**Which Stats Led to Success in March Madness 2023?**

I looked at 30 different regular season statistics and filled out March Madness brackets based on which team was better for that individual statistic. For example, Gonzaga led the country in Points Per Game (PPG) so they were the chosen winner in the PPG bracket and for every matchup, I chose the team that averaged more PPG during the season. I then did that for all 30 statistics. All stats are as of Selection Monday (March 20th) so they include conference tournament games but none of the First Four games. Out of the 30 statistics I looked at, only the Offensive Rebounding % (ORB%) predicted Connecticut as the champion. That bracket finished with 92 points (using traditional bracket scoring) and finished in the 97.8% on the ESPN Bracket Challenge Game. Here is a look at all 30 brackets ranked in order of how many points they accumulated, the percentile they finished in on ESPN, and the predicted champion.

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| **Bracket2023** | **Points** | **Percentile** | **Champion** |
| ORB% | 92 | 97.8 | Connecticut |
| Rebounds | 63 | 93.5 | Alabama |
| DeFG% | 57 | 89.5 | Alabama |
| Kenpom | 53 | 83.9 | Houston |
| Sagarin | 52 | 81.8 | Alabama |
| FT% | 51 | 79.4 | Texas A&M-CC |
| Net | 50 | 76.6 | Houston |
| OeFG% | 49 | 73.4 | Colgate |
| AdjD | 49 | 73.4 | UCLA |
| ASM | 47 | 65.9 | Houston |
| Favorites | 47 | 65.9 | Alabama |
| Betting | 46 | 59.2 | Houston |
| AdjO | 43 | 45.2 | Gonzaga |
| Elo | 42 | 40.5 | Houston |
| Def Eff | 40 | 31.7 | Houston |
| 2PS% | 39 | 27.6 | Furman |
| Off Eff | 38 | 23.9 | Gonzaga |
| SOS | 38 | 17.5 | Kansas |
| PPG | 36 | 17.5 | Gonzaga |
| Pace | 35 | 14.9 | Alabama |
| Game Location | 32 | 8.9 | Alabama |
| DRB% | 31 | 7.4 | Drake |
| DFTA/FGA | 30 | 6.2 | Purdue |
| 3PS% | 28 | 4.4 | Colgate |
| Shooting% | 27 | 3.8 | Gonzaga |
| DTOV% | 24 | 2.3 | Iowa State |
| OPPG | 24 | 2.3 | Houston |
| OTOV% | 21 | 1.4 | NC State |
| Turnovers | 18 | 0.8 | Virginia |
| OFTA/FGA | 16 | 0.6 | Texas A&M |

Total rebounds finished second, while DeFG% finished third. Some of the worst brackets was OTOV%, total turnovers, and OFTA/FGA was the big loser finishing with 16 total points which was good for the 0.6 percentile on the ESPN Bracket Challenge Game.

Just looking at the Four Factors, the rebounding and effective field goal percentages were the better of the metrics, while turnovers and free throw attempts did not have much success. (The O in front is for offensive, while the D in front is for defense)

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| **FourFactors2023** | **Points** | **Percentile** | **Champion** |
| ORB% | 92 | 97.8 | Connecticut |
| DeFG% | 57 | 89.5 | Alabama |
| OeFG% | 49 | 73.4 | Colgate |
| DRB% | 31 | 7.4 | Drake |
| DFTA/FGA | 30 | 6.2 | Purdue |
| DTOV% | 24 | 2.3 | Iowa State |
| OTOV% | 21 | 1.4 | NC State |
| OFTA/FGA | 16 | 0.6 | Texas A&M |

Looking at the advanced metrics including Kenpom, Sagarin, Net, Elo, Favorites (Better Seed), and the Betting favorites, Kenpom finished one point better than Sagarin. Interestingly, Sagarin and the Favorites bracket were the only two of these six that had Alabama as the champion. The other advanced metrics had Houston as the best team leading up into the tournament. Obviously, both teams lost in the Sweet 16, and both brackets busted within an hour of one another.

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| **AdvancedMetrics2023** | **Points** | **Percentile** | **Champion** |
| Kenpom | 53 | 83.9 | Houston |
| Sagarin | 52 | 81.8 | Alabama |
| Net | 50 | 76.6 | Houston |
| Favorites | 47 | 65.9 | Alabama |
| Betting | 46 | 59.2 | Houston |
| Elo | 42 | 40.5 | Houston |

A bracket cannot be made based on just one statistic alone. If Virginia would have won the championship, the turnovers bracket would have had the most points based on earning more points for picking the later rounds correctly. However, rebounding and effective field goal percentages, both on offensive and defensive, seem to matter more than turnovers and free throws. Additionally, following Kenpom and Sagarin would have made a bracket in the top 20% of all brackets. Even though Connecticut was a 4 seed in the tournament, they entered it as the number 4 team in Kenpom and number 6 team in Sagarin.

That above analysis was a bracket style, but what about overall correctness. For example, none of the brackets predicted Connecticut vs San Diego State in the championship game, but which stats were the best for each specific game. There were 63 total games played (not counting the First Four) and the favorites (better seed) won 44/63 of those games. Kenpom, Net, the Betting favorite, and Sagarin were close behind. Even though there are a lot of upsets in the tournament, the advanced metrics still predicted most of the games correct compared to other statistics.

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| **Stat** | **Correct** |
| Favorites | 44 |
| Kenpom | 43 |
| Net | 43 |
| Betting | 43 |
| Sagarin | 42 |
| AdjD | 42 |
| AdjO | 41 |
| ORB% | 40 |
| Rebounds | 40 |
| ASM | 40 |
| DeFG% | 39 |
| Elo | 39 |
| Def Eff | 39 |
| SOS | 39 |
| FT% | 38 |
| DRB% | 38 |
| OeFG% | 37 |
| 2PS% | 37 |
| PPG | 35 |
| OPPG | 35 |
| Off Eff | 33 |
| DTOV% | 33 |
| DFTA/FGA | 32 |
| Shooting% | 32 |
| Pace | 31 |
| 3PS% | 31 |
| OFTA/FGA | 29 |
| OTOV% | 28 |
| Game Location | 26 |
| Turnovers | 26 |

Interestingly, the team that shot better from the 3-point line in the regular season only won 31/63 games which is less than 50%. A common thought in tournament games is that teams that shoot the 3 have a better chance of winning. However, regular season success from 3 did not lead to success in this year’s tournament.

In 2023, even though the ORB% bracket received the most points, it was the seed favorites and other advanced analytic metrics that still received high scores and had the most games correct. Therefore, it seems that Kenpom and these other advanced metrics, in fact, do know ball.

Here is a link to the team’s data and breakdown of each stat by round:

<https://github.com/aambler/March-Madness-2023>