

NBA MVP Visualization Exploration

By Kamen Redfield

Dataset

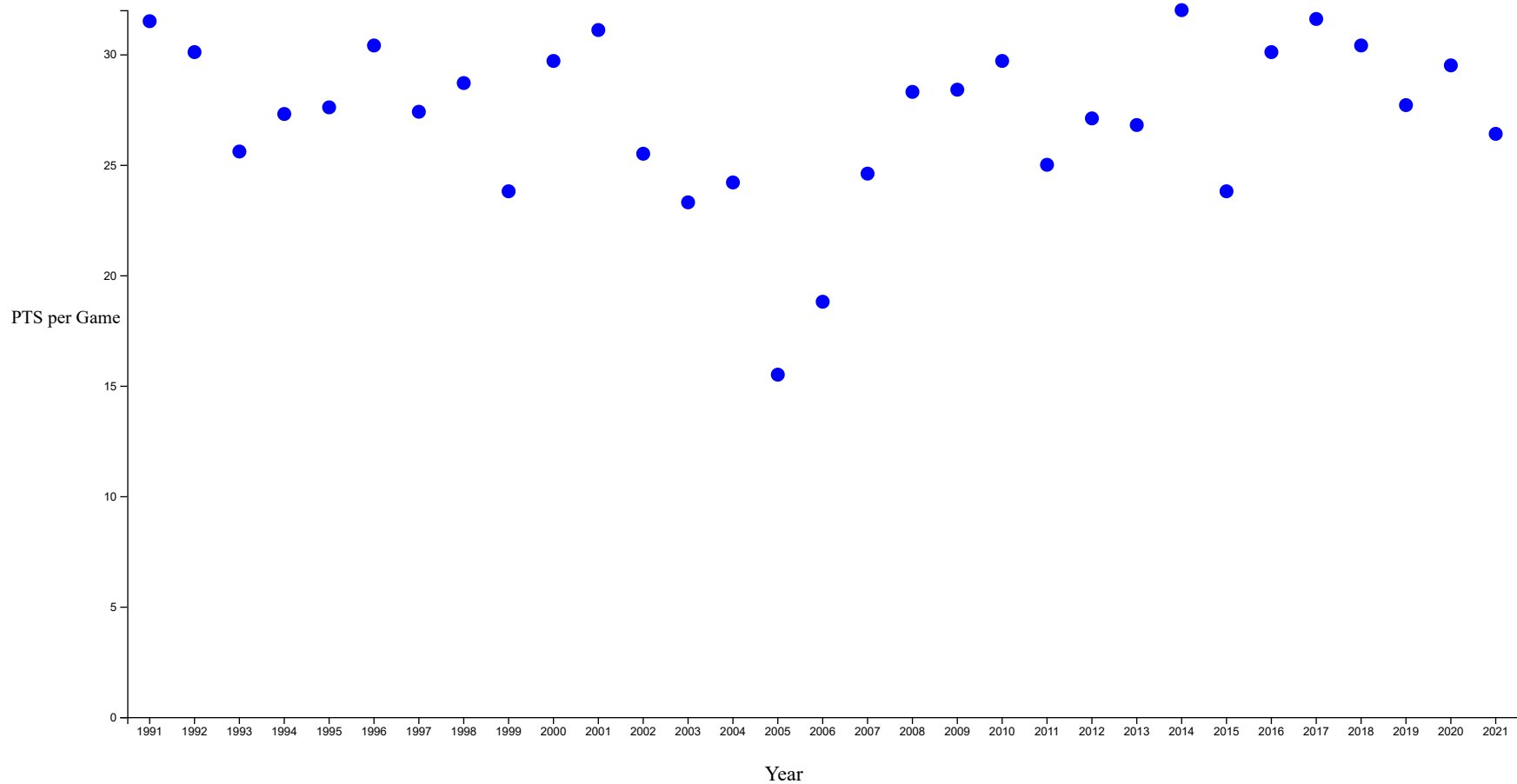
I used the "1991-2021 NBA Stats" dataset on Kaggle. I chose this dataset because I am interested in the NBA and wanted to explore data around the MVPs of the League starting from 1991 to present day.

Question 1:

The question I had when deciding to make this plot was: Have MVPs been getting better (from a statistical point of view) over the years? Therefore, I made a scatterplot with MVP's average stats per game looking for any trends or outliers.

Average Stats of MVP by Year

☒ PTS ☐ AST ☐ TRB ☐ STL ☐ BLK ☐ FG% ☐ 3P% ☐ FT%

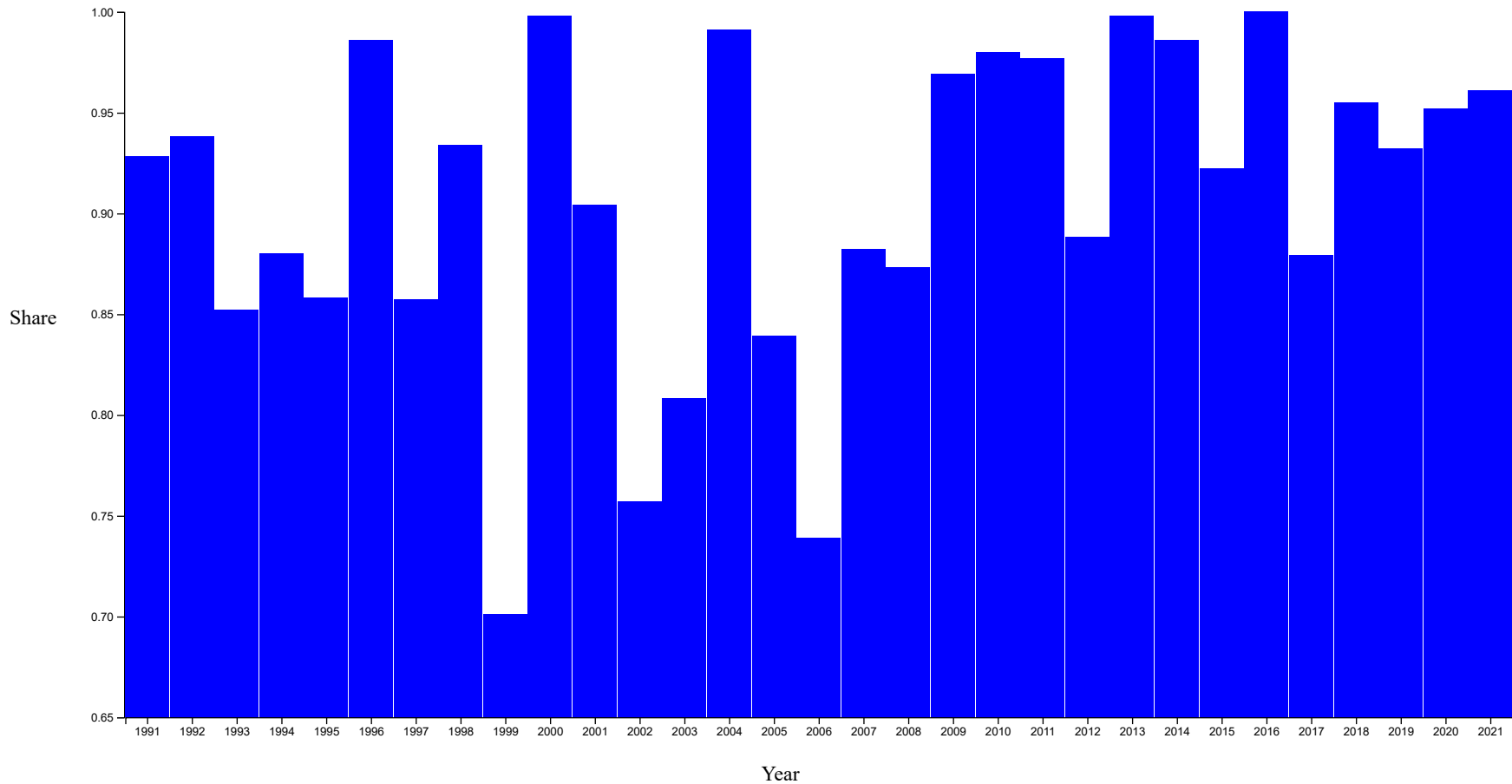


No color scheme in this graph. The marks in this graph are points. This graph also uses two channels which are vertical and horizontal spatial position. The vertical spatial position changes depending on which button is selected, changing the attribute that the vertical spatial position encodes. The horizontal position encodes the Year.

Question 2:

The question I had when deciding to make this plot was: Which MVPs were the most dominant in the year they won? Therefore, I made a bar chart of each MVP's Share (which is their proportion of voting points they got out of the maximum possible).

Total Share of MVP Votes by Year

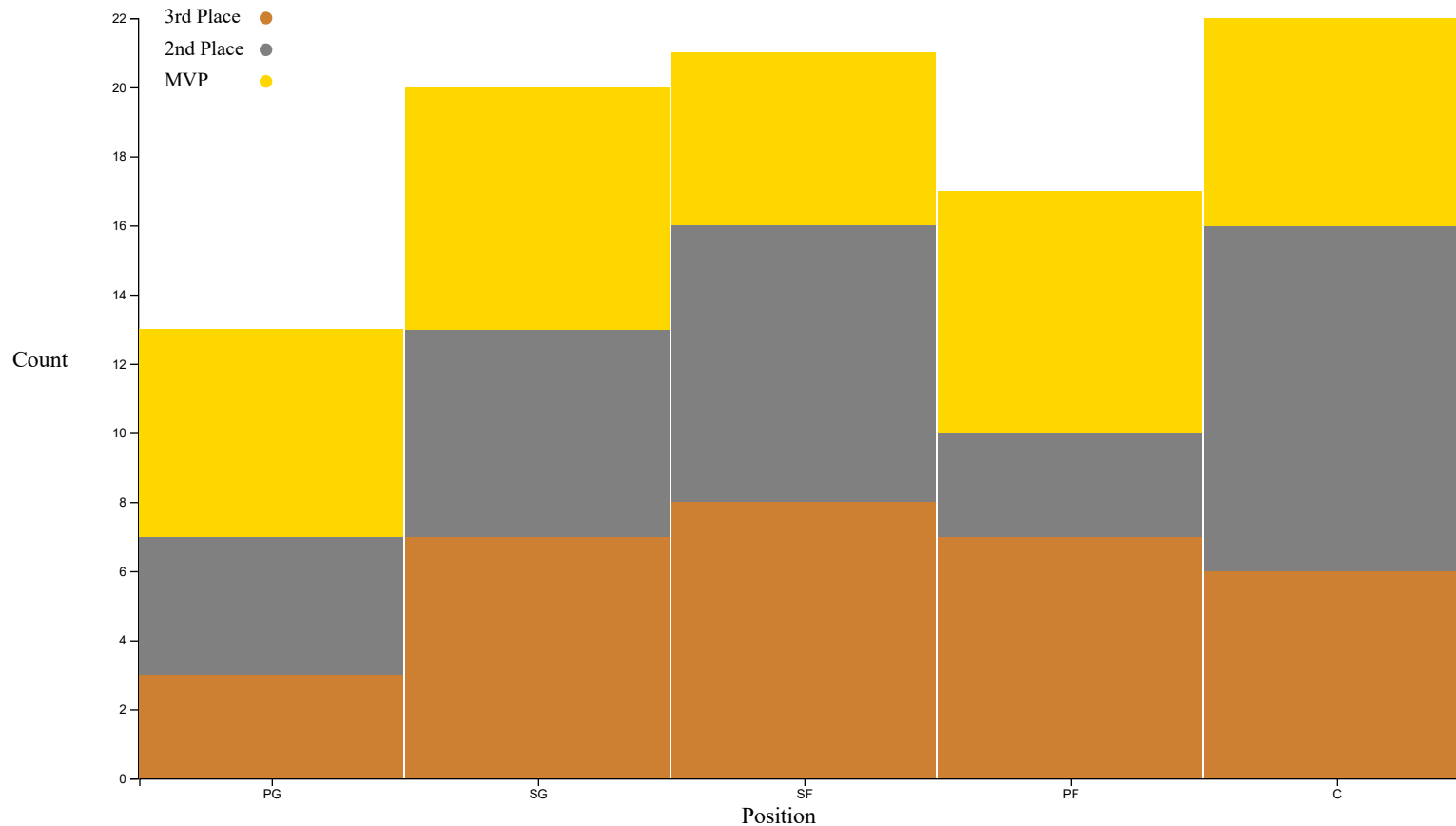


No color scheme in this graph. This graph uses a line mark for the bars, and uses a vertical spatial position channel for the quantitative attribute "Share" and a horizontal spatial position channel for the attribute "Year".

Question 3:

The question I had when deciding to make this plot was: Which positions have had the best players historically? To search for this I looked at not only players that got MVP, but also players that were 2nd and 3rd in the voting, and created a stacked bar chart.

Top 3 MVP Vote Finishes by Position

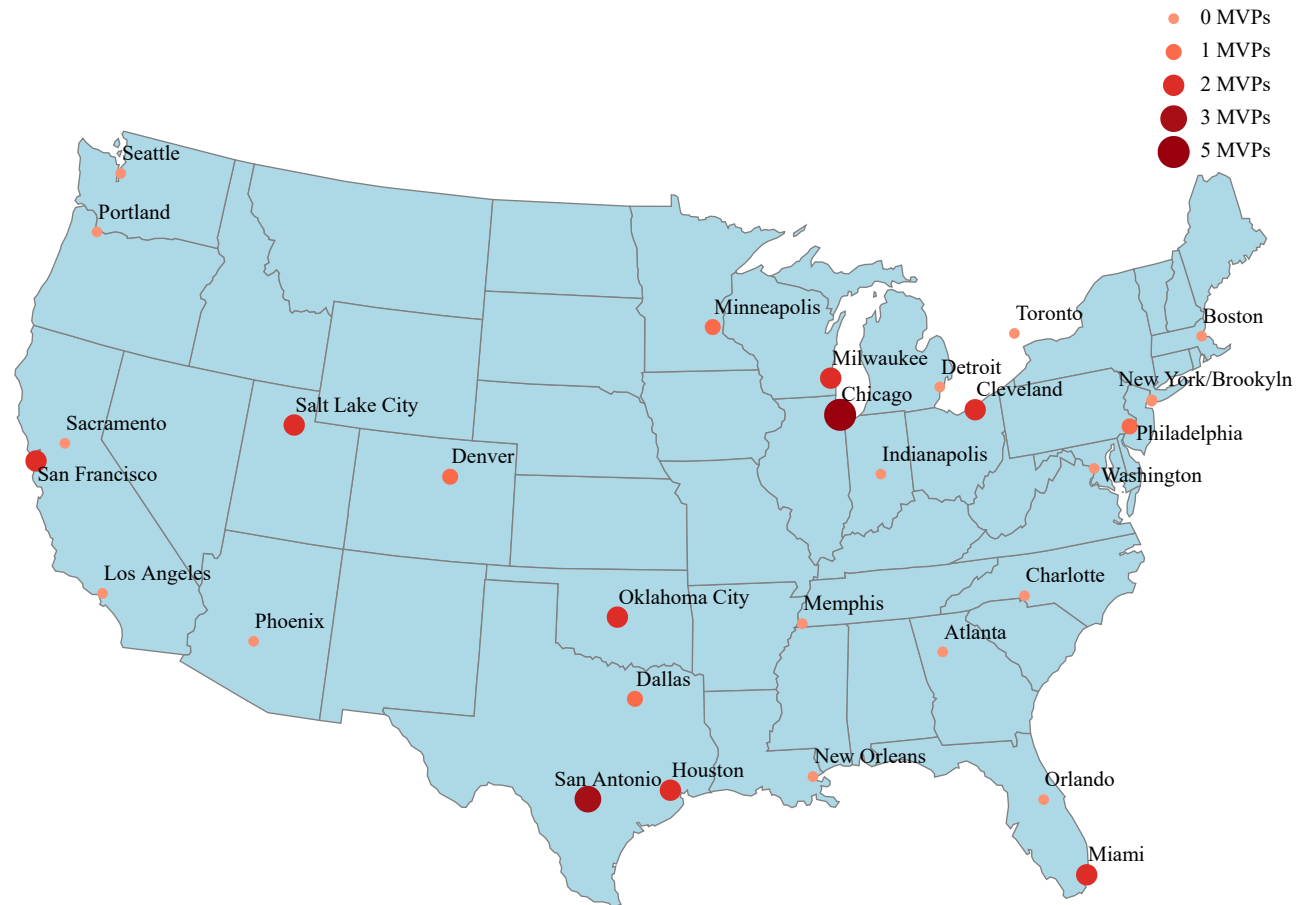


The color scheme in this graph uses gold for 1st place (MVP), silver for 2nd place (runner-up), and bronze for 3rd place because many people map those colors to those definitions already, which makes it a good choice. This graph uses a line mark for the bars, and uses a vertical spatial position channel for each of the groups (1st, 2nd and 3rd) encoding their respective counts. There is a horizontal spatial position channel for the categorical attribute Position and a color channel to encode the attribute Rank.

Question 4:

The question I had when deciding to make this plot was: Which team/city has had the most MVPs? To answer this question, I plotted the cities on a map with the dots representing how many MVPs a city has had between 1991-2021. The U.S. city data was taken from <https://simplemaps.com/data/us-cities>.

Number of MVPs by City



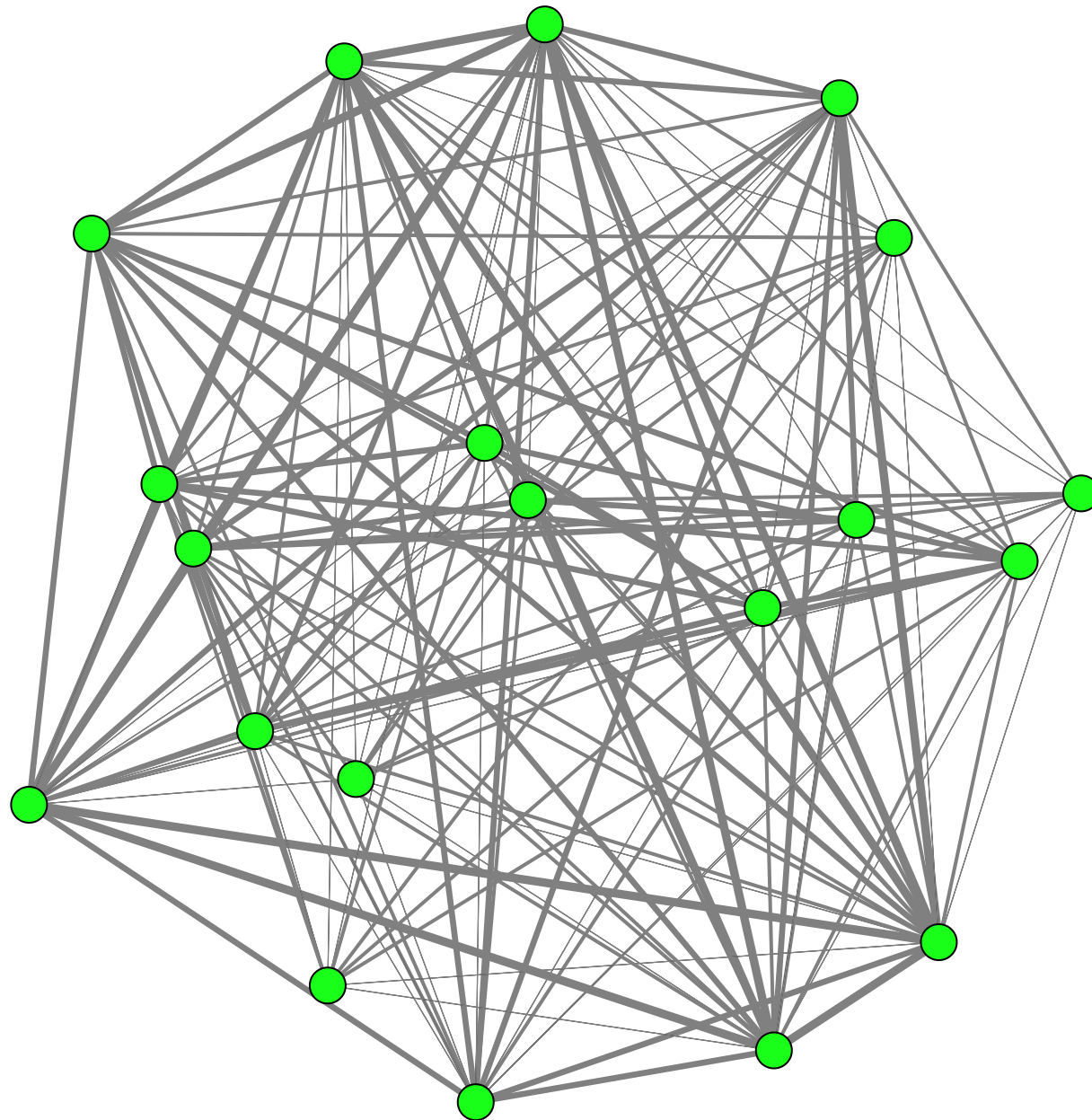
This graph uses a sequential reds color scheme that goes from lighter to darker for cities with more MVPs. I chose this color scheme because it showcases the sequential data well and is visible against the blue map. The marks in this graph are area marks and point marks. The geometric data along with the boundaries in the map are created using the area marks and the cities on the map are created using point marks encoding position data. The channels in this graph include the size/area, color saturation, and the horizontal and vertical position channels. The area marks only use the area channel while the point marks use all of the channels. It uses the position channels to show where the city is located and the area and color saturation channels to show how many MVPs played in that city. Area and color saturation are sometimes hard to compare so I used both to help compare across cities and also provided a legend.

Question 5:

The questions I had when deciding to make this plot was: Which MVPs competed against each other? & Which mvps had the greatest amount of competition for the award? Therefore, I made node-link diagram with the players as nodes and the links as connections between players that played against (or with) each other during the same year. The width of the links represent the amount of years they played against each other.

Node-Link Diagram of MVPs and Their Competitors with Links as Years Played Against

0-5 Years —
5-10 Years —
10-15 Years —
15-20 Years —



No color scheme in this graph that encodes anything, but the color of the nodes does change when they are selected for user clarity. The marks in this graph are points for the nodes and connections for the links between the nodes. The channel used in this graph is the size/area channel referring to the line width of the connection marks.