Looking beyond Colorado: Risk Limiting Audits in Indiana

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Indiana Voting System Technical Oversight Program (VSTOP)



Election Audit Summit, MIT December 7, 2018

VSTOP

- In existence since 2007
- Based at Ball State University in Muncie, Indiana
- Funded by the Indiana Secretary of State through the General Assembly
- Some activities of VSTOP
 - Develop and propose procedures and standards for the certification, testing, acquisition, functioning, training, and security for voting systems and electronic poll books used to conduct elections in Indiana
 - Recommend voting systems and electronic poll books for certification in the state



Indiana

- 92 counties
- 5 voting system vendors and 5 electronic poll book vendors
- About half of the counties use DREs. The other half use OPSCANS or a combination with DREs.
- One of the first states to certify electronic poll books, in 2013

http://www.ncsl.org/research/elections-and-campaigns/electronic-pollbooks.aspx

Some Audit requirements – IC 3-12-3.5-8

http://www.ncsl.org/research/elections-and-campaigns/post-election-audits635926066.aspx



Integrity of Elections and Security of Election Systems

- Physical and Cybersecurity of Election Equipment
- Indiana SB 327 on Physical and Cyber Security (Signed by the Governor on March 15, 2018)
- The Governor of Indiana established the Indiana Executive Council on Cybersecurity (Council) (January 2017)
- "... to form an understanding of Indiana's cyber risk profile, identify priorities, establish a strategic framework of Indiana's cybersecurity initiatives, and leverage the body of talent to stay on the forefront of the cyber risk environment."



Elections Committee of the Council

- Chaired by the Secretary of State
- Members include county clerks and election officials, SVRS, Indiana Elections Division and VSTOP.
- VSTOP was tasked with creating Best Practices and Security Appraisal
- VSTOP also proposed to conduct a pilot RLA



The Hoosier Survey

The Bowen Center for Public Affairs, Ball State University

(September 2017, 600 Indiana residents)

What level of confidence do you have that your vote in the last election was properly recorded and accurately counted?

Confidence

Level	Percentage
Very confident	60%
Somewhat confident	23%
Not too confident	8%
Not confident at all	9%
Don't know/refused to answer	<1%



The First RLA Pilot in Indiana

- On May 29 and 30, 2018, the VSTOP Team conducted Indiana's first RLA pilot in Marion County
- In collaboration with Mr. Jerome Lovato, Certification Program Specialist at the US Election Assistance Commission (EAC), Dr. Ronald L. Rivest, Institute Professor at MIT and a member of the Caltech/MIT Voting Technology Project, and Ms. Mayuri Sridhar, a Research and Innovation Scholar at MIT
- Marion County Clerk and her elections staff, Director of Elections Deputy Director of Elections
- Supported by the Indiana Secretary of State Connie Lawson, Chief of Staff and Deputy Secretary Brandon Clifton, Indiana Election Division Co-Directors Brad King and Angie Nussmeyer and others



Marion County Pilot Parameters and Races Audited

- Risk Limit 10%; Bayesian Limit 5%
- 2016 Presidential Election (5 precincts) Ballot Polling
- 2018 Primary Democratic Sheriff (10 Precincts) Ballot Polling
- 2018 Republican U.S. Senator (10 Precincts) Comparison Polling Audit



Experience Gained

- Over a month of preparation and meetings with the RLA Team and the Marion County Staff
- Overcoming some initial reluctance about the RLAs
- Concerns about outcomes
- Strong co-operation and help in the preparation
- Overall acceptance of the process of RLAs by the Secretary, The Election Division, and the County as an important post election audit tool



Next Steps

- The Secretary is enthusiastic about conducting more pilots
- The major DRE vendor in Indiana is working on a modification to add the VVPAT feature. VSTOP will see a demo later in December
- We are following the progress of other RLA pilots being conducted, including those in Michigan
- Will continue to depend on Jerome and others



Thanks

- Secretary Lawson and her office staff
- Jerome, Ron and Mayuri
- IED Co-Directors Brad King and Angie Nussmeyer
- Marion Count officials
- Several others

