

Tableau Story - Baseball Data

Link to the Story page on Tableau

[Initial story] (<https://public.tableau.com/profile/deepashree.jayaramu#!/vizhome/UdacityProject-BaseBall1/Baseball?publish=yes>)

[First Submission]

(<https://public.tableau.com/profile/deepashree.jayaramu#!/vizhome/UdacityProject-BaseBall/Baseball?publish=yes>)

Final Work : <https://public.tableau.com/profile/deepashree.jayaramu#!/vizhome/UdacityProject-BaseBall-Final/Baseball?publish=yes>

Summary:

The data set used in this self explanatory visualizations contains 1,157 baseball players' performance records. It includes their handedness (right, left handed or both), height (in inches), weight (in pounds), batting average, and home runs. The visualizations convey the differences in the performances of the players depending on their handedness and compares how their Body Mass Indices contributes to the performances measured in terms of Home Runs and Batting Average. A new column is created to calculate BMI using the existing height and weight in the data.

Design:

I started with all the records in the data to check on the number of players in each category based on their 'Handedness'. Using a Pie Chart, it was easy to show the number of players in each category.

Next, using Histograms, I depicted the number of players in each of these 'Handedness' category seperately plotting the 'handedness' against Home Runs and Batting Average. However, based on one of the feedbacks I included both 'Handedness' and 'Name' dimensions in the plot against the 'HR' and 'Avg' measures in seperate sheets to show the top performers in each category.

I included to show the Names of the players to make the audience curious and stay interested in the interactivity of the graphs in the story. They could hover over any points in the upcoming story points to know more on each player. This is a nice way to get informed about the players too.

Although based on the most number of right handed batsmen in the data, there were more right handed home runs and batting averages. But when we look at the Interquartile data, left handed batsmen performed better both in homeruns and average.

Tableau's built-in graphs like Box Plots which is used to represent this Interquartile data are very easy to get these kind of visualizations. I also decided to include the definition of the 'Interquartile data' in the story point caption to explain the graph to viewers with less information on statistical data analysis.

After this point, I explored the height and weight of players versus their performances. Initially this was plotted just against the height and weight of the players versus their performances. The final work has the BMI calculated and plotted against the home runs and averages in seperate diagrams showing how

they differ. This graph is represented using a Scatter Plot as the viewers can easily understand, how all of the data is scattered along the axes. The linear trend line that I chose gives a clear idea of the average scores and how far are the top performers from this line. Below average performers can easily be depicted by the viewers.

Feedbacks:

Below quoted lines are the feed backs I recieved from family members over emails. I have incorporated the suggestions as in the *italics* to improve the visualizations in my final story.

- "Is the DataSet for a certain period? Does the DataSet span multiple years? When you mention, Both Hand, do you have the data to show what % of Left and Right was used? Is there a age group provided for batters. If so, can we see the performance of batters based on Age Group and Batting Hand?"

We do not have enough data to pictorically represent these factors.

- "The main takeaway from your project is the performance of batters based on key indicators., i.e, Home Runs and Batting Average. There are many factors that influence this. It could be either the preferred batting hand or the Physical attributes of the batter."
- "The graphic is self explanatory."
- "I am not from Statistics back ground, what is Interquartile?"

Added the definition in the story tab itself to make the graphs self explanatory. Also, added the linear trend line making use of Tableau's easy hacks to show the average line for scores. Added the text labels to give definitions and abbreviations as well as explaining the shapes and sizes of the objects used to represent data.

- "Since the topic of the story is to highlight the performance of the players, it would be inetersting to know player's names who performed well"

To accomadate the player's names and giving information on their handedness, I chose top 10 players to show their performances in homeruns and averages. I dropped the 'number of records' Versus the 'handedness' graph.

Resources:

Udacity classroom: <https://classroom.udacity.com/nanodegrees/nd002/parts/38e740f3-bea2-43cb-a474-1de2abe3ec4b/modules/acbe4df1-d046-40fd-a2e5-8e1a777c339f/lessons/820d84b6-974f-4531-b4da-371de2f91e79/concepts/398460f5-2f43-46ee-9fef-487c3ea46289>

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