



How Independent Commissions Could Use the Internet and Open Software to Maximize Transparency and Public Engagement in Redistricting

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American democracy is unique in the world in allowing elected politicians to design the districts from which voters choose who goes into and remains in public office. This odd situation happens after each decennial U.S. Census count, when the politicians who happen to be incumbents in state legislatures redesign districts to maximize their chances and their party's prospects in future elections. In honor of an early practitioner, Governor Elbridge Gerry of Massachusetts, "gerrymandering" is the common label for blatant partisan redistricting.

Having politicians manipulate who gets to vote for whom is not healthy for democratic governance – and our research suggests that 21st-century America could do better, if the states started to rely on independent commissions to use internet techniques to set legislative district boundaries with broad public involvement. The result, in all likelihood, would be more competitive races for legislative seats, increased legitimacy for U.S. government, and policy outcomes more in line with what most citizens want.

New Possibilities for Transparent, Efficient Redistricting

Why haven't reforms happened already? Some analysts and pundits say that gerrymandering is relatively harmless and, anyway, not likely to change. Others want to take people out of redistricting altogether and "just let a computer do it" by maximizing geographic compactness. But public concerns and social realities should not be entirely removed, and our research shows that thoughtful, responsible electoral mapping by independent commissions is very possible.

Along with other scholars, we have developed open source computer software to give people the information and computer-assisted mapping techniques they need to devise fair legislative districts. For the first time during the last U.S. redistricting cycle following the 2010 Census, not just elected officials but also thousands of engaged members of the public used such software to create hundreds of complex, fully legal redistricting plans. We have been able to compare the plans created by members of the public to those devised by politicians, and we find that not only did members of the public create thoughtful plans; theirs differed in systematic ways from redistricting schemes created by legislators. When we compare publicly deliberated plans to those adopted through partisan political processes, we find that, on the whole, the public plans are less skewed by party and would likely set up more competitive election contests. Plans drawn up by members of the public get to this result without compromising other important criteria such as geographic compactness and close alignment with county boundaries. Indeed, some members of the public proved able to design fair, compact districts that also increased opportunities for minority electoral representation.

The Advantages of Widespread Internet Participation

Conditions may be coming together to favor transparent redistricting controlled by independent commissions. In recent decades, principles of public transparency have grown in importance – through the Freedom of Information Act as well as sunshine laws that require open meetings and records at many levels of government. Now new information and communication technology and robust open software platforms set the stage for further advances in transparency and accountability. Through what is called "open source, open data, open process," masses of citizens can participate in redistricting under the leadership of independent commissions. 21st-century electoral reform can and should be supported by 21st-century technologies, because we now have the capability to let members of the public track redistricting decisions in real time, gain access to all the necessary data, and use mapping tools to devise and submit their own plans, taking into account considerations about communities and neighborhoods that people consider important.

Crowdsourcing and data-mining technologies could be used by redistricting commissions to gather, analyze, and disseminate publicly submitted plans and commentaries.

Designing Truly Independent Redistricting Commissions

Other advanced democracies with geographic districts, such as Canada and the United Kingdom, have successfully used commissions to incorporate important social concerns in redistricting decisions, while maintaining independence from the legislature and partisan interests. Given the leverage American state legislatures have historically exercised in redistricting, setting up equally effective redistricting commissions in the United States would be a challenge. Nevertheless, recent research suggests important criteria for such commissions:

- Redistricting commissions must have funding free from legislative manipulation to set up permanent staff to provide expertise, analyze public input, and maintain institutional records.
- Once redistricting plans are finalized by commissions, the plans should not be subject to legislative veto or modification.
- Commissions should not be forced to follow automatic quantitative criteria; instead they should be authorized to make fair judgments using all socially relevant information, including political data on registration and voter turnout in various communities.
- Commissions must operate with complete transparency – and give the public continuous online access to all proposed plans, data, analyses, software tools, and records of public input.
- Commissions should create multiple channels for public input, and make online tools widely accessible to let members of the public design, compare, and comment upon redistricting plans.

Our work leads us to conclude that no one can have complete information and no single group can, on its own, create fair electoral maps. Legislative gerrymandering is not the answer, but as Americans turn toward independent commissions, why not deploy all technologies available to facilitate the widest possible participation in districting choices critical to American democracy?

Read more in Micah Altman and Michael P. McDonald, “Redistricting Principles for the Twenty-First Century.” *Case Western Reserve Law Review* 62, no. 4 (2012): 1179-1204; “Paradoxes of Political Reform: Congressional Redistricting in Florida,” in *Jigsaw Puzzle Politics in the Sunshine State*, edited by Seth McKee (University Press of Florida, 2015); and “Public Participation GIS: The Case of Redistricting,” *Proceedings of the 47th Annual Hawaii International Conference on Systems Sciences*, 2014.