







February 10, 2022

Re: HB 1116 VVPAT provision OPPOSE

Dear Senators,

As organizations dedicated to supporting voting rights and secure, trustworthy elections, we are writing to urge Committee members to reject proposals for implementation of Voter-Verified Paper Audit Trails (VVPATs) as outlined in HB 1116. The bill would encourage Indiana counties with obsolete Direct Recording Electronic (DRE) voting machines to patch them with printers. Indiana has wisely recognized the need for voting systems which provide paper ballots voters use to accurately verify their selections. But retrofitting DREs with printers is the wrong approach. These expensive printers produce VVPATs that are difficult or impossible for voters to use when verifying their selections and for election officials to use in audits and recounts. VVPATs represent an exorbitant investment in an election security dead end. Indiana elections would be much better protected, and Indiana voters better served, by passing measures to adopt pre-printed paper ballots, marked by hand or assistive ballot marking device, as are already used in fifteen Indiana counties.

Why paper ballots matter - and how "VVPATs" miss the point

Because electronic voting systems inherently are vulnerable to hacking, and because many voters are suspicious of such technology, it is essential to be able to check election results independently. Accordingly, election security best practices dictate that all votes should be recorded on paper ballots that are verified by the voters to ensure their accuracy. These paper ballots should be used in tabulation audits and recounts to check vote counts. For too long, too many Indiana voters have had to vote on DREs that only record votes electronically, making meaningful audits and recounts impossible.

¹ "Securing the Vote," The National Academies of Science, Engineering and Medicine, September 2018. https://www.nap.edu/resource/25120/Securing%20the%20Vote%20ReportHighlights-Federal%20Policy%20Makers.pdf

Unfortunately, the VVPAT printers available in Indiana largely miss the mark. The printers, typically installed off to the side of the voting machines, print voter selections on thin, narrow rolls of thermal paper in hard-to-read font. Because votes are printed continuously on rolls, anyone with access to the VVPATs and the voter sign-in records potentially can determine how each voter voted, compromising ballot secrecy. The paper records appear behind a window that can display a limited number of contests and selections at a time. Voters – especially voters with disabilities – may not be able to read *any* of their putatively "voter-verified" selections.

Moreover, the VVPAT rolls are extremely ill-suited for audits and recounts. The lightweight thermal paper is prone to ripping, smudging, and fading. Election officials must either spool through the rolls – taking care not to count voided votes – or messily cut the rolls into separate voter records that are hard to handle. In light of these obstacles, the previous Secretary of State developed a plan to "audit" the VVPATs by randomly scanning some of the QR codes appended to each voter record. This approach completely defeats the purpose of paper ballots and audits: to check vote counts against *voter-verified* records of voters' selections. Voters may or may not have verified the text on the VVPATs, but no voter has any means to verify QR codes.

As researchers at the Center for Civic Design sum up:

Although there are still a small number of current voting systems that use this method of creating a verification record, it has fallen out of favor because of the challenges of using the spooled paper in an election audit and the difficulty of reading and verifying the VVPAT through glass (Appel, 2018) as well as its inaccessibility to some voters with disabilities.³

Wrong solution, wrong price.

In 2019, Indiana adopted legislation that required all Direct Recording Electronic voting systems in the state to provide voter-verified paper audit trails by 2029.⁴ HB 1116 would move that deadline up to 2024, requiring all counties to begin phasing in VVPATs as early as July 2022. Indiana law could also be satisfied by providing pre-printed paper ballots marked by the voter either by hand or ballot marking device, a method of voting that is currently in use in 17% of Indiana counties.⁵ Pre-printed ballots, marked by hand or assistive technology, provide a durable, verified record of voter intent. Indiana could replace all its DREs with reliable, affordable systems that use real paper ballots.

Rather than develop a plan to provide paper ballots, the previous Secretary of State proposed to retrofit Indiana's existing DRE touchscreen voting machines with costly, outdated thermal printers.⁶ The cost of the added printers, with installation and software upgrades, is

² Microvote Professional Services Contract EDS A27 20-009. *Available at*: http://freespeechforpeople.org/wp-content/uploads/2022/02/2019-eds-a27-20-009-microvote-general-vvpat-services-final-9-11-19.pdf

³ Whitney Quesenbery, Suzanne Chapman, Christopher Patton, Robert Spreggiaro, Sharon J. Laskowski, "Voter Review and Verification of Ballots: Review of the Literature and Research Approaches," Center for Civic Design. *Available at*: https://civicdesign.org/wp-content/uploads/2015/05/Voter-review-and-verification-literature-review-draft-2020-05-27-post.pdf

⁴ See: Indiana Code Title 3. Elections § 3-11-15-13.3

⁵ "Indiana's Voting Machines are Vulnerable to Security Issues," Indiana University Public Policy Institute, October 2020. Available at: https://policyinstitute.iu.edu/doc/indiana-voting-security-brief.pdf

⁶ Indiana Secretary of State Budget for FY 2022 and 2023, December 9, 2020. Available at: https://www.in.gov/sba/files/Secretary-of-State-Transmittal-Letter.pdf

approximately \$2600 per device,⁷ an extraordinary cost for a poor solution. HB 1116 in its current form almost compels many Indiana counties to purchase these printers even if they would prefer the paper ballot solution that we and election security experts recommend.

Conclusion

Indiana is right to aim to upgrade its election systems to provide its voters with a more secure, auditable, transparent and trustworthy election system, but the VVPAT system incentivized in HB 1116 fails to meet any of these goals. For this reason, the Committee should vote NO on HB 1116, and pursue other solutions to provide Hoosiers with a voting system the voters can both trust and verify.

For less money, Indiana could outfit all its counties with paper ballots for all elections and brand new, updated tabulating scanners and assistive ballot marking devices that provide voters with a durable, auditable record of their votes that can be used in post-election audits and recounts. We stand ready to help provide information to the Committee and Indiana lawmakers on more secure, trustworthy, transparent, auditable election systems. Please don't hesitate to reach out to us if you have any questions or if we can be of any assistance.

Sincerely,

Susan Greenhalgh, Senior Advisor - Election Security Free Speech For People

Linda Hanson, Co-President Barbara Schilling, Co-President Indiana League of Women Voters Barbara Tully, President Indiana Vote By Mail

Mark Lindeman, Ph.D., Director Verified Voting

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⁷ See *supra* note 2.