

Lottery Voting: A Thought Experiment

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When we select representatives to a legislature, what voting rule will best reflect our deepest constitutional ideals? Obviously, we want a voting rule that respects the norm of political equality, so that no person's vote counts any more than any other person's. But there are many ways of counting votes equally, and many different visions of voting equality. Which shall we choose?

Too few of us—citizens and lawyers—recognize that a choice exists. This is largely a failure of education, especially in law schools where professors train students much better in the arts of textual and doctrinal analysis, and now even in certain law and economics and statistical techniques, than in the basic rudiments of social choice theory. Plain meaning, *expressio unius*, judicial review, the Coase theorem, regression analysis, and T tests—these are all part of law school vocabulary. But the Condorcet Paradox, agenda manipulation, May's Theorem, single peakedness, Downsian equilibrium, Black's Theorem and the like, are not—not yet, at least.

We're making progress slowly. Many lawyers are now dimly aware that at least two basic alternative voting schemes exist for choosing a legislature. The first, of course, is the current dominant scheme of single-member districts. Divide a state into, say, one hundred equally populous districts, and have the voters of each district elect a single representative for their district by majority or plurality rule. Within each district each person gets one equal vote and all districts are in some sense equal—in population—at least in theory. The major alternative is to use multimember districts. We could, for example, divide our state into twenty districts of equal population and elect five representatives from each district. Within each district each person gets one equal vote (or five equal votes with the ability to “bullet” or

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“plump” them for a single candidate), and the top five vote-getters are elected. This is, in effect, cumulative voting. Here too, all districts are equal in population, and within each equal district, all votes are equal.

But these two equal schemes, the dominant single-member district model and the cumulative-voting model, generate very different legislatures. Imagine, say, that a geographically dispersed 20 percent minority party exists in our state. Under the first scheme the party could lose in every district and be frozen out of the legislature; under the second it might win one out of the five seats in each district across the twenty districts, accounting for 20 percent—its proportionate share—of the overall legislative assembly. Though less well known than the dominant model, this cumulative system has been used to select legislatures in democracies around the world,¹ and here in America too.² Cumulative voting has also been used by American courts as a remedial device to combat illegal vote dilution,³ and has received well-deserved attention of late thanks in part to people like Lani Guinier, Rick Pildes, Dan Ortiz, and Pam Karlan, who are all here today.⁴

But there is yet another equal voting system that we should think about—think about if only as a thought experiment to help us choose between our first two more familiar and time-tested models, although I’ll also suggest some other reasons for thinking about this model. This third model, which I sketched out in a

¹ See, generally, Arend Lijphart and Bernard Grofman, *Choosing an Electoral System*, in Arend Lijphart and Bernard Grofman, eds, *Choosing an Electoral System: Issues and Alternatives* 3-11 (Praeger Publishers, 1984).

² In Illinois, for instance, the lower house of the state legislature was elected by cumulative voting in three-member districts until 1980. See Ill Const of 1970, Art IV, § 2(b) (superseded 1980).

³ See *Cane v Worcester County*, 847 F Supp 369 (D Md 1994), aff’d in part, rev’d in part, 35 F3d 921, 927-29 (4th Cir 1994), on remand, 874 F Supp 687 (D Md 1995), modification denied, 874 F Supp 695 (1995), cert denied, 115 S Ct 1097 (1995), in which the district court, to remedy a Section 2 violation of the Voting Rights Act, initially ordered that the county commissioners be elected through cumulative voting. The Fourth Circuit reversed, holding that the district court had not properly considered the county’s preference for geographic diversity on the commission. On remand, the court ordered that primary elections be conducted in single-seat districts (ensuring geographically diverse candidates) but that the general election be conducted using cumulative voting.

⁴ See, for example, Lani Guinier, *The Tyranny Of The Majority: Fundamental Fairness in Representative Democracy* (The Free Press, 1994); Richard H. Pildes, *Gimme Five*, New Republic 16 (Mar 1, 1993); Pamela S. Karlan, *Maps and Misreadings: The Role of Geographic Compactness in Racial Vote Dilution Litigation*, 24 Harv CR-CL L Rev 173 (1989); Note, *Alternative Voting Systems as Remedies for Unlawful At-Large Systems*, 92 Yale L J 144 (1982).

perhaps too exuberant student note in the *Yale Law Journal* a decade ago,⁵ is called lottery voting. Here's how it works:

Divide the state into one hundred equally populous single-member districts, as under the current system. Give each person one ballot and one vote, but within each district, after the votes are cast, don't just add up the votes and in effect waste or ignore the votes of those of the minority party or parties—the "losers." Instead, treat all voters, all ballots, equally, but in a different way. Suppose we put all of the ballots from a given district in a twirling drum, pull one ballot out in a lottery, and declare the candidate listed on that ballot the winner from that district. *Ex ante*, each ballot has an equal chance of casting the winning vote. If you get 20 percent of the vote in a district, you have a 20 percent chance of winning the election even if someone else got more votes. Like the current system, lottery voting uses small single-member districts, but because of the law of averages, lottery voting generates an overall legislature that looks much more like the one generated by cumulative voting. A geographically dispersed 20 percent minority party will win around twenty of the one hundred seats. Each party will get its fair share—its proportionate share—of legislative representation, tracking pretty closely the overall percentage of the vote it received statewide.

Now I am sure that some people will think that this lottery voting system is at first blush preposterous, absurd, weird, Yale-ish or whatever; but hear me out. Perhaps this initial reaction is itself a reflection of how little most people understand social choice theory (and sometimes simple math). What else generates the initial reaction of resistance? Let me talk about some of the possibilities, and in the course of doing so I'll lay out some of the things that I think we can learn by taking lottery voting seriously—at least as a thought experiment.

I. DISTRICT OR STATE?

Within a given district, lottery voting at first seems silly: someone who loses the election quite badly—say, 80 percent to 20 percent in a given district—can still get lucky and win, if chosen in the lottery, as will happen 20 percent of the time in that hypothetical. But lottery voting insists that we look beyond the individual district to the overall legislature—and here the results will be anything but random or arbitrary. Because of the mathe-

⁵ See Note, *Choosing Representatives by Lottery Voting*, 93 *Yale L J* 1283 (1984).

mathematical law of averages, our overall legislature will rather closely mirror our overall statewide vote. And this leads to a key insight. We should focus on the overall legislature, not on individual districts. The overall legislature, not a single district representative, deliberates. The overall legislature formulates policy. What might look weird in an individual district must be understood as part of an overall state plan. In *Shaw v Reno*,⁶ the Supreme Court missed this big idea, I think. The Court looked at a single district and thought it looked funny, but failed to see how the overall congressional delegation from that state in fact fairly reflected the overall distribution of state-wide votes. Or put a different way, as Pam Karlan argued this morning,⁷ and as I wrote a decade ago,⁸ we need to think more about integrating the legislature itself—the overall assembly. The lottery voting thought experiment nicely helps crystallize this point in our minds because what seems so weird at the district level helps achieve a very sensible overall scheme.

II. GERRYMANDERS

From one perspective, the current single-member plurality vote or majority vote system gets it backwards on this point. It results in a system that looks rational within each equal district, but degenerates into an irrational overall legislative scheme. Rights of minority parties are not protected—a 20 percent minority party can, as we've seen, be completely frozen out of the legislature—but majority rule can also be sacrificed by the current scheme. It's easy enough to show that a minority party with only, say, 40 percent of the vote, could, by cleverly drawing district lines, control over 60 percent of the legislative assembly.⁹ What

⁶ 113 S Ct 2816 (1993)(holding that the North Carolina redistricting plan resulted in districts so irregular that it could rationally be seen as an effort to segregate the races, in possible violation of the Equal Protection Clause).

⁷ See Pamela S. Karlan, *Our Separatism? Voting Rights as an American Nationalities Policy*, 1995 U Chi Legal F 83.

⁸ Note, *Choosing Representatives by Lottery Voting*, 93 Yale L J 1283, 1304 (1984)(cited in note 5).

⁹ Consider, for example, the fourteen contested congressional elections in Texas in 1990. Out of the more than two million votes cast in those races, the Democratic candidates received a combined three thousand votes more than the Republican candidates—but won ten of the fourteen seats. Douglas J. Amy, *Real Choices/New Voices: The Case for Proportional Representation Elections in the United States* 44 (Columbia University Press, 1993). See, generally, *id* at 26-30 (discussing consistent Republican underrepresentation in the United States House of Representatives from 1972-1988). See also *Davis v Bandemer*, 478 US 109, 113-15 (1986)(plurality opinion of White)(noting that

the clever party does is draw clever district lines (a process now facilitated by the use of computers), hiding behind the requirement that states be redistricted every ten years and that each district be equal in population. In our hypothetical state with its one-hundred-member legislature, for instance, the clever party might try to draw district lines so that its members constitute a close but comfortable majority (and there's tension there) in sixty of one hundred districts and a very small—almost negligible—minority in the remaining districts where the other party's members are packed together. A clever party, in other words, can gerrymander so that very few of its party's votes are wasted. Its supporters' votes almost all go to support winning candidates, without overloading that candidate with more votes than are necessary to win, whereas the votes of supporters of the other party are wasted by going to losers, or by providing hugely unnecessary margins of victory for that party's disproportionately few winners.

Stop gerrymanders, you say. This is easier said than done. Within a state all district lines are inherently arbitrary unless one goes all the way back to the kind of a corporate model that Richard Briffault was talking about this morning.¹⁰ There is no neutral district map. I think that's what Sam Issacharoff meant when he said all districting is gerrymandering,¹¹ and I think you heard Bruce Cain proudly admit that too.¹² Even an odd-shaped district might reveal a political community of interests along a river or railroad line or even I-85 for that matter. And here's the real problem: If we draw the lines one way, Party A will predictably win x seats in the computer model, and if we draw the lines another way, also satisfying the equal-population mandate, that same party will win more seats, x plus y . That's the rub. You draw the lines different ways and you get different outcomes. Cumulative voting creates fewer districts but it still poses the problem, whether you have twenty districts electing five members each or five districts electing twenty members each.

after a Republican-controlled redistricting in Indiana in 1981, Democrats in the 1982 election received almost 52 percent of the overall statewide vote for the State House, but won only 43 percent of the House seats).

¹⁰ See Richard Briffault, *Race and Representation After Miller v Johnson*, 1995 U Chi Legal F 23.

¹¹ See Samuel Issacharoff, *Supreme Court Destabilization of Single-Member Districts*, 1995 U Chi Legal F 205, 227, quoting Robert G. Dixon, Jr., *Democratic Representation: Reapportionment in Law and Politics* 462 (Oxford University Press, 1968).

¹² See Bruce E. Cain, *Moralism and Realism in Campaign Finance Reform*, 1995 U Chi Legal F 111.

