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STAT 155 Final Project Written Report

Introduction:
This project explores how beliefs and behaviors relate to men's perception of being falsely accused of sexual harassment. Using FiveThirtyEight's 2018 masculinity survey, the goal is to identify what predicts whether a man says he feels at greater risk of false accusation.
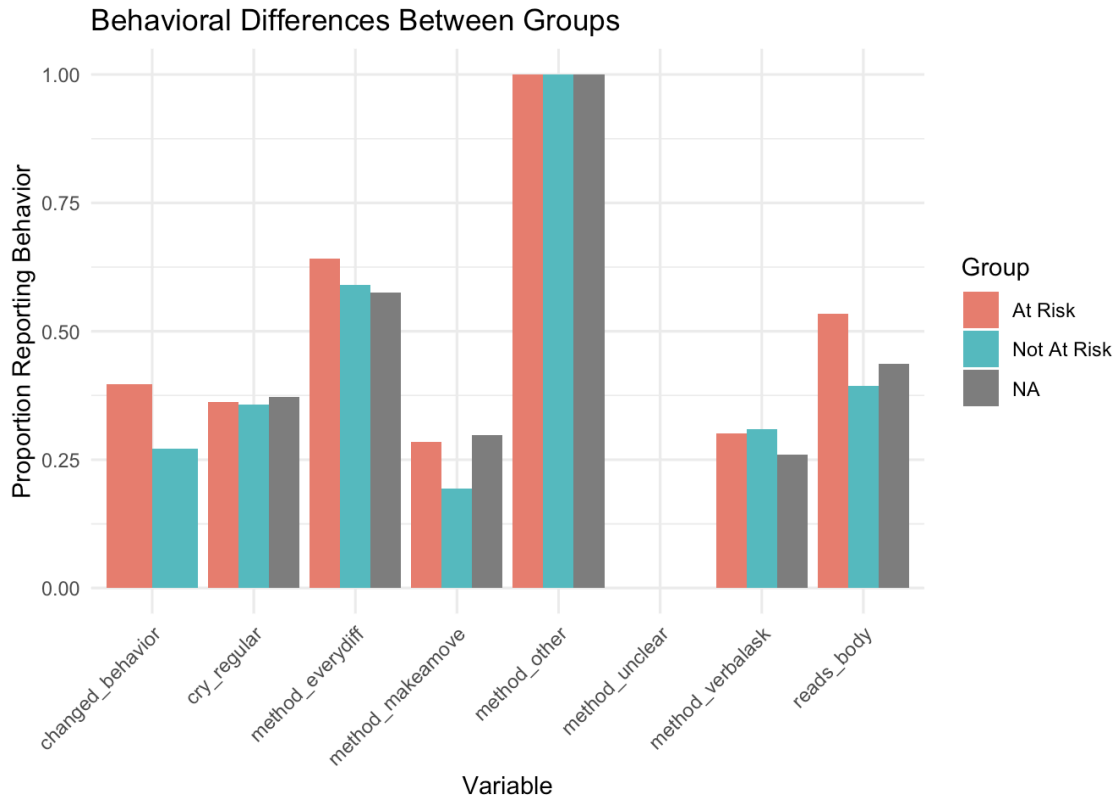
Data Wrangling:
The dataset was sourced from FiveThirtyEight's public masculinity survey. I created binary variables to simplify modeling. For example, 'Q11binary' is 1 if the respondent felt at greater risk of being accused of sexual harassment, and 0 otherwise. I also coded behaviors like 'crying regularly', 'verbal consent method', and 'changed behavior' as binary values. This allowed for easier modeling and simulation.
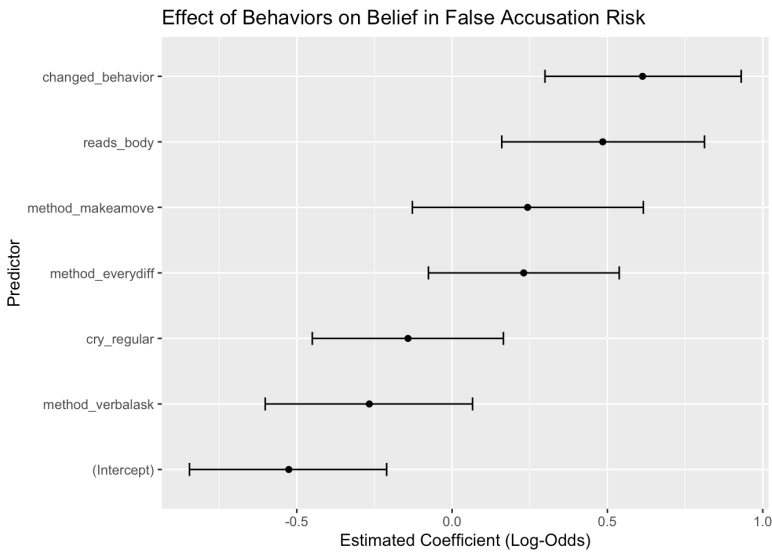
Exploratory Data Analysis:
In Project 2, I explored emotional expression and consent behavior. One pattern was that men who cried often were less likely to fear false accusations. Another insight was that men who believed every situation is different for consent gauging were more likely to feel at risk. Visualizations supported these patterns.
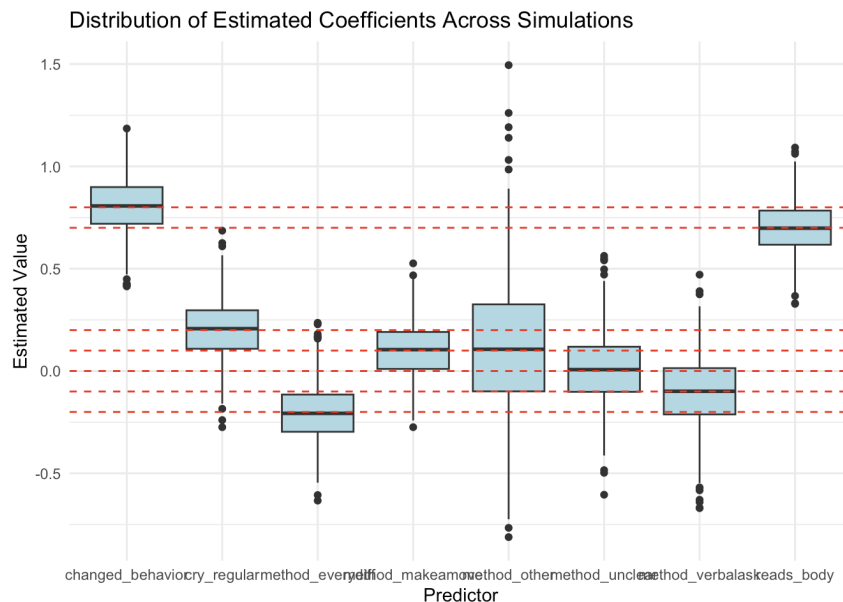
Modeling:
In Project 3, I built a logistic regression model with 'Q11binary' as the response. Several consent-related and emotional behavior predictors were significant. For instance, 'method_everydiff' and 'method_unclear' were positively associated with feeling at risk. This suggests uncertainty in gauging interest may relate to fear.

Effect of Behaviors on Belief in False Accusation Risk

Monte Carlo Simulation:
To test robustness, I simulated new datasets with varying correlation strengths. I refit the logistic model on each and tracked changes in coefficient estimates. Results showed key predictors remained influential across simulations, highlighting model stability.

Distribution of Estimated Coefficients Across Simulations

Summary and Reflection:
This project revealed that emotional openness and uncertainty in consent play a role in perceptions of false accusation risk. I learned how modeling and simulation can provide insight into real survey data, and I now see the value of combining qualitative context with statistical rigor. This topic matters ethically. False accusation fears may influence real behavior, but I learned that overly relying on models risks ignoring social nuance.