Our 2019 March Madness Predictions

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# Is Virginia Too Slow?

By Todd Whitehead

Filed under March Madness


No. 1 seed Virginia plays at the slowest pace of any team in the country. STREETER LECKA / GETTY IMAGES

Last year, coach Tony Bennett and his Virginia Cavaliers earned the embarrassing distinction of becoming the first No. 1 seed in men's NCAA Tournament history to lose to a No. 16 seed in the opening round. Bennett may end up being tied to that ignominious bit of trivia for the rest of his life, but he also has a real shot at redemption this year. Virginia is a No. 1 seed once again, and the reigning coach of the year will have another chance to win his (and the school's) first national championship. But the questions linger: Was last year's loss to the underdog Maryland-Baltimore County Retrievers just a one-off fluke for Virginia, or was it symptomatic of a fatal flaw in Bennett's system? Will this be the year that one of his teams finally breaks through?

Broadly speaking, Bennett has been very successful at Virginia. He has racked up multiple 30-win seasons, recruited a string of NBA-quality players and fixed the Cavaliers firmly in the AP Top 10. It took him just three seasons to transform a 10-win team into an NCAA Tournament participant. And yet — despite five subsequent tourney appearances, including three No. 1 seeds — victories in the Big Dance have been few and far between for Bennett, as his Virginia teams have notched a total of just seven tournament wins. In fact, Virginia's

performance against seed expectation of -1.30 wins per tournament is the second-worst of any team over the past five years.

### Virginia has been successful lately, just not when it counts

Tournament wins vs. average for seed* for the 10 Division I NCAA teams with the most total wins since 2013-14, through the 2018 tournament

| | WINS | | | | WINS VS. EXPECTED | |
|---|---|---|---|---|---|---|
| SCHOOL | TOTAL | TOURNEY | BEST FINISH | NO. 1 SEED | AVG. | RANK |
| Gonzaga | 191 | 13 | Finalist | 1x | +0.88 | 12th of 160 |
| Villanova | 190 | 15 | Champion | 3 | +0.05 | 49 |
| Kentucky | 179 | 15 | Finalist | 1 | +1.18 | 7 |
| Duke | 172 | 12 | Champion | 1 | +0.11 | 45 |
| Kansas | 172 | 12 | Final Four | 3 | -0.55 | 131 |
| **Virginia** | **172** | **7** | **Elite Eight** | **3** | **-1.30** | **159** |
| UNC | 169 | 15 | Champion | 2 | +0.66 | 21 |
| Arizona | 168 | 8 | Elite Eight | 1 | -0.54 | 127 |
| Wichita St. | 166 | 6 | Sweet 16 | 1 | -0.41 | 119 |
| Michigan St. | 162 | 9 | Final Four | — | +0.35 | 29 |

* Seed averages since 1985. Game totals through March 17, 2019.

SOURCE: SPORTS-REFERENCE.COM

So, what gives? Why has Virginia — a team that has so thoroughly dominated the regular season lately — disappointed so much in March? It may have something to do with the glacially slow pace at which Bennett has his team playing.

A team's efficiency margin (i.e., the amount by which it would outscore an average Division I opponent over the course of 100 possessions) is generally a good predictor of wins and losses. Teams that score efficiently and make it hard for their opponents to do so tend to win a lot of games. According to Ken Pomeroy's ratings, Virginia has hovered near the Top 5 in adjusted efficiency margin during its recent period of excellence, finishing each of the past five seasons somewhere in the ballpark of +25 to +30 points per 100 possessions. This year, the Cavs have the best margin of any Division I team at an eye-popping +35.

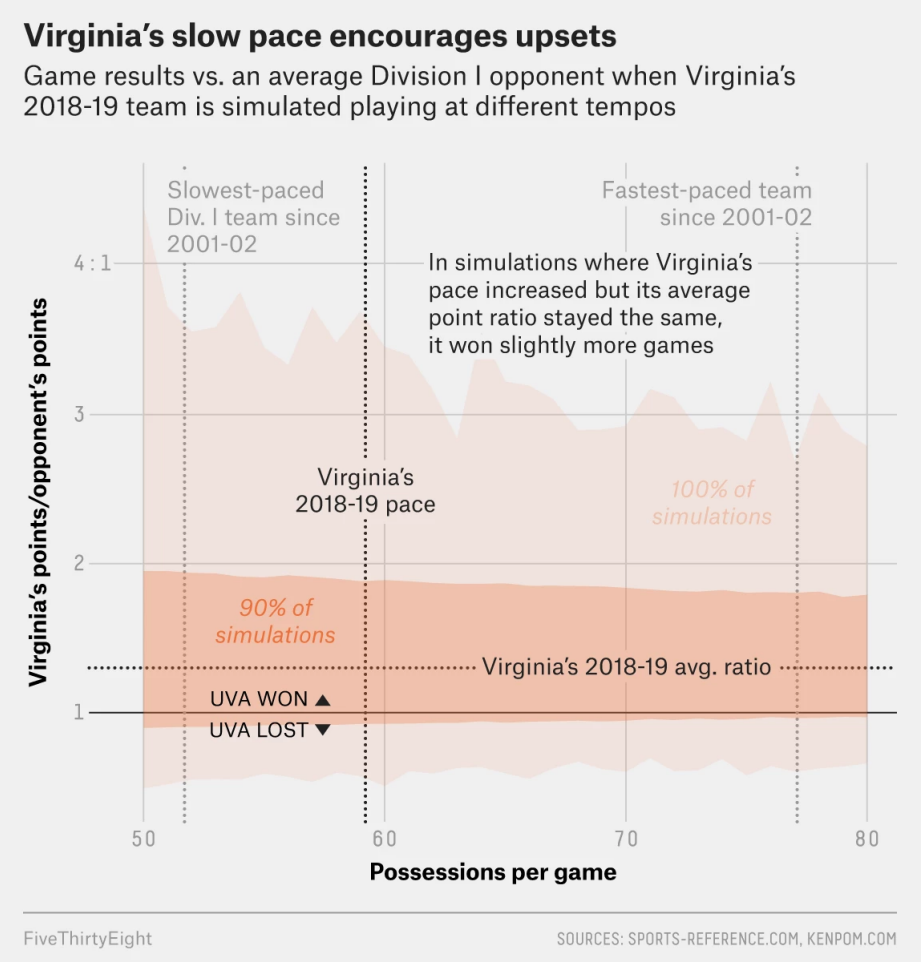
Of course, Virginia never actually has a chance to play 100 possessions in any individual game. The typical 40-minute college game has only about 70 possessions in each direction. And because the Cavaliers play at the slowest pace of any Division I team (353rd), they typically use even *fewer* possessions than that — just less than 60 on average.

Reducing the number of possessions available to each team puts a greater emphasis on randomness; each stroke of bad luck — a cold-shooting snap, a blown call, a bounce of the ball in the wrong direction — matters a bit more when the pace is slow. Extra randomness puts the favorite at greater risk and bolsters the underdog's chances at an upset. By playing at a slow pace, the Cavaliers are essentially giving themselves fewer opportunities to prove that they are the better team in any given game. This is especially problematic if the Cavs find themselves trailing by a large margin, as they were early in the second half last year against UMBC.

But does it actually matter? We know that pace has only a very modest influence on the predictability of postseason outcomes in the NBA. That's because each NBA game is 48 minutes long, each team uses about 100 possessions per game, and each playoff matchup is decided over a best-of-seven series. However, in a single

elimination tournament with shorter games and fewer possessions, playing at a slower pace has much greater potential to introduce some wild volatility — hence, March Madness.

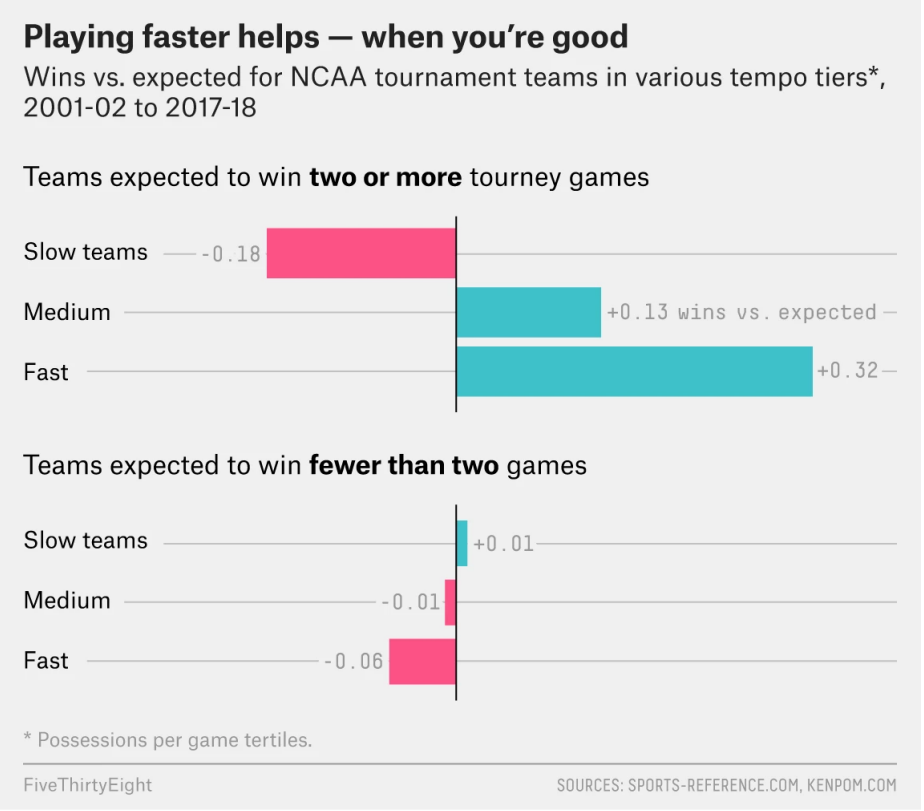
We ran a simulation to gauge just how big of a problem Virginia's slow pace might be in the NCAA Tournament. Starting with the Cavaliers' per-100-possession stats, we broke down the likelihood of the various potential outcomes for each possession on offense and on defense — how often they would score or allow 3 points (3-pointer made, 3 free throws or a 2-pointer and a free throw), 2 points (2PM or 2FTs), 1 point (1 FT) or 0 points (0FG, 0FT or a turnover) against an average opponent. Then, by sampling randomly from these distributions of potential possession outcomes, we created 10,000 simulated games for a range of different pace scenarios — from 50 to 80 possessions per game — to find the ratio of points scored to points allowed in each simulation. These simulations assume (undoubtedly unrealistically) that Virginia's offensive and defensive efficiency would be unaffected by a change in the pace of play.




Under this assumption of a stable efficiency margin — where the digital Cavaliers are programmed to score an average of 1.3 times as many points as they allow regardless of the tempo — we find that Virginia wins slightly more simulated games when playing at a faster pace. Visually, you can see the orange band of simulated results narrowing from left to right as the range of likely outcomes shrinks toward the average with an increasing number of possessions. The Cavs lost 9.7 percent of their simulated games when they played at a 59 possession-per-game tempo (equivalent to their usual pace), but the more their pace increased, the fewer upsets there were.

This is an interesting thought experiment, but is there any empirical evidence to support the idea that playing at a slow pace is tied to underachievement in the tournament?

To find out, we examined game results from the 17 NCAA Tournaments from 2002 to 2018, for which there are team-tempo stats available from KenPom. We created a model for expected win totals based on tournament seed and adjusted efficiency margin. Next, we compared the expected win totals from the model with the actual win totals for each team in each tournament, excluding the First Four and other play-in games.[1] From there we sorted the teams by quality (i.e., expected to win more or less than two games in a single tournament) and by adjusted tempo (possessions per game, divided into tertiles), forming six groups. We found that, among the teams that were expected to win the most games (two or more), those that played at a slow pace tended to underachieve, while those that played faster were most likely to outperform their expected win totals.




Playing at a fast or slow pace tends to nudge a good team's range of outcomes one way or the other by about a quarter of a win. So, yes, Virginia's slow pace of play puts it at a relative disadvantage compared to other, higher-tempo No. 1 seeds. But that doesn't necessarily mean Virginia should start playing faster.

After all, Bennett knows a low-possession team *can* succeed in the tourney. He witnessed it firsthand in 2000 as a member of his father Dick's coaching staff, when their methodical Wisconsin squad reached the Final Four despite playing at a snail's pace. Now, Tony has implemented the same pace-defying pack-line defense that Dick once used to stifle Wisconsin's opponents and tempo alike. That conservative defensive scheme is so integral to the Bennetts' coaching identity that playing at a slow pace has basically become a family tradition.

In the end, a team's efficiency margin is still a much better predictor of tournament success than its tempo. And, in practice, Virginia's huge efficiency margin may be inextricable from its slow pace of play. A faster-paced Virginia team might also become a less efficient Virginia team, especially on the defensive end.

Theoretically, Bennett would maximize Virginia's tournament chances by having his team play at a faster tempo. But in reality, his best bet may be to continue following in his dad's slow-paced footsteps in the hopes that they will eventually lead him back to the Final Four.

The journey will start for Bennett and Virginia on Friday afternoon against Gardner-Webb of the Big South. On paper, the Cavaliers will be 35 points better than the Runnin' Bulldogs, at least on a per-100-possession basis. But we will just have to wait and see if 59 possessions will be enough for the Cavs to prove they are better than a No. 16 seed this time around.

*Check out our latest March Madness predictions.*

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**Footnotes**

1. 64 teams per tournament x 17 tournaments for a total of 1,088 distinct team-year combos.