**Visualization**

To visualize the data the team decided to utilize Tableau. We felt that Tableau gave us the interactivity that we were looking for within our visuals along with the ability to be a bit creative.

Outlined below are the 5 visualizations we created, along with information on how we created the visual which we then embedded to the team’s webpage.

* Win Percent by Year
  + Shows the win percent for each team over the last 10 years.
  + Tooltip highlights individual percent of team salary cap each player received.
  + From NFL.com we save the individual team logos which were loaded in to the My Tableau Repository Shapes folder. From there we added team to the shapes card and assigned each logo to the appropriate team.
  + Filters include Team, Playoffs and Won Super Bowl.
* Player Salary Z-Score
  + We created a z-score visualization in order to show the relative score of salary distribution for each team each year. This was accomplished by creating three calculated fields in Tableau:
    - Average Salary &: Window\_Avg(sum([Salary%]))
    - STDEVP Salary %: WINDOW\_STDEVP(SUM([Salary%]))
    - Z-Score Salary %: (sum([Salary%]) - [Avg Salary %]) / [STDEVP Salary%]
  + Tooltip includes player name, position, cap hit and percent of salary.
  + Filters include Year and Team
* Salary by position
  + Shows the min, average and max salary for each player position.
  + Filters include Team and Year.
  + To create the visual, we overlapped a circle and line chart using dual axis and synchronizing the axes. We took advantage of Tableaus built in calculations to determine the min, avg and max. We also sorted the visual by the max salary.
* Spend Cap vs Win Percent
  + Looks at each team’s percent of salary cap spend and win percentage which helps to show if there is any potential correlation between how much of the overall salary cap each team spends and how successful they are in any given year.
  + Includes a tooltip to show the top 10 highest paid players for the team that year.
  + Filters include Team, Year, Playoffs and Won Super Bowl
* Win % by Salary Cap
  + Looks at the distribution of the salary cap amongst the individual players verses the teams win percent across the last 10 year.
  + To show all these variables (salary cap, win percent and year) we added year to the color marks card. We also limited it to initially show one team as showing all teams tended to be a bit overwhelming. You do have the ability, however, to select all teams or multiple teams if you would like to do a comparison.
  + Tooltip calls out the player, their position, team, the percent of the total team salary cap received and the salary amount.
  + Filters include Team, Playoffs, Won Super Bowl and Year