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High-School and College Students Use Statistics to Predict Hillary Clinton Will Win Electoral College, Popular Vote in Historic Turnout

Students from high schools and colleges across the country use data to predict election results in ASA's "Prediction 2016" contest

ALEXANDRIA, VA (November 1, 2016) – In a nationwide contest, more than 450 high school and college students used statistical data and methods to predict the outcomes of the 2016 presidential election. 97 percent of participants predicted that Hillary Clinton will win the 2016 presidential election. The median of contest participant projections show that Clinton will win 332 electoral votes to Trump's 204, and 49.3 percent of the popular vote to Trump's 43.3 percent.

The projections are based on 193 individual and group predictions submitted by high school and college students to Prediction 2016, the American Statistical Association's (ASA) contest to forecast the nation's next Commander in Chief. Key projections (based on the collection of student entries) include:
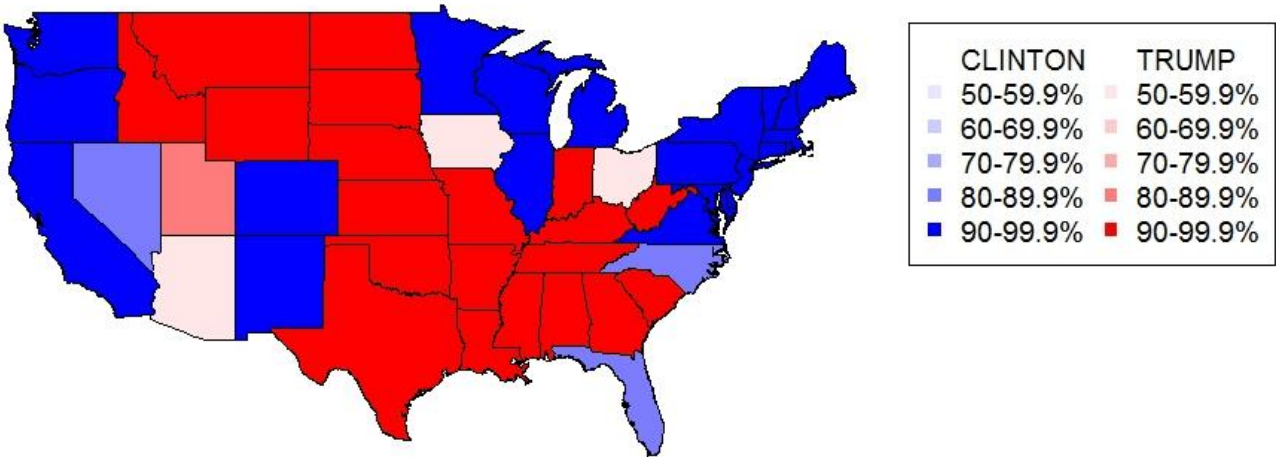
- Clinton will win 26 states (and the District of Columbia) to Trump's 24 states.
- Among the battleground states, Trump will win Arizona, Iowa and Ohio and Clinton will win Florida, Nevada and North Carolina.
- 132 million voters will cast ballots in the 2016 election, the largest voter turnout in absolute numbers in United States history.

"The Prediction 2016 contest provides an exciting way to engage students in this historic election through statistical thinking, a key skill in our increasingly data-driven world," says ASA Executive Director Ron Wasserstein. "With so much at stake – and such partisan rhetoric dominating the discussion – using statistics to predict the outcome of the election enables us to focus on the facts rather than the provocative headlines."

Prediction 2016 Results
The predicted winners for each state are displayed in the figure below, with blue states indicating predicted Clinton victories and red states indicating predicted Trump victories. The shade of each state indicates the percentage of teams predicting a given winner—the more teams predicting a certain candidate, the darker the shade. In other words, for all but seven states, more than 90 percent of the teams agree on an ultimate winner. In all but Arizona, Iowa, and Ohio, more than 80 percent are in agreement. Ohio is especially close with 97 teams predicting Trump as the winner, 92 Clinton, and four predicting Gary Johnson or other. 98

teams predict Trump will claim Iowa, as do 90 Clinton, and five Gary Johnson or other. In Arizona, 113 predict Trump will win Arizona while 76 predict a Clinton victory.

The middle 50 percent of the predicted electoral college predictions range from 323 to 349 for Clinton and 186 to 215 for Trump. For this group (the middle 50 percent), the popular vote percentages range from 47.1 to 52.0 percent for Clinton and 40.4 to 44.6 percent for Trump. The middle 50-percent spreads for number of states won are 25 to 27 for Clinton and 22 to 25 for Trump.

College students also had the option to predict the share of votes cast for Hillary Clinton and Donald Trump by various voter demographic groups. The following table indicates the averages for their results:

Share of Votes Cast by Demographic Group

Candidate	Female	Male	African American	Hispanic	White
Clinton	55.4%	42.3%	86.7%	65.5%	40.4%
Trump	37.2%	49%	7.5%	23.8%	50.3%

The winners of the contest—the individual or group submission with the most accurate predictions arrived through sound statistical methods—will be announced shortly after the official presidential election results become available. The first place winners will receive a prize package from ASA, including $200, a complimentary ASA membership, a guest column in the popular Sense about Science blog, and a Prediction 2016 T-shirt.

To predict the winners, many students analyzed existing national and statewide polls, and weighted them according to a variety of factors. Some students also analyzed demographic data to identify trends in voting. Methods varied from taking averages of polls to running linear regression and time series analysis.

ASA received 193 submissions for the contest. Students had the option to work independently or as part of a team. Over 450 students from 19 states and more than 30 institutions participated.

Participating Schools, Colleges, and Universities

High School	College
Bellaire High School (TX) Brecksville Broadview Heights High School (OH) Col. Zadok Magruder High School (MD) Franklin Regional High School (PA) The Harker School (CA) LaGuardia High School (NY) Lowell High School (CA) Lower Merion High School in Pennsylvania Mamaroneck High School in New York Marin Academy (CA) Mt. Lebanon High School (PA) Miami Valley Career Technology Center (OH) Montgomery Blair High School (MD) Moorestown High School (NJ) Mount Vernon High School (WA) Neuqua Valley High School (IL) New Tech Academy at Wayne High School (IN) Oakton High School (VA) Poly Prep (NY) Riverdale Country School (NY) Saint Ann's School (NY) Stony Point High School (TX)	California State University, Monterey Bay Florida State College at Jacksonville Georgetown University (DC) Grinnell College (IA) Indiana University Oklahoma State University Massachusetts College of Liberal Arts Purdue University (IN) St. Lawrence University (NY) St. Cloud State University (MN) Texas Tech University University of South Alabama University of Illinois at Urbana-Champaign University of Michigan Wellesley College (MA)

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

The projection numbers are based on the median values provided by the students.

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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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