What Makes a Baseball Player Good?
A Visual Analysis in Tableau

Summary:
I would like to use this project as an opportunity to explore what physical features of a baseball player best correlate with their batting average. Does it dependent on their height? Or perhaps the truth lays in a player's handedness?

Design:
I choose to start the Tableau Story by analyzing the relationship between different player characteristics and their performance, as measured by batting average and the number of home runs.
From there, I decided to focus more on the parameters that seemed to be more closely related to performance, namely height and handedness. Handedness indicates what hand a player uses to bat with and the direction in which a players faces is dependent on their handedness.
I do not know much about baseball, so my original hunch was that a player who uses their left hand is at a disadvantage because after hitting the pitched ball they have to turn around before starting to run to the first base.
I decided to omit weight as a significant parameter due to the more random nature of its distribution. The reason for that is the simple fact that height is a lot more normally distributed over baseball players. I believe the height distribution is illustrated fairly well in the bar plot.
I initially went with a solid distribution graph to show the height and weight versus the number of homeruns because I thought the would best show why I omitted weight from further analysis. However, based on the feedback I received, I opted for a scatter plot in the final version instead as it has more interpretability when looking for a distribution.
I decided to pick barplots to convey player handedness because they are easy to interpret. Pie charts are somewhat similar in their ultimate meaning, however I believe they are tougher to extrapolate meaning from since it's hard to see which "slice" of the pie chart is truly bigger. In the case of bar charts it is easier to see which one is taller (or in some cases, since they're on their side, longer).
I believe a trendline I've added in the player's number of home runs vs. batting average plot really drives the connection between the two parameters.

Feedback:

Part of the feedback I received was to state my findings more clearly. I think that was incredibly helpful, as to begin with my Tableau Story was mostly a large number of visuals without much context. By focusing in on what I wanted to communicate, I added final sheets to the Story to recap on what was the objective of the analysis.

The reviewer pointed out that my axis and graph titles did not convey a lot of information. To fix that, I have gone back and added units of measurement for the height and weight parameters and attempted to make the titles more informative.

One of the most helpful pieces of feedback came from a first Udacity review of my project. The reviewer suggested to “think from the reader’s perspective, as if the reader do not have any idea or knowledge of the datas.” I think this is a very helpful mindset to channel when visualizing data.

I showed the final presentation again to the original reviewer (a good friend of mine), and a classmate. They both confirmed that after the edits it was more clear at to what the finding and conclusion were.

Result:

You can view the First Tableau Story in Tableau Public here.

The Final Draft of the Story is here.

Resources:

- My data is a Udacity curated dataset
- Other resources:
    - https://community.tableau.com/thread/217684
    - https://community.tableau.com/message/413703#413703
    - https://onlinehelp.tableau.com/current/guides/get-started-tutorial/en-us/get-started-tutorial-home.html
    - https://www.tutorialspoint.com/tableau/index.htm