

**VIRGINIA:**

**IN THE CIRCUIT COURT FOR THE CITY OF RICHMOND**

VESILIND, *et al.*,

Plaintiffs,

v.

VIRGINIA STATE BOARD OF  
ELECTIONS, *et al.*,

Defendants.

Case No. CL15003886-00

**DEFENDANT-INTERVENORS' BRIEF IN SUPPORT OF  
DEFENDANTS' MOTION IN LIMINE REGARDING PLAINTIFFS' NEW  
COMPACTNESS TEST**

The House of Delegates and the Honorable Speaker William J. Howell, (the "Defendant-Intervenors"), through counsel and for the following reasons, support the motion *in limine* of Defendants and ask this Court to exclude evidence of Plaintiffs' novel compactness test. Dr. McDonald's method is not "reliable scientific evidence," *John v. Im*, 263 Va. 315, 319 (2002), *Spencer v. Commonwealth*, 240 Va. 78, 97-98, *cert. denied*, 498 U.S. 908 (1990), it is consisted almost completely of proposed legal conclusions, Va. Code Ann. § 8.01-401.3(B), and it therefore does not belong in a court of law.

Dr. McDonald's proposed testimony flows from his decision to "*argue* for a predominance test" as the standard that "embodies the constitutional mandate in the Commonwealth's constitution." Exhibits to Defendants' Motion in Limine Exhibit ("Ex.") at 11 (Plaintiffs' Rebuttal Designation of Dr. McDonald) (emphasis added). That is the wrong starting point. Dr. McDonald is not a lawyer, and arguing for new legal tests is not his role: "in no event shall [an expert] witness be permitted to express any opinion which constitutes a conclusion of law." Va. Code Ann. § 8.01-401.3. The Virginia Supreme Court has already held that courts must defer to "the General Assembly in its value judgment of the relative degree of compactness required when reconciling the multiple concerns of apportionment," *Jamerson v. Womack*, 244 Va. 506, 517 (1992), and that the General Assembly's decision in this regard "*bind[s] the courts* unless clearly erroneous, arbitrary, or wholly unwarranted," *Id.* at 509–10 (emphasis added). Dr. McDonald conceded that "the proposed predominance test was not applied to the challenged districts in *Jamerson*," Ex. 5 at 6, and he therefore had no reason to select the word "predominate" as the lynchpin of his analysis.

That flawed starting point infects every aspect of Dr. McDonald's proposed testimony, beginning with his 50% "degradation standard." Dr.

McDonald claims to have derived the percentage 50% by his reliance on the dictionary definition of the word “predominate,” Ex. 5 at 1, but this is Dr. McDonald interpreting Dr. McDonald. There is nothing “scientific, technical, or...specialized,” Va. Stat. §8.01-401.3, about flipping the dictionary open to random words that do not pertain to an adopted legal test. If Dr. McDonald had chosen to begin with different terminology—such as the Virginia Supreme Court’s choice: “fairly debatable,” *Wilkins v. West*, 264 Va. 447, 463 (2002) —then he almost certainly would have arrived at a different number.

To be sure, Dr. McDonald claims that the U.S. Supreme Court uses a “predominance” test frequently in “voting rights” cases, Ex. 2 (Dr. McDonald Deposition Transcript) at 76-77, but Virginia law controls here, so what the U.S. Supreme Court has applied in an undifferentiated class of “voting rights” cases is irrelevant. Besides, Dr. McDonald is incorrect: the predominance standard only applies to a *single cause of action*, the “racial gerrymandering” claim, and the Supreme Court expressly rejected the test as overly vague in contexts other than where the “constitutionally suspect

motive” of race is at issue. *Vieth v. Jubelirer*, 541 U.S. 267, 286 (2004).<sup>1</sup>

And, again, the question in all of these cases is *legal* and not within Dr. McDonald’s expert role.

It is also a legal conclusion that “predominate” must be expressed as a *percentage*. Dr. McDonald cites dictionary definitions in support of his test, such as “[h]aving superior strength, influence, or authority,” “[b]eing the most frequent or common,” “to hold advantage in numbers of quantity” and “exert controlling power or influence,” Ex. 5 at 1-2, but, of course, articulating the meaning of a test by reference to dictionary definitions amounts to rendering legal conclusions and is the work of judges, see, e.g., *Cnty. of York v. Bavuso*, No. 160104, 2016 WL 6304568, at \*2 (Va. Oct. 27, 2016). Even if the question *were* for experts, Dr. McDonald’s testimony would still need to be excluded because his choice to assign the number 50 or percentage 50% to the word “predominate” is arbitrary. The definitions he cites say nothing about percentages, or the percentage 50%, and the

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<sup>1</sup> Defendants represent that there were only four votes for this proposition in *Vieth*, but Justice Kennedy’s concurrence rejected *all* standards proposed in *Vieth*, including the predominance standard, and he concurred only to leave open the possibility that some *different* standard for adjudicating an over-politicized map may appear in the future. See *Vieth*, 541 U.S. at 306–17 (Kennedy, J., concurring). Thus, there were five votes rejecting the predominance test.



word hardly suggests this conclusion. The term escapes any precise mathematical definition, as exemplified by a Seventeenth Century devotional text that the Oxford English Dictionary cites as an authoritative use of this word: "Our Wills being already *predominantly* inclined to follow God, and take example by him." Oxford Dictionary of English (2d Ed. 1989) (emphasis added). In what percentage of circumstances do the referenced "wills" "follow God, and take example by him"? That is, needless to say, not the right question, and adding a "degradation" comparison to the mix only confuses the matter further. It should therefore come as no surprise that the Supreme Court's racial-gerrymandering cases do not use a percentage test, but rather weigh the factors on a qualitative basis. See, e.g., *Miller v. Johnson*, 515 U.S. 900, 920 (1995).

In short, the process by which Dr. McDonald arrived at 50% is akin to a dog chasing its tale: Dr. McDonald's efforts at a mathematical gloss on a non-mathematical word that he himself chose from any number of potentially relevant words.

And the problems with Dr. McDonald's method do not end there. After concocting an arbitrary 50% degradation test, Dr. McDonald proceeds to apply it to an *averaged* set of compactness scores, thereby confusing their respective differences. Defendants' *in limine* Brief at 5-6. Then, Dr.

McDonald calculates degradation by dividing percentages “to exaggerate what he calls degradation.” Defendant-Intervenors’ Motion in Limine Exhibit (“Ex. A”) (Dr. Hofeller Deposition Transcript) at 93:2–12. As Dr. McDonald concedes, the compactness scores forming the basis of his “composite” scores are calculated as percentages: for instance, a Reock score of .15 means that a district “takes up 15% of the [smallest] circumscribing circle” that can be drawn around a district’s shape. Ex. 3 at 7; see also *id.* at 6 (discussing Polsby-Popper calculation), *id.* at 8 (discussing Schwartzberg calculation). In calculating the so-called degradation of an existing district against a purported ideal in Alternative Plan 1, Dr. McDonald takes a *percentage* of those percentages, rather than subtracting what are *already* percentages. Accordingly, the difference in Composite Scores of .64 and .52 is not, in his view .12 (*i.e.*,  $64 - .52 = .12$ ), or 12% (*i.e.*,  $64\% - 52\% = 12\%$ ), but rather 18.75% [*i.e.*,  $(.64 - .52) / .64 \times 100\% = 18.57$ ]. See Ex. 3 (McDonald’s Expert Designation) at 15.

“That is a misuse of data” that can “mask . . . effectively identical” calculations. *Frank v. Walker*, 768 F.3d 744, 753 n.3 (7th Cir. 2014) (Easterbrook, J.). For instance, a drop from a score of .04 to .02 would be 50% degradation under Dr. McDonald’s degradation test, but Dr. McDonald conceded at his deposition that a difference of .02 is “not a big difference.”

Ex.2 at 232:11–16. “That’s why we do not divide percentages.” *Frank*, 768 F.3d at 753 n.3 (identifying analogous flaw in representations about alleged disparities between populations with voter identification documents made by dividing percentages). Because a reduction from 50% to 40% is 10%, not 20%, the proper approach to identifying the difference between a district that subsumes 50% of a circumscribing circle and one that subsumes 40% of a circumscribing circle is to subtract, not divide. And that makes a world of difference, at least under the 50% test because, using subtraction rather than division, the difference between the composite scores of the Challenged Districts and the alleged benchmark analogues in Alternative Plan 1, are *all at or less than 50%*. See Ex. 3 at 13. In other words, with proper calculation, these Challenged Districts pass muster even under Dr. McDonald’s novel, made-for-this-case test.

Finally, the myriad of *relevant* factors that Dr. McDonald ignores are as important as the myriad of *irrelevant* factors he places at issue. Defendants correctly argue that comparison of a legislatively adopted redistricting plan with a hypothetical “ideal” redistricting plan (Alternative Plan 1) is arbitrary because the variables that the comparison purports to exclude from the “ideal” map are not merely “discretionary”; they are *inherent* in redistricting, the purpose of which is to group people together



based on “actual shared interests.” See, e.g., *Miller*, 515 U.S. at 916–17. The purpose is *not* to perform a mere feat of geometry, as exemplified by Dr. McDonald’s admission that he would not propose that the Virginia General Assembly adopt Alternative Plan 1. Ex. 2 at 158.<sup>2</sup>

The same defect applies to Alternative Plan 2, which Dr. McDonald proposes as a plan that adheres to *some* of the criteria that legislatures typically apply in redistricting. But the plan does *not* achieve the General Assembly’s redistricting goals. In fact, it does not even achieve the goals that it purports to achieve: protection of incumbents and preservation of political subdivisions. To be sure, Alternative Plan 2 pairs the same *numbers* of incumbents and splits the same *number* of political boundaries. But this mistakenly replaces *qualitative* goals with a *quantitative* map. A legislature does not set out to protect a certain *number* of incumbents; it makes and avoids pairings on a *qualitative* basis and for a variety of reasons. Likewise, the General Assembly may, in its discretion, view some city or county lines as approximating meaningful communities of interest, and it may view others as being less important. Alternative Plan 2 does not protect the exact same incumbents, nor does it preserve the exact same

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<sup>2</sup> The Alternate Plans used for the degradation comparison are not even drafted by the expert, but were created by Plaintiffs’ counsel. Ex. 2 at 99.



political boundaries, as the General Assembly chose to protect, Ex. A at 73, Ex. 2 at 158-59, so it neither negates the General Assembly's pursuit of those goals as the cause of degradation in compactness scores nor shows that the "predominance" test leaves appropriate discretion to the General Assembly in fulfilling its function, as Dr. McDonald claims, Ex. 2 at 157-58, 190.

Predictably, Dr. McDonald concedes that he does not believe that the General Assembly—or anyone else—would or should adopt Alternative Plan 2. Ex. 2 at 158. The exercise therefore takes with the left hand what it gives with the right: the purpose of applying "legitimate redistricting criteria" is to create districts that at least some of Virginia's 8.4 million residents would *want* to live in, so proposing a plan that even Dr. McDonald would not adopt and then comparing it with *another* plan that even Dr. McDonald would not adopt does not prove that his "predominance" test works. The exercise is neither "scientific" nor "technical" nor "specialized" nor, critically, helpful to the Court.

## **CONCLUSION**

For these reasons and those detailed in Defendants' *in limine* Brief, the Defendant-Intervenors respectfully request that the Court grant Defendants' motion.

Dated: February 21, 2017

Respectfully submitted,

VIRGINIA HOUSE OF DELEGATES  
AND VIRGINIA HOUSE OF  
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SPEAKER WILLIAM J. HOWELL

By Counsel



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## CERTIFICATE OF SERVICE

I hereby certify that the foregoing Defendant-Intervenors' Brief in Support of Defendants' Motion in Limine Regarding Plaintiffs' New Compactness Test was sent via e-mail and first class mail, postage prepaid, on the 20<sup>th</sup> day of February, 2017 to the following:

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# Exhibit A



**In The Matter Of:**  
*Rima Ford Veslind v.*  
*Virginia State Board of Elections*

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*Thomas Hofeller, PH.D.*  
*January 31, 2017*

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1 VIRGINIA:

2 IN THE CIRCUIT COURT FOR THE CITY OF RICHMOND

3 -----x

4 RIMA FORD VESILIND, ET AL., : Case No.:

5 Plaintiff, : CL15003886-00

6 vs. :

7 VIRGINIA STATE BOARD OF :

8 ELECTIONS, ET AL., :

9 Defendants. :

10 -----x

11 Deposition of THOMAS HOFELLER, PH.D.

12 Washington, DC

13 Tuesday, January 31, 2017

14 11:04 A.M.

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19  
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21  
22  
23 Job No.: 35069

24 Pages 1 - 117

25 Reported by: Colleen L. Darkow

1 Deposition of THOMAS HOFELLER, PH.D., held at  
2 the offices of:

3  
4 BAKER HOSTETLER, LLP  
5 1050 Connecticut Avenue, NW  
6 Suite 1100  
7 Washington, DC 20036  
8 (202) 861-1500  
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10  
11  
12

13 Pursuant to notice before Colleen L. Darkow,  
14 Court Reporter and Notary Public of the District of  
15 Columbia.  
16  
17  
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## C O N T E N T S

EXAMINATION OF THOMAS HOFELLER, PH.D.	PAGE
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## E X H I B I T S

(Attached to the transcript.)

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1 Did I read that correctly?

2 A. Yes.

3 Q. And describe for me, based upon what you  
4 understand to be his analysis, what leads you to  
5 the conclusion that it is only too much emphasis on  
6 those two factors, as distinguished from other  
7 factors, that led to Doctor McDonald's conclusions.

8 A. McDonald compares his Alternative Plan 2  
9 to HB-5005 and 1 also. But in his report, as I  
10 understand it, he felt that when he created  
11 Alternative Plan 2, he put some of what he  
12 describes as the discretionary criteria into --  
13 brought it into play in his plan.

14 Q. In Alternative Plan 2.

15 A. In Alternative Plan 2. And that resulted,  
16 in his mind, in a greater -- in a difference  
17 between his plan, his Plan 2 and the -- and  
18 HB-5005, which was still not acceptable in terms of  
19 his theory.

20 And he, in my opinion, appears to disdain  
21 certain optional criteria and is trying to point  
22 out that as those criteria come into play, the ones  
23 that he used in his second plan and the ones he  
24 didn't use, that the compactness scores in some  
25 districts become lower.

1 back?

2 (The record was read as follows:)

3 COURT REPORTER: Question: You understand  
4 that Doctor McDonald's opinion is that the use of  
5 Alternative Plan 1 compared to House Bill 5005  
6 shows that whatever considerations the legislature  
7 used to draw House Bill 5005, it reduces the  
8 compactness scores from Alternate Plan 1 by more  
9 than 50 percent?

10 Q. You do understand that, that that's what  
11 he -- that's what his opinion is?

12 A. I'm sorry. That's what his opinion is.

13 Q. Yes. Now, forgetting whether 50 percent  
14 is an arbitrary standard, a bright-line standard,  
15 the most ridiculous standard you've ever heard of  
16 in your life, do you disagree that his report shows  
17 that between Alternative Plan 1 and House Bill  
18 5005, the legislature employed criteria that  
19 reduced the compactness scores of Alternate Plan 1  
20 by more than 50 percent?

21 A. He used that analysis, yes. I agree he  
22 used that analysis.

23 Q. And do you agree that he was right in his  
24 calculations, that the legislature employed  
25 considerations that reduced the compactness scores



1 of Alternative Plan 1 by more than 50 percent?

2 A. No, I don't agree.

3 Q. Mathematically you don't agree.

4 A. I don't agree with his math.

5 Q. Explain to me why you don't agree with his  
6 math.

7 A. Well, in order to do that, I would have to  
8 look at one of his tables. Maybe in his rebuttal  
9 report there's a table? In his appendix?

10 (A discussion was held off the record.)

11 (Rebuttal Report was marked Exhibit 4 for  
12 identification and was attached to the transcript.)

13 Q. That's his rebuttal report.

14 A. Can you look at Exhibit 1 of that report?

15 Q. Okay.

16 A. And look at the House districts  
17 challenged?

18 Q. Yes.

19 A. Okay. So let's look at District 72.

20 Q. All right.

21 A. That the fourth little box that's there on  
22 the page.

23 Q. Say that again? I apologize.

24 A. I'm sorry, it's the third box.

25 Q. Yeah. And you understand this is without

1 Schwartzberg in his rebuttal report.

2 A. Yes, I do.

3 Q. Okay.

4 A. Yeah, I'm -- I'm -- we're not talking  
5 about the scores he used at this point, I don't  
6 think.

7 Q. No.

8 A. We're talking about his composite score,  
9 which he calculates, I understood, as an average.

10 Q. Yeah.

11 A. And his composite score in the current  
12 plan.

13 Q. Yes.

14 A. So we're looking down at, say -- well,  
15 let's just take District 13 right off the bat.

16 Q. District what?

17 A. 13.

18 Q. All right.

19 A. The composite score of 13 is .06, or as a  
20 percentage, .6. Composite score of HD-13 in  
21 Alternative Plan 1 is .6.

22 Q. Yes.

23 A. Or 60 percent, because he's switching back  
24 and forth between percentages and decimals.

25 Q. Well, .60 is the same as 60 percent of 1,

1 right?

2 A. I know, but some people have trouble  
3 actually understanding that concept.

4 Q. I don't.

5 A. Good. And the composite score of District  
6 13 in the current plan is .15, which is 15 percent.  
7 And that's a difference of 45.

8 Q. If you subtract them.

9 A. But that's the difference between them.  
10 He's used -- he's used a different calculation to  
11 make the -- to exaggerate what he calls  
12 degradation.

13 It isn't where you are -- you could say,  
14 for instance, in a scoring like this of some other  
15 district in the state, it has a combined score of  
16 30 and another district that happens to have the  
17 same number, not the same district, but has the  
18 similar number on his plan, has a score of 30.

19 You know, it's where they are in relation  
20 to each other, but also you have to look at where  
21 they are in relation to the highest score in the  
22 plan and the lowest score in the plan.

23 So he's chosen to make a calculation that  
24 makes these numbers appear to be larger than they  
25 really are to a relative position within the

1 structure of the whole range of deviations in that  
2 particular scoring system that he's using. That's  
3 more important.

4 I mean, if you had a -- if you had -- in  
5 his plan, you had a composite score of 13 and in  
6 the other plan, you had a composite score of 7, you  
7 know, you would have to look at that.

8 But the closer the numbers get and the  
9 lower they are on the scale, the higher his  
10 calculation will be. It's just the mathematical  
11 calculation which he chose.

12 But I don't think that's as important as  
13 the fact that, as I said before, I don't think  
14 Alternative Plan 1 is a proper comparison to the  
15 enacted plan.

16 They're not the same plans. They're not  
17 even significantly close to being the same plans.  
18 So the number, just because it has the same number  
19 doesn't mean it's the same district or it's a  
20 district that he was attempting to draw that was  
21 the same district.

22 He scrambled the plan. So it's very  
23 hard -- it's very hard for me to determine which  
24 district was equivalent in Plan 1 to equivalent in  
25 Plan 2 in 5005 because of the comparisons of the



## 1 CERTIFICATE OF SHORTHAND REPORTER-NOTARY PUBLIC

2 I, Colleen Darkow, the officer before whom the  
3 foregoing deposition was taken, do hereby certify  
4 that the foregoing transcript is a true and correct  
5 record of the testimony given; that said testimony  
6 was taken by me stenographically and thereafter  
7 reduced to typewriting under my direction; that  
8 review was requested; and that I am neither related  
9 to, nor employed by any of the parties to this case  
10 and have no interest, financial or otherwise, in  
11 its outcome.

12 IN WITNESS THEREOF, I have hereunto set my hand  
13 and affixed my notarial seal this 5th day of  
14 February, 2017.

15  
16  
17  
18  
19  
20 \_\_\_\_\_  
Colleen Darkow

21 Notary Public

22 My Commission Expires 9/14/21  
23  
24  
25