Documentation Page:

Design Process:

In this project we will be COMPARING the wingspans of draft prospects in the 2021 NBA draft. Since in this analysis we will be comparing the players against one another, I feel it's best to select visualizations that best represent comparison. The visualization that best represent this include bar chart, line chart and box plots. Due to the fact that this visualization will not display data trends over time, I feel it's best to rule outline charts. Secondly since this analysis is not necessarily grouping the respective wingspans into groups or specific ranges I decided that box plots can also be ruled out. That now leaves us with the bar chart as the most efficient type of visualization to properly display our data. The benefit of our bar chart is although we might only be comparing wingspans in this study, we can create clustered bar charts to compare multiple physical measurements.

One difficulty that might arrive from selecting a bar chart however is with 22 unique players to compare against one another the graph might become too crowded or overwhelming to the viewer. My goal is to find a way to display this data in a way that allows the reader to quickly comprehend the visualization and draw specific conclusions from it.

To solve for this preliminary issue, I decided to widen by SVG element to width of "1400". By doing this I have removed the issue I encountered of the variable stacking up on top of one another. Widening the SVG width element to "1400" helped expand the variables, and allowed the viewer to see all the individual variables much more clearly.

Rationale of Design Choices:

Colors:

Royal Blue

I chose Royal Blue because it's a color that universally liked an accepted. Royal Blue is a color commonly found in programs, and websites. By selecting royal blue, a color users are familiar with, I believe it will build trust with the visualization

Violet Red

I chose violet red as the color that would appear when the users hover over the individual bars in the visualization. A total contrast to the royal blue color of the bars when the mouse is not hovering the individual bars. By contrasting the colors users would easily detect the specific value they are currently viewing.

Mouse over/Mouse out:

There are 22 individual values in this dataset. That isn't a complex number of values, however when looking at 22 individual bars in a bar chart, it can be easy to lose track at some point. To remedy this issue, I decided to the violet red color to the bars as the mouse hovers over and off of the bars. By doing this the user knows exactly what value they are looking at.

Range of Values:

I chose to start my range of y-values at 74 instead of 0 since none of the values in this dataset came close to approaching zero. To give a more exact representation of the data I selected a value of 74 (with 25 ticks in between) as the baseline of values. By doing so you can see more accurately, which players were lower on the range of Wingspans, rather than if it had been left at 0.

Paragraph of Text:

I chose to include a paragraph of text for individuals who are not familiar with the value that Wingspan holds in NBA circles. In NBA circles, wingspan is one of the most prominent physical attributes scouts and executives look for in searching for new NBA talent. However, it would be unwise to assume every user who utilizes this visualization is familiar with this fact. By including a paragraph of text, with a brief explanation of this and a reference to an NBA player who's preliminary valued was based solely on his physical attributes the user can understand the value of this visualization much more clearly.

Excluding Specific Values:

I choose to exclude the individual values of player wingspans within the visualization because although these measurements were measured and provided by the NBA Draft combine, these measurements are very much fluid. NBA teams conduct their own measurements, and players ultimately grow given a period allowing for these values not to be considered static. What's important to note from this visualization is players who stand out on either end of the spectrum. For example through this visualization it easy to note that D.Mitchell's wingspan is well below S.Barnes respective wingspan, as well D.Mitchell's wingspan being well below the average NBA player wingspan of 82 inches. For a team drafting heavily based on physical attributes such as wingspan, players can be easily ruled out of their prospect list.

Discovering Facts:

One of the questions I had during this analysis was

“How heavily does wingspan dictate NBA success?”

I used this dataset to analyze if players who ranked highest on the wingspan scale or lowest on scale stood out against their fellow draft participants as potentially successful NBA players one year into their careers.

For one individual player this was clear, and the visualization and data very much supported this…

S.Barnes or Scottie Barnes ranked highest among his classmates in the wingspan measurement

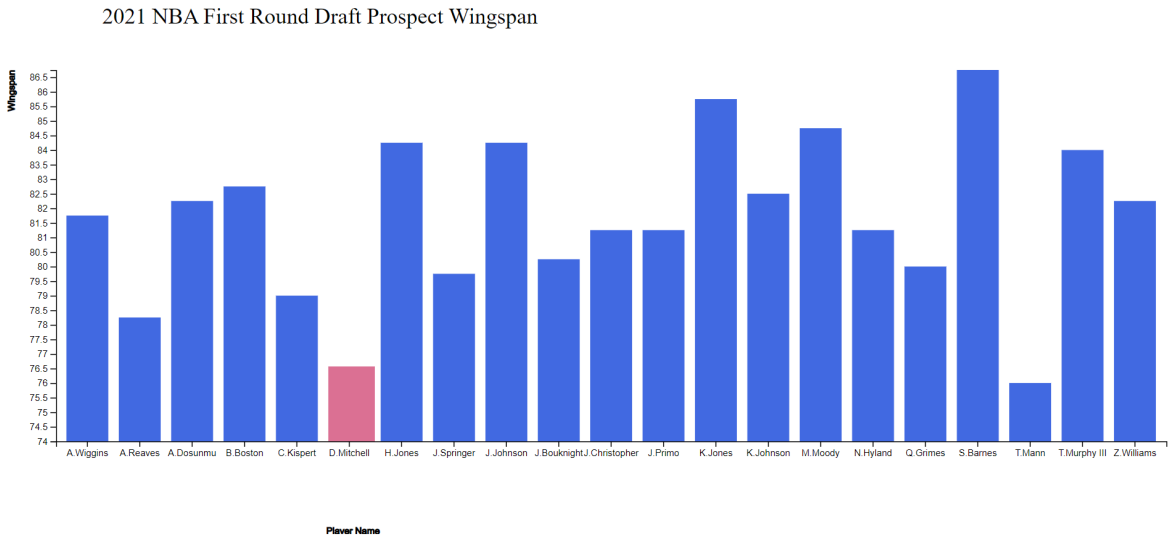
Scottie Barnes would go on to win the 2022 NBA Rookie of the Year during this NBA season.

This award signals that Scottie has outshined and played all his draft participants with his play on the court and his utilization of this superior wingspan

Players with superior wingspan have shined before. Scottie Barnes ascension is like the previously described Giannis Antetokounmpo.

However, wingspan is very much not the only measurement of potential success. Players such as D.Mitchell are players who despite their below average wingspan have utilized other skills to find their own avenue of NBA success.

Despite this below average wingspan, Davion and Scottie Barnes share similar statistical outputs such as only a 0.6 difference in total points per game in favor of Scottie.



Conclusion:

Historically wingspan has been a physical attribute that can be an early indicator of NBA success. Although through this visualization and after reviewing similar draft years it is NOT THE ONLY INDICATOR. NBA teams rarely draft players based on one stat or physical attribute. Some of the best athletes fail to remain longer than a couple seasons, and some of the worst athletes go on to play 10+ years. However, when drafting players there are so many unknown variables, it is almost impossible to predict the success stories 100% of the time correctly. Despite this wingspan is a variable that can be measured, scaled, and compared. It's a variable that NBA teams continue to have faith in due to the success stories of Giannis Antetokounmpo and similarly the blossoming career of Scottie Barnes.