

## Baseball Data Analysis

A baseball dataset consists of 1,157 players with their left, right and both handedness, height, weight, batting average, and home runs. I have created a new variable BMI to know whether there is a difference among the performance of the players. Batting average and homeruns are independent variables handedness, height and weight are dependent variables. Tableau is an exploratory tool which helps to look, analyze and understand the data. From the given dataset I have created few visualizations using tableau to find out the factors that affect the performance of the players.

I have chosen bar graph and histogram plots for analyzing the relationship between selected variables. In the baseball dataset, handedness is a categorical variable hence bar chart is used to compare handedness variable. Height, weight, homeruns, BMI and batting average are quantitative variables, so the data can be grouped into bins to know how the data is distributed.

### First link:

[https://public.tableau.com/views/BaseballDataVisualization/BaseballDataVisualization?:embed=y&:display\\_count=yes&publish=yes](https://public.tableau.com/views/BaseballDataVisualization/BaseballDataVisualization?:embed=y&:display_count=yes&publish=yes)

### Feedback on First Visualization:

1. Heading should be a title description of the slide should be inside the slide.
2. Slide1 -
  - 2.1 Clearly shows Avg HRS of Left handed players are higher is it because their height weight is higher?
  - 2.2 See how weight /height is distributed in left/right players
  - 2.3 Also add the measure batting average.
3. Slide 2 good analysis Please do the analysis on HRS as well.
4. Slide 3 - Good analysis shows the players at BMI around median 24 perform well and performance reduces as we go away from median.

Slide1 analysis would confirm if L/R makes any difference otherwise the conclusion is spot on .

**Second Link:**

[https://public.tableau.com/shared/ZHWMGKWKNK?:display\\_count=yes](https://public.tableau.com/shared/ZHWMGKWKNK?:display_count=yes)

I had few issues in visualization. I have changed it according to the feedback given by the reviewer.

**Third Link:**

[https://public.tableau.com/views/BaseballDataVisualization3/BaseballDataVisualization3?:embed=y&:display\\_count=yes&publish=yes](https://public.tableau.com/views/BaseballDataVisualization3/BaseballDataVisualization3?:embed=y&:display_count=yes&publish=yes)

In conclusion, left handed players have scored more homeruns may be due to height and weight(BMI) of players. Most players are 72 inches height, 180 pounds weight and BMI 25. Shorter and lower weight players tend to have better batting average.

**References:**

1. Storytelling with data by Cole Nussbaumer Knaflic
2. <https://public.tableau.com/en-us/docs/using-tableau-improve-understanding-baseball-statistics>
3. <https://www.fangraphs.com/techgraphs/how-to-use-tableau-for-baseball-data/>