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SAIL Application: ACC Three-Point Shooting Differences

This paper attempts to answer if Atlantic Coast Conference (ACC) Men’s Basketball teams shoot better or worse at home versus on the road. The data sample, acquired from *Sports Reference- College Basketball*, included the three-point shooting for all 15 ACC teams for all home and road games during the 2021-2022 basketball season. Note that neutral site games were excluded from the sample to only analyze the difference in three-point shooting for home and road games. Before analyzing the data, I hypothesize that three-point shooting on the road will be worse than three-point shooting at home. There are many factors that can influence shooting on the road versus at home. For example, road teams must travel for long hours and sleep in a hotel rather than their home; this can lead to a bad night’s sleep, which can cause a poorer performance during the game. The travel also means that there is less time for the road teams to game plan and practice. Additionally, road teams are not as familiar with the court they are playing on and must endure the immense pressure from the opposing team’s fans. The number of days between games can also be significant in a team’s performance.

*Figure 1* *shows the difference between the 3-Point Shooting of Home and Away teams during the 2021-2022 ACC Men’s Basketball season.*

As *Figure 1* shows, the findings are that road teams shot 34.35% from three, while home teams shot 36.07% from three, meaning that home teams shot 1.72% better from three in the ACC during the 2021-2022 season. This shows that there is a significant difference in shooting between home and away games. However, there are a few mitigating factors that can explain this. In the non-conference, ACC teams typically play weaker teams at home. They typically shoot better from three against these weaker teams in the non-conference than conference opponents with better defenses. Additionally, luck could be a factor or a player just happening to have a good shooting day. The in-conference scheduling also is a big factor because not every team plays the same teams at home and away. For example, Virginia is one of the best defensive teams in the country; so, teams that only played Virginia at home may have shot slightly worse at home compared to teams that played Virginia on the road or both home and away.

When looking at individual teams, the largest difference in home and away shooting was Clemson. Clemson shot 37.12% from three at home, while only shooting 30.40% on the road, meaning they shot 6.72% better at home than on the road (Figure 2).

*Figure 2 shows the difference between the 3-Point Shooting of Home and Away games for Clemson during the 2021-2022 Men’s Basketball season.*

While this is just one season and within the ACC, this study can be expanded to look at all of college basketball across decades. This research can also be expanded to include other metrics, such as defensive and offensive efficiency to weight the teams’ abilities to shoot and stop three-point shooting. This study has significant implications for the way ACC basketball teams can game plan. Knowing that they may shoot weaker on the road, they can plan to take fewer three-point shots and more two-point shots. Teams at home can utilize this information to defend the paint more and send double teams, forcing teams to shoot more threes.