American Statistical Association Recommends Risk-Limiting Audits of Federal and Statewide Elections

ALEXANDRIA, VA (PRWEB) APRIL 26, 2010 – The Board of Directors of the American Statistical Association (ASA) today released a statement recommending that routine risk-limiting audits be conducted and reported in all federal elections, as well as in statewide and other governmental election contests. The statement also urges election officials to seek statistical advice on how to efficiently attain the desired accuracy.

"Risk-limiting audits are designed to limit the risk of certifying incorrect winners," said Sastry Pantula, ASA president, "and a well-designed audit often can confirm a correct electoral outcome after examining only a small fraction of the ballots cast. If, however, an outcome is unclear or incorrect, a risk-limiting audit protects against prematurely accepting it. We need laws that call for such audits – laws with teeth.

"Most current laws mandating post-election audits call for looking at a fixed percentage of ballots," said Pantula. "They may select many more ballots than are needed to do the job or, sometimes, not enough to provide a satisfactory check on the outcome. Good statistical design can efficiently and economically guarantee a large chance of finding and correcting erroneous electoral outcomes. Statisticians can help design risk-limiting audits that make better use of election officials' time and taxpayers' money."

In a risk-limiting audit, ballots are sampled for review in batches (a batch is a group of ballots for which the machine total has been separately tallied). The total number of ballots examined to confirm a correct outcome generally increases with 1) a smaller margin of victory, 2) larger-sized batches of ballots, and 3) more errors in the machine count. Thus, states should seek to buy electoral machinery that makes small-batch reporting easy and that minimizes errors in recording voter intent. The audits themselves can help identify the kinds of machines and ballot designs that lead to the fewest errors.

The complete two-page statement approved by the Board may be viewed at http://www.amstat.org/outreach/pdfs/Risk-Limiting_Endorsement.pdf. Additional information about election audits can be found on the ASA web site at http://www.amstat.org/outreach/electionauditingresources.cfm.

The ASA board has made two previous statements on election auditing, in March and August 2008. The March statement can be viewed at

http://www.amstat.org/about/pressreleases/asacallsforaudits.pdf and the August statement at http://www.amstat.org/about/pressreleases/asaendorsespostelectionaudits.pdf.

About the American Statistical Association

The American Statistical Association (ASA), a scientific and educational society founded in Boston in 1839, is the second oldest continuously operating professional society in the United States. For more than 170 years, ASA has been providing its 18,000 members serving in academia, government, and industry and the public with up-to-date, useful information about statistics. The ASA has a proud tradition of service to statisticians, quantitative scientists, and users of statistics across a wealth of academic areas and applications. For additional information about the American Statistical Association, please visit the association's web site at http://www.amstat.org or call 703.684.1221.

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