Exclusive Interview: An M.I.T. And A Yale Professors' Cure For The Electoral College

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I had the chance recently to interview two professors in the field of statistics (from Yale University and the Massachusetts Institute of Technology), who have jointly come up with an interesting plan for replacing the Electoral College. Their plan would retain the electoral advantages small states currently have, but would remove the winner-take-all system we have now.

Arnold Barnett (George Eastman Professor of Management Science at M.I.T.'s Sloan School of Management), and Edward Kaplan (William N. and Marie A. Beach Professor of Management Sciences, Professor of Public Health, and Professor of Engineering at the Yale School of Management) originally published their scheme in the American Statistical Association's magazine *Chance* (20:6-9, 2007) under the title "A Cure for the Electoral College?" Their paper is only four pages long and is worth reading for those interested in the wonkier realms of American political theory. [You can download it at Chance magazine's website](http://www.amstat.org/chance/) or download it directly as a [PDF file](http://jazz.som.yale.edu/Faculty.som.yale.edu/EdKaplan/Media_Files/Huffington_Post_Arnie_Ed_Elec_Coll_WVS.htm).

Being statisticians, of course, the paper does have some math in it; but even if you skip over that and read the rest, you'll get a quick overview of the Weighted Vote Share (WVS) system they propose. In essence, their plan would come very close to a national popular vote, but at the same time the WVS system would retain the advantage small states now enjoy in the Electoral College.

To summarize the math involved, the Electoral College as it exists today would be replaced with a WVS system -- akin to a teacher telling her students that the final exam will be worth 50% of their final grade (the "weighted" part of WVS). How it would work to actually elect a president is easy enough to understand. Each state would get the proportion they currently enjoy in the Electoral College. Expressed as a fraction, this would be (the number of electors per state) divided by (total electors). So California would enjoy 55/538ths of the total vote, and a small state like Wyoming would get 3/538ths. This "Weighted Vote Share" would retain the power currently held by the smaller states (since the smallest number of electors is 3 -- one Representative, two Senators). But each state would no longer be winner-take-all.

This WVS number would be multiplied by the actual percentage of the vote -- *for each candidate* (not just the winner) -- in each state, and whichever candidate had the highest numbers nationwide (when all the states are added up) would win the presidency. This means that if a state (Florida, say... or Ohio) is very close, it doesn't much matter who wins by a razor-thin margin -- because both candidates will wind up with almost the same number in the WVS system. "Winning" each individual state wouldn't mean much, in other words, and it would be more important to do well nationwide.

As the authors see it, this would ensure that both the largest and smallest states (pretty much all the "non-battleground" states) would gain in influence under their system. The largest (New York, California, Texas) would gain because they would no longer be ignored by the candidates and the media (since they wouldn't be a "lock" for either party -- thus the margin of victory would become important in *every* state), and the smaller states would retain their current advantage.

Their paper does directly address the current competing plan for replacing the Electoral College -- the National Popular Vote pact, which is moving through statehouses across the country. I asked them about this below. I did also ask them a few purely political questions, but the answer to all of these was a polite refusal to offer opinions outside their area of expertise. Fair enough. Without further ado, here are Professors Barnett and Kaplan on their cure for the Electoral College.

**What is the primary goal of implementing the weighted vote share (WVS) system you propose? What are the secondary goals?**

The primary goal is to move very close to a national popular vote -- and reap its full range of associated benefits -- while reassuring the smaller states that they will not lose the "bonus" that they now enjoy (on the contrary, that bonus would increase).

The secondary goal is to show how Mathematics can help in dealing with an important national issue, and that the effort to understand mathematical concepts can well be worth it.

**Under the WVS system, you admit that Bush still would have won in 2000, even though he lost the national popular vote. You also state that the WVS would not have changed any election back to 1960. Have you analyzed every historical election under your system, and if so, how many other elections would have had different outcomes using WVS?**

No, we analyzed the last dozen elections, going back to the very close Kennedy-Nixon race in 1960. We believe that the strong showing of WVS in tracking the popular vote in all twelve elections offers clear evidence that we can expect a similar showing in the future.

**So why should such an enormous change (as to how we elect a president) be desirable if the outcome would, in most cases, be the same as just keeping the Electoral College?** In other words, if it wouldn't have even changed the 2000
election, why not just go with just a straight popular vote?

We would not simply be replicating the Electoral College. On average, the winner's share of electoral votes in the presidential elections since 1960 has differed from his popular vote share by more than 20 percentage points. The WVS results differed from the popular vote on average by less than one-half of one percentage point.

While the winner under WVS might not be the winner of the popular vote, she would have to be a very close second (as was the case in 2000). In contrast, John Kerry would have won the 2004 election if only one in 90 Ohioans had changed their votes, even though George W. Bush would still have been ahead by three million in the popular vote. The Electoral College results could diverge sharply from the popular-vote tally in ways that WVS simply could not.

As for "why not a straight popular vote?" the best answer is that it's not going to happen. WVS offers popular-vote advocates almost all of what they want, while also satisfying the qualms that lead many people to oppose abolition of the Electoral College. It is a pragmatic compromise which -- forgive the play on words -- could produce a "win/win" situation.

The WVS plan seems to be a middle road between the status quo and abolishing the Electoral College in favor of a national popular vote. Your plan does abolish the Electoral College, but you keep intact the inequities built into it -- which gives a citizen of Wyoming almost four times the relative voting power of a citizen of California. Did you go with this formula in order to make the plan more politically acceptable to small states, or do you think that the relative weighting of the Electoral College is something worth preserving on its own?

We are concerned exclusively with offering a plan that would be acceptable to small states and yet also achieve gains for larger ones. WVS would bring substantial benefits both to California and to Wyoming. As to the justice of giving more weight per capita to some states than others, we are not qualified to comment.

WVS would end the winner-take-all system of assigning electoral votes, meaning that voters in states dominated by one party (Massachusetts, Utah) who vote against the prevailing politics of their state would know that their vote was not meaningless, and that it would count in the national election (encouraging them to vote, rather than say "why bother?"). Previous attempts to pass proportionally assigning electors haven't come to much (with the exception of Maine and Nebraska), mostly because in a big state with a big advantage for one party or the other (Texas, California) this would be seen as unilaterally giving the minority party more power, with no guarantee that other states would follow suit in order to make the whole country equitable. It seems that one of the benefits of WVS is that it would make this change for all states in one fell swoop. Would you consider this a big selling point in introducing the WVS system?

Yes, we definitely would. We agree with your assessment, and note that Colorado voters overwhelmingly rejected moving to a Maine-Nebraska system in 2004. They feared that it would be a form of "unilateral disarmament": the winner could not realistically hope for better than a 5-4 split in Colorado's votes, so Colorado would lose its clout.

California voters rejected a similar plan a few years back, because the outcome would have been to give the Republicans something like 20 electoral votes each election -- which is like handing a state the size of Ohio to them, for free. Which is why the voters rejected it, out here.

Would the WVS numbers be static from inception onward, or would they be adjusted every time the census happened (when the House of Representatives is redistricted due to changing population among the states)? In other words, would each state's WVS percentage be changed every ten years to reflect changing demographics in America?

The WVS percentage would change after a Census if and only if a state's number of members of Congress changed. The denominator in the WVS weighting would remain 538 (435 Representatives, 100 Senators, 3 votes from the District of Columbia), but a state's numerator would only change if its number of Representatives did. Most states that have three electoral votes (two Senators, one Representative) would remain that way, so their WVS would stay at 3/538ths. In a state like California, the WVS probably would change slightly every ten years.

One big change from the Electoral College is that under your plan, the candidate who gets the most votes (a simple plurality) wins, no matter whether they win an outright majority (50% plus one vote) of the popular vote or not. Do you think this would help third parties, or wind up reinforcing the entrenchment of the two-party system? In other words, do you think a Ross Perot or a Jesse Ventura third-party politician could ever break out and actually win the presidency, by gaining (perhaps) just over a third of the votes? Would that be a good thing or a bad thing for American politics, in your opinion?

Under the scenario you describe, a third-party candidate could already win with a minority of votes, whether under a popular vote system or the Electoral College. WVS would have no extra vulnerabilities in this regard (assuming that such an outcome is
In your paper, published last year, you specifically compare your plan with the National Popular Vote plan, which is being pushed through statehouses nationwide. This plan would effect an "end run" around the problem of a Constitutional Amendment by getting states with 270 or more total electoral votes to all pledge (on the state level) to allot all their electors to whoever wins the national popular vote. You wrote:

"The approach is clever, but it has evoked limited enthusiasm. As of this writing, the proposal has been around nearly a year, but only one state legislature (California) has approved it. Even there, the measure was opposed by 42 of 43 Republican lawmakers, and it was vetoed subsequently by Governor Arnold Schwarzenegger."

But since you wrote that, the plan has been passed into law in four states -- Hawaii (where it was passed by overturning the governor's veto), Illinois, Maryland, and New Jersey. It has also now passed both houses in the Rhode Island statehouse, and is currently on the governor's desk awaiting a signature. It passed both houses in California (a second time, although Schwarzenegger will likely veto it again), and in Vermont (where the governor also vetoed it). Given the fact that it is now law in states which represent 50 electoral votes (or 11.4%), may soon become law in a state with four more electoral votes, has passed at least one house in the state legislature in seven other states, and has been introduced in a further 36 states, have you changed your views towards the viability of the National Popular Vote plan?

No. The states in which legislatures have passed the plan all voted Democratic in 2004. Republicans overwhelmingly oppose the plan, which explains why it has failed in California (which has more electoral votes than the combined total for the states that have passed National Popular Vote). When a plan gets so caught up in partisan politics, its prospects cannot be good. There is the related point that what one legislature and governor do in a given state, a future legislature and governor can undo. Thus, the stability of any National Popular Vote plan could be in real doubt.

It's possible that Democrats are reacting to the 2000 election, in which no one doubts that Al Gore won the popular vote. But suppose that Kerry had barely carried Ohio in 2004, and thus won in the Electoral College. Under the National Popular Vote rules, states like New Jersey would have been required to instruct their electors to vote unanimously for George W. Bush. Democrats would not have liked that.

That's interesting, I hadn't made the connection between states where it passed, and their relative voting record in presidential elections. But does it surprise you that the National Popular Vote plan has succeeded, to the degree that it has, in three very small states -- Hawaii (4 electors), Vermont (3), and Rhode Island (3)? These are the very states which would seem to be harmed by having a national vote (rather than the Electoral College), since there would be no proportionality and all votes would count the same. So why do you think this is, since these states appear to be voluntarily giving up some degree of power?

These states are, of course, Democratic states. The governor of Vermont vetoed the bill, in part because he feared it would reduce Vermont's influence in the election. What may be happening is that some small states are willing to "give up" power to achieve the overall result they want. So, they really want to gain power!

One of your arguments for your system is that it would make the term "battleground" states meaningless, since a statistical tie in any state would be treated as a tie -- each candidate would get half the votes, no matter which way the hair splits (in terms of who "won" the state). Looking over the terrain of the 2008 election, do you think Howard Dean and Barack Obama's "50-state strategy" is already changing the way we look at "battleground" states? Some states (California, Utah) will still not be contested, but it seems likely in this election that the number of "battleground" states has increased dramatically, until it now includes very small states that used to be dominated by one party (Montana, Alaska). This means Obama can put together 270 electoral votes, and still lose what were the big "battlegrounds" the last two election cycles -- Ohio and Florida. You yourself noted that these "battleground" designations shift over time (California voted for Reagan twice, for instance). So if the right candidate in the right political atmosphere can change the political map, wouldn't more states consider themselves potential "battlegrounds," and if so, wouldn't that weaken support for your WVS plan?

Conceivably. But "battleground" states might not have the same fear of oblivion under a move to WVS that the small states would have if the Electoral College were abolished. Ohio and Florida would still mean a lot. Some battleground states might not really relish an outsize role, especially one that could be transient.

Politically, amending the Constitution is just this side of impossible. Do you think that WVS would have a better chance to actually pass than going with a national popular vote? Do you think smaller states would be more inclined to the
WVS scheme because they wouldn’t lose their disproportionate electoral power, whereas under a national popular vote they would?

You're surely correct: amending the Constitution is very difficult. We do think WVS would have a greater chance to pass because the smaller states would have no incentive to fight against it. Of course, it would have to be explained very clearly.

Given Americans’ reluctance (in general) to understand math, how hard do you think it would be to explain the relative merits of your system versus the status quo, and versus other reform schemes?

It might seem that Americans can't understand the system, but (as one of the candidates might put it) "yes we can" if we try. An extremely lucid web animation or an excellent video game could go a long way towards making the WVS idea clear. And at a time when our kids are falling ever further behind their counterparts elsewhere in Mathematics, a more quantitative approach to a major national issue could be a very good thing. (Moreover, how many Americans know how many electoral votes their state has, or how that number is determined?)

Chris Weigant blogs at: ChrisWeigant.com

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What problem does a weighted system solve, or even address? Eliminating the winner-take-all feature does help alleviate the injustice of the present system. Weighting does not.

Adding two votes to California’s total adds how much? 4%? Add two votes to the number for a state with one Representative triples the value of those citizens. States don’t vote. People do. The EC was created as a way to get the small states to ratify the Constitution. It served its purpose.

Giving one group in a democracy triple the voting power of the majority goes beyond an injustice. It is a travesty. I have had more than my fair share of college professors. They are quite accomplished at going to great lengths to produce very little. Their refusal to offer opinions outside of their area of competence is odd.

Should baseball players play catch in a crowd with an unexploded, labeled bomb while claiming that telling bystanders it is a bomb would be wrong because they are not explosive experts? Why even approach a problem that is primarily outside of their area of expertise other than as support team members of such experts?

The answer isn’t a political slam-dunk but it is just and simple enough for anyone to understand - eliminate the EC and elect via the popular vote. I may be a touch egotistical but I do not apologize for thinking that no citizen of a democracy is entitled to three times the vote I have.

Nutcase -

It's even worse than you think. The greatest disparity between two states (leaving out DC, which has 3 Electoral Votes, but isn't a state) is between California and Wyoming. Now, this is just a quick and easy way to figure it, and is not entirely accurate (I would need numbers of eligible voters in each state to be completely accurate, and I am just using census figures here which count children and other non-enfranchised people). But it's enough to show the difference.

**California**

========

33,871,648 (population by 2000 census)

55 (electoral votes)

Divide it out, and you get:

1 EV for every 615,000 people (roughly)

**Wyoming**

=======

493,782 (population)

3 (EV)

1 EV for every 165,000

So your vote in CA is worth less than one-fourth of a vote in WY.

-CW

To eliminate the Electoral College requires a Constitutional amendment, which must be ratified by at least 38 states. About half the states (27), those with the smallest populations, control 24% of the Electoral Votes. Those are the states which won't be approving the Amendment. The other half, with 76% of the EV, are not going to get their way.

It's not a matter of what's fair or unfair. It's about how Amendments are ratified.

Don't like it? Simple. Amend the Constitution, to change the ratification rules.

(Good luck with that.)
Arguably, the alternative 'Winner of the Popular Vote Takes All compact' proposal might avoid the necessity of an Amendment, BUT because the same situation exists with small states having disproportionate power, it's unlikely that a majority of states will approve it. It's not in the interests of the smaller states to give up their electoral vote advantage, even if that advantage seems 'unfair'.

Nutcase - See Profile I'm a Fan of Nutcase

As a former law student (thankfully only one year) and elected office holder with an undergraduate degree in poli. sci. and related graduate studies, I am fully aware of the Constitutional mechanisms. My blog, The Couth Hillbilly, offers a link to amazon.com to purchase "Explaining America" by Gary Wills. I recommend it highly.

My point is that it does matter what is fair and what is unfair. To give, as Chris pointed out, four times as much voting power to one citizen as another is obscene.

Is it easy? I said it wasn't. Is it doable? I don't know. Those living in the advantaged states should care more about equity than any advantage they derive from the EC. Perhaps any campaign should attempt to shame them. If their devotion is self-directed, rather than to democracy and justice, they have no right to claim allegiance to America.

You say it is not in the interests of the smaller states. Their horizon is too limited if they think that democracy, fairness and justice are not in their interests. The Musketeers didn't shout, "One for one and to hell with everyone else."

Remember, the small states still retain a tremendous advantage in the Senate. Getting rid of it is also on my wish list. Sorry, but I'm just an unregenerate democrat.

Nutcase - See Profile I'm a Fan of Nutcase

You gotta plug the blog when you post something like this!

The Couth Hillbilly:

http://www.crawfordharris.com/

Enjoy...

-CW

Doofus - See Profile I'm a Fan of Doofus

As an elected office holder (me too, once upon a time!), Otto von Bismarck once said 'Politics is the art of the possible.'

The inherent inequities of Constitution amending process would be on the list of 'what's wrong with the Constitution, anyway', and eventually the list will be considered long enough to warrant a new Convention and a new version. In the mean time, the Electoral College rules are just another means to 'protect minority rights', as is the requirement that 3/4 of the states must ratify Amendments, etc.

Those who live in small states, many of them, like 'democracy, fairness & justice' just the way it is, I suspect.

Doofus - See Profile I'm a Fan of Doofus

In perspective, the 25 smallest states, with 24% of the EVs, have only 17% of the population. The remaining 25, with 76% of the EVs have 83%. (DC is omitted, to simplify the math, so percentages are approximate.)
Some may think it disturbing that states which together contain just 17% of the population can block Constitutional amendments. Actually, since it only takes just 13 states to block an amendment, it's an even more serious issue.

I agree that this plan is preferable to the Electoral College, but one of the questions in the article repeats a standard misconception about the amount of power that an individual voter has in the Electoral College.

"...you keep intact the inequities built into it -- which gives a citizen of Wyoming almost four times the relative voting power of a citizen of California."

While Wyoming *as a state* has a disproportionate amount of power compared to California, an individual voter within Wyoming actually has “less power” than an individual voter in California under the Electoral College. While this may sound counter-intuitive, there is a reasonable explanation:

Power is a measure of a voter's ability to change the outcome of the election. The Electoral College is a two-tiered system where you need to calculate the probability that an individual voter will change the outcome within their state and then calculate the probability that their state will change the outcome in the Electoral College.

While it is less likely that an individual voter in California will be decisive in California than it is that an individual voter in Wyoming will be decisive in Wyoming, it is much more likely that California will be decisive in the Electoral College than Wyoming will be.

If you perform the calculations, it turns out that an individual voter in California has more than twice as much power as an individual voter in Wyoming. If anyone is interested, I can give references.
But, like I said, I'm open to other views. Please elaborate...

- CW

It's really an issue of conditional probabilities, which can get a little hairy. i.e. Comparing the probability that a voter in California is decisive given that California is decisive in the Electoral College with the probability that a voter in Wyoming is decisive given that Wyoming is decisive in the Electoral College.

One problem is that in the Electoral College, not all electoral votes are equal. With the exception of Nebraska and Maine (I believe), each state votes as a block. This means that a single electoral vote in California is really a part of a large block with a considerable amount of power, whereas an electoral vote in Wyoming is part of a small block with much less influence.

This has been studied extensively in Europe where the expansion of the EU and the weighted voting in the Council of Ministers has been heavily debated. A good reference for this is:

"Enlargement of the EU and Weighted Voting in its Council of Ministers" by Felsenthal & Machover at http://www.lse.ac.uk/collections/VPP/Publications.htm

well, according to the current Administration:

We don't need no stinkin' Experts

I like their plan,... AND it actually give those of 'us' who have on occasion voted for a 3rd party candidate (Perot in 1992, Nader , 2000, for example) some small, remote possibility of actually seeing that vote captured on a national level instead of being completely buried in a 2 party system.

It is relatively simple,... and seems relatively fair and non-radical,... so of course nobody currently in Washington DC will want to see it enacted.