Was Interest in First-Round NBA Playoffs Series Impacted by the Lengthening of Series in 2003?

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We study the NBA’s decision to make the first-round series of the league playoffs a best-of-seven games competition, as opposed to a best-of-five competition. Economic theory suggests that the longer series would reduce the uncertainty of the first-round competitions, as superior teams would be more likely to overcome luck that might give an underdog an opportunity to win a series. We attempt to measure if fan enthusiasm for first-round competitions reflected this decrease in uncertainty. We measure fans’ reaction to the change in series length with attendance as a share of arena capacity and television ratings and find that fans have not reacted negatively to the increased uncertainty, thereby making the decision a net positive for the league.

Our study is related to several studies on the effect that uncertainty of a contest’s outcome has on fan interest of the contest and best-of-N contests. Traditionally, studies that analyzed fan interest and the uncertainty of outcome measured interest in terms of attendance. Two studies of regular season attendance in baseball are Knowles, Sherony, and Haupert (1992), which calculates the attendance maximizing probability of a home victory, and Lee and Fort (2008), which studies the relationship between attendance and uncertainty in a variety of dimensions. More recent studies have focused more on linking television ratings to uncertainty of outcome. An example of such a study is Alazy, Gaskell, Leach, and Szymanski (2010), which found that minute-by-minute television ratings for soccer games were related positively to the uncertainty of a match’s outcome.

Best-of-N contests have been studied in a variety of ways, and our study is related to Swarz, Tennakoon, Nathoo, Tsao, and Sarohia (2011), which studies the threat of elimination on team performances in best-of-seven series, Caudill and Mixon (1998), which studies revenue changes brought about by the NBA’s change to the structure of its championship-round series, and Boronico (1999), which discusses the relationship team quality and the probability of advancing to the World Series in the multi-tiered playoff structure adopted in 1995.

We are interested in fans’ perspectives on uncertainty and use the NBA’s 2003 decision to lengthen the first round of its playoffs from a best-of-five contest to a best-of-seven contest. In the shorter contests, the underdog has a better chance of winning a series because luck can impact a shorter series more compared to a longer series. Therefore, the adoption of the longer series reduced the uncertainty of these playoff contests.

We use a dataset that contains attendance and television ratings data on playoff games from 1990 to 2016 to determine if fans internalized the reduction in uncertainty of certain series by reducing their demand for attending a game or watching a series. To calculate the reduction in the probability of an underdog winning a series, we control for differences in team quality in a number of ways, including winning percentage, in-season game outcomes, and pre-series betting odds. We attempt to calculate any impact on fans’ interest to watch a game, whether in person or on television, from the reduction in uncertainty. We conclude that fans’ demand to watch a game, whether in person or on television, was unaffected by the lengthening of the first-round series, thereby making it a net positive for the league, which likely profited on the decision to offer more playoff games for fans to watch.