Data Visualization Project Notes

Summary

- Link to first story
- My Tableau story starts by exploring the top 50 scorers by points per game since 1981. 1981 is the official introduction of the 3-point line. First I look at how many entries each player has in the list and the counts by position and era. Then I compared measures of efficiency on a scatter plot. Finally, I focused on one player, Michael Jordan, and why he is such a special player.

Design

- In the first story page, I have different colors for each bar chart to further differentiate each plot. I chose bar plots because they are the simplest ways to show counts explored. The count axes are removed and plotted at the end of the bars because the axes felt redundant.
- The era bins are 1981-1989. Before zone defense is 1990-2002. Introduction of zone defense is 2003-2009. Modern era starts at 2010 and ends last season, 2017.
- In the second story, plotting points per game and minutes played per game is one way to visualize efficiency. True shooting percentage and usage rate are also measures of efficiency.
- I chose a scatter plot here to visualize differentiations in efficiency among top scorers.
- I chose 3 bins for color as measures of below average range, average range, and elite.
- Usage rate is in size to show how much each player uses its teams possessions. We can see right away that Russell Westbrook and Allen Iverson's entries have astronomical usage rates.
- The third page has a scatter plot showing how players scored their points, whether they utilized free throws or three pointers. I removed a bunch of players from the scatter plot to further show how Michael Jordan dominates a corner of the plot.
- I chose a scatter plot here to visualize differentiations in 3-point rates and free throw rates among top scorers.
- I separated the points by color to show how players in different eras compared and to show which players spanned multiple eras, scoring under different rules and metagames.
- The stacked bar chart shows how many free throws, 2-pointers, and 3-pointers were attempted by each player in the scatter plot. Getting free throws is a skill, and attempting many 3-pointers is another skill. However, it shows Michael Jordan scored primarily on 2-pointers and transitioned as he aged.
- Tooltips on scatter plots are mouse over effects. They include player names, positions, season of entry, team, points per game, and any other statistics included in the plot. I put overlapping tooltips in the same order.
- The highlight filters are for the users in case he or she wants to look at a specific player in comparison to the other players or comparing a player's seasons.

Feedback

- On Slack, one commented asking what the asterisks in player names meant. Another asked why certain players showed up multiple times in scatter plots. I included a note in my captions to clarify.
- My mentor, Sajal, suggested I try and illustrate my focus be on Michael Jordan to be clearer. So in the last story page, I reordered the the stacked bar chart to show Michael Jordan first

and removed a bunch of players from the scatter plot.I think this helps direct the focus to Michael Jordan better. He also suggested I change the wording of my third page caption to nudge viewers to look towards Michael Jordan's points.

- Link to revised story

Resources

- Basketball-Reference, my data resource
- Tutorial for scraping data
- Glossary for Basketball Statistics
- Basketball Analytics by Stephen Shea
- Feedback resources:
  - ntavou on Slack
  - katherinep on Slack
  - Sajal, my assigned Nanodegrree mentor