

Case Study: How Does Homefield and Weather Affect the Outcome of the Game?

For a few years now the NFL has been thinking about a moving a team to London, England. The business potential is huge, as this franchise would essentially become Europe's team. While the decision is sound from a business perspective, it might affect the the team's performance on the field. Beyond the normal distractions that come from moving overseas, there are also concerns from across the league regarding the lack of a strong fan base in London and the weather. With regard to the first concern, teams are worried that if they move to London they will lose their homefield advantage. NFL Commissioner Roger Goodell has come to you and asked you to answer two question:

1. Is there such thing as homefield advantage?
2. How does weather affect the outcome of the game?

Commissioner Goodell gives you two excel spreadsheets worth of data from the 2013 Season: NFLGames.xls and NFLTeams.xls. The data sets are described below.

The fields (column names) for NFLGames.xls are as follows:

1. Week. There are 17 weeks in the NFL season. Each team plays once a week, but also gets one of the 17 weeks off. As a result, each team plays 16 games.
2. Home Team ID. Each game is hosted by one of the two teams that plays. The team that hosts the game is called the home team. This column gives the unique team ID of the home team.
3. Away Team ID. The team that travels to play the home team is called the away team. This column gives the away team ID
4. Home Team Score. The number of points scored by the home team
5. Away Team Score. The number of points scored by the away team
6. Day of the Week. The day of the week during which the game was played.
7. Time. Column which tells whether the game was played during the day or night.
8. Field Surface. The type of field that the games was played on.
9. Temperature. The outside temperature at the start of the game.
10. Wind. The wind speed at the start of the game.

The fields (column names) for NFLTeams.xls relate team IDs to team names as follows:

1. Team ID. Unique ID for each team.
2. Team Name. The name of the NFL team that corresponds to each team ID.

Case Preparation Assignment: Look over the data in the two excel spreadsheets and write a brief summary about how you would go about answering the two questions that Goodell has posed.