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High-School and College Sophomores Provide the Most Accurate Predictions of U.S. Presidential Election Results in Nationwide Contest

Winners of Prediction 2016 used sophisticated statistical methods to predict state-by-state and overall percentage outcomes with greater accuracy than more than 450 students across the U.S.

ALEXANDRIA, VA (November 14, 2016) – Using statistical data and sophisticated analytical methods, two students — one high-school sophomore and one college sophomore — provided highly accurate predictions of the outcome of the 2016 presidential election as part of the American Statistical Association's (ASA) Prediction 2016 contest.

Benjamin Skapura, a student at Brecksville Broadview Heights High School in Ohio, and Lexi Poynor, an undergraduate student at Oklahoma State University, emerged as winners of the contest after submitting their projections for state-by-state results and the percentage of votes cast for each candidate in the general election. Although they did not predict a Trump victory, their projections for individual state results and total vote percentages were the highest among the 193 contest submissions from 19 states and more than 30 institutions.

To compile their state-by-state projections, both students referenced *RealClearPolitics* and *Fivethirtyeight*, among other resources, to examine polling data for individual states. They applied additional research and analysis to reach their conclusions. Skapura accurately forecasted the victor in 46 states — all but the battlegrounds of Florida, North Carolina and Pennsylvania. Poynor correctly projected the winning candidate in 45 states.

"For the swing states, I looked at a multitude of polls and took three factors into account: the size of the population of likely voters, the past accuracy of the poll, and the bias of the poll," said Skapura. "I learned through this process how important it is to ensure the polls we use to reach our conclusions are rated and ranked by independent sites that verify their accuracy. There are many resources available online that skew toward one side or the other."

For the outcome of the popular vote, which both students accurately projected for Clinton, the analysis included a review of state predictions, general election polls, and news regarding the election. Skapura expected Clinton to draw 48.1% of the popular vote to Trump's 45.8%, while Poynor predicted the candidate to win 49.8% to Trump's 46.1%. As of noon on November 10, the official conclusion of the contest judging period, Clinton had won 47.7% and Trump had secured 47.4% of the popular vote.

"Coming up with predictions for the popular vote for each candidate was much more tedious than that of the state predictions," said Poynor. "My analysis included reading multiple articles

and predictions on various websites because I knew that not one website would have everything right. I ultimately took projections from three different websites — electionprojection.com, fivethirtyeight.com and ijr.com — and averaged those numbers to come up with my answers."

In addition to projecting individual state and overall election winners, Poynor also predicted a voter turnout of 129,822,350, just above the actual turnout of 126.4 million.

Both winning students will receive a prize package from the ASA, including $200, a complimentary ASA membership, a guest column in the popular *Sense about Science* blog, and a Prediction 2016 T-shirt.

"I am so impressed by the sophistication of the analyses the students used to reach their conclusions in this competition," said William Christensen, a statistics professor at Brigham Young University and an advisor for the contest. "We saw the use of simulation tools, past data, demographic information and trend analysis, which are all very well-considered approaches. To see this from young people so early in their development is remarkable."

To learn more about how statistics is used to forecast the future and drive decision making, visit ThisIsStatistics.org.

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About the American Statistical Association
The ASA is the world's largest community of statisticians and the oldest continuously operating professional science society in the United States. Its members serve in industry, government and academia in more than 90 countries, advancing research and promoting sound statistical practice to inform public policy and improve human welfare. For additional information, please visit the ASA website at www.amstat.org.

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