NFL 2015

Dave Dyer[1], Jostein Barry-Straume[1], Robert Flamenbaum[1], & Bryan Cikatz[1]

[1] Southern Methodist University

This study will investigate how average and variance of yards gained impacts a given team's ability to get touchdowns in the NFL. This study uses the 2015 play-by-play data set available at Kaggle (https://www.kaggle.com/maxhorowitz/nflplaybyplay2015). These data are comprised of 46,129 rows describing every NFL play run over the 2015 season, by 32 teams. For this analysis, we will be using MySQL for data mining and basic statistics, and R for data visualization and plots. LaTeX is used for the paper documentation. The theory is that teams with high average yards gained, but with low variance, would get more touchdowns than those with higher average yards gained, but higher variance. In other words, consistency is more important than big plays. We will also comment on how the teams' penalties relate to their ability to get more touchdowns.

Abstract2

This study will investigate how average and variance of yards gained impacts a given team's ability to get touchdowns in the NFL. This study uses the 2015 play-by-play data set available at Kaggle (https://www.kaggle.com/maxhorowitz/nflplaybyplay2015). These data are comprised of 46,129 rows describing every NFL play run over the 2015 season, by 32 teams. For this analysis, we will be using MySQL for data mining and basic statistics, and R for data visualization and plots. LaTeX is used for the paper documentation. The theory is that teams with high average yards gained, but with low variance, would get more touchdowns than those with higher average yards gained, but higher variance. In other words, consistency is more important than big plays. We will also comment on how the teams' penalties relate to their ability to get more touchdowns.

Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Introduction

The Data

Procedure

Data analysis

We used R (3.4.2, R Core Team, 2017) and the R-package *papaja* (0.1.0.9492, Aust & Barth, 2017) for all our analyses.

Results

Discussion

References

Aust, F., & Barth, M. (2017). *papaja: Create APA manuscripts with R Markdown*. Retrieved from https://github.com/crsh/papaja

R Core Team. (2017). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. Retrieved from https://www.R-project.org/