

Risk-Limiting Audit Report

Georgia Presidential Contest, November 2020

November 19th, 2020

From November 11 to November 19, 2020, VotingWorks assisted the Georgia Secretary of State's office with a risk-limiting audit of the Presidential Contest from the November 2020 General Election. Georgia's original machine count resulted in a margin of 0.3% between candidates Joe Biden and Donald Trump, requiring a full manual count of just over 5 million ballots to complete an efficient risk-limiting audit. Audit boards from all 159 Georgia counties examined 41881 batches, hand sorting and counting each ballot as part of the process. This document summarizes the findings of the audit.

Audit Outcome

The audit confirmed the original result of the election, namely that Joe Biden won the Presidential Contest in the State of Georgia. Like any risk-limiting audit, this audit does not confirm or correct the exact margin of victory. It only provides sufficient evidence that the correct winner was reported.

Hand-Count Variations

Prior research indicates that the expected variance between hand and machine counts, assuming no issues beyond normal human error in the counting process, ranges anywhere from 1.0 - 1.5% across all ballot types¹.

Georgia shows a **0.1053% (0.001053) variation** in statewide total vote count, and a **0.0099% (0.000099) variation** in the overall margin. The audited vote totals from the hand tally for the three candidates were:

Trump	2,462,857
Biden	2,475,141
Jorgensen	62,587

In addition, no individual county showed a variation in margin larger than 0.73%, and 103 of the 159 counties showed a margin variation of less than 0.05%.

¹ <https://www.liebertpub.com/doi/pdfplus/10.1089/elj.2010.0098>

Audit Process

For more information about the process and documentation for the full manual tally risk-limiting audit, please visit our documentation site:

<https://docs.voting.works/arlo/full-manual-tally-all-resources>

About VotingWorks

VotingWorks is a non-partisan, non-profit organization that provides secure & affordable election technology. In particular, VotingWorks develops Arlo, the only software tool available that helps any state run a risk-limiting audit. Like all of VotingWorks's technology, it is open-source and downloadable at

<https://github.com/votingworks/arlo>.