Data Visualization Project

Version 1 : Link

Final Version : Link 2

Summary:

The goal of this visualization was to explore the impact of handedness on performance in 1,157 baseball players. Performance was measured using batting average and amount of homeruns, both are used in this visualization.

Visualization starts of exploring the variables handedness (pie chart), batting average (bar chart) and homeruns (bar chart), as those are the variables we will be using. Looking at the three graphs, we notice right handedness takes away the biggest chunk of the pie. Distribution of the batting average has a left tail but seems pretty normal in general. The distribution of homeruns has a huge amount of players hitting no homeruns and a couple of outliers hitting a lot of homeruns.

Next we have 6 boxplots exploring the two performance indicators by handedness. Median doesn't vary much between different hands if we look at batting average. Right handed has clearly the biggest range of the three categories. Median homeruns also don't vary much, but in both cases left handed people seem to have the upper hand.

The next page, the scatterplot displays an obvious trend. The higher the batting average, players tend to make more homeruns. Interesting to note, ambidextrous players seem not to hit more homeruns as batting average increases. This in comparison with left and right handed people.

Next we look at the individual distributions of the two performance indicators, split by handedness. Looking at the different distributions , they seem about the same in both performance categories. Their variance are likely more or less the same.

In the last slide we see that ambidextrous players seeminly dominate the average scores in both average and homeruns. This while left handed seem more prevelant in higher batting averages, and right handed seem to have players with the larger homerun totals.

Design :

Things we're kept pretty simple, same colors everywhere as to avoid confusion. Several scales were adjusted to focus on the important part of the graph and make things clearer. Charts were kept basic, pie chart, bar chart, scatterplot, box plot as they are simple to read. Minor changes we're in terms of size of the graphs itself and the element inside the graphs (ex. Size of the elements in the box plots).

Feedback :

After the first version, feedback was noted and summarized below.

1. Handedness - Percentages instead of whole numbers
2. Batting Averages - Add mean line
3. Homeruns - Add mean line
4. Boxplot - circles size doesn't seem right
5. HR by Handedness - Add Color, improve labels, adjust scale
6. Avg by Handedness - Add Color, improve labels, adjust scale
7. Avg/Handedness Bar chart - Improve scale
8. HR/Handedness Bar chart - Improve scale
9. Variables - Improve Layout
10. Bivariate - Improve Layout
11. Scores by Handedness - Improve scales and labels
12. Performance - Improve captions

Resources :

N/A