

Visualizing Baseball data using Tableau

Link to initial workbook:

https://public.tableau.com/profile/esha6181#!/vizhome/Baseball_40/BaseballStory

Link to final workbook:

<https://public.tableau.com/profile/esha6181#!/vizhome/Baseball-Final/BaseballStory>

Summary

The visualization analyzes baseball data for 1,157 baseball players including their handedness (right or left handed), height (in inches), weight (in pounds), batting average and home runs.

Our narrative here is to analyze how the physical aspects of a player affect their game performance in general.

Design

I started by creating bar graphs to get the overview of the data. Bar charts are great when we want to compare data across categories. Here I wanted to see performance differences based on handedness. Bar graphs showed me that most of the players were right handed. Even though right handed players were more, their batting average and home run rate was lower than players who were left handed and switch hitters. The average home run rate for left-handed player was quite high. But handedness didn't have any significant effect on batting average. I also used one bubble chart just to add variety to my presentation. Bubble size easily tells which category has more data.

Next I wanted to see if there is any impact of height and weight of players on game performance. For this I used line charts. Line charts are very useful for visualizing trends in the data. I wanted to see whether one variable has any affect on the other or I just wanted to see whether two variables share any kind of relationship. I created line charts for height and weight vs average home runs as well as vs average batting rate. For each handedness type I saw a negative relationship between height and batting average which means taller players had low batting average however weight didn't had any clear impact on batting average. Also there was no clear relationship between home runs average and height or home runs average and weight. I also used filters with the charts so that one can view trends for a single handedness type if required. For each handedness type I used different colors. Colors are very helpful in differentiating the data,

Height and weight individually didn't provide much useful information so one of my friend suggested to add some height/weight ratio so I created a new variable called BMI(Body Mass Index) to see if height and weight combined gives me some new information. I created dual axis line chart with BMI on x-axis and average home run and batting average on y axis and it clearly

showed a positive relationship between the variables. Players with high BMI had more HR rate and batting average.

At last I combined all these charts first to create dashboard and then a story.

Feedback

Below are some feedback points received:

- Add some introduction points to your story.
- Legends are missing on line charts.

In response to these points I added Introduction page in which I added a general baseball game image and add some lines in caption. I also added legends to all my charts and made minor changes to caption on my story dashboard.

Resources

- <https://www.interworks.com/blog/ccapitula/2014/10/28/tableau-essentials-chart-types-line-charts-continuous-discrete>
- <https://www.tableau.com/learn/training>
- <https://community.tableau.com/community/forums>