Response to Defendants' Expert Depositions Regarding Tennessee State House Reapportionment

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This response supplements my previous report.¹ The Defendants' expert witnesses, Doug Himes and Sean Trende, in their respective depositions, point to a single non-contiguous census block located in Dickson County, within district 69, in Cervas House 13d. The single census block that I unintentionally assigned to district 78 contains 16 people. I have made the correction in Cervas House 13d_e (see Figure 1).²

Mr. Himes and Mr. Trende also claim that I have improperly "double-split" Sullivan County in Cervas House 13d. This is a legal question for the court. Cervas House 13d attempted to maintain the cores of the 2012 plan as closely as possible.³ District 3 of the Enacted Plan includes part of Hawkins, while district 2 of the Cervas House 13d includes part of Hawkins (see Figures 2 and 3).⁴ The Enacted Plan's district 3 is considerably less compact than Cervas House 13d district 3 (*Id.*). Otherwise, districts 1, 2, and 3 are largely the same in both the Enacted Plan and Cervas House 13d.

If Tennessee law prohibits the configuration I propose in 13d, I present here a slight variation of Cervas House 13d. I show in 13d_e that districts 1, 2, and 3 can be drawn to more closely resemble those of the 2022 Enacted Plan with no "double-split" of Sullivan County (see Figure 1 and Figure 4). Cervas House 13d_e is equal to or superior to the Enacted Plan on all constitutional criteria, statutory criteria, and traditional redistricting criteria.

Table 1 shows the relevant comparisons between the Enacted Plan, Cervas House 13d, and Cervas House 13d_e. I respectfully submit these technical corrections to Cervas House 13d in response to Mr. Himes and Mr. Trende's criticisms.

¹"Rebuttal Report of Plaintiffs' Expert Regarding Tennessee State House Reapportionment," dated December 02, 2022.

²This minor technical correction has no effect on the plan's statistics and does not affect the overall deviation. *See Map13d_e*, https://davesredistricting.org/join/ab9f8923-5638-45d1-98f6-e01318aa81ca

³In the 2012 Enacted Plan, neither district 2 or district 3 stretched into Hawkins County as became necessary after the 2020 census.

⁴In the Enacted Plan, district 3 stretches from the eastern border in Carter and Johnson counties, snakes along the southern portion of Sullivan County, and connects a small portion of Hawkins County.

Table 1 - Plan Comparisons

	Enacted	13d	13d_e
TN County Splits	30	24	24
Overall Deviation	9.90%	9.89%	9.89%
Average Deviation	3.28%	3.16%	3.16%
Reock	0.3431	0.3473	0.3445
Polsby-Popper	0.2326	0.2437	0.2433
Core Retention	80.1%	80.1%	80.1%
"double bunks"	6	6	6

Figure 1 - Cervas House 13d_e

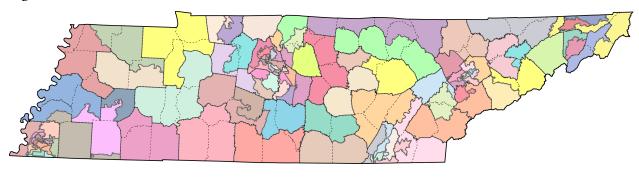


Figure 2 - Enacted Plan

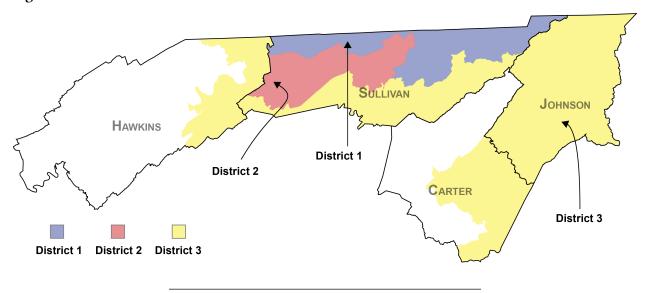


Figure 3 - Cervas House 13d

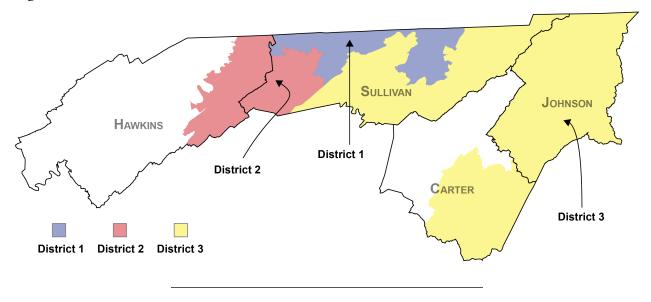


Figure 4 - Cervas House 13d_e

