

## STUDENTS USE STATISTICS TO PREDICT TEAM PERFORMANCE IN 2017 STATSKETBALL TOURNAMENT

*Students from high schools and colleges across the country apply strategic thinking to 2017 NCAA Men's Basketball Tournament*

ALEXANDRIA, VA, March 16, 2017 – In two nationwide contests, high school and college students used statistical data and methods to select the most likely Round of 64 upsets and round-by-round victory likelihoods in the 2017 NCAA Men's Basketball Tournament. Wichita State and UCLA were among the most popular teams selected by students to outperform expectations based on their statistical models.

Students used sophisticated techniques to arrive at their predictions, including machine learning technique, simulations, and cross validation. Standout methods in the contest may be standard for professionals, but are noticeably advanced for students

The projections are based on 147 individual and group predictions submitted by high school and college students to the "[2017 Statsketball Tournament](#)", the [American Statistical Association's](#) (ASA) prediction contest for statistics students. The contest consists of two challenges, the "Pick 'Em" Upset Challenge and the "Build Your Own Bracket" Draft Challenge.

In the Upset Challenge, students picked the teams most likely to win in an upset in the Round of 64, earning two points for each winner picked correctly and additional points for predicting an upset, correlated to the difference between those teams' seed rankings. Most popular projections for the Upset Challenge (based on the collection of student entries) include:

- The most predicted upset is for Wichita State (seed 10) to defeat Dayton (seed 7), with 77 percent of entries making this prediction
- Other popular upset picks include 10-seed Marquette over 7-seed South Carolina (62 percent of entries) and 12-seed Middle Tennessee over 5-seed Minnesota (60 percent of entries)

The Draft Challenge assigned a draft point value for each seed, with highest seeded teams receiving the highest point value (75 points) and the lowest seeded teams the least (1 point). Entrants compiled a group of teams with the most potential for round-by-round victories, without exceeding 224 draft points. For each round one of their teams advances, students receive points. Interesting takeaways (based on the collection of student entries) include:

- Students approached the Draft Challenge as strategic problem to solve with statistical thinking, rather than intuition. Their selections of teams shied away from 1 seed teams who had a low risk, high cost.
- UCLA (3 seed), was the most selected draft team. Students often selected middle seeded teams for their brackets due to their bargain draft point cost and chances of advancement.

“The 2017 Statsketball Tournament is an innovative way to show students statistics are all around us, from sports to business to healthcare,” says ASA Executive Director Ron Wasserstein. “Sports statistics and analytics is a popular specialization in the fast-growing career field of statistics and data analysis. This contest offers students a chance to look at the numbers driving headlines about one of the most exciting sporting events of the year.”

The winners of the contest—the submission with the most accurate predictions, arrived through sound statistical methods—will be announced shortly after the 2017 NCAA Championship game on April 3. The first-place winners will receive a prize package from ASA, including \$200, a complimentary student ASA membership, and a 2017 Statsketball Tournament winner T-shirt.

The contest was designed in consultation with Skidmore University Statistics Professor Mike Lopez, who made headlines with statistical modeling to predict NCAA Men’s Basketball Tournament outcomes as part of the winning team in the 2015 Kaggle Machine Learning Madness Contest. Student entries and essays will be evaluated by a team of judges including Laurel Chiappetta, M.S. of Data DIVA; Dr. Stephen Loftus, Analyst, Baseball Research and Development for the Tampa Bay Rays Baseball Club; and Steve Rigdon, Professor of Biostatistics at Saint Louis University and Chair, ASA Section on Statistics in Sports.

To learn more about how statistics is used to forecast the future and drive decision making, visit [ThisIsStatistics.org](http://ThisIsStatistics.org).

## 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 <http://www.amstat.org>.

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