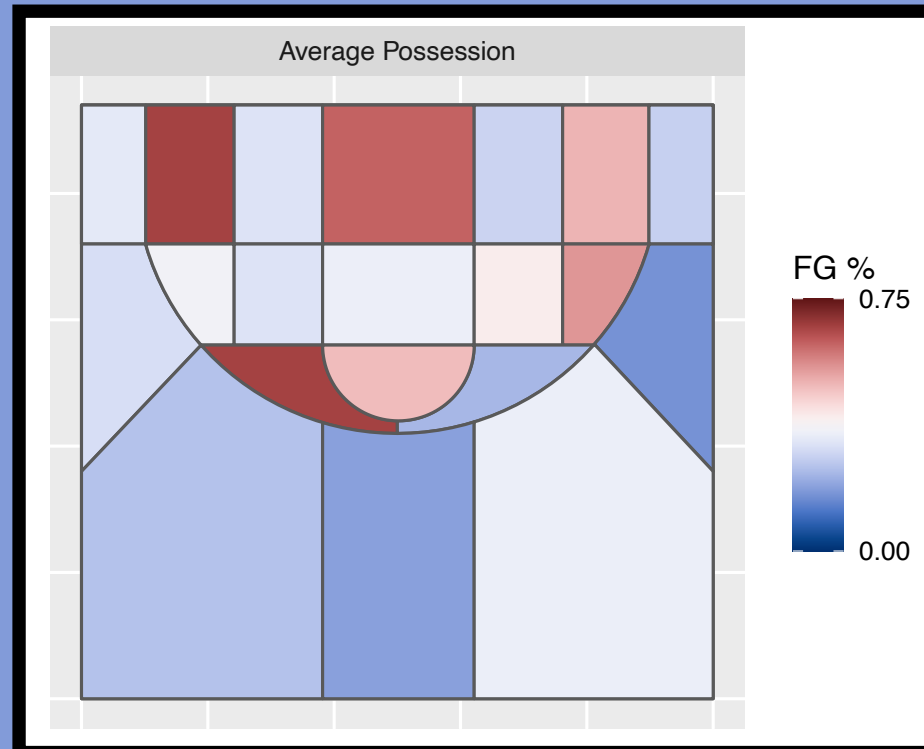


Hot Shot: A Statistical Analysis of Duke Women's Basketball Offensive Field Goal Efficiency

Goal:

The goal of the research is to use the binary response of a made or missed basket to determine which features are critical to a successful or non-successful possession, and to understand how a coaching staff can utilize this feedback to optimize an offense.

Make More Shots



Results:

Statistically Significant Features:

Paint Touches **.509*****
Shot Type: Pass **.415****
Side Changes **-.248***

*p<0.1; **p<0.05; ***p<0.01

In Sample Prediction: 63.81%
Out of Sample Prediction: 64.12%

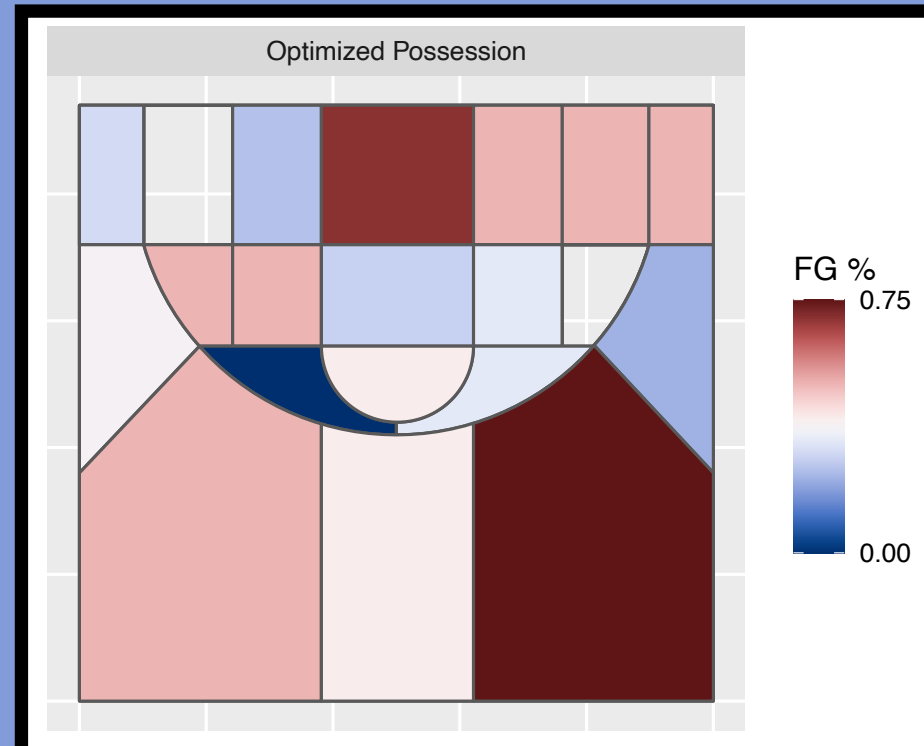
Methods:

Data: 2022-23 Duke Women's Basketball Offensive Possessions Ending in a Field Goal Attempt

Model: Logistic Regression

Response Variable: Binary Make or Miss Flag on the Field Goal Attempt

Features: Shot Type, Passes, Side Changes, Paint Touches



Discussion:

Average Possession Heat Map:
Every Offensive Possession

Optimized Possession Heat Map:
≥1 Paint Touch
Shot Type: Pass
< mean(Side Changes)

Offensive Strategy:
Ball Screens, Flex Screens, Push Screens, Staggers, and Flares