For my article to review, I went to the FiveThirtyEight site, which is well-known for analysis-heavy articles that include a lot of graphics. Given the time of the year, the site has a number of articles relating the the NCAA Men’s Basketball Tournament, aka March Madness. The specific article concerns an analysis of the University of Virginia’s slow pace of play and the potential for how that pace affects the team’s chances of winning games.

A PDF files of the article attached to this post. The target audience of the article would be hard-core college basketball fans who are also enjoy data and analytically focused discussions. The article assumes a significant level of NCAA basketball knowledge, referencing people, games, and results without a lot of extra explanations.

There is no underlying research study associated with this article, as it is the original presentation of the research and simulation conducted.

The variables in the discussion are as follows:

1. Efficiency margin defined as the number of points that a team would outscore an average Division I opponent over the course of 100 possessions). Higher positive is better. This is a quantitative variable.

2. Actual number of possessions per game is the average number of possessions that a team has per game, over the course of the season. The article notes that the average for NCAA men’s games is around 70, and that Virginia has the lowest number in NCAA Division 1, at just under 60. This metric generally defines what is known as the pace of play, and faster play associated with higher numbers. Another quantitative variable.

3. Per 100 Possession Statistics, a group of quantitative variables providing the estimated probabilities of particular basketball events occurring during an average possession. These numbers are based on the actual outcomes per possession for each player on any team for the season. The events include things such as 3-point field goal, assist, turnover, and steal, to name a few, and the combinations of events lead to determining how many points the team would score (on offense) and allow (on defense) per possession.

4. Ratio of points scored to points allowed per possession, as another quantitative variable. A value of exactly 1 means that a team is scoring and allowing points at the same rate; a number greater than one means that the team is out-scoring their opponent, and less than one means that the opponent is out-scoring the team. This variable is dependent on the number of possessions per game, moving up or down based on the pace of play.

5. Two additional quantitative variables defined the end result, those being expected and actual win totals in the tournament. These are the final dependent variables, for the simulations being run, and ultimately are the measure of success or failure for each team in the tournament.

6. Finally, the observational variable is each team in the tournament, along with its seeding or ranking.

The article summarizes the results of running 10,000 simulated games for each of different paces of play, from 50 to 80 possessions per game, and the ratios of points scored to point allowed in each simulation. The points ratio served to show if Virginia would win or lose more games at each pace of play.

What the simulations conclude is that Virginia would potentially win more games if it would play at a slightly faster pace, going “deeper” in the tournament than they have historically done.

The graphics in the article do a very nice job of presenting and illuminating the ideas in the text, and I don’t believe that they introduce any bias, beyond the results and conclusions that the data leads the author to.