

## Baseball Players Data Visualization Project

### Write-up

#### Tableau Visualization Version 1:

<https://public.tableau.com/profile/lina5384#!/vizhome/BaseballPlayers-Udacityproject/Story?publish=yes>

#### Tableau Visualization Final:

<https://public.tableau.com/profile/lina5384#!/vizhome/BaseballPlayers-Udacityproject-Final/Story?publish=yes>

### Summary

We analyzed a dataset of 1,157 baseball players through four major characteristics including BMI group, handedness, batting average and home run performance.

The objective of this investigation is to find visual evidence that baseball player BMI and handedness can be a determinant in its performance, measured by its batting average and number of home run.

### Design

We first started to compute each player BMI as per below formula:

$$BMI = \frac{Weight}{Height^2} \times 703$$

Then we grouped calculated BMI as per regular BMI classification

- Underweight: BMI is less than 18.5
- Normal weight: BMI is 18.5 to 24.9
- Overweight: BMI is 25 to 29.9
- Obese: BMI is 30 or more

Finally, we performed different multivariate chart analysis through scatterplot and boxplot and top 20 players analysis to identify whether any group of BMI and handedness would display a better performance than average.

For some visualization, we added handedness, weight and height information on the details for user information.

### Feedback

The feedback was mainly focus on the two scatterplot charts : Players Performance by BMI Group & Players Performance and Handedness

#### Issues

- The circles size were too big and it was difficult to read through the data.

- In particular, there is one record of “obese” BMI player and it could not be read

#### Solution

- Therefore, I reduced the size of the circles for both charts
- I also changed the color of the “obese” record to make it stand out
- Finally, I added highlighters to help the user to identify the different group distribution

#### **Resources**

- BMI information : <https://www.cancer.org/cancer/cancer-causes/diet-physical-activity/body-weight-and-cancer-risk/adult-bmi.html>
- Tableau Community and online help