, the districts
```

```
1
   addressed by the Court as unconstitutionally looking at race
2
   and related to the federal Voting Rights Act.
3
             JUDGE EAGLES: In relation to the -- all right. Go
   ahead.
4
5
             MR. STRACH: Thank you, Your Honor.
   BY MR. STRACH
6
7
        Dr. Johnson, if you could -- let's drill that down a
   little bit. Was one of the districts that you addressed in
   your report House District 57 as redrawn by the Special Master?
9
10
   Α
        Yes.
11
        And in doing so, that involved the redrawing of several
12
   other districts in Guilford County; is that correct?
13
   Α
        Yes.
14
        In the House map; is that right?
15
        Yes.
16
        So let's look at page 16 of your report. You've got a
17
   map, Map 1. Could you tell the Court what Map 1 depicts?
        This is the map of the 2017 Enacted House Districts.
18
19
        All right. And if you will turn to page 18, Map 2, what
20
   does Map 2 depict?
21
        Map 2 is the Special Master's Recommended Plan House
22
   districts in that same area.
23
        All right. Turn the page to page 19. You have there
   what's labeled as Map 3. What is Map 3?
24
25
        This is an alternative map that I drew that takes the same
```

```
1
   two districts in the same footprint. So we're staying within
   the same area as the Special Master's recommended two districts
   and redrawing them in a way that achieves the same unity of
   municipalities and also avoids dividing VTDs and the other
5
   goals that the Special Master described. It gets slightly more
   compact than the Special Master's recommended districts without
6
7
   as extensive a redrawing as he proposed in his recommended
   plan.
8
9
        All right.
10
             JUDGE EAGLES: Does that Map 3 comply with the
11
   Court's order directing the Special Master to prepare maps?
12
             THE WITNESS:
                           I would obviously leave the final
13
   decision on that, but as he described it --
14
             JUDGE EAGLES: Did you not look at our order that
15
   told the Special Master what to do?
16
             THE WITNESS: Oh, yes, I did read it.
17
             JUDGE EAGLES: Okay. And does this map comply with
18
   the restrictions that were imposed on the Special Master?
19
             THE WITNESS:
                           In terms of municipalities and VTDs, it
20
   definitely has the same compliance that his map does. In terms
21
   of addressing the role of race, that's not -- I wasn't aiming
22
   at a particular target. I was just looking to --
23
             JUDGE EAGLES: Well, the Court did not order him to
   aim at a particular target, at least I don't remember doing
24
25
          So I'm asking you if this map complies with all of the
   that.
```

```
1
   restrictions and requirements that were imposed on the Special
2
   Master when we gave him his assignment?
3
             THE WITNESS:
                           In my opinion, yes, it would.
             JUDGE EAGLES: Okay.
4
   BY MR. STRACH
5
        All right. Let's turn the page to the page -- well, it's
6
7
   covered up by the maps at the bottom there. It would be page
        Here, you have two maps that are labeled Map 4. What is
8
   Map 4? Please describe this to the Court.
9
10
        So Map 4 is an alternative approach. If, in the Court's
11
   opinion or the Special Master's opinion, Map 3 doesn't
12
   sufficiently address some issue, this is looking at much closer
13
   to what the Special Master drew. The Special Master's map is
14
   on the left and the less adjusted map is on the right.
15
   we're looking to draw compactness, we're looking to draw the
   logical boundaries and follow VTDs. Again, we are staying in
16
17
   the same footprint, so we're not impacting the other districts
18
19
             JUDGE EAGLES: If you could speak just a little
20
   slower. Apparently map drawers all talk fast.
21
             THE WITNESS: I'm sorry. So this is taking the
22
   Special Master's map on the left, and it's a different adjusted
23
   map on the right that I drew, and, again, it's staying in the
24
   same footprint of these two districts. So the outer borders of
25
   the two districts are the same in both maps, but it's looking
```

```
1
   again at -- if the Court's opinion is that we do need to rotate
   the districts to get farther away from the 2017 footprint and
3
   core, this would achieve that. It actually goes even farther
   away because it's more compact, it's more of a horizontal
5
   border. As I discussed in my report and as the Special Master
   mentioned, this is more of a horizontal border, not a
6
7
   east-to-west border because it doesn't stop the rotation when
8
   it gets to the apparent --
9
             JUDGE EAGLES: The apparent what?
10
             THE WITNESS:
                            The apparent African-American
11
   percentage of voting age. It keeps rotating until it gets to a
12
   more compact shape.
13
   BY MR. STRACH
14
        And what are the BVAP levels in the adjusted House
15
   Districts 57 and 61?
16
             JUDGE EAGLES: You're talking about Map 4 now?
   BY MR. STRACH
17
18
        Map 4, the one on the right, the adjusted map.
19
        Correct. The adjusted map on the right here, the black
20
   percentage of voting-age population is 28 and 48 percent in
   these two districts.
21
22
             JUDGE EAGLES: Is that something you took into
23
   account when you were drawing these maps?
24
             THE WITNESS: No, after I had drawn it, I looked up
25
   the numbers. I wasn't looking at those numbers when I drew it.
```

```
1
             JUDGE EAGLES: Go ahead.
2
             MR. STRACH: Thank you, Your Honor.
   BY MR. STRACH
3
        Let's shift gears and talk about another district in
4
5
   Guilford County, but this is Senate District 28. Are you
   familiar with that district?
6
7
        Yes.
        So if you look at page 23 of your report. This is labeled
8
9
   in your report as Map 5. Could tell the Court what Map 5 is
10
   and why you drew that?
11
        So the pink lines -- pink or maroon, I guess it's more
12
   pink, lines are the Special Master's Recommended Senate
13
   District 28. The color shadings underneath the pink lines are
14
   the adjusted map that I drew.
15
             JUDGE EAGLES: Say that again. I'm sorry.
16
             THE WITNESS:
                           The color shadings, so the yellow,
17
   purple, and blue areas, are the adjusted Senate districts that
18
   I drew starting from the Special Master's recommended map.
19
             And so what I'm doing in this adjusted map is the
20
   yellow area in the southeast that's outside of the pink lines
21
   for District 28, and particularly the one that comes over into
22
   District 24 in the Special Master's recommended map, putting
23
   that area into 24 really increased the population deviation of
   District 24 in the Special Master's map, and it didn't address
24
25
   any of the other factors. It didn't unite VTDs or impact the
```

```
1
   other factors he was looking at in -- or that he reported
2
   looking at in his report. It did make Senate District 28 a
   little more round, but at the cost of the population deviation
   in District 24.
5
             Similarly, to the south, there's the yellow area
   that's south of the pink line that -- bordering with the purple
6
7
   district. That's an area he took out of Senate District 28 and
   put into District 27, and in his report, he talks about doing
9
   that for compactness.
10
             He also talks about keeping municipalities together,
11
   but down here, the city line gets very jagged, and there are
12
   pockets in and out of the city both in the yellow and in the
13
   pink areas. If you simply trade those two areas for the purple
14
   areas that are inside of the pink line in the northwest corner
15
   of the map, you get a district that is essentially identical in
16
   compactness. It's not quite as pretty -- this is the beauty
17
   contest that we rarely get to compete in, and it's not quite as
18
   pretty and looking nicely round, but it is essentially
19
   identical by, I think, one-hundredth of a point in one of the
20
   compactness scores and two-hundredths of a point in the other,
   but it's better on population deviation. It's the same on
21
22
   keeping municipalities and VTDs together.
   BY MR. STRACH
23
24
        But then does the adjusted district, as drawn by you --
```

does the BVAP percentage go up?

25

```
1
        Let me sure I get the numbers straight here.
2
        Yes, it goes from -- just a little bit, from 44 percent in
3
   the recommended plan to 46 percent in the adjusted district,
   but it does come out of that range that the other remedied
5
   districts hit.
        All right. Let's talk about a separate opinion that you
6
7
   gave in this report regarding the districts in Wake and
   Mecklenburg Counties.
8
9
        What opinion did you give in your report about the
10
   districts in those counties?
11
        This is the issue of whether or not to redraw the
12
   districts that were not adjacent to the districts the Court
13
   determined needed to be remedied, and the issue here is that,
14
   as is in the record, the districts that need to be remedied
15
   were drawn first in 2011. They really dictated how the rest of
16
   the districts in that county grouping were drawn; and so using
   that now determined to be unnecessary quota in 2011 really
17
   locked in a lot of the features of all the districts in the
18
19
   county grouping, not just the adjacent districts, because
20
   obviously this is, as I talk about a lot in my report, the
   rippling effect that Dr. Persily and I have to run into and
21
22
   deal with all the time.
23
        So what you do in one district in a county grouping has a
   huge impact on what happens to the other districts, and so by
24
25
   not redrawing those districts, we're locking in the impact of
```

```
1
   what's now the -- identified as the unnecessary quota in 2011.
2
             JUDGE EAGLES: Unnecessary -- what word are you
3
   saying?
             THE WITNESS:
 4
                           Quota.
5
             JUDGE EAGLES: Okay. So you're talking about the --
   all right. Go ahead.
6
7
             MR. STRACH: 50 percent.
8
             JUDGE EAGLES: Yeah, I'm with you.
9
             THE WITNESS: So the end result being that if those
10
   districts can also be redrawn, because they were clearly
11
   impacted by those decisions in 2011, then we can meet the other
12
   goals of traditional principles and state goals of keeping
13
   municipalities together, trying to be more compact, and the
14
   number that really jumps out is the number of split VTDs that
15
   would all be improved if we could redraw those lines.
16
             MR. STRACH: Thank you, Your Honor. That's all we
   have for this witness at this time.
17
18
             JUDGE EAGLES: Are there questions for the Plaintiff?
19
             MS. RIGGS: Yes, Your Honor.
20
             JUDGE SCHROEDER: Can I ask before you -- Mr. Strach,
   before you sit down, are you offering these as alternatives?
21
22
             MR. STRACH: No, Your Honor. We are offering these
23
   as evidence of what we would contend to be the use of race in
24
   the Special Master's drawing of the plans.
25
             JUDGE SCHROEDER:
                                Okay.
```

Direct by Mr. Strach -- Dr. Johnson

```
1
             JUDGE WYNN:
                          I want to follow up on that. You're not
   offering them as alternatives; you're offering them as a means
3
   by which race was used in Dr. Persily's maps, but I haven't
   heard the question, perhaps I will ask it, what does he think
5
   of Dr. Hofeller's maps, which are the 2017 maps. If
   Dr. Persily's maps -- if we found to some extent it's an
6
7
   improvement to Dr. Hofeller, what is this saying about
   Dr. Hofeller's maps.
8
9
             And, if you will, Doctor, be prepared to answer that
10
   question at some point.
11
             THE WITNESS: Certainly.
12
             MR. STRACH: Certainly, Your Honor. We -- of course,
13
   heeding to the point that you were making earlier, we were
14
   prepared to talk about the Special Master's districts today
15
   rather than the 2017 districts, but we're happy to do that.
16
             JUDGE WYNN: The only reason I brought it up,
17
   counsel, is you brought these alternative maps in. I see an
18
   alternative map, I'm saying -- or you brought a map to show it
19
   could be done better. It's almost like -- we want to do this
20
   better. Everybody wants it better, and if Dr. Johnson is
   saying this is a better map overall -- he didn't go back and
21
22
   say, oh, Dr. Hofeller's map was great, and our consideration
23
   initially is there, but if we are there that his is not great,
24
   we are in a remedial situation where now we are saying --
25
   because the Court itself, as you well know -- one of the
```

```
1
   reasons we did this -- courts have drawn these maps without
2
   calling a special master. I mean, we didn't have to call a
3
   special master. We could just have sit down and say, hey, we
   are going to draw these maps. We didn't want to do that.
5
   We're trying to get helpful information, and Dr. Johnson seems
   to be giving very helpful information, but you're saying only
6
7
   use it to criticize Dr. Persily's map but not to say the maps
   ultimately ought to look like the way he's drawn them?
8
9
             MR. STRACH: Your Honor, we presented him to help
10
   identify the ways that the Special Master used race in the
   districts he drew, which we think would counsel against using
11
12
   -- the Court using those districts.
13
             JUDGE WYNN: Agree, but we got to draw some maps.
14
   we don't use Dr. Persily's map and we determine Dr. Hofeller's
15
   maps have the problem, we can draw them on our own.
16
   that's clear. We don't need a special master to draw these
17
   maps. We're trying to get helpful information.
18
             I get what you're trying to do, limit it in terms of
19
   year, but if Dr. Johnson has this great information about how
20
   we can reduce this black voting-age population in a more
21
   positive way, keep it more compact, we want to receive that
22
   information. You're saying don't receive it as an alternate
23
   map, just receive it for criticism.
24
             MR. STRACH: Your Honor, if the Court decides it
```

25

can't use the Special Master's maps, I'm sure Dr. Johnson is

available as another special master.

1

2

3

5

6

7

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

JUDGE WYNN: He may be, but, guess what, the Court isn't going to -- is in a position to do it. I told you in the first instance we didn't need to call Dr. Persily to do this.

We're trying to get helpful information here in terms of -- but I want get to the question later on because I'm somewhat confused by the approach because I'm sort of miffed. Why didn't Dr. Johnson give this information to Dr. Persily to help him draw the maps? I don't get that. I don't understand.

I mean, if our purpose here is get to some get good maps, assuming there's a problem with Dr. Hofeller's map, why -- because it seems like these are pretty smart guys. I've heard them talk back and forth. There's nothing negative going back and forth between the two of them. I sort of feel like they could have had a good conversation, and I'm disappointed they have not had a good conversation to help this Court get good maps. We're not just in an adversarial situation. This is the state of North Carolina, and there are voters here. You know this. We're trying to do what's right; and as I told you in the first instance, we didn't have to call a special master at all. At the end of the trial, we could have ended it, gone in a room, and drawn these maps ourselves, as we've done. didn't want to do that. We're trying to do it the right way, and you've been asked over and over to provide input. I know your position on that; but even if you assume it from a

```
1
   hypothetical position, there's something of value to give
2
   input, rather than to come on the date of the hearing and give
   input that's just saying, okay, here's some more stuff, but
   this stuff would have been really helpful, I think, to
5
   Dr. Persily in drawing the recommended maps. That's what it
   seems to me.
6
7
             MR. STRACH: Well, Your Honor, we retained him about
   a couple of weeks ago.
8
9
             JUDGE WYNN: That's what I don't understand. Where's
   he been? He was here -- it looks like that he's been a doctor
10
11
   for quite a while. Where was he during the trial? Where was
12
   he to Dr. Hofeller in terms of helping out with these kind of
13
   things here? You got the same expert you had before. Here's a
14
   great expert. Why wasn't this expert called? I'm not
15
   questioning the way it was done. It's just today you bring him
16
   in for what sounds like good information, very smart man up
   here, but he's not been given an opportunity to help. He's
17
18
   only been given an opportunity to criticize, and how is that
19
   helpful to the Court? We don't want to just hear criticism.
20
   Help us.
21
             MR. STRACH: Your Honor, our position -- in this case
22
   in the last two months, we've probably written more briefs than
23
   I've read in any other case I've ever had, and we have answered
24
   that question in those briefs.
25
             JUDGE WYNN: Well, thank you very much. We'll read
```

# Exhibit 3



### Transcript of Craig Colten, Ph.D.

**Date:** September 13, 2023 **Case:** Nairne, et al. -v- Ardoin

**Planet Depos** 

**Phone:** 888.433.3767

Email: transcripts@planetdepos.com

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1
             IN THE UNITED STATES DISTRICT COURT
             FOR THE MIDDLE DISTRICT OF LOUISIANA
2
    DR. DOROTHY NAIRNE,
3
    et al.,
4
              Plaintiffs, :
                                  Civil Action No.
5
                                   3:22-cv-00178-SDD-SDJ
         V.
6
    R. KYLE ARDOIN, in
7
    his official capacity as :
    Secretary of Louisiana,
8
               Defendants.
9
10
                     DEPOSITION
11
                             o f
                     CRAIG COLTEN, Ph.D.,
12
13
                 taken on behalf of Defendant
14
         DATE:
                         September 13, 2023
15
         TIME:
                         10:03 a.m. to 11:42 a.m. EST
16
         PLACE:
                         - REMOTE -
17
         BEFORE:
                         Dawn A. Hillier, RMR, CRR
18
                         Stenographic Reporter
                         Notary Public - State of
19
                         Maryland, at Large
20
         JOB NO:
                         505750
21
22
23
24
25
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#### Transcript of Craig Colten, Ph.D. Conducted on September 13, 2023

2

1 APPEARANCES: ALL PARTIES ATTENDING REMOTELY 2 3 ON BEHALF OF PLAINTIFFS: 4 MEGAN KEENAN, ESQUIRE SARAH BRANNON, ESQUIRE 5 AMERICAN CIVIL LIBERTIES UNION FOUNDATION 915 15th Street, NW 6 Washington, District of Columbia 20005 202.675.2337 7 mkeenan@aclu.org 8 ON BEHALF OF DEFENDANT: 9 THOMAS A. FARR, ESQUIRE CASSIE HOLT, ESQUIRE 10 NELSON MULLINS RILEY & SCARBOROUGH, LLP 11 301 Hillsborough Street, Suite 1400 Raleigh, North Carolina 27603 919.329.3800 12 tom.farr@nelsonmullins.com 1.3 cassie.holt@nelsonmullins.com 14 15 ALSO PRESENT: 16 Harold Rodriguez, Planet Depos technician Victoria Wenger, NAACP Legal Defense Fund Carey T. Jones - Louisiana Attorney General 17 Patrick T. Lewis for Defendant-Intervenors Clay Schexnayder and Patrick Page Cortez, in their 18 offical capacities as Speaker of the Louisiana House of Representatives and President of the 19 Louisiana Senate, respectively 20 Alora Thomas-Lundborg Luis Manuel Rico Romain 2.1 John Conine, Jr. and John Walsh for Defendants 22 23 24 25

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#### Transcript of Craig Colten, Ph.D. Conducted on September 13, 2023

3

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#### Transcript of Craig Colten, Ph.D. Conducted on September 13, 2023

11

1 and make the deposition go more quickly. Could you 2 turn to page two, please, of your preliminary 3 report, Exhibit 1 [sic]? 4 Α Okay. 5 All right. And just for purposes of 6 having a clear record, Dr. Colten, could you read 7 into the record the first paragraph that has got a 8 title on it called Assignment? 9 Α Yes. I'll read from my copy since the 10 version that's up there is a little small. That's great. That's why I want you to 11 12 have the copy in front of you. We're in accord there. "I was asked by 13 14 Counsel for the Plaintiffs to prepare a report on communities of interest with respect to recent 15 16 redistricting efforts by the state legislature and 17 the litigation that has arisen from the 18 redistricting maps. My assignment was to assemble 19 qualitative and quantitative evidence of the historical and current status of communities of 20 2.1 interest in the following sections of the state: 22 The Red River Parishes including Natchitoches/Cane River, Caddo/Bossier Parishes, Acadiana, and the 23 24 River Parishes (see Figure 1). These communities of 25 interest encompass the districts in the illustrative

# Transcript of Craig Colten, Ph.D. Conducted on September 13, 2023

1	maps. This type of research provides evidence of
2	longstanding cultural geographies that supplement
3	the demographic and economic data often relied on
4	for mapping political geographies."
5	Q Thank you. I've got several questions I
6	want to ask you about this paragraph. First of all,
7	in the first sentence, you used the term
8	"communities of interest." How would you define
9	that term?
10	A I've turned to scholars in geography who
11	have written on the subject. And basically, I see
12	communities of interest as geographic territories
13	that contain people with shared cultural histories
14	and other shared attitudes, beliefs, and within that
15	particular territory.
16	Q Are there other ways to define communities
17	of interest?
18	A I suspect there are countless ways to
19	define communities of interest.
20	Q So you say what you relied on, if I heard
21	you correctly, was you relied upon a geography to
22	set the boundaries for each community of interest.
23	Is that a fair statement?
24	A Well, it's really the content of the
25	communities, the people who reside there and their

# Transcript of Craig Colten, Ph.D. Conducted on September 13, 2023

1	illustrative districts that you've reviewed?
2	A He may have mentioned some of that in his
3	report but I didn't commit it to memory. And I
4	didn't sit over his shoulder to observe.
5	Q Okay. The sections of the state that you
6	chose to examine, why did you choose those sections?
7	A It was done in consultation with the
8	counsel for the plaintiffs.
9	Q Did you rely upon anything the plaintiffs'
10	counsel told you for your factual conclusions about
11	what these different sections, what parishes should
12	be included in these different sections?
13	A My conclusions were my own. They didn't
14	rely on any recommendations or suggestions or
15	directives from counsel.
16	Q Okay.
17	MR. FARR: Can we put up
18	BY MR. FARR:
19	Q Do you have a copy in front of you of the
20	illustrative senate and the illustrative house
21	districts, Dr. Colten?
22	A Yes. They're in black and white. Not
23	color.
24	Q They're not they're not in color?
25	A That's correct.

# Exhibit 4



## Transcript of William S. Cooper

**Date:** September 20, 2023 **Case:** Nairne, et al. -v- Ardoin

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1
             IN THE UNITED STATES DISTRICT COURT
2
            FOR THE MIDDLE DISTRICT OF LOUISIANA
      - - - - - - - x
3
4
    DR. DOROTHY NAIRNE, :
5
    et al.,
6
          Plaintiffs, : Civil Action No.
7
                          : 3:22-cv-00178-SDD-SDJ
       V.
8
    R. KYLE ARDOIN, in :
9
    his official capacity :
10
    as Secretary of :
11
    Louisiana,
12
           Defendants. :
13
14
15
16
              Deposition of William S. Cooper
17
                    New York, New York
              Wednesday, September 20, 2023
18
19
                        9:45 a.m.
20
21
22
23
     Job No.: 506961
     Pages: 1 - 214
24
25
     Reported By: Leonora L. Walker, Court Reporter
```

1	Deposition of WILLIAM S. COOPER, held at the
2	offices of:
3	
4	
5	Cozen O'Connor
6	175 Greenwich Street
7	New York, New York 10007
8	212.509.9400
9	
10	
11	
12	
13	Pursuant to notice, before Leonora L. Walker,
14	Court Reporter, Notary Public in and for the State
15	of New York.
16	
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1 APPEARANCES 2 ON BEHALF OF THE PLAINTIFFS: 3 ALORA THOMAS-LUNDBORG, ESQUIRE 4 HARVARD LAW SCHOOL 5 410 Wasserstein Hall 6 Cambridge, Massachusetts 02138 7 File Number: W-998-1582 8 9 ON BEHALF OF LEGISLATIVE INTERVENORS: 10 ROBERT J. TUCKER, ESQUIRE 11 BAKER HOSTETLER, LLP 12 200 Civic Center Drive, Suite 1200 13 Columbus, Ohio 43215 14 614.228.1541 15 16 ON BEHALF OF DEFENDANT: 17 ALYSSA RIGGINS, ESQUIRE 18 NELSON MULLINS 301 Hillsborough Street, Suite 1400 19 20 Raleigh, North Carolina 27603 919.329.3810 2.1 22 23 24 25

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APPEARANCES CONTINUED Also Present via zoom: John C. Conine, Jr., Esquire - Defendant John Walsh, Esquire - Defendant Amanda Lagroue, Esquire - Louisiana Attorney General 

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Did you have any discussion --1 2 I had no discussion with any of the 3 experts at any time. I think you answered my question. So you 4 5 didn't have any direct discussions with any other 6 experts in this case? 7 Not at all. I sort of know or met Lisa 8 Hanley. I've never met Dr. Colton, never spoken 9 to him. And I've not spoken with Dr. Hanley at 10 all in this case. Did plaintiffs' counsel ever tell you that 11 12 any of these suggestions or changes were because 13 of recommendations from any of the other experts or consultants? 14 15 Well, yes. I had a conversation regarding 16 one way I'd configured one of the House districts 17 in illustrative 2023 plan in Baton Rouge parish, 18 and it was my understanding that after running the 19 analysis Dr. Hanley had determined that it might 20 not be a viable district as an opportunity 2.1 district, so I made a minor change in that area. 22 Was that minor change to help increase the 2.3 BVAP in that district? 2.4 It didn't increase the BVAP. That was not 25 The aim was to try to reconfigure it so the aim.

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needed some more Anglo area than, obviously, the 1 2 Cajun heartland and Acadiana. I mean, the state 3 of Mississippi has distinguished that part of the 4 state. Are there differences between folks in 5 6 Natchitoches and people residing in Shreveport? 7 Well, there are different histories. 8 Natchitoches, I guess you do start getting into that French influence. 9 10 But, you know, I am deferring to Dr. Colton who's an historical geographer and 11 12 looks with a great deal of expertise, so anything 13 I say that is questioned by him, I am fully confident that you should take his word for what I 14 15 have tried to explain. 16 Understood. But you didn't consult with 17 Dr. Colton in defining these cultural regions? 18 I did not. And if you don't like the way 19 I've drawn Ark-La-Tex, then try another method. 20 We had the MSA method which we include most of 2.1 that same area. And Natchitoches is actually not 22 an MSA itself. It's what is called a 23 micro-metropolitan statistical area. another way to look at it. 24 25 I'm really happy you pronounced it that

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But you don't recall specifically which 1 2 district Dr. Henley was requesting to be changed? 3 I don't. It could have been 68 or it 4 could have been 69. And I see as this map is 5 printed out that 61 and 70 on illustrative 6 Figure 39 appear to have the same color. 7 should be a slightly different color. I guess 61 8 is a little deeper blue, but you can see where the 9 line is separating the two. It's a thin black 10 line. Okay. We can jump forward to page eight 11 12 of your rebuttal report, paragraph 30. This states, as stated in my July 2023 report, the 13 14 changes between my 2022 illustrative plan and the 15 now current illustrative plan were primarily made 16 to better respect communities of interest. 17 Do you see that? 18 Α Yes. 19 What changes were made to the 2022 plans 20 that helped better respect communities of 2.1 interest? 22 Well, I was relying on the on-the-ground 23 knowledge of the plaintiffs in those areas. 24 Again, specifically Donaldsonville and Ascension 25 parish and Senate District 19. The New Orleans

1	MSA Senate District that spills over into
2	St. Charles parish, and then the East Baton Rouge
3	House districts. So I think those were the all
4	the areas where I changed any districts I knew
5	Dr. Johnson noted that, I guess, due to some kind
6	of an error key stroke or something I moved the
7	zero population block in Shreveport from one plan
8	to another one, but it didn't affect the
9	population so I just did not notice that
10	difference.
11	Q Do you know if the changes that were made
12	in these areas also significantly changed the BVAP
13	of these districts?
14	A I don't know. I was not that focused on
15	BVAP. I mean, I was aware they were still
16	majority black, but I couldn't tell you whether
17	the BVAP went up or down.
18	Q And then
19	A I probably couldn't even have told you at
20	the time. I mean, after a day later, I wouldn't
21	have known even if I knew at the time.
22	Q And do you know if the plaintiffs' counsel
23	was aware of whether or not these districts
24	would the changes they were suggesting would
25	increase or decrease the BVAP of certain

```
1
    districts?
2
         Α
           No.
3
            MS. THOMAS-LUNDBORG: Sorry. I was going
4
    to object to privilege, so I'm instructing you not
5
    to answer.
6
            MR. TUCKER: Well, if it's something he
7
    relied upon in drawing his --
8
            MS. THOMAS-LUNDBORG: No, that's not what
9
    you asked him. You asked him what plaintiffs'
10
    counsel was thinking at the time.
                                        If you want to
    rephrase your question, go ahead.
11
12
            MR. TUCKER: That's not the way I phrased
13
     it, but I'll phrase it again.
    BY MR. TUCKER:
14
15
            Did plaintiffs' counsel inform you at all
16
    as to whether or not they had looked at the BVAP
17
    of these districts in suggesting these changes?
18
         A No, they did not. Absolutely not. I've
19
    never had any conversation about BVAP with the
20
    plaintiffs' attorney, I don't believe.
2.1
           And then you said, as well in
22
    paragraph 30, I also made changes to improve the
23
    performance of the districts for black preferred
24
    candidates based on the feedback counsel received
25
     from Dr. Hanley.
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1	
1	Do you see that?
2	A Yes.
3	Q Now, we already talked about the changes
4	to House District 68 or 69 in the Baton Rouge
5	area. This referred to districts, plural. Were
6	there other changes made based upon the advice
7	from Dr. Hanley?
8	A Well, there was that one change with the
9	House District and then because that's nested
10	in East Baton Rouge with adjacent majority black
11	districts, it could have had some impact, so I
12	guess that's why I made it plural. But the only
13	concern that Dr. Hanley raised was specific to one
14	district, but to change that district I also had
15	to change a few others.
16	Q No changes based upon feedback from
17	Dr. Hanley to any of the Senate districts?
18	A No.
19	Q Were there any changes that were requested
20	by plaintiffs' counsel that you did not make?
21	A Well
22	MS. THOMAS-LUNDBORG: Sorry. I'm going to
23	object to the extent that you're now seeking to
24	get into privileged conversations. I think this
25	would come into the form of drafts which are