

# MARCH MADNESS PREDICTION MODEL<sup>+</sup><sub>o</sub> •

| Shepard Berry, Ben Kim, Zhaoji Meng, Conner Stallman



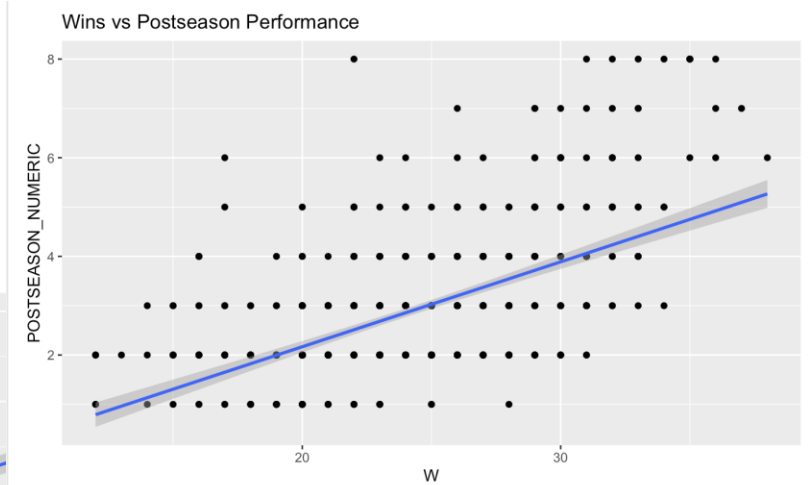
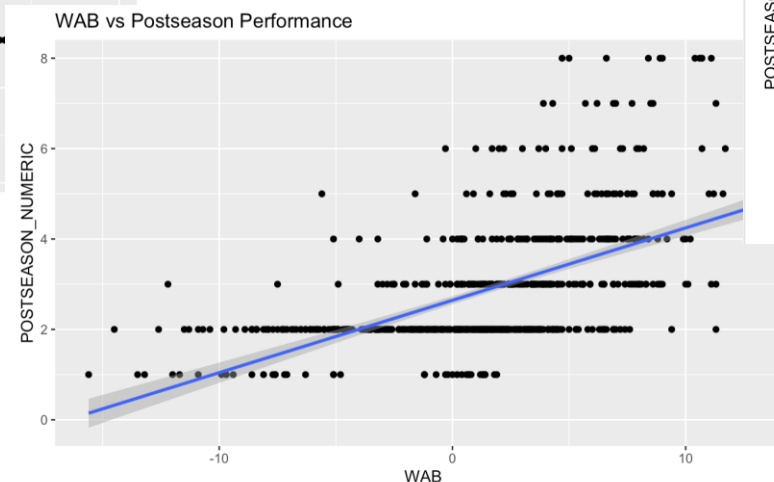
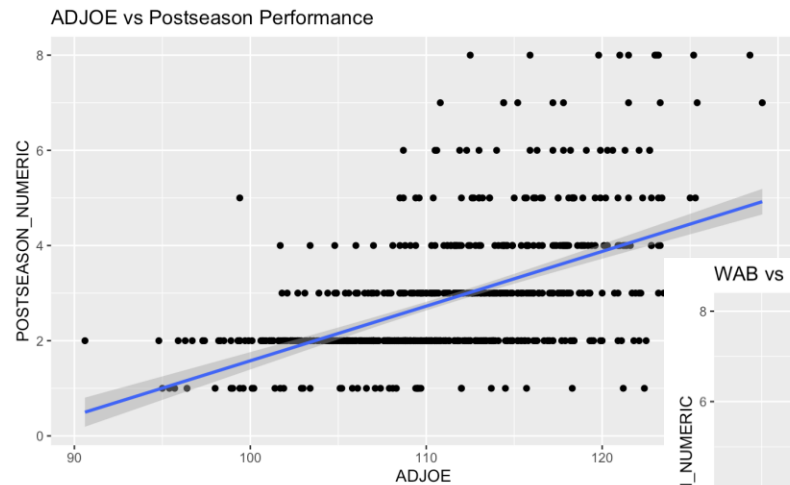
# RESEARCH QUESTIONS

- What metrics correlate to a winning team?
- Does offensive or defensive efficiency impact their chances of winning the championship?



# POSITIVE CORRELATIONS

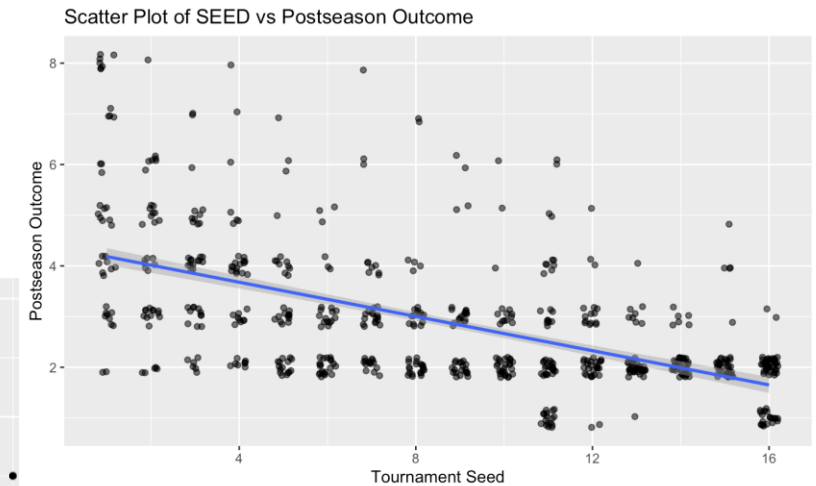
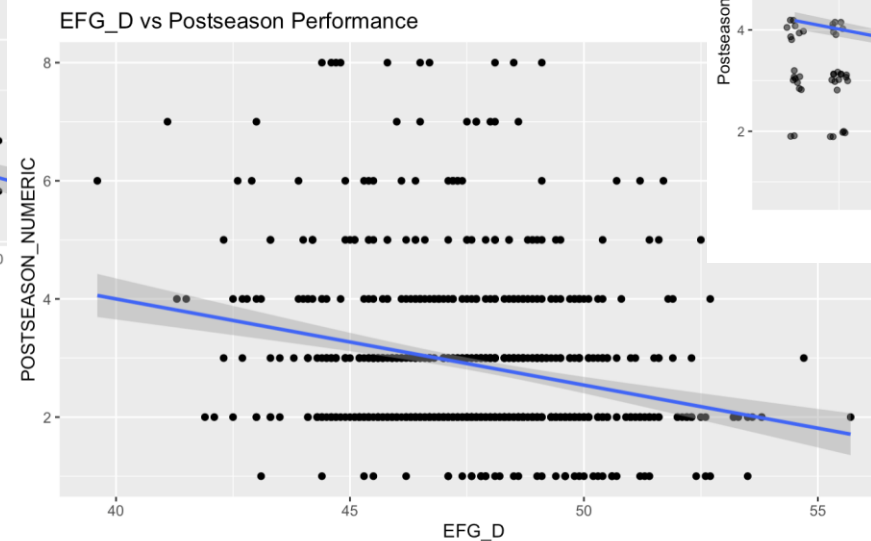
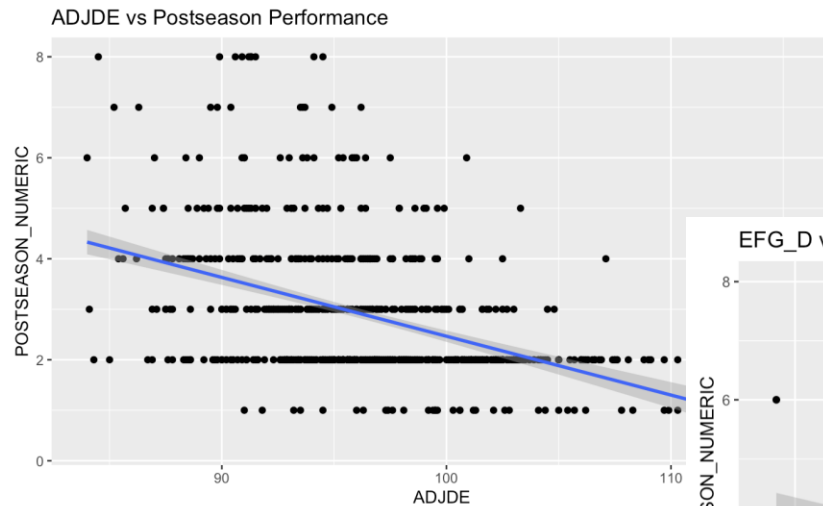
Variables, such as offensive efficiency, wins above bubble, pre-season wins, and more have positive correlations that can help us predict post-season outcomes





# NEGATIVE CORRELATIONS

We also noticed some variables with negative correlations to post-season outcomes, such as defensive efficiency, field goals allowed, and tournament seed



# MULTIPLE REGRESSION (POISSON)

The Poisson distribution suits this analysis better than the Binomial because it captures the count-based, progressive nature of tournament advancement across multiple rounds, rather than a simple success/failure scenario. Unlike the Binomial, which assumes two outcomes, the Poisson model aligns with March Madness dynamics, where teams advance through discrete rounds with decreasing probabilities, providing a more accurate statistical framework for modeling performance.

