

Where is the Crowd? Attendance and Arena Impacts on Big 12 Women's Basketball Home Performance

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Abstract

In the sport of basketball, home-court fans are often referred to as a team's "sixth man" in creating an advantage that can impact team performance. Quealy and Wolfers (2015) reported that college basketball players are approximately 1% less likely to make a free throw in the presence of a hostile and rowdy crowd. Crowd effects and other psychological influences result in home teams winning an average of 60.4% of games (Pollard & Gomez, 2015). Although crowd size for collegiate women's basketball remains lower on average than for the men's game, interest and following of women's basketball has never been higher (Finn, 2023). Given these factors, this research project sought to examine several arena and attendance factors specifically within the realm of women's basketball at a Power 5 conference in relation to winning on the home court.

Methods: Data was collected from school websites, media guides, and NCAA records for five seasons (from 2016-17 through 2021-22) excluding the COVID-19 season for the ten member schools of the Big 12 Conference. Variables identified and data collected for each season included: Home Winning Percentage, Arena Age, Arena Capacity, Average Home Attendance, Average Percent Capacity Attendance, and Big 12 Final Rank. Pearson correlational analyses were used to determine relationships between these variables with a .05 alpha level determined for significance.

Results: Women's basketball venues for the Big 12 Conference over the timeframe of this study ranged in their date of opening from 1938 for Gallagher-Iba Arena in Oklahoma State to 1999 for Texas Tech's United Supermarkets Arena. Seating Capacities for these ten arenas ranged from 8,500 at Schollmaier Arena at TCU to 17,900 for the Erwin Center at the University of Texas. The factors most strongly related to the home winning percentage were as follows: Average Home Attendance ($r = .400$, $p = .004$), and Big 12 Final Rank being inversely related ($r = -.820$, $p < .001$). Additionally, the important factor of Average Home Attendance was significantly negatively correlated to Arena Age ($r = -.353$, $p = .012$).

Implications: While the strongest correlation between home winning percentage and final standings in the conference seems logical, it does demonstrate the importance of winning at home and the efforts of increasing those chances through crowd size and fan engagement. This is further supported by the strong correlation found for average home attendance. The age of the arena does appear to impact attendance; however, it does not favor newer arenas for larger crowds. This general finding deserves further exploration to understand the balance between

historic and beloved venues and the desire for new facilities with the most modern amenities. With the recent opening of new venues like Baylor's Foster Pavilion and changes to the membership of the Big 12 conference, continued explorations of this topic for the Big 12 and for other conferences are warranted.