Hundreds of Simulated Maps Show How Well Democrats Fared in Pennsylvania

The next big debate in gerrymandering may be whether nonpartisan maps should strive for partisan symmetry, or whether they should try to avoid political considerations altogether.

By Nate Cohn (http://www.nytimes.com/by/nate-cohn)  Feb. 26, 2018

In the view (http://www.mcall.com/opinion/muschick/mc- opi-pennsylvania-gerrymandering-data-muschick-20180212-story.html) of the majority of the Pennsylvania Supreme Court, “perhaps the most compelling evidence” that Republicans sacrificed traditional redistricting criteria for partisan gain was a political scientist’s simulation of 500 possible congressional maps.

The Republican-drawn map was an extreme outlier compared with the simulations made (https://www.wired.com/story/pennsylvania-partisan-gerrymandering-experts/) by Jowei Chen of the University of Michigan, who has provided expert testimony in many redistricting cases. None of the simulations favored Republicans by anywhere near as much as the congressional map enacted in 2011, which gave the Republicans a 13-to-5 advantage. And partly on that basis, the court ruled that the map violated the state’s constitution.

But what about the remedial map (https://www.nytimes.com/interactive/2018/02/19/upshot/pennsylvania-new-house-districts-gerrymandering.html?action=click&contentCollection=upshot&region=rank&module=package&version=highlights&contentCollection=upshot?region=rank&module=package&version=highlights&contentCollection=upshot) recently adopted by the court? It is not an outlier to the same extent as the Republican-drawn map. But if you look at what 2016 statewide results would have been with the new map, the overall Democratic performance arguably would have been better than in all 500 of Mr. Chen’s simulations, according to an Upshot analysis.
New Map Favored Democrats Compared With Simulations

Republican advantage in the median congressional district compared with the average 2016 statewide popular vote in 500 simulations and the map adopted by the court.

One common measure of a congressional map is to look at the result of the median congressional district in the average statewide election (here, the five contests in 2016). The larger the gap between the median and the average statewide popular vote, the harder it is to win a majority of seats despite winning the popular vote. By that measure, the new map was better for the Democrats than all 500 of Mr. Chen's simulations.

Another measure is simply how many districts the Democrats would have won in various statewide contests (here, the average of how many contests were won across the same five contests). Only one simulation was better for Democrats.
How Many Districts Democrats Would Have Won

Democrats won more districts in only one simulation.

Number of Democratic wins in the average 2016 statewide election in 500 simulated maps and the new adopted map.

Source: Upshot analysis of Jowei Chen simulations, election results from Nathaniel Kelso and Michal Migurski.

The strong Democratic showing compared with Mr. Chen's simulations doesn't necessarily indicate that the map is a Democratic gerrymander. For one, the simulations aren't perfect. And they aren't necessarily representative of realistic partisan-blind maps. To take a concrete example: The simulations often split the city of Pittsburgh, something few human map-drawers would choose to do given the requirement to avoid unnecessarily splitting municipalities.

Perhaps more important, the remedial map still slightly favors the Republicans with respect to the statewide popular vote.
In the average 2016 contest on the new map, Democrats would have carried an average of 8.4 districts (out of 18), even though Democrats won the statewide popular vote in the average contest. The median congressional district favored the Republicans by a point in the average 2016 contest.

Over all, the new court-ordered map comes very close to achieving partisan symmetry in an evenly divided state.

The seeming contradiction between the analysis based on partisan symmetry and one based on simulated nonpartisan congressional districts gets at the heart of what may be the next big debate in gerrymandering: whether nonpartisan maps should strive for partisan symmetry, or whether they should try to avoid political considerations altogether.

The question is important because both methods of analysis are routinely employed to identify Republican gerrymanders.

And it is likely to continue to be a question, because it emerges when Democrats are at a geographic disadvantage, as they often tend to be. Just look at Pennsylvania. Democrats waste more votes than Republicans by carrying urban areas, like Pittsburgh or Philadelphia, by more lopsided margins than the Republicans carry their best areas. The result is that the rest of the state, and therefore the rest of its districts, tend to favor Republicans.

If one believes that partisan symmetry should be a goal in redistricting, the new map is eminently fair. It gives both parties a similar chance to translate their votes to seats, and makes no compromises to do so; it still admirably adheres to standard nonpartisan criteria like compactness or minimizing county splits.

The Upshot analysis also helps address a more arcane matter in the debate about the new court-ordered map: why many nonpartisan analysts thought it favored Democrats, even though it seemed to score well — it wasn’t an outlier — by the measure of Mr. Chen’s analysis. The reason is simple: Most nonpartisan analysts have judged the map by today’s electoral landscape, while Mr. Chen’s analysis used elections from 2008 and 2010.

Back then, Pennsylvania’s political geography did not pose such a severe challenge to Democrats. But since then, the Democrats’ geographic disadvantage has worsened. State and national Democrats lost ground in traditionally Democratic areas in western and northeastern Pennsylvania where the party still excelled as late as 2008 and 2010; they gained additional ground in
many urban and suburban areas where Democrats already had an advantage. As a result, Mr. Chen's simulations imply that Democrats were at a notable geographic disadvantage in 2016, but not 2008 or 2010.

Whatever the limitations of these simulations, the fact remains that the court seemed to find this sort of analysis persuasive. The strong Democratic performance on the remedial map adopted last week may imply that the map was drawn with consideration for attaining partisan symmetry, and perhaps even specifically by the measure of average Democratic performance in 2016 statewide elections.

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