

# Project Report -Tableau Story

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## Summary

This project is about a Baseball data set containing 1,157 baseball players including their handedness (right or left handed), height (in inches), weight (in pounds), batting average, and home runs. The visualization designed in this project is meant to show the differences among the performance of the baseball players. Specifically, the findings are focused on analyzing whether both handed players are better performing.

Interesting results we have seen so far:

1. short players have higher batting avg.
2. thin players have higher batting average
3. HR not strongly affected by either height or weight but the scatter plot shows a correlation between HR and batting average.

Based on the results we can say that within any handedness type being short or thin you will have higher batting average. Also, being left handed will grant you high performance. For example, assume player A is short or thin left handed, B is tall or fat left handed, and C is short or thin both handed player, then player A is better than player C although they share same height or weight advantage because A is left handed. Also, player A is better than B although both are left handed but because A is shorter or thinner. The End.. Both handed not the best performers. It is left handed who perform better.

## Tableau Workbooks:

Version 1:

[https://public.tableau.com/views/DANDproject\\_0/Story1?:embed=y&:display\\_count=yes&publish=yes](https://public.tableau.com/views/DANDproject_0/Story1?:embed=y&:display_count=yes&publish=yes)

Version 2 -after the feedback-:

[https://public.tableau.com/shared/PW7CZWKP2?:display\\_count=yes](https://public.tableau.com/shared/PW7CZWKP2?:display_count=yes)

## Design

First, I did a quick lookup at the data to find the startup question. This question came out to be: do both handed players have higher performance? This was curious enough for me to draw initial design decisions:

1. Bar chart to show the relationship between performance indicators (batting average and HR) and handedness. Here I would know take an overview of the data and see which handedness type has higher performance.
2. Decided to include only players who performed. Meaning players who have non zero batting average.
3. Scatter plot showing every player performance (row HR and column batting avg.). Colors used to differentiate each handedness type. This scatter plot will help

see the area that most both handed exist in. Also, to understand the relation between batting avg. and HR.

4. Packed bubbles for each handedness type. I want to see the count of each type in addition to a summary for each type showing when hovering. The summary includes the average height, weight, HR, batting avg. This chart helped to drive the analysis path since I decided to study the effect of height and weight.
5. Histograms of height and weight that are colored to show performance indicators (HR and batting average). As the color gets darker it means the performance indicator is increasing. I used these histograms to see if their insights are matching the average height and weight of both handed players.
6. Finally, a box chart showing the batting average of each handedness type where the circles size is representing HR amount.
7. Whenever I used Handedness throughout my visualization I used colors to represent each type and added legends.

Changes after the feedback:

1. The layout has been altered to ensure that the it will fit whatever device.
2. Renamed axis names of what possibly be hard to understand and changed the corresponding legends and tooltips.
3. Kept the explanatory text since it will guide anyone without having me explaining it to her/him.
4. Calculate the BMI of each player
5. Used histogram to show the relationship between BMI and perf. Indicators but also kept the height and weight histograms.

## Feedback

I shared my visualization in person with a friend. Here is what she said:

“

The flow of the story is logical and easy to understand but it is a bit wordy. I like how it is colored. The axis names are not clear in all charts. One thing I would suggest to change is to calculate the BMI instead of height and weight. Also, The layout is not clear when there are more than one chart maybe because I'm using my iphone.

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# Resources

Udacity ;)