

IN THE
UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON

SUSAN SOTO PALMER, et al.,

Plaintiffs,

v.

STEVEN HOBBS, in his official capacity as Secretary of State of Washington, and the STATE OF WASHINGTON,

Defendants,

and,

JOSE TREVINO, ISMAEL G. CAMPOS, and State Representative ALEX YBARRA,

Intervenor-Defendants.

Case No. 3:22-CV-5035-RSL

SUPPLEMENTAL EXPERT REPORT OF SEAN P. TRENDE, Ph.D.

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1 Expert Qualifications

My qualifications were set out in my December 22, 2023 Expert Report of Sean P. Trende, Ph.D., in this matter (hereinafter “First Trende Report” or “First Report”). They have not changed materially since then. I have not testified in any additional matters, nor have I been deposed in any.

2 Scope of Engagement

I was engaged to file a report pursuant to the Court’s order for supplemental expert reports on Plaintiffs’ Map 3A. I have also been asked to determine if it is plausible to draw a map that will address the concerns of the Yakama Nation regarding the Remedial maps submitted by Dr. Oskooii while still creating a district that addresses this Court’s ordered remedy: that the district will give Hispanic voters the opportunity to elect their candidate of choice. In my opinion, it is possible to draw a map that will simultaneously (1) address the concerns of the Yakama Nation; (2) contain a minority majority district; and (3) provide a reasonable opportunity for Democrats to win the district referenced in (2). I have labelled this map “Intervenor-Defendants Yakama Nation Inclusion Proposed Alternative Map,” but will refer to it as the “Intervenor-Defendants’ Map” or simply “Proposed Map” for shorthand.

This map will also alleviate many of the needlessly far-reaching consequences created by Map 3A. Because Map 3A was submitted to the Court after my First Report was filed, I will evaluate it here. I will also respond to criticisms of my previous analysis offered by Dr. Oskooii in his January 5, 2024 “Rebuttal Expert Report Submitted on Behalf of Plaintiffs,” (hereinafter “Oskooii Report”) insofar as those criticisms would still be relevant to my analysis here.

3 Methodology

To create this map I began with the existing districts that governed the 2022 elections in Washington (“Enacted Map”). I then sought to transform District 15 into a minority-majority district that was typically carried by statewide Democratic candidates. While this was a goal, I did not let these concerns predominate, instead prioritizing the traditional principles of minimizing county and jurisdictional splits, respecting communities of interest (including the requests of the Yakama Nation), and drawing reasonably compact, contiguous districts. I also sought to minimize disruption to adjoining districts. It is likely possible to draw a district with a higher HCVAP or Democratic performance by allowing race or politics to predominate over these concerns; these maps were excluded from consideration.

4 Analysis of Demonstration Map 3A and Intervenor-Defendants' Map

4.1 Yakama Nation Concerns

In correspondence to the Attorney General of Washington, dated Dec. 22, 2023, the Chairman of the Yakama Nation Tribal Council expressed his concerns with the various remedial maps proposed by plaintiffs in this case. The Chairman explained that the tribe wished to preserve the political integrity of the Yakama Reservation boundary and “incorporate off-Reservation trust land *with its associated Yakama communities of interest* into one representative district.” (Ex. 2) (emphasis supplied). In particular, he noted that “[n]one of the [plaintiffs’ proposed] remedial maps represent the Yakama Nation’s interests to the same degree as the current 14th Legislative District that was a product of the Yakama Nation’s active participation as a sovereign government in consultative posture with the Washington State Redistricting Commission.” He concluded that “the Yakama Nation encourages your advocacy for the remedial redis-

tricting which respects the Yakama Reservation political boundaries and incorporates the greatest amount of off-Reservation trust land and associated communities of interest with Indigenous voting populations.” *Id.*

This is consistent with testimony adduced at trial, which demonstrated that the Yakama Nation’s concerns were not limited to the Reservation boundaries itself, but also reflect concerns that “their traditional hunting and fishing lands[] be contained within one Legislative District. ” Trial Tr. 714:25-715:16.

To my knowledge, this information is not located in a single document. Important facets of it can, however, be pieced together by comments made by the tribe throughout the redistricting process. For example, in a November 4, 2021 letter the chairman praised District 4 (which includes Klickitat, Benton and Yakima counties) in the congressional map for creating “shared representative interests in protecting water quality and habitat along a majority of the Columbia River and many of its tributary basins” and including “the Yakama Nation’s significant human service areas and public safety districts adjacent to the Reservation.” (Ex. 3). He also praised Legislative District 14 for incorporating “Yakama members living in established tribal communities off-Reservation and on federal trust property along the Columbia River,” for including human service and public safety areas adjacent to the district, and for including “critical natural resource management areas for the protection of adjacent forests and rivers.” *Id.*

PowerPoint presentations provided to the Commission on August 6, 2021 likewise demonstrate a desire on the part of the Yakama Nation to include areas from “the river to the river” – that is, that it should provide “single representation between the Yakima River and Columbia River.” The communication noted that the 1992 and 2002 maps had achieved this goal; these maps paired the Yakama Nation with Klickitat County in its entirety. (Ex. 4). The tribe further specified a particular interest in service benefit areas and environmental stewardship areas “particularly to the south of the Yakima Reservation.” (Ex. 5). It also referred to a short film “Land of the Yakamas,” which references the importance of the Klickitat River and White Salmon River. *See* <https://>

[//yakamafish-nsn.gov/LandOfTheYakamas](https://yakamafish-nsn.gov/LandOfTheYakamas), at 2:19-2:25. In a June 3, 2021 letter, the tribe urged the Commission to reject “any legislative mapping that demonstrably ‘cracks’ the indigenous voting population located south of the Yakima River in Klickitat and Skamania Counties.” (Ex. 6).

Other sources further emphasize the importance of the region south of the Yakama Reservation to the tribe. The State of Washington has identified Husum as a “historic Yakama Nation fishing village,” and noted that the tribe has been “highly involved in the protection and restoration of the [White Salmon] River.” apps.ecology.wa.gov/publications/documents/2303103.pdf. White Salmon includes a treaty fishing access site that is “for the exclusive use of Indian fishers from the four Columbia River Intertribal Fish Commission (one is the Yakama Nation) CRITFC member tribes.” <https://critfc.org/for-tribal-fishers/in-lieutreaty-fishing-access-sites/>. The tribe has also been involved in restoration projects in the Klickitat River Watershed. <http://www.ykfp.org/klickitat/>. See also <https://yakamafish-nsn.gov/restoration/projects/yakima-klickitat-fisheries-project-ykfp> (describing Tribal restoration efforts within the Yakima and Klickitat River watersheds).

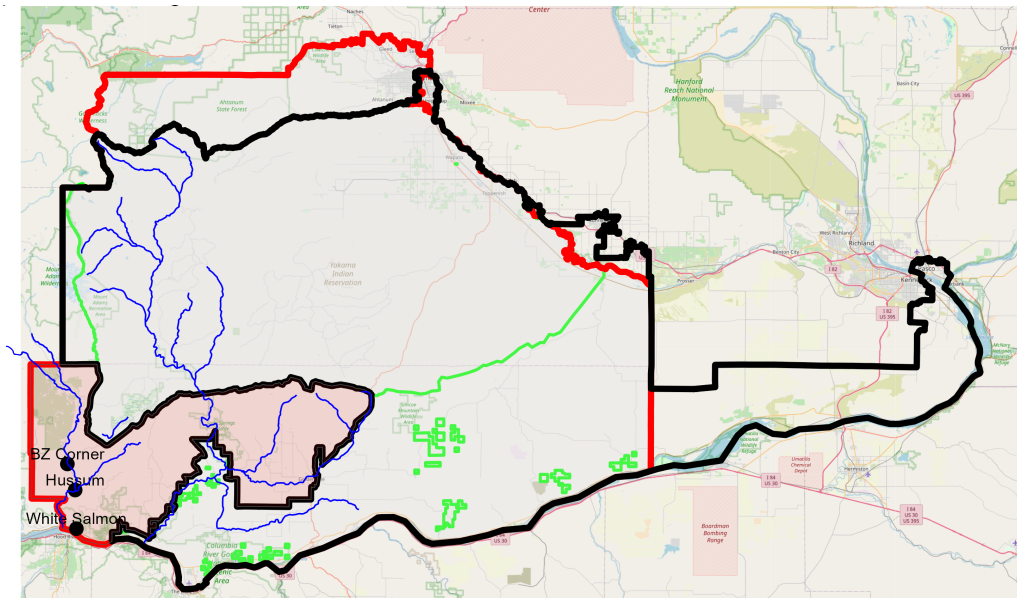
All of these are excluded from Remedial Map 3A, District 14. The following map depicts Remedial Map 3A, District 14 with a black line. Reservation Boundaries and Off-Reservation Trust Lands are depicted with a green line, while Enacted Map District 14 is drawn with a red line. As you can see, Remedial Map 3A, District 14 does appear to include the Reservation in its entirety, as well as the various Off-Reservation Trust Lands.

But, unlike District 14 in the Enacted Map, it does not include all of the tribal areas “from the river to the river.” In particular, it excludes the tribe’s fishing access site in White Salmon. It excludes historic fishing villages along the White Salmon River. It also trifurcates the Klickitat River and its watershed, while eliminating the White Salmon River entirely from the district. This, then, eliminates the Enacted Map’s establishment of “shared representative interests in protecting water quality and habitat along a majority

of the Columbia River and many of its tributary basins.”

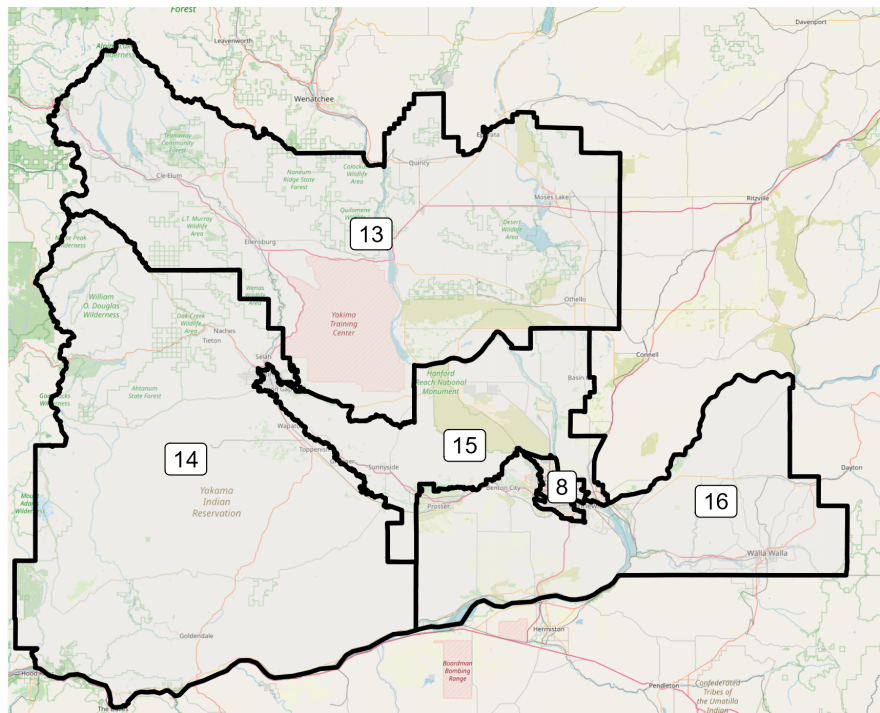
Figure 1: Remedial Map 3A District 14, Enacted Map District 15, and Tribal Areas

(a) Green line = Yakama Nation Reservation boundaries and Off-Reservation Trust Land; Red line = Enacted District 15; Black line = Remedial Map 3A District 14; Blue lines = Klickitat and White Salmon River Watersheds; Red area = Area excluded from District 14



It does not have to be that way, though. Intervenor-Defendants' Map alters just three legislative districts: 13, 14 and 15.

Figure 2: Intervenor-Defendants proposed district boundaries, Yakima River valley



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Future sections in this supplemental report will explore various features and facets of this map, but for our purposes here, the relevant fact is that the only changes to the southern or western boundary of Enacted District 14 are the removal of two precincts in Eastern Yakima County (which are not contained within the Yakama Nation),¹ and changes to some precincts in the City of Yakima. In other words, with respect to the Tribal Lands, the Enacted Map is kept intact. This map would therefore “respect the Yakama Nation’s political boundaries and incorporate the greatest amount of off-reservation trust land and associated communities of interest with indigenous voting populations. . . . to the same degree as the current 14th legislative district that was a product of the Yakama Nation’s active participation as a sovereign government in consultative posture with the Washington State Redistricting Commission.”

¹This appendage was created as a tradeoff for keeping Moxee and Terrace Heights intact elsewhere in the map.

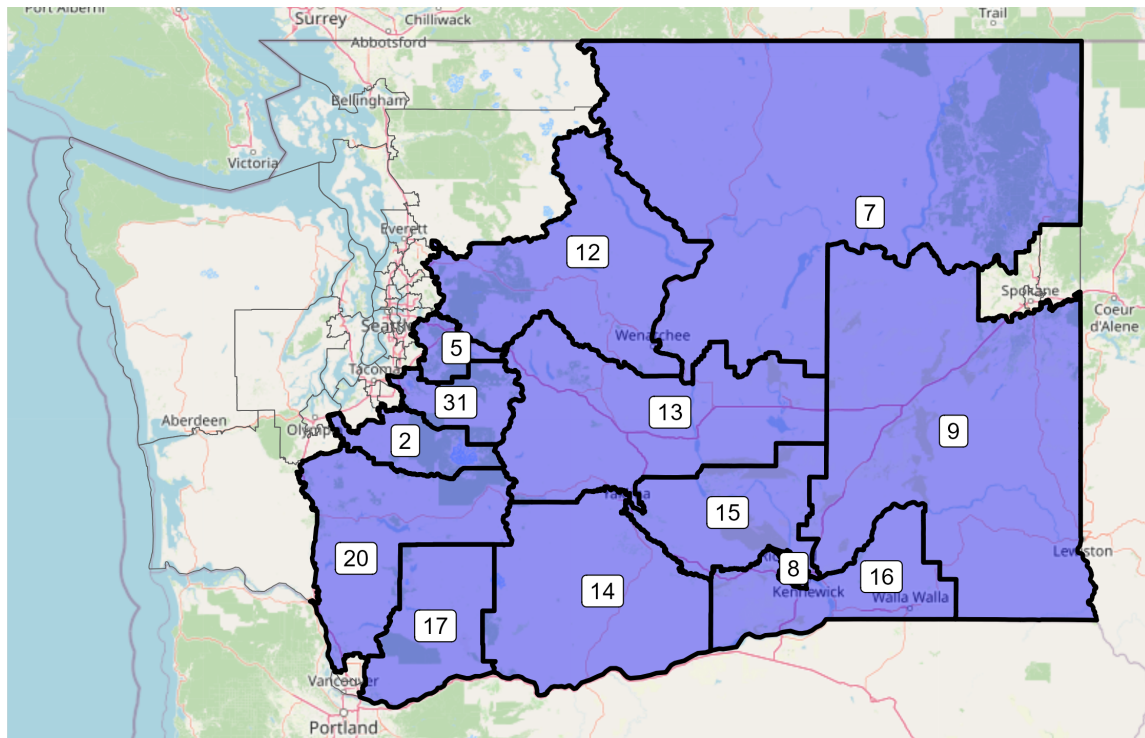
4.2 Overview of Intervenor-Defendants' Map, Compared to Remedial Map 3A

Remedial Map 3A makes only minor changes to Remedial Map 3; most of the critiques from my initial report apply here as well.² Regardless, as you can see, Remedial Map 3A requires a redraw of most of the districts in eastern Washington, as well as several districts in suburban Seattle and Tacoma.³

²Dr. Oskooii criticizes my initial report for not thoroughly examining Washington's redistricting criteria. *See* Oskooii Report, at ¶11. That is not what I was asked to do, however, likely because Intervenor-Defendants do not believe it is their burden to prove that Dr. Oskooii's proposed remedial maps fail to comply with *all* of the relevant criteria. I have no doubt, for example, that Dr. Oskooii was able to draw maps that were contiguous; since that is not in dispute it did not seem worth including in my report.

³Dr. Oskooii insists that disruptions of the magnitude he creates with his remedial maps are "unavoidable." *See* Oskooii Report at ¶14. It's true that you can't alter one district without altering at least one more, but it is by no means guaranteed that such a shift will cascade into 12 additional districts. Indeed, Dr. Oskooii's own maps suggest that such movement is not unavoidable: Two of his proposed maps alter two fewer districts than Map 3A, while one of them alters just four districts in total. Given that Dr. Oskooii was aware of at least one less-disruptive alternative, it *is* "unexpected" that he would draw maps that redrew most of the districts in Eastern Washington and then claim that this was demanded by the "realities of redistricting." *id.* ¶16. In fact, as shown below, it is demanded by his decision to split the areas south of the Yakama Nation. While Dr. Oskooii insists that my emphasis on the Enacted Map is misplaced, *id.*, in my experience advising commission on the VRA and in litigating these cases, minimizing changes to the legislature's preferred map is critical for federal courts.

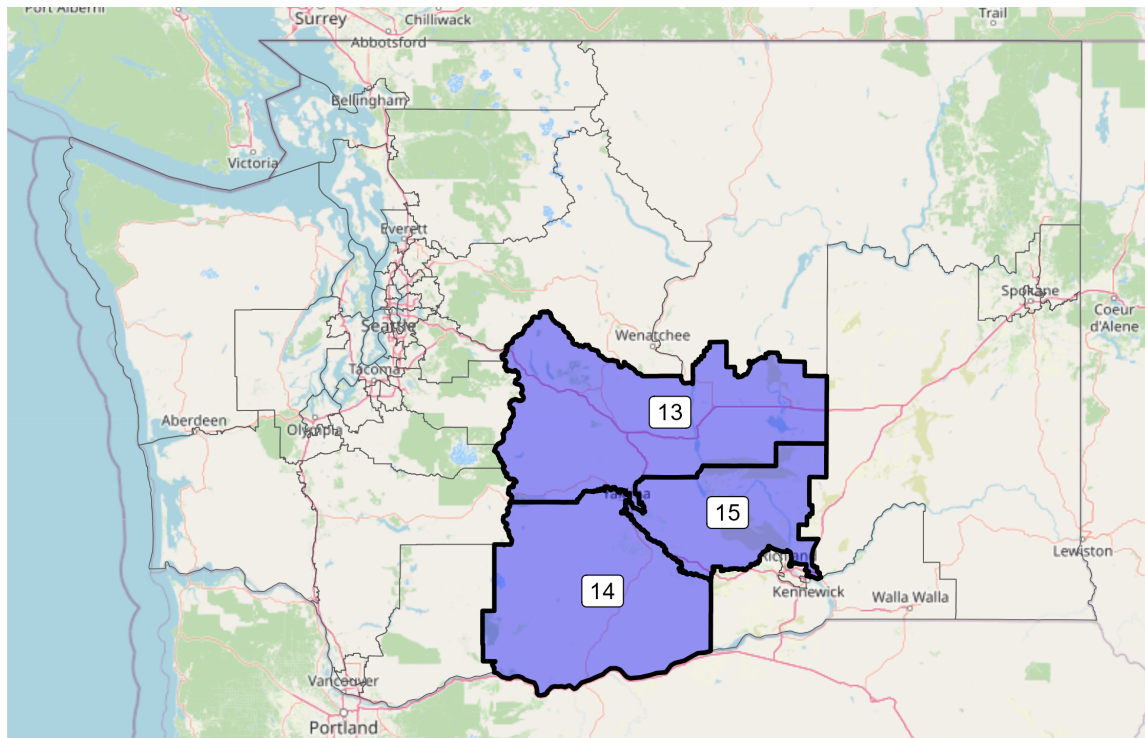
Figure 3: Enacted Districts altered by Remedial Map 3A



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The Proposed Map, on the other hand, changes only three districts.

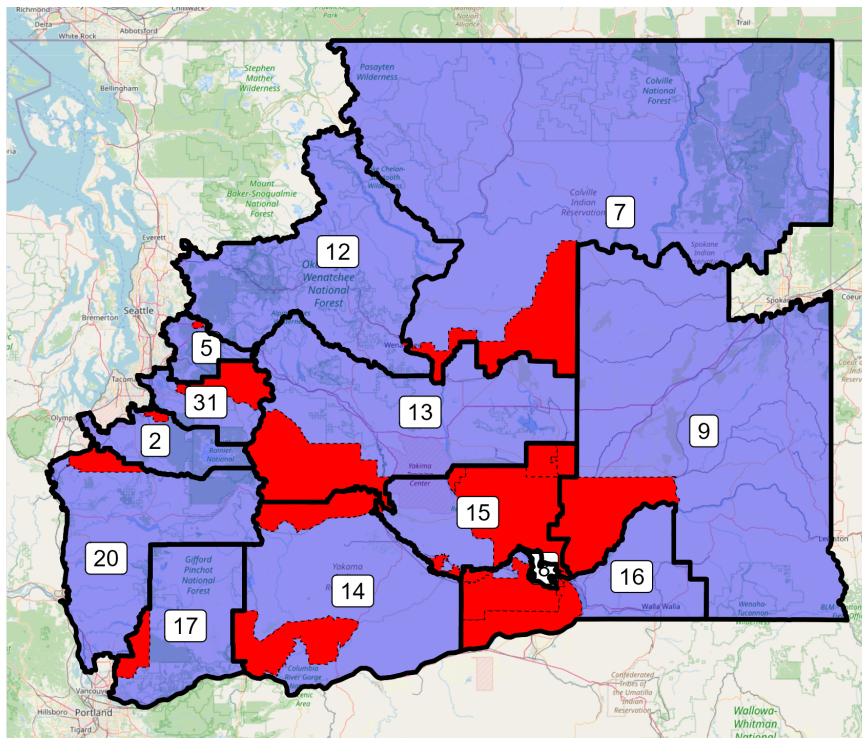
Figure 4: Enacted Districts altered by Intervenor-Defendants' Map 3A



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The following map, adapted from my first report, shows the areas that are changed in Remedial Map 3A by highlighting the census blocks that are changed. As you can see, to make Map 3A work, Dr. Oskooii “walks” the districts around much of Eastern Washington, disrupting 13 districts.

Figure 5: Blocks Changed in Remedial Map 3A



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Note that this is not necessitated by the "realities of redistricting," but rather by Dr. Oskooii's decision to split up the area immediately south of the Yakama Reservation which the tribe had fought to include in a single district. You can see this in the following table, which details the movement of populations from district to district. 15,726 individuals are moved out of 14 and into 17. 15,639 individuals are moved from 17 to 20. 15,508 individuals are moved from 20 to 2. 15,545 individuals are moved from 2 to 31. 15,551 individuals are moved from 31 to 5. 15,697 individuals are moved from 5 to 12. 15,600 individuals are moved from 12 to 7. Finally, 15,697 individuals from 7 to 13. Notably, the one map he submitted that does not split up this critical area – Map 5 – does not create such a cascade.

Figure 6: Movement of Population, Remedial Map 3A

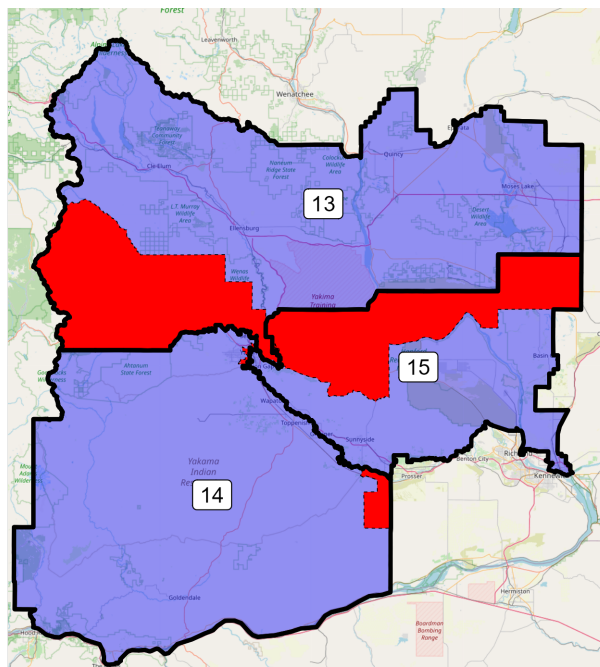
Enacted District	Remedial District 3A	Total
2	31	15,545
5	12	15,697
7	13	15,543
8	16	62,386
9	16	9,612
12	5	123
12	7	15,600
13	15	30,654
14	15	87,551
14	17	15,726
15	9	7,466
15	13	15,236
15	14	94,742
15	16	12,040
16	8	62,249
16	14	8,379
16	15	11,374
17	20	15,639
20	2	15,508
31	5	15,551

This table also demonstrates that, like its predecessor, Map 3A redistricts a large number of residents – 526,621 in total. While this moves around 4,000 fewer residents

than the previous iteration of Map 3, that still represents over three complete districts worth of residents being redistricted.

The Proposed Map, on the other hand, is far less disruptive.⁴

Figure 7: Blocks Changed in Intervenor-Defendants' Proposed Map



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⁴Dr. Oskooii claims that I assess core retention improperly, describing these data as “misleading, inaccurate” and using “inappropriate metrics to assess core retention.” ¶23. They are none of these things. In fact, I don’t believe I ever use the term “core retention” in my report. I am simply illustrating the magnitude of the disruptions that Map 3 (and now 3A) creates. That’s not inaccurate or misleading, it’s a precise answer to the question of the total effect of the plan: About 3 districts worth of people are moved. I do this because in the context of VRA remedies, whether the map disrupts districts beyond what’s needed to remedy the harm is an important consideration for courts.

Dr. Oskooii instead relies upon the *percentage* of population moved between districts. This too is a valid way to describe a map’s shifts. However, it is important to place these percentages in context. For example, the districts with 86% core retention may seem as though they are retaining almost their entire district core, when in fact this means about 1 in every 7 residents were moved into a different district. A core retention rate of 90% means that 1 out of every 10 residents were moved. In other words, whether you look at raw numbers or percentages, the disruption to these districts is still substantial, and add up to a large overall move.

Last, Dr. Oskooii refers back to his statewide metrics. *Id.* at ¶27. It is true that he only alters one-in-four districts in the state. But this is why statewide metrics are misleading in this context; the 100% core retention in districts that are truly far removed from the area he changes can obscure significant changes in the districts he does change. And once again, the differences between 95% core retention (Map 4) and 97.5% retention (Map 5) is a big deal: 1-in-20 residents in the state being moved versus 1-in-40.

It moves a total of 87,230 residents between the districts: Less than a single seat's worth. Moreover 29,220 residents constitute around 18.6% of a district's population; these districts retain around 80% of their populations from the Enacted Map.

Figure 8: Movement of Residents, Enacted Plan v. Proposed

Enacted District	Proposed	Total
13	14	28,832
14	15	29,220
15	13	28,880
15	14	298

4.3 HCVAP

As mentioned in my initial report, Map 3A, District 14 has an HCVAP of just at 50.2% using the 2021 data. Proposed Map District 15 has a higher HCVAP: 51.1% using the 2021 data and 50.3% using the 2020 data.⁵

4.4 Compactness

As discussed in the initial report, Remedial Map 3 makes a number of districts significantly less compact (it also makes a few districts slightly more compact). Because it changes substantially fewer districts, the Proposed Map makes fewer changes. As with

⁵Since District 14 in Map 3A is unchanged from Map 3, there is no need to rehash the racial analysis of the district. It is certainly not the place of an expert to dispute Dr. Oskooii's relating of his mental process while drawing the maps. The only point of interest he makes is by taking the racial dotplots and drawing arrows to show concentrations of Hispanic citizens that were not included in the district. *See* Oskooii Report at 17. The point of my First Report, however, is that racial dotplots should be read *in conjunction* with the choropleth maps, as both relate different data. What the choropleth maps show is that the areas to which he points also have high concentrations of non-Hispanic White citizens. In other words, adding these precincts would generally serve to lower the HCVAP of District 14, at times substantially so.

Map 3A, District 15 is made less compact than the Enacted Map. It is more compact than 3A using Polsby-Popper, and less compact using Reock. District 13 is slightly less compact than the Enacted Map using Reock but slightly more compact using Polsby-Popper. As with Map 3A, the Proposed Map District 14 is less compact than the Enacted Map using either Polsby-Popper or Reock, however it is more compact than Map 3A using either metric.⁶

Figure 9: Ten Least Compact Districts by Reock Score

Enacted Map		Remedial 3		Remedial 3A		Proposed Alt.	
Reock	District	Reock	District	Reock	District	Reock	District
0.133	42	0.133	42	0.133	42	0.133	42
0.180	2	0.186	2	0.186	2	0.180	2
0.222	43	0.221	15	0.221	15	0.215	15
0.243	16	0.222	43	0.222	43	0.222	43
0.258	41	0.223	14	0.223	14	0.243	16
0.279	8	0.249	17	0.226	31	0.258	41
0.291	49	0.258	41	0.249	17	0.279	8
0.295	13	0.272	5	0.258	41	0.289	13
0.304	40	0.291	49	0.291	49	0.291	49
0.308	5	0.298	8	0.299	8	0.304	40

⁶Dr. Oskooii does not really dispute the district-by-district changes, but rather insists on once again looking at statewide averages. Oskooii Report at ¶31. Because a large number of districts have zero change, any statewide average is going to be weighted toward zero change, even as substantial changes are made to individual districts which, to my understanding, are the focus of a VRA inquiry. His only response is that district-by-district scores can be misleading because of feature selection, but there is no real reason that the districts he changes should become less compact than the original district lines, since all of the maps have to deal with feature selection, including the Enacted Map. It's just that when Dr. Oskooii changes a district, he tends to select features in ways to make the districts less compact, at times substantially so. There's nothing inevitable about this.

Figure 10: Ten Least Compact Districts by Polsby-Popper Score

Enacted Map		Remedial 3		Remedial 3A		Proposed Alt.	
Polsby-Popper	District	Polsby-Popper	District	Polsby-Popper	District	Polsby-Popper	District
0.141	11	0.141	11	0.141	11	0.141	11
0.203	8	0.145	14	0.145	14	0.150	15
0.217	45	0.190	5	0.203	15	0.203	8
0.222	2	0.203	15	0.208	2	0.217	45
0.223	41	0.208	2	0.217	45	0.222	2
0.226	12	0.217	45	0.219	12	0.223	41
0.227	1	0.219	12	0.223	41	0.226	12
0.242	6	0.223	41	0.227	1	0.227	1
0.245	26	0.227	1	0.236	5	0.242	6
0.245	35	0.238	13	0.238	13	0.245	26

4.5 Political Effects

As discussed in my original report, Map 3 disrupts the political lean of Washington's legislative districts beyond those found in the Yakima River valley. District 14 is made substantially more Democratic than its predecessor District 15, but this is unsurprising given the requirement of creating a minority opportunity district. At the same time, however, District 17 changes from being a district with a slight Republican lean to one with a slight Democratic lean, while District 12 goes from being non-competitive to being competitive, albeit with a Republican lean. District 5 depends on the races examined.⁷

⁷Dr. Oskooii once again tries to hide the impact of his maps in certain districts by referencing statewide partisan bias metrics. Oskooii Report ¶55 - ¶60. Setting aside any problems with the Planscore algorithm he uses to evaluate the maps, the approach suffers from the same shortcomings as his approach to compactness. These metrics will generally not change much unless a district is outright flipped from Democrat to Republican or vice-versa; in other words, making District 12 much more competitive won't change the efficiency gap even though the district becomes potentially winnable for the other party. Regardless, my point isn't that this is a radical overall impact on the composition of the House or Senate. My point is simply that these changes do have political impacts that extend beyond remediating the VRA violation that the Court found. Moreover, they are unnecessary, as illustrated by Dr. Oskooii's

Figure 11: Democratic (Dis)Advantage, Enacted Map vs. Remedial Map 3A

District	A.G. 2020		Governor 2020		President 2020		Treasurer 2020		Senate 2018		Governor 2016		President 2016		Senate 2016		Total Vote, 2016-2020		Total Vote, DRA	
	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial
2	-20.3%	-20.0%	-22.8%	-22.6%	-14.7%	-14.6%	-21.2%	-21.0%	-16.2%	-15.9%	-18.9%	-17.8%	-16.0%	-15.7%	-8.1%	-7.1%	-13.9%	-13.4%	-17.0%	-16.6%
5	11.3%	7.7%	14.3%	9.9%	22.9%	18.5%	3.9%	0.9%	13.9%	10.9%	-1.0%	-2.8%	17.1%	13.6%	11.0%	9.2%	8.2%	5.8%	13.9%	10.5%
7	-33.8%	-32.3%	-38.0%	-36.6%	-31.5%	-30.0%	-36.8%	-35.5%	-27.9%	-26.7%	-29.0%	-28.0%	-33.7%	-32.3%	-20.6%	-19.4%	-27.2%	-26.1%	-31.9%	-30.5%
8	-20.4%	-26.5%	-22.2%	-28.7%	-15.8%	-22.2%	-30.0%	-35.7%	-20.4%	-26.9%	-21.8%	-26.0%	-21.7%	-27.6%	-10.5%	-15.0%	-20.0%	-24.6%	-20.3%	-26.3%
9	-20.1%	-18.9%	-21.8%	-20.7%	-16.0%	-14.9%	-26.3%	-25.3%	-14.6%	-13.2%	-20.0%	-18.8%	-19.8%	-18.6%	-11.7%	-10.5%	-17.9%	-16.9%	-18.6%	-17.5%
12	-10.2%	-6.6%	-11.3%	-6.8%	-2.0%	2.7%	-14.1%	-10.8%	-7.2%	-3.6%	-14.8%	-12.5%	-8.1%	-3.7%	-4.2%	-2.0%	-8.4%	-5.6%	-7.9%	-4.1%
13	-29.7%	-28.5%	-34.0%	-32.9%	-26.0%	-24.7%	-34.3%	-32.9%	-29.8%	-28.1%	-29.0%	-28.0%	-30.1%	-28.3%	-21.5%	-19.9%	-25.5%	-24.3%	-29.6%	-28.1%
14	-9.3%	14.6%	-12.1%	10.3%	-6.0%	15.5%	-15.4%	9.5%	-13.3%	9.4%	-10.6%	15.4%	-12.8%	13.1%	-3.5%	23.6%	-9.4%	12.0%	-10.5%	13.5%
15	-1.2%	-24.0%	-5.2%	-26.8%	0.2%	-20.6%	-6.7%	-30.5%	-7.3%	-28.1%	-0.3%	-23.1%	-1.7%	-27.0%	7.6%	-16.9%	-1.9%	-21.7%	-2.3%	-25.0%
16	-23.7%	-19.0%	-26.4%	-20.9%	-20.3%	-15.0%	-32.0%	-27.1%	-20.6%	-15.7%	-22.6%	-20.3%	-25.0%	-20.2%	-10.8%	-8.2%	-21.5%	-18.1%	-22.9%	-18.2%
17	-1.3%	1.8%	-0.0%	2.8%	3.6%	6.6%	-7.6%	-4.7%	2.5%	5.3%	-7.7%	-5.1%	-2.1%	0.3%	-1.4%	1.7%	-2.6%	-0.1%	-0.9%	2.0%
20	-31.4%	-31.3%	-33.8%	-33.3%	-27.9%	-27.7%	-33.8%	-34.1%	-25.7%	-25.7%	-29.4%	-30.7%	-28.7%	-29.2%	-18.7%	-20.5%	-24.4%	-25.0%	-28.6%	-28.9%
31	-14.4%	-15.8%	-15.6%	-16.8%	-5.9%	-7.3%	-16.2%	-17.3%	-9.6%	-10.7%	-15.5%	-16.5%	-8.6%	-9.7%	-4.9%	-5.8%	-9.2%	-10.2%	-10.4%	-11.6%

But again, all of this is avoidable. Because Districts 5, 12, and 17 are unchanged in intervenor-defendants' proposal (and in Map 5), their political position is unchanged as well. District 14 is made more Republican, and District 13 is made marginally more

own Map 5 and the Intervenor-Defendants' Map here.

Democratic.⁸

More importantly, District 15 is transformed into one where Democrats are favored, in other words, one where Hispanic voters will have a reasonable opportunity to elect their candidate of choice. In all of the elections measured in the tables above, Democrats were victorious. On average, from 2016 to 2020, the district transforms from one where Republicans won by 2% to one where Democrats won by 5%. Of all of the elections in Dave's Redistricting, whether contained in the site's composite or not, Republicans carried the district only in the 2022 Senate race (it is my understanding that there is a factual dispute as to who the Hispanic candidate of choice was in this election), the 2016 Lieutenant Governor's race, and the 2020 Secretary of State race. In all other races, the Democrat won. Regardless, the expectation here would be that the Hispanic candidate of choice would carry the district, even if it is not a guarantee.

⁸That Dr. Oskooii interprets my reference to +/- 10% as meaning a movement of a tenth of a percentage point in either direction is confusing. When I say +/- 10%, I mean percentage points, which is how this is usually addressed. Moving from 67% to 64% isn't going to change the partisanship of a district much, as the Republican or Democrat will almost always win either way. Moving from 50% to 53% can have a large impact on a candidate's ability to win. Dr. Oskooii even writes "A district is considered to perform (also referred to as "lean" or "reliable" in political science) in favor of one party over the other when the difference between the party vote shares of that district is 10% or higher (e.g., 45%-55%)."

Dr. Oskooii incidentally doesn't provide any citation for his claim. First, within the study of elections, rating the competitiveness of districts isn't something the modern political science discipline is deeply interested in and as such there aren't any agreed-upon metrics; instead such assessments are typically performed by race forecasters such as Nate Silver, Charlie Cook, or myself. *See, e.g.*, Charles E. Cook, Jr. & David Wasserman, "Recalibrating Ratings for a New Normal," 47 *PS: Political Science and Politics*, 304 (2014); Logan Dancey & Geoffrey Sheagley, "Partisanship and Perceptions of Party-Line Voting in Congress," 71 *Pol. Rsrch. Q.* 32 (2018) (relying on Cook Political Ratings); Mark Blumenthal, "Polls Forecasts and Aggregators," 47 *PS: Political Science and Politics* 427 (2014) (relying on RealClearPolitics polling data); James E. Campbell, et. al, "Forecasting Recap: Assessments of the 2008 National Elections Forecasts," 42 *PS: Political Science and Politics* 19 (2009) (same); Matt Barreto, Loren Collingwood, & Sylvian Manzano, "A New Measure of Group Influence in Presidential Elections: Assessing Latino Influence in 2008," 63 *Pol. Rsrch. Q.* 908 (2010) (same). Most would see a significant difference between labeling a district "lean" and "reliable." None of us, to my knowledge, are doing so with a legal understanding of "perform" in mind. Moreover, I don't know of any political scientist or elections analyst that would dispute that, even within that 45%-55% range, there's a substantial difference between a 50-50 district and a 54.5% Democrat – 45.5% Republican district.

Finally, Dr. Oskooii is referring here to Dave's Redistricting App's rating of districts as "competitive" or "not competitive." While I have a great deal of respect for Dave Bradlee, there's no real methodology or justification for this cutoff. At best it is a rough heuristic for separating competitive districts from non-competitive, and says nothing of the overall "lean" of a district within that range.

Figure 12: Democratic (Dis)Advantage, Enacted Map vs. Intervenor-Defendants' Map

District	A.G. 2020		Governor 2020		President 2020		Treasurer 2020		Senate 2018		Governor 2016		President 2016		Senate 2016		Total Vote, 2016-2020		Total Vote, DRA	
	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial
2	-20.3%	-20.3%	-22.8%	-22.8%	-14.7%	-14.7%	-21.2%	-21.2%	-16.2%	-16.2%	-18.9%	-18.9%	-16.0%	-16.0%	-8.1%	-8.1%	-13.9%	-13.9%	-17.0%	-17.0%
5	11.3%	11.3%	14.3%	14.3%	22.9%	22.9%	3.9%	3.9%	13.9%	13.9%	-1.0%	-1.0%	17.1%	17.1%	11.0%	11.0%	8.2%	8.2%	13.9%	13.9%
7	-33.8%	-33.8%	-38.0%	-38.0%	-31.5%	-31.5%	-36.8%	-36.8%	-27.9%	-27.9%	-29.0%	-29.0%	-33.7%	-33.7%	-20.6%	-20.6%	-27.2%	-27.2%	-31.9%	-31.9%
8	-20.4%	-20.4%	-22.2%	-22.2%	-15.8%	-15.8%	-30.0%	-30.0%	-20.4%	-20.4%	-21.8%	-21.8%	-21.7%	-21.7%	-10.5%	-10.5%	-20.0%	-20.0%	-20.3%	-20.3%
9	-20.1%	-20.1%	-21.8%	-21.8%	-16.0%	-16.0%	-26.3%	-26.3%	-14.6%	-14.6%	-20.0%	-20.0%	-19.8%	-19.8%	-11.7%	-11.7%	-17.9%	-17.9%	-18.6%	-18.6%
12	-10.2%	-10.2%	-11.3%	-11.3%	-2.0%	-2.0%	-14.1%	-14.1%	-7.2%	-7.2%	-14.8%	-14.8%	-8.1%	-8.1%	-4.2%	-4.2%	-8.4%	-8.4%	-7.9%	-7.9%
13	-29.7%	-26.9%	-34.0%	-31.6%	-26.0%	-23.3%	-34.3%	-31.5%	-29.8%	-27.4%	-29.0%	-26.8%	-30.1%	-27.0%	-21.5%	-18.9%	-25.5%	-23.3%	-29.6%	-26.9%
14	-9.3%	-18.0%	-12.1%	-20.6%	-6.0%	-14.7%	-15.4%	-23.9%	-13.3%	-21.1%	-10.6%	-18.6%	-12.8%	-21.4%	-3.5%	-11.6%	-9.4%	-16.6%	-10.5%	-18.9%
15	-1.2%	6.7%	-5.2%	2.7%	0.2%	8.1%	-6.7%	1.2%	-7.3%	0.7%	-0.3%	7.8%	-1.7%	6.3%	7.6%	15.3%	-1.9%	5.0%	-2.3%	5.6%
16	-23.7%	-23.7%	-26.4%	-26.4%	-20.3%	-20.3%	-32.0%	-32.0%	-20.6%	-20.6%	-22.6%	-22.6%	-25.0%	-25.0%	-10.8%	-10.8%	-21.5%	-21.5%	-22.9%	-22.9%
17	-1.3%	-1.3%	-0.0%	-0.0%	3.6%	3.6%	-7.6%	-7.6%	2.5%	2.5%	-7.7%	-7.7%	-2.1%	-2.1%	-1.4%	-1.4%	-2.6%	-2.6%	-0.9%	-0.9%
20	-31.4%	-31.4%	-33.8%	-33.8%	-27.9%	-27.9%	-33.8%	-33.8%	-25.7%	-25.7%	-29.4%	-29.4%	-28.7%	-28.7%	-18.7%	-18.7%	-24.4%	-24.4%	-28.6%	-28.6%
31	-14.4%	-14.4%	-15.6%	-15.6%	-5.9%	-5.9%	-16.2%	-16.2%	-9.6%	-9.6%	-15.5%	-15.5%	-8.6%	-8.6%	-4.9%	-4.9%	-9.2%	-9.2%	-10.4%	-10.4%

4.6 Incumbency

Finally, while Map 3A does eliminate some of the “double bunking” of incumbents, the districts in the Yakima Valley area retain their double bunks, including by shifting Sen. Torres into District 16. Likewise, Sen. Brad Hawkins of East Wenatchee is again moved into District 7 with incumbent Sen. Shelly Short of Addy. The Proposed Map avoids this, as all incumbents are kept in their original districts.

5 Conclusion

In addition to the shortcomings detailed in my First Report, Remedial Map 3A splits traditional Yakama tribal areas in western Klickitat County, which drew an objection from the Yakama Nation. Fortunately, it is possible to address this, while causing less disruption to the overall map and still producing a district that will give Hispanic voters an opportunity to elect their candidate of choice.

I declare under penalty of perjury under the laws of the State of Ohio that the foregoing is true and correct to the best of my knowledge and belief. Executed on 23 February 2024 in Delaware, Ohio.

Sean Trende

Sean P. Trende

6 Exhibit 1

District	A.G. 2020		Governor 2020		President 2020		Treasurer 2020		Senate 2018		Governor 2016		President 2016		Senate 2016		Total Vote, 2016-2020		Total Vote, DRA	
	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial
2	-20.3%	-20.0%	-22.8%	-22.6%	-14.7%	-14.6%	-21.2%	-21.0%	-16.2%	-15.9%	-18.9%	-17.8%	-16.0%	-15.7%	-8.1%	-7.1%	-13.9%	-13.4%	-17.0%	-16.6%
5	11.3%	7.7%	14.3%	9.9%	22.9%	18.5%	3.9%	0.9%	13.9%	10.9%	-1.0%	-2.8%	17.1%	13.6%	11.0%	9.2%	8.2%	5.8%	13.9%	10.7%
7	-33.8%	-32.3%	-38.0%	-36.6%	-31.5%	-30.0%	-36.8%	-35.5%	-27.9%	-26.7%	-29.0%	-28.0%	-33.7%	-32.3%	-20.6%	-19.4%	-27.2%	-26.1%	-31.9%	-30.5%
8	-20.4%	-26.5%	-22.2%	-28.7%	-15.8%	-22.2%	-30.0%	-35.7%	-20.4%	-26.9%	-21.8%	-26.0%	-21.7%	-27.6%	-10.5%	-15.0%	-20.0%	-24.6%	-20.3%	-26.6%
9	-20.1%	-18.9%	-21.8%	-20.7%	-16.0%	-14.9%	-26.3%	-25.3%	-14.6%	-13.2%	-20.0%	-18.8%	-19.8%	-18.6%	-11.7%	-10.5%	-17.9%	-16.9%	-18.6%	-17.6%
12	-10.2%	-6.6%	-11.3%	-6.8%	-2.0%	2.7%	-14.1%	-10.8%	-7.2%	-3.6%	-14.8%	-12.5%	-8.1%	-3.7%	-4.2%	-2.0%	-8.4%	-5.6%	-7.9%	-4.9%
13	-29.7%	-28.5%	-34.0%	-32.9%	-26.0%	-24.7%	-34.3%	-32.9%	-29.8%	-28.1%	-29.0%	-28.0%	-30.1%	-28.3%	-21.5%	-19.9%	-25.5%	-24.3%	-29.6%	-28.9%
14	-9.3%	14.6%	-12.1%	10.3%	-6.0%	15.5%	-15.4%	9.5%	-13.3%	9.4%	-10.6%	15.4%	-12.8%	13.1%	-3.5%	23.6%	-9.4%	12.0%	-10.5%	13.5%
15	-1.2%	-24.0%	-5.2%	-26.8%	0.2%	-20.6%	-6.7%	-30.5%	-7.3%	-28.1%	-0.3%	-23.1%	-1.7%	-27.0%	7.6%	-16.9%	-1.9%	-21.7%	-2.3%	-25.4%
16	-23.7%	-19.0%	-26.4%	-20.9%	-20.3%	-15.0%	-32.0%	-27.1%	-20.6%	-15.7%	-22.6%	-20.3%	-25.0%	-20.2%	-10.8%	-8.2%	-21.5%	-18.1%	-22.9%	-18.2%
17	-1.3%	1.8%	-0.0%	2.8%	3.6%	6.6%	-7.6%	-4.7%	2.5%	5.3%	-7.7%	-5.1%	-2.1%	0.3%	-1.4%	1.7%	-2.6%	-0.1%	-0.9%	2.0%
20	-31.4%	-31.3%	-33.8%	-33.3%	-27.9%	-27.7%	-33.8%	-34.1%	-25.7%	-25.7%	-29.4%	-30.7%	-28.7%	-29.2%	-18.7%	-20.5%	-24.4%	-25.0%	-28.6%	-28.9%
31	-14.4%	-15.8%	-15.6%	-16.8%	-5.9%	-7.3%	-16.2%	-17.3%	-9.6%	-10.7%	-15.5%	-16.5%	-8.6%	-9.7%	-4.9%	-5.8%	-9.2%	-10.2%	-10.4%	-11.6%

District	A.G. 2020		Governor 2020		President 2020		Treasurer 2020		Senate 2018		Governor 2016		President 2016		Senate 2016		Total Vote, 2016-2020		Total Vote, DRA	
	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial	Enacted	Remedial
2	-20.3%	-20.3%	-22.8%	-22.8%	-14.7%	-14.7%	-21.2%	-21.2%	-16.2%	-16.2%	-18.9%	-18.9%	-16.0%	-16.0%	-8.1%	-8.1%	-13.9%	-13.9%	-17.0%	-17.0%
5	11.3%	11.3%	14.3%	14.3%	22.9%	22.9%	3.9%	3.9%	13.9%	13.9%	-1.0%	-1.0%	17.1%	17.1%	11.0%	11.0%	8.2%	8.2%	13.9%	13.9%
7	-33.8%	-33.8%	-38.0%	-38.0%	-31.5%	-31.5%	-36.8%	-36.8%	-27.9%	-27.9%	-29.0%	-29.0%	-33.7%	-33.7%	-20.6%	-20.6%	-27.2%	-27.2%	-31.9%	-31.9%
8	-20.4%	-20.4%	-22.2%	-22.2%	-15.8%	-15.8%	-30.0%	-30.0%	-20.4%	-20.4%	-21.8%	-21.8%	-21.7%	-21.7%	-10.5%	-10.5%	-20.0%	-20.0%	-20.3%	-20.3%
9	-20.1%	-20.1%	-21.8%	-21.8%	-16.0%	-16.0%	-26.3%	-26.3%	-14.6%	-14.6%	-20.0%	-20.0%	-19.8%	-19.8%	-11.7%	-11.7%	-17.9%	-17.9%	-18.6%	-18.6%
12	-10.2%	-10.2%	-11.3%	-11.3%	-2.0%	-2.0%	-14.1%	-14.1%	-7.2%	-7.2%	-14.8%	-14.8%	-8.1%	-8.1%	-4.2%	-4.2%	-8.4%	-8.4%	-7.9%	-7.9%
13	-29.7%	-26.9%	-34.0%	-31.6%	-26.0%	-23.3%	-34.3%	-31.5%	-29.8%	-27.4%	-29.0%	-26.8%	-30.1%	-27.0%	-21.5%	-18.9%	-25.5%	-23.3%	-29.6%	-26.8%
14	-9.3%	-18.0%	-12.1%	-20.6%	-6.0%	-14.7%	-15.4%	-23.9%	-13.3%	-21.1%	-10.6%	-18.6%	-12.8%	-21.4%	-3.5%	-11.6%	-9.4%	-16.6%	-18.9%	-18.9%
15	-1.2%	6.7%	-5.2%	2.7%	0.2%	8.1%	-6.7%	1.2%	-7.3%	0.7%	-0.3%	7.8%	-1.7%	6.3%	7.6%	15.3%	-1.9%	5.0%	-2.3%	5.6%
16	-23.7%	-23.7%	-26.4%	-26.4%	-20.3%	-20.3%	-32.0%	-32.0%	-20.6%	-20.6%	-22.6%	-22.6%	-25.0%	-25.0%	-10.8%	-10.8%	-21.5%	-21.5%	-22.9%	-22.9%
17	-1.3%	-1.3%	-0.0%	-0.0%	3.6%	3.6%	-7.6%	-7.6%	2.5%	2.5%	-7.7%	-7.7%	-2.1%	-2.1%	-1.4%	-1.4%	-2.6%	-2.6%	-0.9%	-0.9%
20	-31.4%	-31.4%	-33.8%	-33.8%	-27.9%	-27.9%	-33.8%	-33.8%	-25.7%	-25.7%	-29.4%	-29.4%	-28.7%	-28.7%	-18.7%	-18.7%	-24.4%	-24.4%	-28.6%	-28.6%
31	-14.4%	-14.4%	-15.6%	-15.6%	-5.9%	-5.9%	-16.2%	-16.2%	-9.6%	-9.6%	-15.5%	-15.5%	-8.6%	-8.6%	-4.9%	-4.9%	-9.2%	-9.2%	-10.4%	-10.4%