

Testimony Against HB0040

Please vote against HB0040.

I have done federal audits for 40 years based on statistical sampling, and I find the material in the new section 1, subsection b to be extremely hard to understand. The bill puts a lot of faith in the State Board of Elections to design a complicated sampling process so reliable that its results could be substituted for the election results being tested.

I am deeply concerned that the process for conducting these risk-limiting audits in Section 1 will be enacted with the contingency that the results of the pilot in section 2 may require changing them.

Section 1, subsection (b)(5) on page 5, lines 7-10 states

If a risk-limiting audit finds that the election outcome determined by the electronic count is incorrect, **the official result of the election shall be altered** to match the outcome determined by the risk-limiting audit.

Changing the results of an election based on sample results is a radical statement, in my opinion.

Sampling results involve sampling error and confidence ranges. Usually, one would state something to the effect that we are 95 percent confident that at least x more people voted for candidate A than the results shown by the electronic software (the lower bound of the confidence interval). We could also state we are 90 percent confident that the estimated number of votes received for candidate A are between x and y, with a sample mean of n votes. If the lower bound of the interval (x) is materially larger/smaller than the actual votes cast, then we have some basis to cast doubt on the software election results. The required materiality and confidence levels desired would impact the sample size needed.

It would seem to me, that if the sample shows a big enough error to change the election results, that one would want a 100 percent recount of the paper ballots and moreover, it could cast doubt on all the results not tested that used that software.

I am in favor of the pilot process, but I believe the risk of putting section 1, subsection b in place to be possibly modified by the pilot results, is too risky for me to support the bill with amendments.

Please vote against HB0040.

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