Baseball Players Performance

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Summary

My choice was to go with Baseball dataset, which is a 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 Target was to make a visualization that shows differences among the performance of the baseball players.

I tried to explore the relationship between Batting Average and Home Runs but it was weak due to low R squared value of the trend line and even with different Handedness.

By exploring the data set I found that majority of players are right handed 63.7% while left handed are 27.3% (Studies suggest that approximately 10% of the world population is left-handed). I thought that Handedness would be an advantage for righties or lefties but I found that Handedness has no significance. Handedness might show difference with other performance measures in lefty-righty switch maneuvers during baseball matches.

Design

I decided to put a bar chart to show percentage of players categorized by handedness as I was doing a comparison for Handedness categories.

Then I used box plots to show the summary statics for Batting Average and Home Runs vs handedness which was difficult for my reviewer to understand. The box plots was used to show how Batting Average and Home Runs data ranges and shows anomalies in the data

A scatter plot was my choice to check existence of a relationship between Batting Average and Home Runs. Comparing two variables led me to use scatter plot.

My first version of story was as follows:

https://public.tableau.com/profile/mohamed.sobhy#!/vizhome/BaseballDatabase/Story1

After I got my reviewer feedback, I added new sheets with histograms for both Batting Average and Home Runs to make simple. I added them to my dashboard in addition to previous box plots. Histograms were my choice to show Batting Average and Home Runs distributions.

I modified the story to reflect the changes in the following version:

https://public.tableau.com/profile/mohamed.sobhy#!/vizhome/BaseballDatabasev2_0/Story1

I got feedbacks from Udacity project reviewer and I made a final version of my baseball story:

https://public.tableau.com/profile/mohamed.sobhy#!/vizhome/BaseballDatabasev3_0/Baeballdatastory

Feedback

I got one review from my company colleague, which I was surprised that he used tableau for performance reporting purposes. His feedback is in the following points:

1- Analysis has not been affected by players hand type (use).
2- Majority of players number is right handed.
3- What about player weight & height? It may affect.
4- All diagrams has the same shape for all players hand type.
5- Difficult to understand Second diagram (comparing average batting avg. and home runs)

Resources

I used the following article to get the picture of baseball measures of performance.

https://www.gamesensesports.com/knowledge/2017/3/17/righties-vs-lefties-the-importance-of-handedness-training-in-baseball-hitting

https://en.wikipedia.org/wiki/Lefty-righty_switch

https://www.youtube.com/watch?v=skOsApsF0jQ&t=58s

https://en.wikipedia.org/wiki/Handedness