

Pennsylvania's Proportional Electoral Vote Allocation Proposal: A Nationwide Analysis

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Abstract

This report will examine the effects of a bill proposed by Pennsylvania State Senate Majority Leader Dominic Pileggi to alter the way that Pennsylvania allocates its Electoral College votes. Under the "Pileggi plan," Pennsylvania would allocate its electoral votes on a proportional basis, as opposed to its current winner-take-all system. The plan would be a contentious issue if implemented in Pennsylvania alone because of its clear partisan impact, but it is no more defensible if enacted nationwide. It would incentivize campaigns to focus all their attention on the plan's new swing states and continue to leave most states entirely irrelevant in presidential elections. Furthermore, it would significantly distort the voting power of voters based on where they live, giving a disproportionate amount of influence to a handful of small swing states.

Introduction

Presidential elections as they exist today are unequal and anti-democratic. Voters in more than two-thirds of states have been continually ignored by the campaigns since the 2000 election. In 2012, the candidates campaigned and aired television advertisements in only ten states. A candidate can win the election while losing the popular vote. And most recently, partisans in a handful of swing states have been working to alter their states' election laws in order to benefit their party's candidate in the next election. All of these undesirable outcomes are due to state laws that allocate Electoral College votes on a winner-take-all basis.

To reform the system, some suggest that states allocate their electoral votes in proportion to each candidate's share of the state's popular vote. At first glance, this system seems fairer than our current winner-take-all system. After all, why should a candidate who received 51% of the votes in a state receive 100% of that state's electoral votes?

In the 2012 presidential election, 52% of Pennsylvania voters backed Barack Obama for president. Therefore, the state awarded 100% of its electoral votes to the Democratic nominee for president for the sixth consecutive election. In those six elections, Republicans earned an average of more than 46% of the two-party vote, but 0% of the state's electoral votes. And even though Pennsylvania had been considered a battleground in the past, its consistently Democratic outcomes gave Barack Obama and Mitt Romney little reason to campaign there in 2012.

Therefore, in February 2013 Pennsylvania State Senate Majority Leader Dominic Pileggi introduced legislation to replace the state's winner-take-all system with a proportional allocation plan. His bill, which is still in play, was sponsored by a majority of the Republican caucus, and it could be approved on a party-line vote.

The most common objection to Senator Pileggi's plan is that if it were implemented exclusively in Pennsylvania, it would disadvantage the Democratic candidate for president. Because Pennsylvania has consistently awarded its large bloc of electoral votes to the Democrats over the last six elections, Democrats would lose almost half the electoral votes they usually receive in the state, without gaining any new votes from Republican winner-take-all states.

This partisan critique is valid, as are concerns that the plan would decrease the number of swing votes up for grabs in the state, thereby ensuring that the presidential candidates would never campaign there. But this report explores the broader question of whether the system would be fair if implemented nationwide. We conclude that changing to a proportional system would do little to solve the problems that plague our presidential elections under the current winner-take-all system. In fact, in terms of how much attention and resources candidates spend on each voter, the plan could actually make presidential elections *more* distorted.

Deconstructing the Pileggi Plan of Proportional Allocation

If Sen. Pileggi's plan had been used in every state in the 2012 election, Barack Obama would have won 282 electoral votes, Mitt Romney would have won 255, and Libertarian Party nominee Gary Johnson would have collected one electoral vote from California. This electoral vote outcome would have mirrored the national popular vote much more closely than the actual vote of 322-206 under winner-take-all. Most Americans would have had their votes "represented" in the Electoral College. By that definition, the Pileggi plan might seem to be fair if implemented nationally.

But candidates do not care about how many electoral votes they get; they only care whether they win. And under the Pileggi plan, campaigns would still be incentivized only to win enough of the few electoral votes that would be in play in a close election that they would need to win. As a result, the plan fails to remedy one of the biggest problems with our current Electoral College system: the immovability of the majority of electoral votes, and the resulting disregard for the voters in a majority of states.

If the Pileggi plan allocated electoral votes proportionally using *fractions of votes*, then it would achieve the goal of making every vote in every state matter. However, it does not use fractions of votes, because doing so would require a constitutional amendment rather than statutory changes within states. As a result, candidates' electoral vote totals are determined through rounding, leading to a system in which candidates have to surpass thresholds that vary by state size in order to win a given electoral vote.

It should be noted that the Pileggi plan is less proportional than other proportional allocation systems that have been proposed in the past. Under more traditional proposals, either all electoral votes are allocated proportionally, with votes rounded to the nearest whole number if the proportion does not produce a whole number of votes, or two votes (the two representing the state's two senators) are awarded to whomever won the popular vote in the state and the rest are allocated proportionally, rounding to the nearest whole number.

Under the Pileggi plan, however, two votes are awarded to the winner of the statewide popular vote, and the remaining votes are allocated in a multi-step process, in which whoever wins the state popular vote has their proportion of electoral votes rounded up to the next integer, while whoever lost the popular vote rounds down to the next integer. This gives an extra boost to the winner of a state's popular vote, and also makes it less likely that third party candidates will receive any electoral votes.

What, then, are the real-world effects of all this complicated arithmetic? Under the Pileggi plan, there would still be "swing states," just as there are now, except the definition of a swing state would be a little different. States would become swing states if they happened to have vote divisions that put them near the level of an electoral vote threshold. Whether or not a state could "swing" one electoral vote would be essentially random. Typically only one, two, or three electoral votes would be at play in these new "swing states." The most votes that ever would be in play is four, in evenly divided states where the "tipping point" for an additional electoral vote also happened to be near the 50% margin line.

This report predicts where these swing votes would reside in the event of a close national election in 2016. Determining the likely swing votes is a simple process of taking the partisanship of a state in 2012 (how it voted relative to Obama and Romney's national margins) and calculating how much that percentage would need to change in order for an electoral vote to flip from one candidate to the other. Each state has its own thresholds for when votes would flip, depending on how many electoral votes the state has. In a state with four proportional electoral votes (six total electoral votes), for instance, a candidate would need to receive 20% of the vote to win one electoral vote and 40% to win two electoral votes. If that state had a Republican partisanship of 38% in 2012, the Republican candidate would need to outperform their partisanship by at least 2% in order to win a second electoral vote in the state.

Any electoral vote that could be flipped without requiring a candidate to outperform their partisanship by more than 3% - the same percentage change we use to determine "swing state" status in our current winner-take-all elections - is considered a swing vote in this analysis.

The oddity of the Pileggi plan adds an extra complication to this methodology. Because the plan would round each candidate's proportion of electoral votes up and then subtract one vote from whichever

candidate lost the state, states that have a partisanship of roughly 50% tend to have more swing votes at stake. For those states, the relevant threshold is not whatever percentage of the vote will give the candidate the next highest whole electoral vote, but instead is simply surpassing 50% of the two-party vote in a state. Winning a state instead of losing it flips an electoral vote in the candidate's favor in addition to the two winner-take-all electoral votes that are at stake for winning each state. Thus, the current swing states would remain the most influential states under the Pileggi plan.

The table below shows how many swing votes each state would hold under the Pileggi plan and how many they hold now. Current swing states are in bold, with new Pileggi “swing electoral vote” states are in italics.

State	2012 Republican Partisanship	Closest tipping point*	Proportional Electoral Votes	Swing Electoral Votes, Now	Swing Electoral Votes, Pileggi	Real Voting Power,** Now	Real Voting Power, Pileggi
Ohio	50.35%	50.0%	16	18	4	1.49	0.80
<i>Pennsylvania</i>	49.14%	50.0%	18	20	4	1.48	0.71
<i>Minnesota</i>	47.98%	50.0%	8	10	4	1.84	1.78
<i>Wisconsin</i>	48.42%	50.0%	8	10	4	1.69	1.63
<i>Nevada</i>	48.48%	50.0%	4	6	4	2.41	3.88
<i>Iowa</i>	48.92%	50.0%	4	6	4	1.89	3.05
<i>New Hampshire</i>	49.05%	50.0%	2	4	4	2.82	6.80
<i>Florida</i>	51.40%	51.9%	27	29	4	1.55	0.52
<i>North Carolina</i>	52.87%	53.8%	13	15	4	1.54	0.99
<i>California</i>	40.28%	39.6%	53	0	3	0.00	0.22
<i>Virginia</i>	49.90%	50.0%	11	13	3	1.60	0.89
<i>Colorado</i>	49.16%	50.5%	7	9	3	1.76	1.42
<i>Texas</i>	59.73%	61.1%	36	0	2	0.00	0.21
<i>New York</i>	38.63%	37.0%	27	0	2	0.00	0.26
<i>Arizona</i>	56.38%	55.6%	9	0	1	0.00	0.40
<i>Utah</i>	75.87%	75.0%	4	0	1	0.00	0.94
<i>Maryland</i>	38.76%	37.5%	8	0	1	0.00	0.42
<i>New Jersey</i>	42.98%	41.7%	12	0	1	0.00	0.29
<i>Indiana</i>	56.94%	55.6%	9	0	1	0.00	0.36
<i>Illinois</i>	43.41%	44.4%	18	0	1	0.00	0.19
<i>Georgia</i>	55.75%	57.1%	14	0	1	0.00	0.26
<i>South Carolina</i>	57.08%	57.1%	7	0	1	0.00	0.50
<i>West Virginia</i>	65.22%	66.7%	3	0	1	0.00	1.19
Connecticut	43.18%	40.0%	5	0	0	0.00	0.00
Michigan	46.81%	50.0%	14	0	0	0.00	0.00

Washington	44.41%	40.0%	10	0	0	0.00	0.00
Oregon	45.75%	40.0%	5	0	0	0.00	0.00
Alabama	62.94%	57.1%	7	0	0	0.00	0.00
Tennessee	62.05%	66.7%	9	0	0	0.00	0.00
Missouri	56.53%	62.5%	8	0	0	0.00	0.00
Massachusetts	40.25%	44.4%	9	0	0	0.00	0.00
Mississippi	57.59%	50.0%	4	0	0	0.00	0.00
Oklahoma	67.79%	60.0%	5	0	0	0.00	0.00
Washington, DC	10.03%	50.0%	1	0	0	0.00	0.00
Louisiana	60.45%	66.7%	6	0	0	0.00	0.00
Kansas	62.71%	75.0%	4	0	0	0.00	0.00
Kentucky	63.19%	66.7%	6	0	0	0.00	0.00
New Mexico	46.77%	33.3%	3	0	0	0.00	0.00
Arkansas	63.69%	75.0%	4	0	0	0.00	0.00
Idaho	67.80%	50.0%	2	0	0	0.00	0.00
Nebraska	62.78%	66.7%	3	0	0	0.00	0.00
Hawaii	30.49%	50.0%	2	0	0	0.00	0.00
Vermont	34.04%	50.0%	1	0	0	0.00	0.00
Rhode Island	38.11%	50.0%	2	0	0	0.00	0.00
Delaware	42.53%	50.0%	1	0	0	0.00	0.00
Maine	44.18%	50.0%	2	0	0	0.00	0.00
Montana	58.67%	50.0%	1	0	0	0.00	0.00
Alaska	58.90%	50.0%	1	0	0	0.00	0.00
South Dakota	60.85%	50.0%	1	0	0	0.00	0.00
North Dakota	61.65%	50.0%	1	0	0	0.00	0.00
Wyoming	72.25%	50.0%	1	0	0	0.00	0.00
U.S. Total	50%	--	435	140	58	--	--

**Closest tipping point signifies the nearest threshold to the state's partisanship at which either the Democratic or Republican candidate would win an additional electoral vote.*

***Real Voting Power is a measure of a state's share of the total swing electoral votes compared to its population; that is, the amount of power that each person in a state has to influence a presidential election. The number itself is the percentage of total swing votes in a state per million people in a state, calculated using the formula $[RVP=100*1,000,000*(state\ swing\ votes/nationwide\ swing\ votes)/state\ population]$. This metric is described as "real" voting power because it is distinct from more common measures of a state's voting power that only take into account a state's number of electoral votes, not its number of swing electoral votes. Having many non-swing electoral votes does not give a state any extra influence in a presidential election, because those votes are not contested.*

As the table shows, Pileggi's plan slightly expands the field of swing states. Instead of the current 10 swing states, 23 states would hold partisanship close enough to a threshold that a vote could plausibly be flipped in a close election.

But most of the states that have been added to the swing state field only have one electoral vote at stake. The most important states are now those with four electoral votes in play, all of which are already swing states under the current winner-take-all system. Only the three biggest non-current swing states, California, Texas, and New York, would have more than one electoral vote in play under the Pileggi plan.

Perhaps the strangest effect that the Pileggi plan would have is making all states with a balanced partisanship – that is, the 2012 swing states – equally important for candidates to win. Whereas under the current system candidates devote time and resources to swing states roughly in proportion to their populations (controlling for their likelihood of winning the state), under the Pileggi plan it would be just as important for a candidate to win New Hampshire as it would be to win Florida, as only four electoral votes would be at play in each state. On a per capita basis, the voters of New Hampshire, who already receive a significantly disproportionate amount of presidential campaign attention, would suddenly become by far the most valuable votes in the country.

That effect is clearly demonstrated by the Real Voting Power metric, described above, which allows easy comparison of the relative influences that voters have in various states under the current and the Pileggi vote allocation systems. Because smaller states are slightly favored over larger states in the winner-take-all system due to the two “senate votes” given to every state regardless of population, New Hampshire already has the largest Real Voting Power of any swing state – almost twice as much as Pennsylvania. But under the Pileggi plan, New Hampshire's RVP skyrockets to about *ten times* as much as traditional swing state powerhouses like Ohio, Pennsylvania, and Florida.

That said, it is not the case that small states in general would benefit from the Pileggi plan, as was claimed in an [analysis of the plan in *Crystal Ball*](#) by Geoffrey Skelley. That analysis concluded that under the Pileggi plan, small states are given undue clout because when they vote for one candidate or the other, that candidate is guaranteed all or nearly all of that state's electoral votes. But as our analysis demonstrates, the vast majority of small states would continue to be completely ignored under the Pileggi plan. Excepting New Hampshire and West Virginia, all other small states would actually have zero electoral votes in play, and thus zero Real Voting Powers – just as they do under the current system.

In short, this plan would effectively disenfranchise the majority of Americans while still giving highly disproportionate influence to the current swing states. The total number of swing votes in play would be cut by over half (from 140 to 58), creating still greater distortions in influence even among the swing states. At best, it would slightly decrease the possibility of a wrong-way presidential winner, but given the significant amount of disproportionality caused by the rounding system and the two winner-take-all votes given to every state, such an outcome would still be very plausible.

For these reasons, FairVote favors a national popular vote for president while also supporting proportional voting systems in multi-seat elections. For example, we support [fair representation voting alternatives](#) to winner-take-all systems for legislative elections, so that the multiplicity of political viewpoints of the electorate is more accurately represented.

In elections for a single seat like the Presidency, however, the only truly proportional outcome is one in which the candidate with the most voter support wins the election. Unlike a national popular vote, the Pileggi plan would neither ensure that all American voices are heard nor guarantee that the candidate

with the most votes wins the election. It should be rejected, and states should instead join the growing movement to establish a national popular vote for president through the [National Popular Vote Interstate Compact](#), which would make every vote in every state equally valuable, and would ensure that the winner of the presidential election is always the candidate who won the most popular votes nationwide.



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