NFL Data Analysis

We used NFL game data to answer whether there are trends that will allow sports bettors to make smarter bets and increase their profits. The questions we wanted to answer where if playing in home field influenced game wins, whether odds were good indicators of team game success, and what variables we could correlate to betting outcomes. Our findings indicated that playing the home field did show a positive effect on winning games. Odds were also considered a good indicator of game success. And lastly, that over/under and spreading did correlate with betting outcomes to help bettors maximize their profits.

We collected data from Kaggle that contained data points of game scores, team names, sports betting data, stadium names and weather data. We were hoping to gather data from OddsApi but due to lack of live data and the need for a subscription in most sites we decided not to work with those data sets.

Some of the problems we encountered when we started cleaning our data were some misspellings and duplicate names since a few teams change names over the years. We decided to only use the last 10 years for analysis to make the data handling more manageable. Our first intention was to analyze sports betting data from around the world and compare it according to the different sports. When looking for such data we were unable to find sizeable data sets and sets that had the kind of data we wanted to compare.

After analyzing the data, we were able to come up with the following answers to our initial questions. Home fields does seem to have an impact on the number of games won. Teams that go into the game with a favorite tend to do better than their counterparts. And finally, over/ under and spread are good variables that will help betters maximize their profits. These conclusions support our hypothesis that there are trends to help bettors make smarter bets and increase profits.

If we had the opportunity to expand or continue our project, we would like to look more at the financial side of betting and compare which sport could be more profitable. We would like to pull information on live information from API of current sports and expand on those trends.