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Udacity Tableau Baseball performance story

February 13, 2019

Initial Tableau Link : <https://public.tableau.com/profile/dataanalyst.jc#!/vizhome/Udacity-tableaudatavisualizationproject/DashboardTrends?publish=yes>

Final Tableau Link: <https://public.tableau.com/profile/dataanalyst.jc#!/vizhome/Udacity-tableaudatavisualizationproject02/Baseballperformancestory?publish=yes>

Summary

The Baseball dataset contains 1,157 baseball players. Since sports in the USA heavily depends on statistics, I created data visualizations to analyze players' performance, such as batting average and home run by handedness. I analyzed the relationship between players' height and home run and batting average as well as the correlation between batting average and home run.

Design

- Chose Box Plots to show players' Home run by handedness (Left, Right, and Both) and Batting average by handedness (Left, Right, and Both). As one of the favorite chart types used for illustrating distributions, I chose box-and-whisker plot to compare the distributions of players' Home runs and Batting average across different handedness side-by-side.
- Chose Line Charts with Trend lines for player's mean Home run and another for players' Batting average over Height, which can be filtered by Weight. As one the favorite chart types used to display trends over time, I chose Line charts to show whether players' performance (i.e. Mean Home runs and batting average) increase or decrease based on their height. I also chose to color the line chart by handedness to determine if handedness plays a role in players' performance.
- Chose Bar Charts for players' Median Home run and Batting average by handedness (Left, Right, and both). As the most common used types of graph for displaying data that are classified into nominal or ordinal categories, I chose Bar Chart to rank players' performance (i.e. Median Home runs and Batting average) by categories of handedness.
- Chose a Packed-bubble chart to show Home run distribution colored by handedness (Left, Right, and both). As the type of chart used to show relational value without regards to axes, I chose to show distribution of a player's performance (Home runs) in terms of

whether the player is Left handed or Right handed or both handed. The bubble size seem to be determined by a player's number of records.

- Chose Scatter Plot to show a correlation between Players' Batting average and Home run colored by handedness. As a type of plot used to show the relationship between two sets of data, I chose Scatter Plot to show whether there is a positive or negative correlation between players' Home runs and Batting average.

Feedback

1. *"Hello James, Thanks for the great insights. I would like to ask you to work more and generate more visualizations. Also, you should use the (Story) format not a (Dashboard). Just notice that, the line chart is mainly use for the time series data, so I would ask you to change the plots to a more suitable chart type like a histogram."*
 - **Action taken:** Thanks for the feedback! Can you be more specific about generating more visualizations? Also other chart options seem to be disabled on Tableau for me, could it be because I'm not using a paid version?
2. *"OK @JamesC , and I am sorry for not replying you immediately because of some problems with connection. Try to have a clean sheet from the binning and add the row and column step by step, means just add the handedness in columns and home runs in the rows and try out if the other charts options will be able to use. If it works, do it to change the line chart too, if it does not, just submit like this it and write a note in the submission file saying that your tableau does not response with changing the chart types."*
 - **Action taken:** Based on the feedback, I was able to choose box-whisker plots instead of the line charts to show players' Home run by handedness and Batting average by handedness. I made the necessary adjustment to only use the Story format rather than the Dashboard format within the story section.
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3. *"If you check the screenshot (image 1) below, in the last point of the tableau story, the markers (star, circle, square) and the colors (blue, orange, gray) are depicting handedness. The problem here is that they are redundant and do not add any value. Worse, they might confuse the viewer. Please remove any one of these (markers or colors)."*
 - **Action taken:** Removed the Left and Right handed markers and the Left and Right handed colors as suggested.
4. *"You can see in the line chart (image 2) that there is a sudden spike at a height of about 75 to 80. Since you have stated that the trend line shows a negative correlation, it is worth analyzing and checking if the spike means something. You might even be able to draw some inferences based on that."*

- **Action taken:** Based on the suggestion, I was able to draw some inferences about the role of handedness on players' performance given the sudden spike between height 75 and 80.
5. *"You have done a really good job of explaining what the designed charts are doing. However, a student is also expected to add details about why the chart was chosen, why the color was chosen, etc. So, pour in details about your entire thought process that helped you build these visualizations. For example, I used a map because it shows the geographical information really well. In fact, better than a bar plot that shows only quantitative information."*
- **Action taken:** As suggested, I added details about why I chose a particular Chart or plot type.