

Impartially Drawing Electoral Districts Should Be Easy

By Roy Minet (Rev. 03/21/18)

Fixing the deplorable gerrymandering that has been rampant for decades has garnered much attention recently. Popular proposed solutions do promise to reduce gerrymandering. However, far better solutions are possible which would guarantee that fix, plus confer other advantages as well.

Impartially defining electoral districts need not be difficult, overly complicated, time consuming or contentious. As always, the first step to identifying the best solution is to correctly identify the requirements and clearly write them down in order of importance:

1. **One Person, One Vote** – It is a hard requirement that each of multiple districts must contain, as nearly as is reasonably possible, the same number of eligible electors. This is an obvious good thing, and the SCOTUS has decreed it.
2. **Impartial** – The process by which districts are determined must not give any systematic advantage or disadvantage to any group or faction (of which there are many).
3. **Understandable** – The process by which districts are drawn should be understandable by a reasonably bright high school student. (In fact, anything having to do with voting and elections should meet this requirement.)
4. **Verifiable** – It should be possible for citizens or organizations to independently verify that districts are correctly drawn.
5. **Well-defined and Stable** – The process should be clearly and publicly spelled out. It should not be changeable on a whim or when different people are implementing it. Enshrining the process in the state or even U.S. Constitution would be a good idea.
6. **Preserve Precinct Atomicity** – Precincts are very small areas of roughly 1,000 voters which are determined locally based upon available polling places and their proximity to voters. It is unnecessarily disruptive if redistricting requires redrawing precinct boundaries. Therefore, each precinct should be entirely contained within a single district. (If precincts straddling a district boundary should need to be merged, the merged precinct lands in the district from which most of its voters came until the next redistricting is done.)
7. **Contiguous** – It is usually required that voting districts be geographically contiguous, and that no district be completely contained within any other district. This supports requirements 3 and 4.
8. **Compact** – Compactness can have several definitions. Fortunately, it is not critically important. Compactness does make it easier for candidates who must repeatedly traverse the district for campaign purposes and easier for elected representatives to commune with constituents. Primarily, it supports requirements 3 and 4.

One thing NOT in the requirements is “fairness.” People sling the word “fair” around all the time, but the criteria by which they judge fairness can vary radically. Without understanding the specific criteria, the word is meaningless.

Seriously considered solutions seem to revolve around establishing an unbiased commission which figures out how to draw boundaries. No semi-intelligent individual is completely unbiased, so what

that means is a commission on which it is hoped that opposing factions keep each other in check. A commission doesn't guarantee requirement 2 and definitely doesn't satisfy 3, 4 and 5.

A superior approach is to define a *procedure* that satisfies all requirements. It doesn't matter who (or what) executes the procedure, the same impartial boundaries are the result. A procedure which well satisfies all requirements (except 6) has already been defined. It is called "splitline."

The splitline procedure very simply divides a state into two sections having the desired populations using the shortest possible line. If more than two districts are needed, the process is repeated (as many times as necessary) on one or both of the two sections until the desired number of equal population districts has been drawn. Maps are viewable online which show the splitline Congressional districts for each state.

In order to meet requirement 6, "the shortest possible line" of the splitline method is changed to "the shortest distance along precinct boundaries." Because of precinct granularity, this will introduce small errors in population (completely inconsequential for large districts, perhaps 1% for very small districts containing only 25 or 30 precincts).

Splitline districts are always contiguous and maximally compact (geometrically). They are based *only* on the boundaries and populations of precincts; no voting history or registration data are used. The procedure is easy to understand. If you're familiar with the state's population distribution, you can see that the lines have to be pretty much correct by just looking at them on a map. Lots of individuals and organizations are capable of independently verifying the boundaries. Also, it should be obvious that splitline can be done in minutes by a computer at near-zero cost.

There will be two main objections. First, splitline is necessarily going to ignore geographic features, and it will divide cities and counties. That's not an actual problem. As proof, we've lived just fine for decades with many such divisions caused by gerrymandering. Some such divisions are unavoidable with any method.

The second complaint will be that some faction or another doesn't receive fair (!) representation. Whether a real or imagined issue, it is not something that can be solved by adjusting district boundaries; wrong mechanism. Remedies that might be considered are multiple-representative districts, ranked-choice voting (other than IRV) and proportional representation. But that's definitely a whole other column...