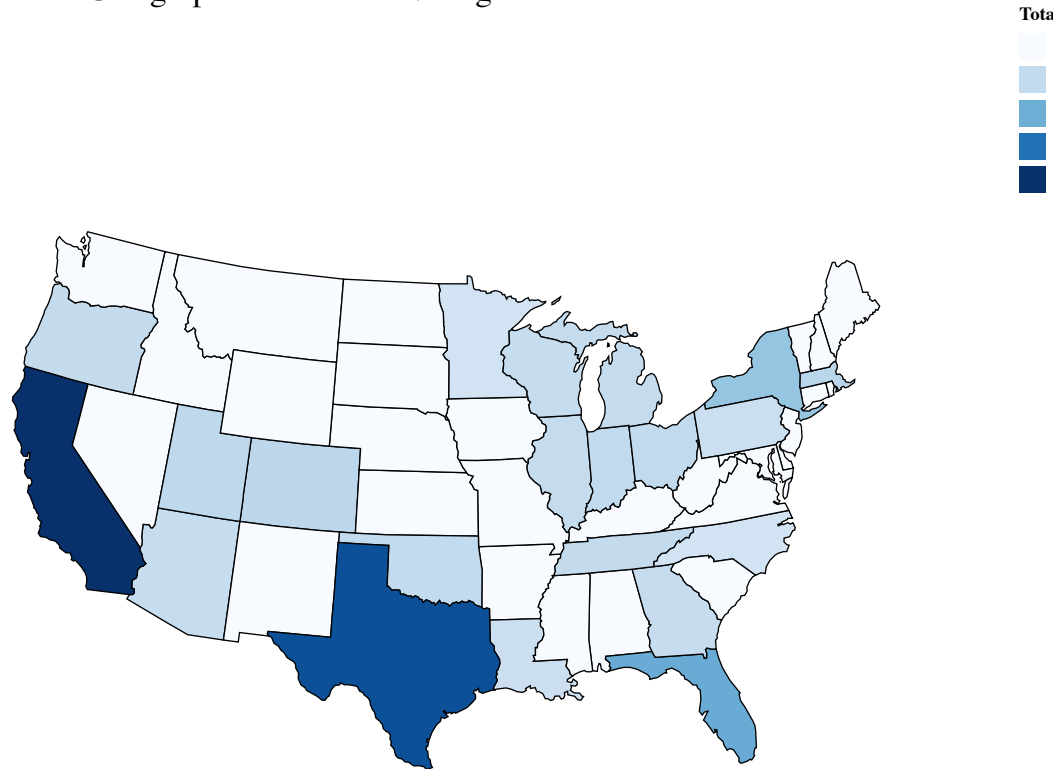# NBA Data Visualization

This project aims to determine the best-performing team in the NBA, using the total number of wins as the comparison metric from 2003 to 2021. Three visualizations will be provided. The first one describes the overall performance and rankings of all teams. The second one describes the winning and losing relationships between teams. The last chart traces the performance of the best and worst teams throughout time.

This chart describes the total wins in each state and the overall team rankings among all NBA teams. The darker the color, the more home wins there are in that state. Using this table, we can identify the teams with the most wins from the 2003-04 season to the 2020-21 season. When you hover your mouse over the chart, you can see the ranking of each team in the league. Since the Spurs rank 1st place and the Knicks rank 30th place, we will analyze these two teams further in the third chart.

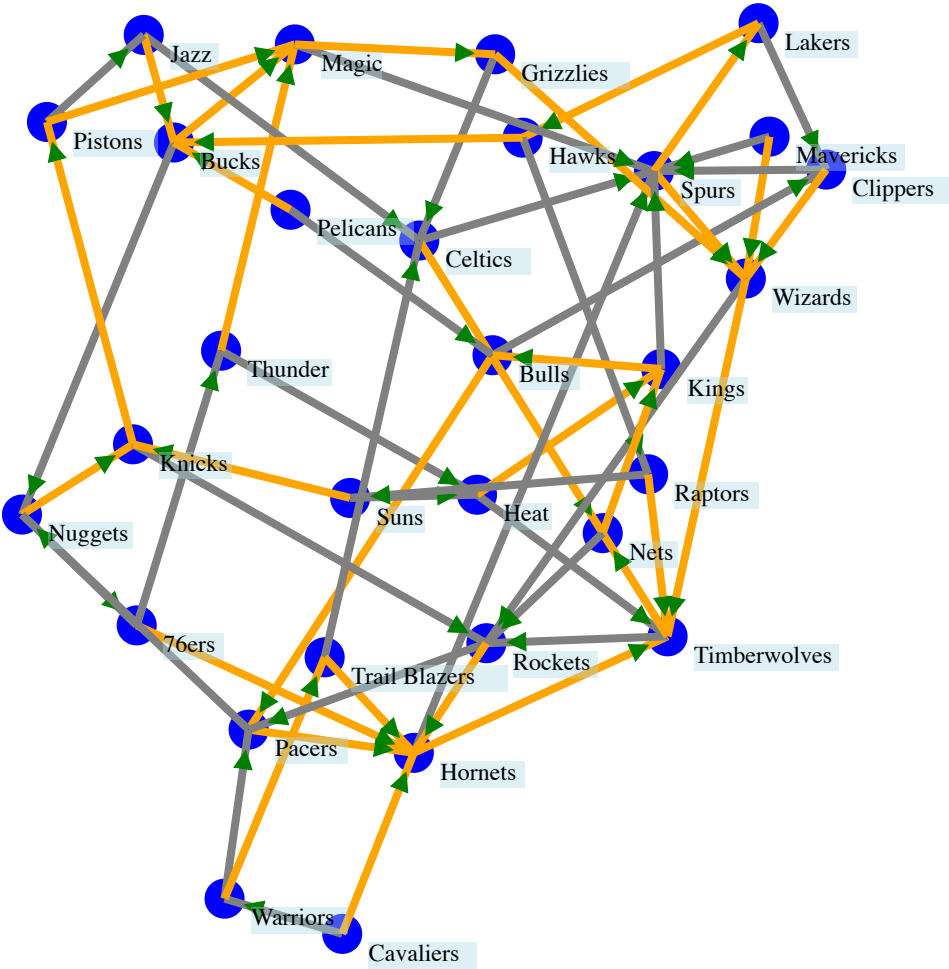## Geo graph for the total NBA games wins in each state

This chart visualizes the winning and losing relationships between different teams. The orange line represents a winning relationship, and gray represents a losing relationship. For example, if there is an orange arrow starting from the Spurs to the Wizards, it means the Spurs have the highest winning percentage against the Wizards. The same logic applies to the gray line. To make the chart clear, you can click the buttons to show only winning or losing relationships.
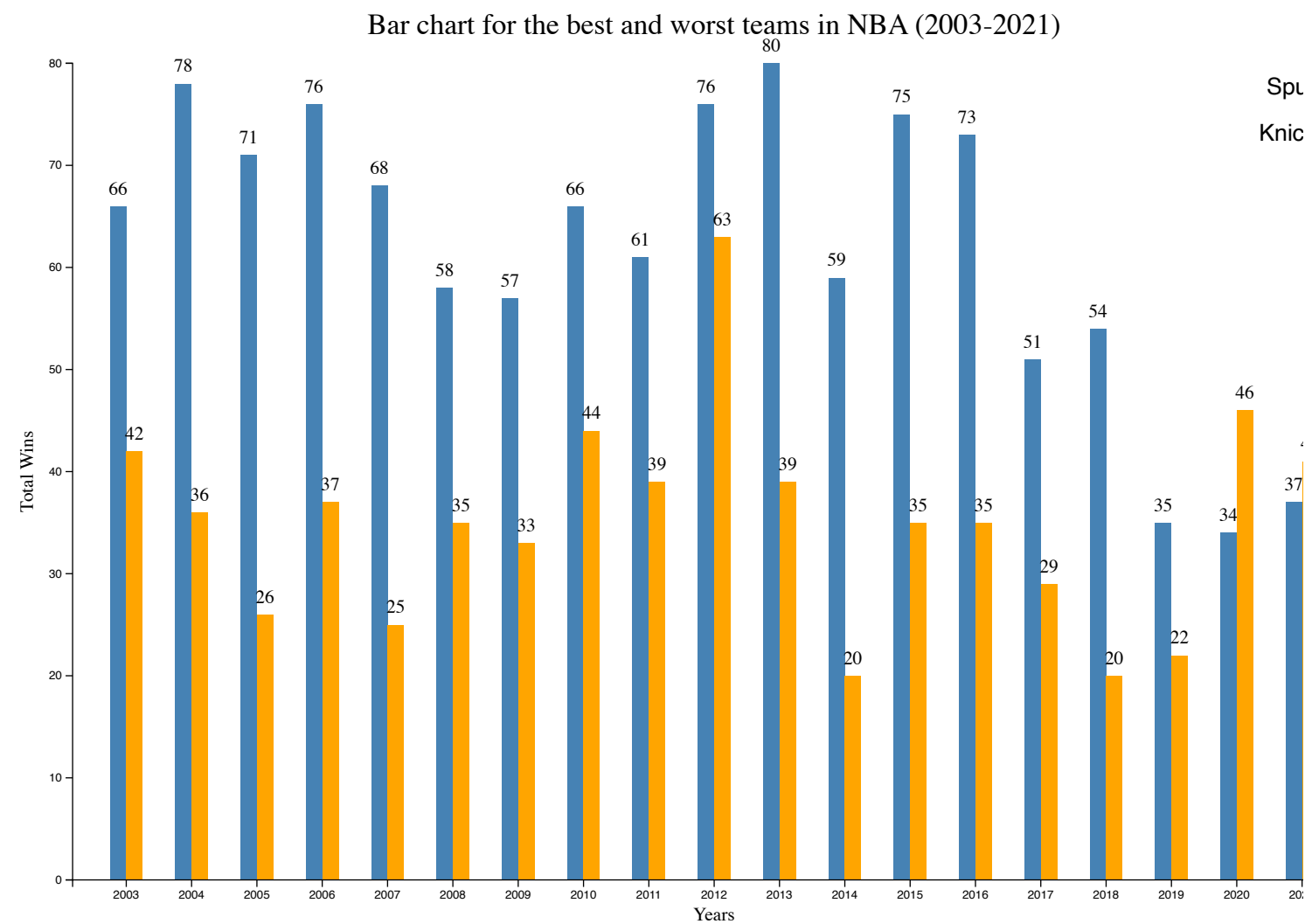
[Show Winning Relationships] [Show Losing Relationships] [Reset]

This bar chart traces the best performing team (with the most game wins) This bar chart traces the performance of the best-performing team (with the most game wins) and the worst team over time. When you hover your mouse over the graph, the difference in wins will be displayed. As mentioned in the first chart, we will analyze the Spurs and Knicks. By displaying their wins for each year, we can directly observe the exceptional performance of the Spurs.

Bar chart for the best and worst teams in NBA (2003-2021)

In conclusion, the visualizations provide clear evidence that the San Antonio Spurs are the dominant team in the league. Their highest number of wins and winning rate against other teams, including the Magic, Celtics, Hornets, Kings, Clippers, and Mavericks, solidify their status as the best team. The comparison between the Spurs and the Knicks reveals a significant gap in performance. The Spurs' success is not surprising considering their exceptional leadership under head coach Gregg Popovich, widely recognized as one of the greatest coaches in NBA history. Additionally, the presence of legendary players such as Tim Duncan, Tony Parker, and Manu Ginobili, along with the organization's strong personnel, have contributed to the Spurs' status as the top team in the NBA.