Baseball Lefties Report

The following is an explanation of the general process I followed to create the 'Baseball Lefties" visualization. The dashboard is based on a dataset containing information about 1,157 baseball players: their handedness, batting average, number of home runs, height and weight. In baseball, there are two possible stances when taking the bat, depending on which is your dominant hand. Pitchers need to adjust their pitch to the batter's stance, while taking into consideration their own dominant hand. Needless to say, this sometimes becomes a huge factor in the game.

- First draft of the visualization: https://public.tableau.com/shared/7SCSR489M?:display_count=yes
- Final version of the visualization: https://public.tableau.com/shared/5RKKD4Q4F?:display_count=yes

Design

The first chart answers the question "Who are some of the players with the best batting average?" I chose to create a bar graph since I was working with categorical values, the names of the players. The chart shows each player's batting average ordered from highest to lowest so that is easier to see the highest averages and answer the question. I decided to use handedness as a color to quickly identify how many left or right handed players were in the top.

For the second chart, I basically made all the same design decisions that I did for the first chart but focusing this time on the home run count.

For the third chart I wanted to show the distribution of handedness in the league. I chose a bar chart because once again I was using categorical values and with bars is really easy to compare the categories to understand who has more observations in the sample.

The last chart is a comparison of the batting averages by handedness and also the home run count by handedness. Once again I used a bar chart to facilitate the comparison between categories. I decided to measure the median instead of the average for two reasons: first, there were many rows with values of 0 for the batting average that could bring any category's average down; secondly, there were far fewer observations for left handed players, which meant that a single observation could greatly affect the general average. Using medians instead of average is an effort to soften this effect.

These are some the changes I made after the first feedback:

- Applied the color separation of handedness to all charts in the story.
- Added minor tick marks so that comparison between bars could be easier.
- Changed all abbreviations of labels to their full length.
- Separated the two charts of batting averages and home runs by handedness and join them in a dashboard.
- Removed some values of the top batting averages and top home run counts so that the charts only focus on the top results and not the whole sample.

After the second feedback I made the following changes:

- Added a title to every chart in the story.

After the third feedback I made the following changes:

- Instead of a Tableau Story, I joined all the graphs into a dashboard.

- I separated the dashboard in three sections. The first section showing the players with top batting averages and top home run counts; the second sections shows a comparison between the left handed players and right handed players; finally, the last section shows a player's individual stats.
- I changed the orientation of the first two graphs since the elongated bars fitted the screen better in a horizontal position.
- The 3 charts of left vs right comparison where placed one next to the other to make clear that they are part of the same section.
- As my Udacity reviewer recommended, I added some interaction by adding a custom list filter where the viewer can write down the name of their favorite player and his stats will show on the plot.

Feedback

Feedback from Mauricio Aguilar:

"I think that color really helps to distinguish one hand category from the next one. I missed it in the last graph. I also think that establishing smaller breaks in the axis would provide a better navigation of the graph."

"A question I have about the data is what dates is this dataset considering."

"The relationship I notice is between left handed players and higher batting averages and home runs."

"The key takeaway is that left handed players should be the very first four player to bat."

"I think that the labels in the graphs are a little bit unclear."

Feedback from Selenne Garcia:

“Is really easy to recognize the dominant hand of each player. The data is clearly separated by handedness which makes for an easier comparison of righties vs lefties.”

“I would like to know from what year the data is coming from.”

“I looks like the lefties have higher scores in everything.”

“It makes me think that lefties are better in baseball than righties.”

“How many players does the dataset contain?”

Feedback from Udacity Reviewer:

“Well done! I recommend perhaps using a single dashboard instead of the story - in real-life or rather professionals tend to use a single dashboard as it helps to focus on certain findings and the graphs work together accelerating the overall information that is presented!”

“Good start however the findings in the view tabs is only visible once the users scroll - avoid scrolling at all costs as it requires far more time, rather use comments/annotations within the dashboard or as subtitles.”

“Unfortunately there is no animation of filters :/ As suggested previously, if you were to use a single dashboard, then you could include a search filter that lets one type in the name of a player allowing the user to check the stats of their favourite player.”

Resources

- Udacity's Data Analyst Nanodegree Videos
- http://www.vizwiz.com/2016/07/tableau-tip-tuesday-layout-tips-for.html