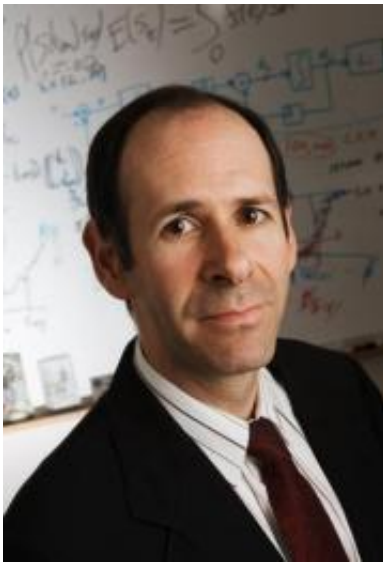


# Odds are, seedings don't matter after Sweet 16, professor says

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Sheldon H. Jacobson, professor of computer science, says that a top-3 seeded team's odds of winning games past the Sweet Sixteen round of the NCAA men's basketball tournament are statistically no different than a coin flip. Credit: L. Brian Stauffer

For budding "bracketologists" busily weighing picks for their annual March Madness office pool, a University of Illinois professor has some advice on how to pick winners: In the later rounds of the tournament, ignore a team's seeding, which is a statistically insignificant predictor of a team's chances of winning.

According to Sheldon H. Jacobson, a professor of [computer science](#) and the director of the simulation and optimization laboratory at Illinois, for the top three seeds in the four regional brackets, the road to the Final Four of the NCAA men's Division I [basketball championship](#) will most likely play out according to their initial seeding in the first three rounds of the [tournament](#) - that is, the higher-seeded teams will most likely beat their lower-seeded opponents. But once the field has been winnowed to the so-called "Elite Eight" teams, Jacobson says each team's odds of winning are statistically no different than a coin flip, no matter how high or low the teams were initially ranked at the start of the tournament.

"The deeper you get into the tournament," Jacobson said, "the less effective seeding is in predicting winners."

Jacobson said that for the 12 teams that comprise the top three seeds in each of the four regional brackets, seeding is an "excellent predictor" of the outcomes of the first three rounds of games with those teams.

"In the first round, the No. 1 seed has beaten the No. 16 seed 100 percent of the time," Jacobson said.

"But after the [Sweet Sixteen](#), it is a statistical toss-up as to who wins the remaining games. A team's seeding can be thrown out the window. They really do not give you a good indication of who is going to win the games."

Jacobson, who, along with graduate student Douglas M. King, wrote an article titled "Seeding in the NCAA Men's Basketball Tournament: When is a Higher Seed Better?" that will be published in a forthcoming issue of the *Journal of Gambling Business and Economics*, said the impetus of the study was not to predict brackets or winners in advance of the tournament, but to see if the top three teams' seeding in each bracket is a good predictor of how far they will go in the "Big Dance."

"I have always been surprised that the first seeds seem to do better than the second seeds, who seem to do better than the third seeds," Jacobson said, "because you would think that there is not really a big difference between the top three seeds from each of the four regions."

So is there a statistically significant difference between what are ostensibly the top 12 teams in the country?

"The answer is both 'yes' and 'no,' " Jacobson said. "There are differences, but it is not a question as to whether they are different; it is a question as to when they are different, based on the rounds of the tournament. Seeds are important, but they start to lose their strength beginning in the Sweet Sixteen round. By the time they reach the Elite Eight, those teams were not statistically different than anyone else in the field."

Jacobson said that tournament seedings, which are determined by a 10-member committee of NCAA basketball athletic directors and conference commissioners from across the country, are an easy, convenient predictor for people with little knowledge of the current [college basketball](#) scene, but are ultimately useless in predicting the final three rounds of the six-round tournament.

Seasoned tournament-watchers, Jacobson said, may have seized upon this prediction strategy years ago, but he's definitively proven it through statistical analysis of data from the modern era of the tournament, beginning in 1985 when the field expanded to 64 teams. In 2001, the tournament expanded to include a 65th team in an opening-round game.

"What we are revealing statistically is something that college basketball fans probably already knew in their gut - that a team's seeding provides some indication as to how well it is going to do, but it does not necessarily give you the definitive predictor," Jacobson said. "There are

always upsets, there are always Cinderellas who make the Sweet Sixteen, the Elite Eight and even the Final Four, like George Mason did a few years ago."

For the average college basketball fan looking for an edge in their bracket predictions, Jacobson advises picking the higher seeds to beat their lower-seeded opponents in the first two rounds, but warned that the seed rankings begin to fall apart soon thereafter.

"In the Sweet Sixteen round, the rankings still hold, but just barely," he said. "From the Elite Eight round and onward, you might as well pick names out of a hat."

Jacobson said that other intangible factors besides a team's initial seeding, such as player match-ups, a team's style of play and its relative "hotness" or "coldness" prior to the game, has a greater effect on the outcome of contests in the later rounds of the tournament.

"Especially when you get into the Elite Eight," Jacobson said, "that is when you are going to see teams you do not expect to win, ending up winning games at a higher statistical rate than would be expected."

Despite its weakness as a predictive model, Jacobson doesn't believe the seed-based ranking system used by the NCAA needs to be replaced wholesale.

"The committee has a very challenging job seeding the teams, and the tournament format by design is exciting," he said.

"We are talking about bringing 65 teams together from all the major conferences - the Big Ten, Big 12, SEC, PAC-10, ACC and the Big East - and then you have many teams that you rarely see on national television. But it should not change the seeding system, since seeds are

not designed to predict the winner of each game, but rather, are based on a resume of performance for an entire season."

Source: University of Illinois at Urbana-Champaign ([news](#) : [web](#))

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