

# EXHIBIT 1

SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF STEUBEN

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TIM HARKENRIDER, GUY C. BROUGHT,  
LAWRENCE CANNING, PATRICIA CLARINO,  
GEORGE DOOHER, JR., STEPHEN EVANS, LINDA  
FANTON, JERRY FISHMAN, JAY FRANTZ,  
LAWRENCE GARVEY, ALAN NEPHEW, SUSAN  
ROWLEY, JOSEPHINE THOMAS, and MARIANNE  
VOLANTE,

Index No. E2022-0116CV

Petitioners,

-against-

GOVERNOR KATHY HOCHUL, LIEUTENANT  
GOVERNOR AND PRESIDENT OF THE SENATE  
BRIAN A. BENJAMIN, SENATE MAJORITY LEADER  
AND PRESIDENT PRO TEMPORE OF THE SENATE  
ANDREA STEWART-COUSINS, SPEAKER OF THE  
ASSEMBLY CARL HEASTIE, NEW YORK STATE  
BOARD OF ELECTIONS, and THE NEW YORK STATE  
LEGISLATIVE TASK FORCE ON DEMOGRAPHIC  
RESEARCH AND REAPPORTIONMENT,

Respondents.

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**REMEDIAL SENATE MAP REBUTTAL EXPERT REPORT  
OF SEAN P. TRENDE**

**May 5, 2022**

## **I. Introduction And Qualifications**

I have been retained by Troutman Pepper Hamilton Sanders LLP on behalf of their clients, Petitioners in the above-titled action, to evaluate Respondents' Proposed Remedial Senate Map ("Proposed Map" or "Proposed Plan") and determine whether it comports with pertinent requirements of the U.S. Constitution and the New York Constitution. My qualifications have been laid out in this case in my Expert Report of Sean P. Trende.

## **II. Summary Of Opinions**

This is a fairly straightforward evaluation. This Court has explained that Petitioners presented credible evidence that the Senate map enacted by the Legislature was gerrymandered, even if it was not proved beyond a reasonable doubt. In response, the Legislature has responded by resubmitting the exact same map. But nothing has changed that would render this map more acceptable than it was in the winter. It remains an outlier on the gerrymandering index and continues to depress the number of Republican and competitive districts in the State.

## **III. The Proposed Map Is Still A Partisan Gerrymander**

In response to the arguments made by Petitioners in the initial round of litigation in response to this map, Respondents made two arguments, in particular. First, they argued, through their expert, that 5,000 maps were insufficient for utilizing the Sequential Monte Carlo approach. Second, they argued that there were a large number of duplicate maps produced and claimed that, in fact, the Senate map only produced variations of two maps.

The latter claim was always spurious. It rested heavily on their experts' observation that the compactness charts accompanying the simulations displayed a bimodal distribution. But bimodal distributions are not inherently suspect; there may be reasons due to geography or other reasons why we might see such a distribution naturally. Regardless, if there truly were only two basic maps being drawn, this bimodal distribution would appear in all charts. It does not. Had their expert examined the Gerrymandering Index plot (included on page 14 of the initial Trende Expert Report), he would have observed that there are not two distinct peaks. This is because there are multiple variants of maps being produced.

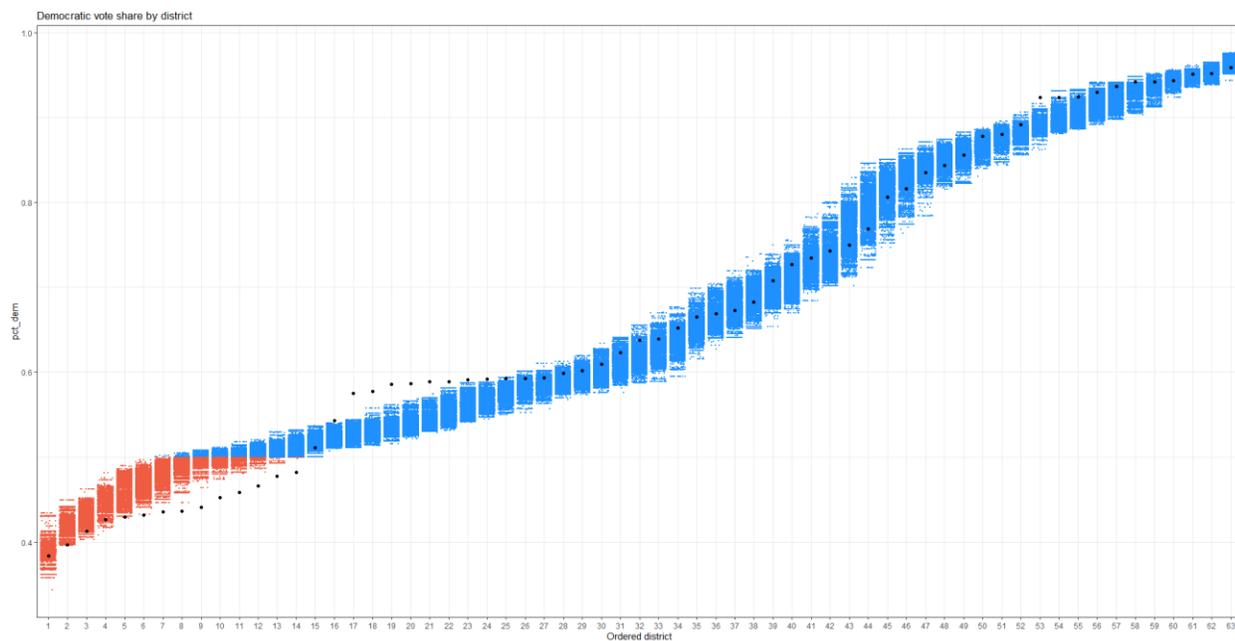
The former claim—that more simulations were needed—was likewise unsupported. This presented a moving target; after subsequently running 10,000 congressional simulations, that was somehow not enough. It is unclear why you would need tens of thousands of draws for what is

effectively a poll of maps drawn under certain parameters, but regardless, there was never any authority cited for this proposition, and the number of maps produced followed the number of maps drawn by the simulation algorithm's creator in his simulations.

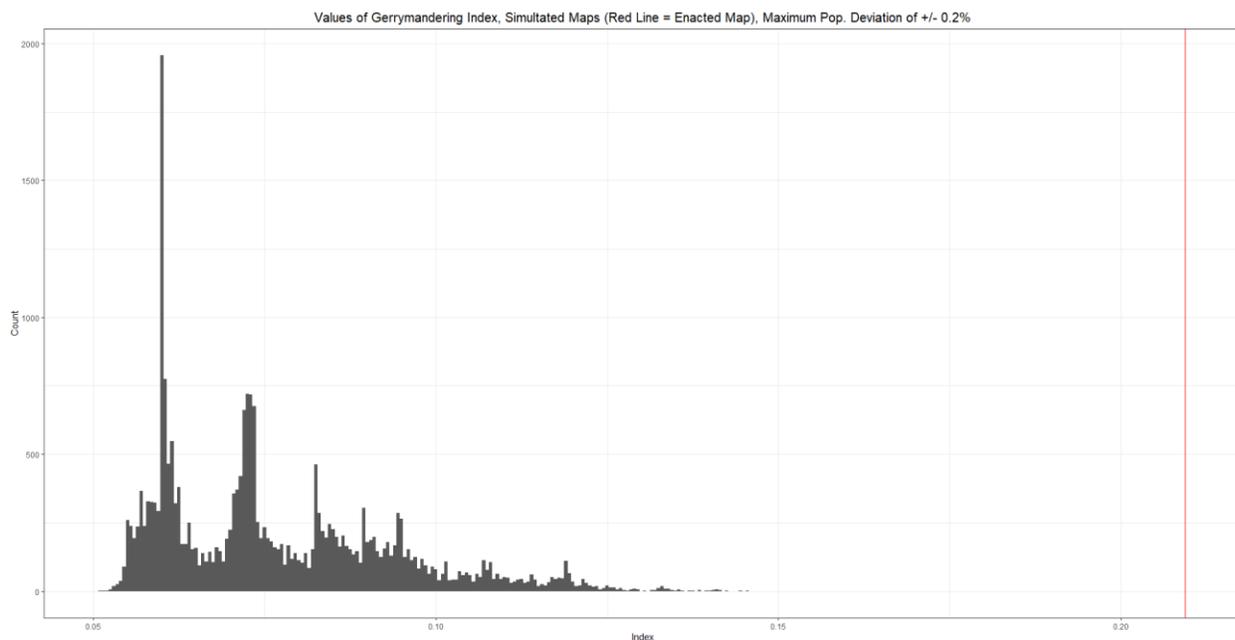
Regardless, both of these objections are easily addressed. For purposes of this report, I have run 25,000 simulations. Unsurprisingly, the Proposed Map continues to present as a partisan gerrymander. Districts 1 through 14 are substantially more Republican than we would expect from a map drawn without reference to politics.

But while the simulations produce districts that become gradually more Democratic, the Proposed Plan does not follow this pattern. Around District 15, the Proposed Plan creates an inflection point. By District 17, where the simulations would produce marginally Republican, competitive districts, the Proposed Plan produced districts that fall well outside the expected partisanship of the districts. This continues up to around District 24, when the Proposed Map gradually rejoins the maps drawn without respect to politics.

Remarkably, as the districts move outside of competitive territory, they begin to fall squarely within the distribution of the ensemble districts. This, too, is telling. When drawing portions of the State where one would still draw Democratic districts if one were drawing without respect to politics, the map looks like one drawn without respect to politics. One does not need to pay attention to partisan data when drawing districts on, say, Manhattan, to produce Democratic districts, so the map makers did not. It is only in swing areas where the Legislature focused in on politics, to maximize Democrats' advantage, that the map deviates from expectations.



Unsurprisingly, the Proposed Map produces a massive gerrymandering index of 0.209 under this batch of simulations. This stands in stark contrast to the mean gerrymandering index of the simulation ensemble of 0.077, and is 7.9 standard deviations above the mean. Notably, there is no evidence of bimodality here; the simulations produce a variety of unique maps from the distribution.



Finally, the simulated plan proposed by Petitioners gives the lie to the argument that this is all a function of New York’s other redistricting criteria. Clearly, it is possible to draw a compact

map that complies with New York law, but that does not produce the hallmark of a gerrymander that is present in this Proposed Map.

**Conclusion**

This Proposed Map does not even freshen up the map that the Legislature produced last time. It is the same partisan gerrymander that reduces the number of Republican and competitive districts. It does not comply with the requirements of the New York Constitution.

Dated: May 5, 2022



SEAN P. TRENDE