

In the competitive arena of college basketball, optimizing player performance is critical. This study investigates the impact of fatigue on 3-point shooting percentage during the NCAA Division I Men's Basketball Tournament. Utilizing 2023 tournament data, a linear regression model was constructed to examine the effects of factors contributing to fatigue, including tournament stages, travel times, number of players rotated in a game, and allotted rest days. The final model yielded a statistically significant relationship between 3-point shooting percentage in a tournament game and the number of players who appeared in the game. For every additional player included in the rotation our model predicts a 2.3% increase in 3-point shooting percentage. These results indicate that managerial decision making should focus on the depth of a team's bench as opposed to the given rest days or travel time for tournament games. Long travel distance and a quick turnaround between games do not provide valid reasoning for coaches to excuse a team's poor shooting performance.