

Security Problems in the National Popular Vote Interstate Compact

Philip B. Stark

13 April 2025

Qualifications

I am Distinguished Professor of Statistics at the University of California, Berkeley, where I have been on the faculty for 38 years. I served on the Board of Advisors of the U.S. Election Assistance Commission for approximately nine years. I have served on the board of directors and/or board of advisors of three non-profits whose mission is to improve election integrity. I have testified to several legislative bodies regarding election integrity and I have testified as an expert witness in state and federal courts regarding the accuracy and trustworthiness of elections.

I am the inventor of “risk-limiting audits” (RLAs), which are now required or authorized in approximately 15 states, and are recommended by the National Academies of Science, Engineering, and Medicine; the Presidential Commission on Election Administration; the American Statistical Association; and others. I have helped a number of states draft RLA legislation and regulations and I have helped local election officials in dozens of jurisdictions to understand, implement, and conduct RLAs. I have written open-source software to facilitate RLAs. I have consulted for the Secretaries of State of California, Colorado, and New Hampshire on election trustworthiness. I have won a number of awards for my work on election integrity, including an IEEE award for Cybersecurity Practice, the John Gideon Award for Election Integrity, and the UC Berkeley Chancellor’s Award for Research in the Public Interest.

Most of my publications on election integrity are posted at
<https://www.stat.berkeley.edu/~stark/Vote/index.htm>

Testimony

The National Popular Vote Interstate Compact (NPVIC) is designed to achieve “direct democracy,” whereby every voter’s vote counts equally in determining which presidential slate is elected, by requiring member states to cast their Electoral College (EC) votes for the presidential slate that receives the most votes nationally. NPVIC does not and cannot accomplish that goal, for a variety of reasons that I shall not explain here.

The reason for this testimony is that NPVIC undermines the (imperfect and less than universal—but not entirely ineffective) safeguards of the current Electoral College system, and therefore states should not join the compact or should withdraw if they have already joined.

In particular:

1. Under the current EC system, errors or malfeasance in any state can affect only that state's EC votes. In contrast, under NPVIC, errors or malfeasance in *any* state, whether it has joined NPVIC or not, can change the EC votes of *every* NPVIC member state.
2. NPVIC requires member states to take all other states' vote tallies at face value, even tallies that are obviously incorrect. Moreover, even if NPVIC permitted member states to push back on other states' tallies, I am not aware of any legal mechanism through which, for instance, Maine could challenge the results in a state that claimed its votes were unanimous or that it had more votes than it has registered voters. A state might try to sue another state; while I am not an attorney, I do not think any state has standing to challenge another state's election results in state or federal court. Regardless, relying on litigation for election quality control is an unwieldy, if not doomed strategy.
3. Under the current EC system, it is possible for a state to audit the outcome of the presidential race within that state to confirm that it is casting its EC votes in accordance with the will of the voters. Relatively few states currently audit in a way that is sufficient to confirm who won, but some do, and many states have improved their election audits substantially over the last decade. In contrast, under NPVIC, no member state can audit its election in a way that confirms they are casting their EC votes correctly. Moreover, under current laws, it would not be possible to audit the NPVIC outcome of the presidential contest nationally, for a number of reasons:
 - Current state-level audits are *at best* designed to tell whether the reported winner in that state really won that state, not to determine whether the tally was sufficiently accurate to determine the national popular winner. Even if every state followed current best-practice for auditing elections—state-level risk-limiting audits—that would not suffice to check who won under NPVIC.
 - Most states currently do not have best-practice audits; some have no audits at all. Nonetheless, NPVIC member states must pretend that every state's *tally* is accurate (not just that the reported winner in each state won in that state).
 - Auditing the outcome of the presidential election under NPVIC would require cooperation among *all* states, even those that have not adopted NPVIC. There is no legal mechanism to compel that cooperation. Moreover, audits in some current NPVIC member states—including the most populous, California and New York—do not even confirm who won in those states.
 - Some jurisdictions have voting systems that cannot provide evidence of who won, no matter how rigorously they are audited. That is the case for jurisdictions that use paperless voting systems or systems that require in-person voters to use ballot-marking devices (BMDs), which

amount to hackable pens that render the paper trail untrustworthy. Los Angeles, California, the country’s largest jurisdiction, is an example, as are Harris County (Houston) and Travis County (Austin), Texas, and individual jurisdictions in many other states. So is the entire state of Georgia. Under NPVIC, undetected or undetectable problems in those jurisdictions could alter EC votes in every member state.

4. Some states, including Maine, use ranked-choice voting (RCV) for presidential elections. To fit RCV or any other non-plurality voting system into the NPVIC requires ad hoc choices that (1) undermine the point of RCV and non-plurality systems and (2) can be “gamed” by member or non-member states in a way that could change how NPVIC member states cast their EC votes. For instance, a state that uses RCV could choose to report the number of first-choice votes each candidate received as the number of votes for that candidate (the number of votes before any candidate has been eliminated), the number of votes after all candidates but three have been eliminated, the number of votes after all but two have been eliminated, or the number after all but the last have been eliminated.

For these reasons (and others discussed in Rivest and Stark, 2025), I oppose the NPVIC and recommend that current member states withdraw from the compact.

References

For more detailed concerns about NPVIC, please see:

- Rivest, R.L., and P.B. Stark, 2025. The National Popular Vote (NPV) Proposal for U.S. Presidential Elections Undermines Election Integrity, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5032049

For more discussion of the limitations of auditing and inability of some voting systems to provide trustworthy evidence that the reported winners really won, please see:

- Appel, A.W., R. DeMillo, and P.B. Stark, 2020. Ballot-marking devices cannot assure the will of the voters. *Election Law Journal*, <https://doi.org/10.1089/elj.2019.0619>
- Appel, A.W. and P.B. Stark, 2020. Evidence-Based Elections: Create a Meaningful Paper Trail, Then Audit, *Georgetown Law Technology Review*, 4, 523–541. <https://georgetownlawtechreview.org/wp-content/uploads/2020/07/4.2-p523-541-Appel-Stark.pdf>
- Stark, P.B., 2024. When Audits and Recounts are a Distraction: The 2020 U.S. Presidential Election in Georgia, <https://arxiv.org/abs/2408.00055>.
- Stark, P.B., and R. Xie, 2022. They may look and look, yet not see: BMDs cannot be tested adequately, Proceedings of E-Vote-ID

2022, Lecture Notes in Computer Science, Springer-Nature, Cham
https://link.springer.com/chapter/10.1007/978-3-031-15911-4_8

Thank you for considering my testimony.

Philip B. Stark
<https://www.stat.berkeley.edu/~stark>
pbstark@berkeley.edu
510-394-5077