

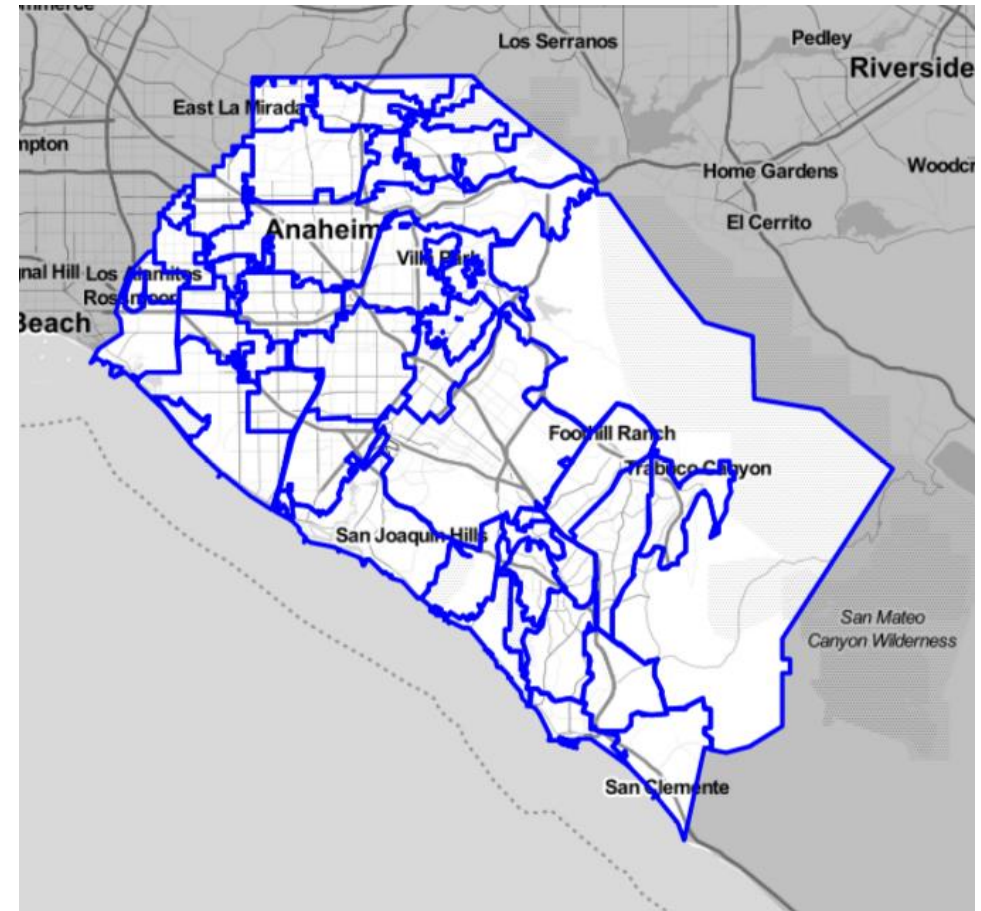
2018 Risk-Limiting Audit Pilots

Orange County Registrar of Voters



Profile of Orange County

- 3 million+ residents
- Approx. 1.6 million voters
- 948 square miles
- 34 cities
- 26 special districts
- 32 school districts
- 100+ languages spoken





Background Information

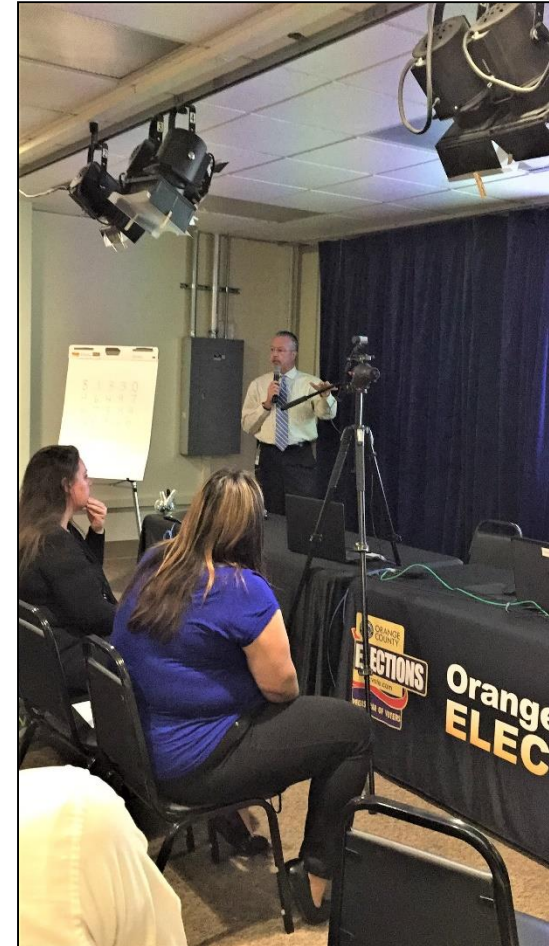
- Historical involvement with RLA projects and pilots
- Performed pilots in June 2018 and November 2018 Elections with a legacy voting system
- Partnership with academic institutions





Determining the Method

- Two Possible Methods
 - Comparison Method
 - Ballot Polling Method
- Orange County's Choice





Planning for a Risk-Limiting Audit

- Ballot Manifest on a Legacy Voting System
- Independence from the Voting System
- Organization of Electronically Cast Ballots and Paper Ballots





The Day of the Audit

- Determining the Risk Limit
- Generating the Random Seed
- Random Selection of Ballots to Audit
- Retrieving the Ballots to Audit
- Locating Randomly Selected Ballots
- Preparing Audit Boards
- Manually Auditing the Ballots
- Completion of Auditing the Ballots



Ensuring a Transparent Process

- Press release
- Ballot manifest
- Random seed
- Video recording of rolling dice
- Online streaming
- Ballot selection software

Orange County, CA Elections to Conduct Risk Limiting Audit of November General Election Results

Posted to: choose

Printer Friendly Version

While not required under California law pilot audit designed to provide strong statistical evidence that the election outcome is right.

SANTA ANA, CA – November 19, 2018 - Orange County will conduct its second risk-limiting pilot audit beginning Monday, November 26, 2018. The ballot polling audit is not required under California law and is being conducted as an additional pilot to refine our approaches to risk-limiting audits.

The risk-limiting audit is a procedure that provides strong statistical evidence that the election outcome is correct, or has a high probability of correcting an outcome that wouldn't match a full hand count of the ballots. The audit itself requires human beings to examine and verify more ballots in close contests and fewer ballots in contests with wider margins.

Quote by Registrar of Voters Neal Kelley

"Conducting a risk-limiting audit is an excellent way to audit elections and provide an important check on the integrity of the election process." He continued, "This is a valuable opportunity to collect useful data on the process of conducting a risk-limiting audit, while at the same time ensuring that the outcomes are true and correct."

The risk limit for this ballot polling audit has been set at 20%. This means that at a minimum there is an 80% chance that the audit would correct an incorrect outcome.

Prior to the commencement of the risk-limiting audit the Registrar of Voters will establish the random seed for use with the audit software's random number generator.

The seed is a number consisting of at least 20 digits, and each digit will be selected in order by sequential rolls of a 10-sided die. The Registrar of Voters will randomly select members of the public who attend the audit process to take turns rolling the die and designate one or more staff members to take turns rolling the die in the event that no members of the public are present.

Establishing the seed in this manner results in a properly random, and verifiable, selection of individual ballots for examination and audit, and ensures the integrity and statistical validity of the risk-limiting audit.

The Registrar of Voters will publish the election results to be audited, along with a cryptographic hash of their contents, prior to the seed ceremony, and will publish the seed on its website immediately after it is established.

WHEN:

- Monday, November 26, 2018 - 10:00am (random seed selected by the rolling of 10-sided die)

WHERE:

- Registrar of Voters, 1300 South Grand Avenue, Building C, Santa Ana, CA

HOW:

- Once the random seed is established the physical pulling of the actual ballots will take place and the manual hand count will begin.



Outcomes

June 2018

- Selected 3 contests (all countywide)
- Phase 1 – prior to final count of all ballots
- Phase 2 – after all final count of all ballots

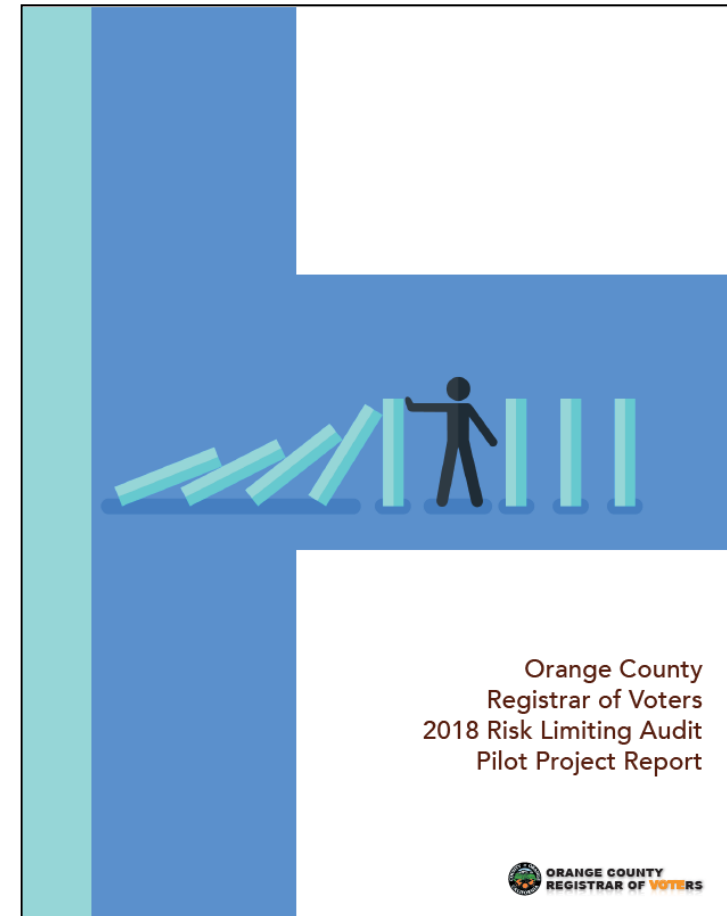
November 2018

- Selected 3 contests (1 countywide, 2 congressional)
- Criteria for contest selection
- 1 Phase only



2018 Risk-Limiting Audit Pilot Report

- Published April 2019
- Available online at ocvote.com/election-library





2018 Risk-Limiting Audit Pilot Report

Appendix A: Glossary of Terms

Appendix B: Procedures

- Manually Auditing the Ballots
- Finishing Auditing the Ballots



Questions?

Orange County Registrar of Voters

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