Risk-Limiting Audits with Arlo
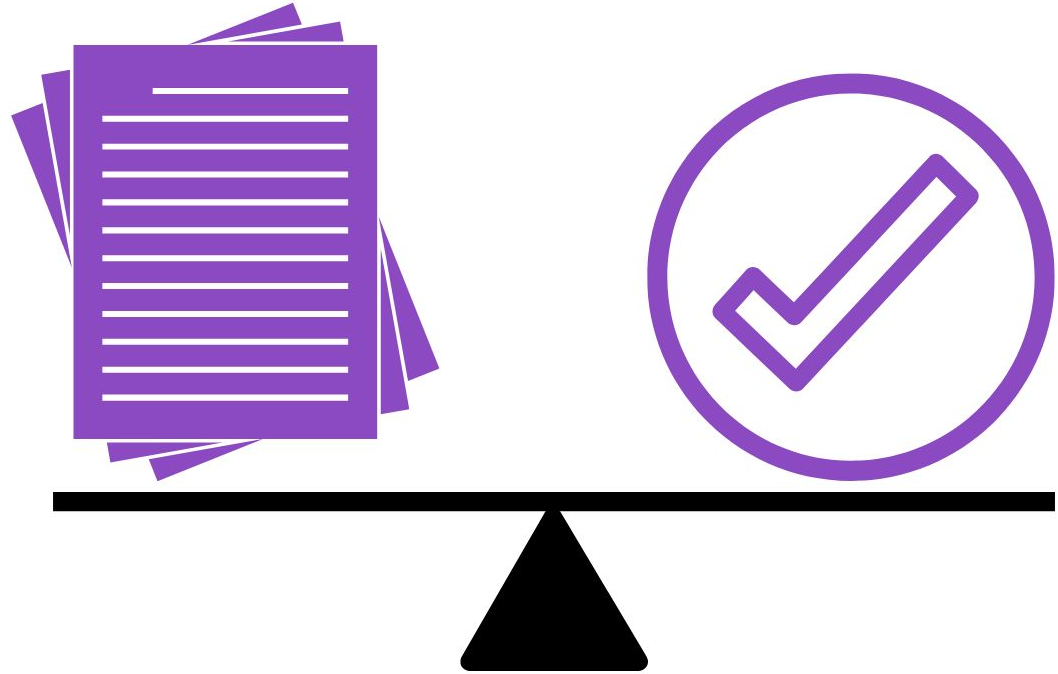
California RLA Pilots

A Risk-Limiting Audit

- Post-election audit
- Requires paper ballots
- Checks that the winner won

A Risk-Limiting Audit

- Works against hacking and human error
- Can correct a wrong outcome

EFFICIENT
&
EFFECTIVE

Not too much, not too little, just the right amout

What's the Difference?

1% Audit

- Verifies a specific batch was tabulated correctly

Risk-Limiting Audit

- Verifies that the winner won

Different RLA Types

Ballot Polling
    *randomly selected ballots

Ballot Comparison
    *randomly selected exact ballots
    *compared to Cast Vote Records

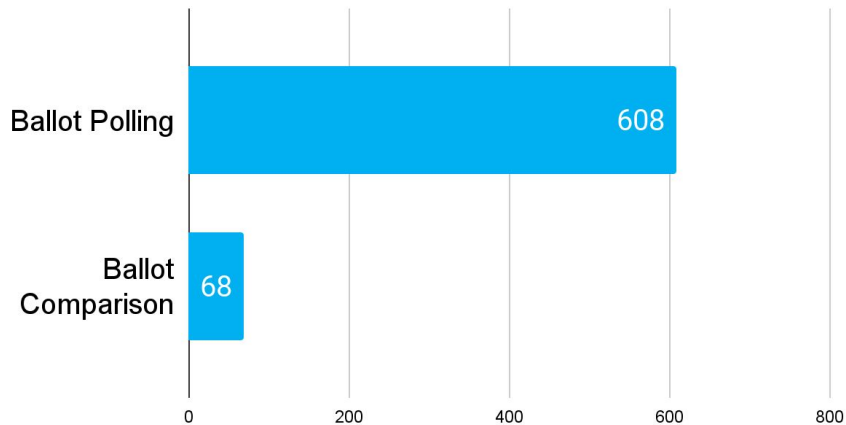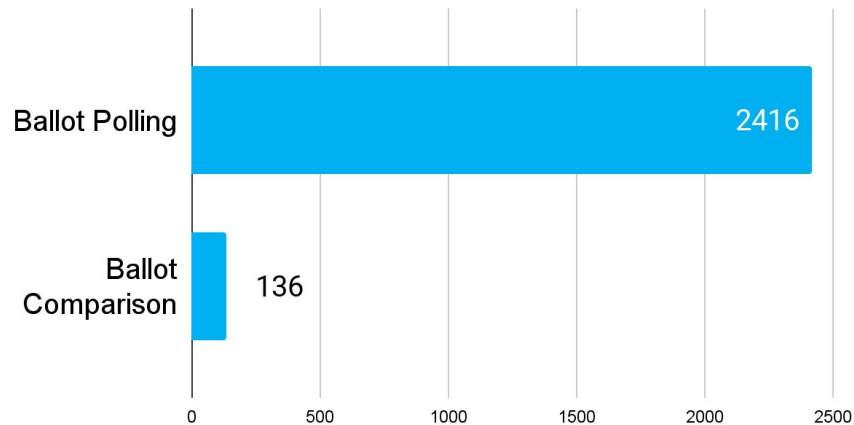**Batch Comparison**
    *randomly selected batches of ballots
    *compared to batch totals

What's the Difference?

Number of Ballots for a 10% Margin

Ballot Polling	608
Ballot Comparison	68

(x-axis: 0, 200, 400, 600, 800)

Number of Ballots for a 5% Margin

Ballot Polling	2416
Ballot Comparison	136

(x-axis: 0, 500, 1000, 1500, 2000, 2500)

Nov 2020 Statewide Contests

Prop	Margin	Ballot Polling Pull Numbers
23	25.1%	182
18	11.6%	870
19	2.08%	26,166

California Pilots

- November
  - Inyo
  - El Dorado
- March
  - Orange

Ballot Storage Conversations

Audit Preparation

properly secure all ballots in a container

create ballot manifest

Audit Conduct

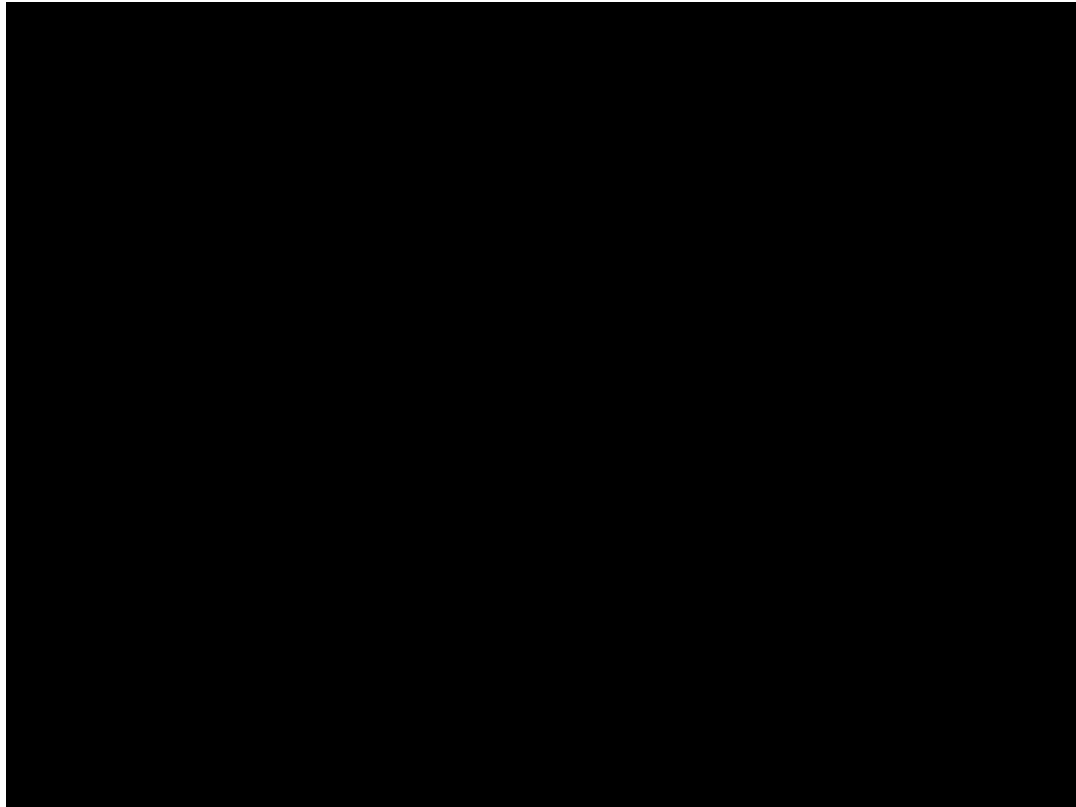| audit setup & sample size	randomly select ballots	retrieve ballots	tally the votes	done? yes/no
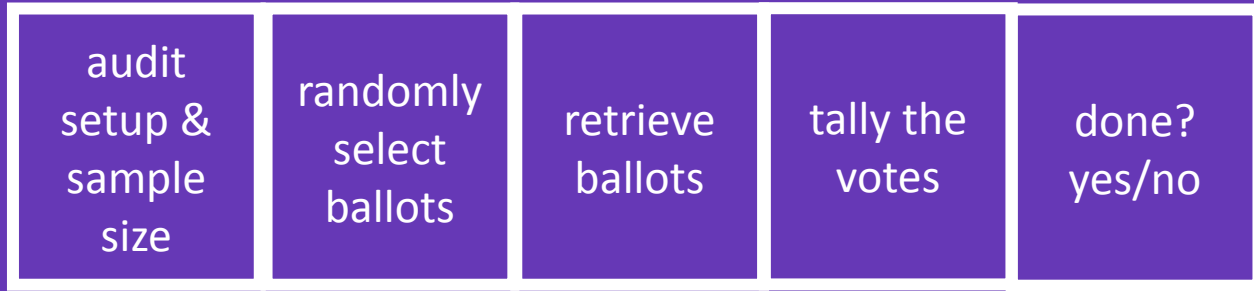
maintain ballot custody →

Arlo Overview

- Web based
- Provides placeholders & labels to manage audit
- Transparent
  - Easy to display data entry to observers
  - Generates report with all required data

Arlo Uploads

Arlo Downloads

Round 1 of the audit is in progress.

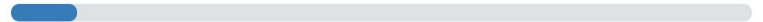0 of 1 audit boards complete.

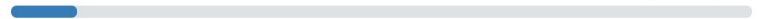## Round 1 Data Entry

Ballots to audit: 34

- Download Aggregated Ballot Retrieval List
- Download Placeholder Sheets
- Download Ballot Labels
- Download Audit Board Credentials
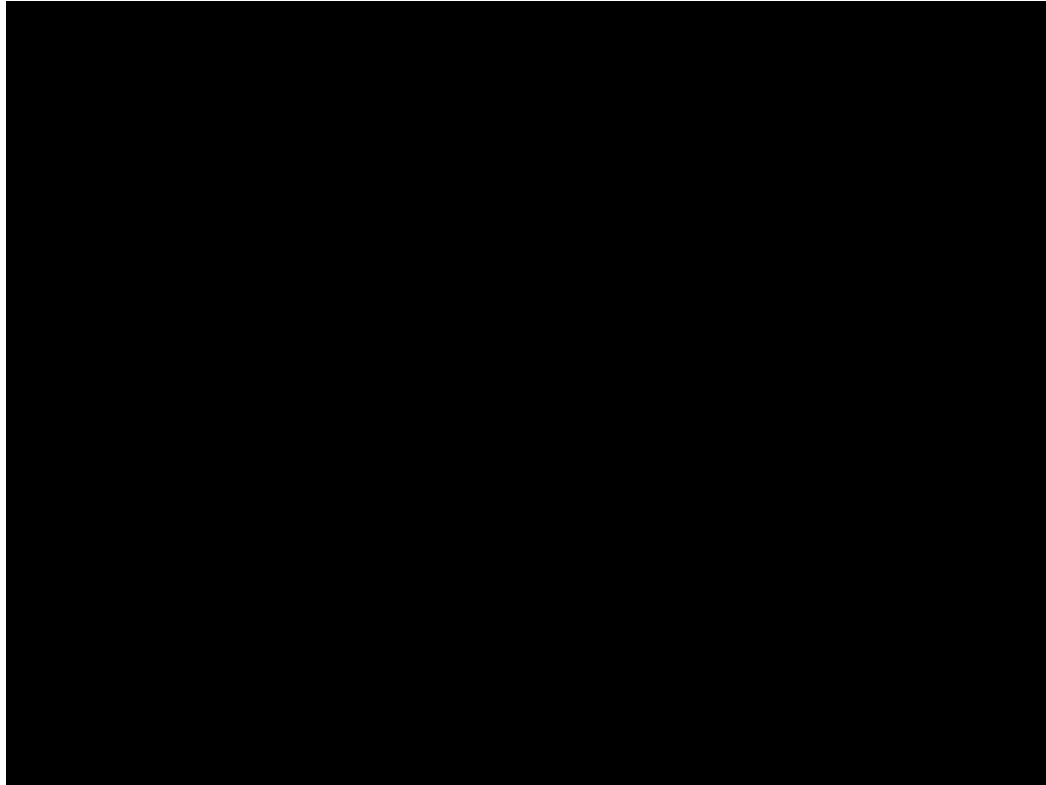
Audit Board Progress

3 of 34 ballots audited

Audit Board #1: 3 of 34 ballots audited · In progress

Arlo Data Entry

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VotingWorks