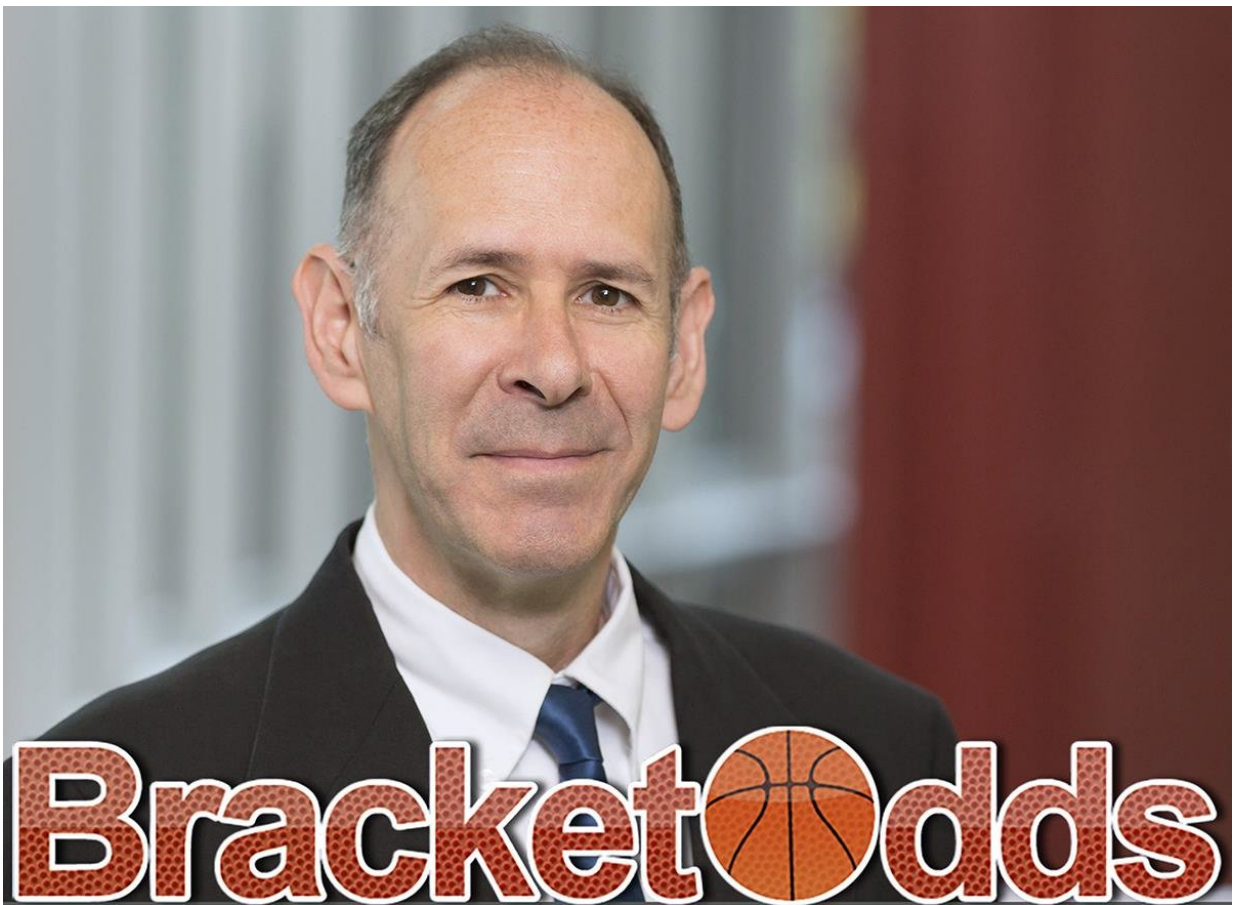# Who makes the NCAA tournament? Researchers at the University of Illinois can help

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Credit: Sheldon Jacobson

The field for NCAA Tournament will be announced March 11, and basketball fans want to know which teams will be a part of March Madness. Researchers at the University of Illinois may have discovered the secret to forecasting the field. They also make a case that the much-maligned RPI really is a dependable tool for tournament decision-makers.

In their paper, "Modeling the NCAA basketball tournament selection process using a decision tree," published in the *Journal of Sports Analytics*, Computer Science Professor Sheldon H. Jacobson and his former graduate student, Shouvik Dutta, created a decision-tree model to model the process used by the Selection Committee.

"The Committee has a well-defined set of criteria that they use in making their picks. There is always a certain amount of confusion over which teams, especially those on the bubble, will be selected and which will be left out," Jacobson said.

Using the same data used by the Selection Committee, Jacobson and Dutta created a step-by-step process, comparing teams in pairs and assessing which teams are most dominant. By modeling the process, they provide a data-driven foundation for who should make the tournament based on the publicized criteria. Between 2012 and 2016, their model predicted 90% of the bubble teams correctly.

"The teams that we select to make the tournament typically are those eventually selected by the Selection Committee. However, every year, there has been one team that we select that the Committee does not. This suggests that, even with all the data available, there is a certain amount of human input and uncertainty that goes into the selection process." Jacobson noted.

Jacobson and Dutta also make the case that RPI is simple to understand,

easy to compute, and very similar to other metrics that some argue should be used in its place.

Forecasts from the [model](#) are available at http://bracketodds.cs.illinois.edu/TT.html, a web site devoted to the statistical analysis of March Madness.

Note: The paper "Modeling the NCAA basketball [tournament](#) selection process using a decision tree," is available at bracketodds.cs.illinois.edu.

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