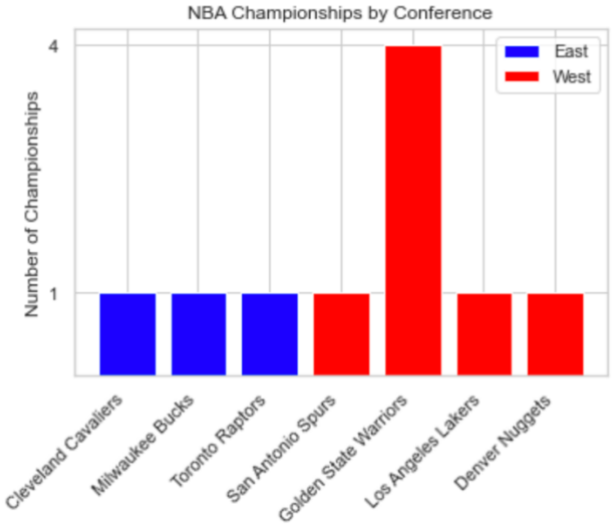
Does Either NBA Conference Really Reign Supreme?

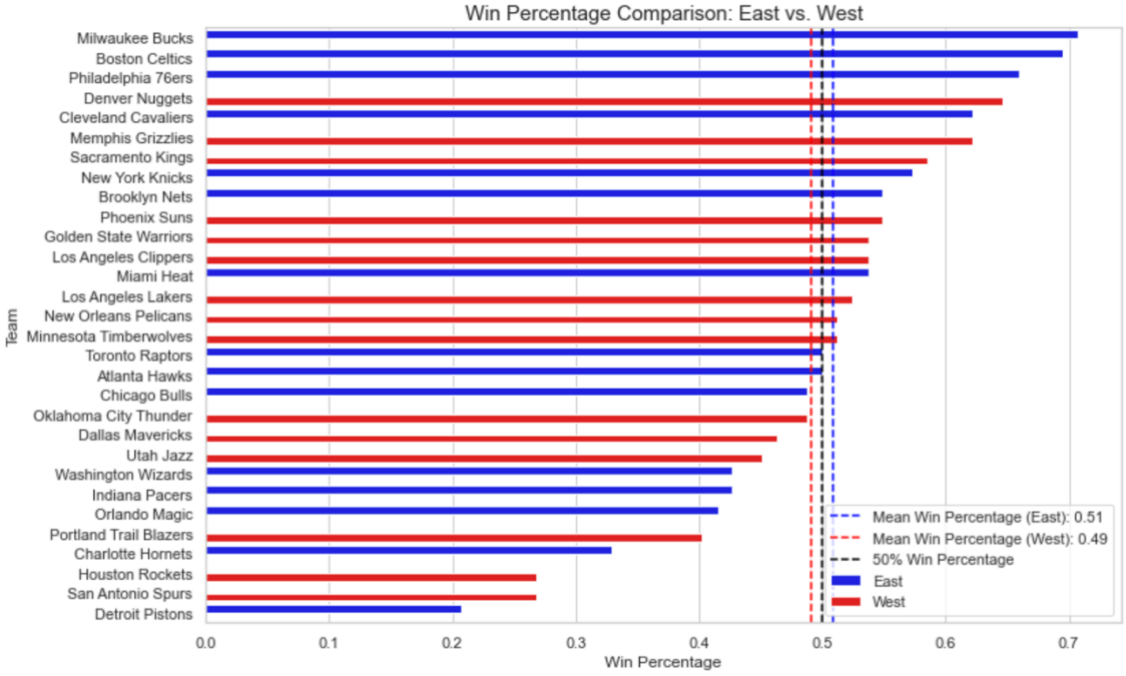
For nearly the past decade, it has been consensus amongst NBA analysts and reporters that the Western Conference is stronger than the East. However, I am dubious of this notion, as it is often stated without any real analysis or statistical backing. My main question is this: is there truly a significantly stronger conference? When arguing that the West is the dominant conference, analysts often point out this crucial fact: 7 of the last 10 championships have been from the West.



To me, this is a very surface-level analysis. As you can see in this first figure, the Golden State Warriors have dominated for much of the last decade, and no other team has won a championship more than once, the most recent being the Denver Nuggets (West). To really analyze what conference is best, a more detailed look through the numbers with more nuanced data than just "championships won" will be necessary. When analyzing whether there is truly a dominant conference, it is important to first note the effects of geographical location. As you can see, the Western Conference teams are far more spread out than the Eastern Conference teams. Since more games are played in conference than out of conference,

geographical location gives a slight advantage to the Eastern Conference teams that likely have significantly less travel. Rest time is crucial for NBA players who have a grueling 82 game season. This will be important to remember when looking deeper at the statistics for each of the teams.

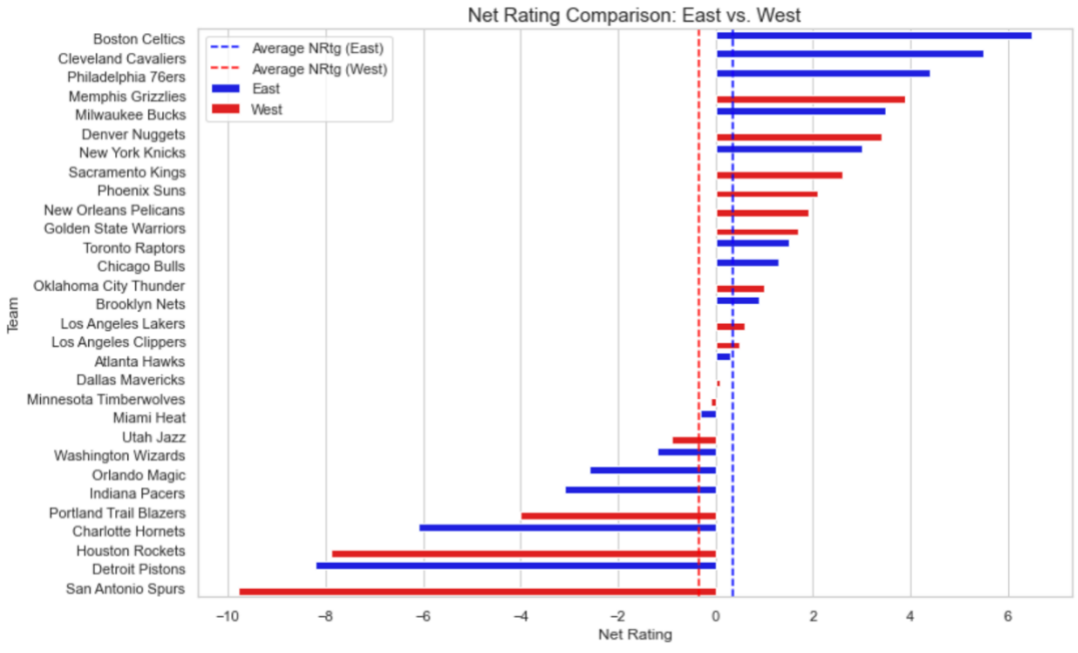
To attain the NBA statistical data, I scraped public data from BasketballReference.com, a website filled with statistics on NBA teams and players. The first statistic I wanted to compare by conference was win percentage, which is simply a number denoting what percentage of a team's games played were wins. I plotted all the teams from past season and included lines to denote the average win percentages:



Visualizing the win percentages here shows us some interesting information. The top three teams were all in the Eastern Conference, but their mean win percentage is only .02% above the West. I ran a significance test and found the difference to not be statistically significant. This seems to be explained by the fact that the Western Conference has 9 teams that have a positive winning percentage (above 50%), while the Eastern Conference only has 7. Additionally, there are

noticeable outliers in the Detroit Pistons, Houston Rockets and San Antonio Spurs that lost the most games, one of which being Eastern and the other two being Western. So, if the Champion and the most winning teams were in the West, why are the top 3 teams from the regular season in the East? This may be where location comes into play. Increased parity in the West may at least be partially explained by the rigor of the NBA season; NBA Teams play anywhere from 3-5 games a week, and at least half of their games are in an opponent's arena. These longer trips as well as significant time zone changes can lead to increased fatigue, leveling the playing field amongst Western Conference Teams.

To try to account for the differences that may be displayed in win percentages, I charted the net rating of each team. Each team's net rating shows information deeper than wins and losses, considering the level at which they beat teams, as it is a measure of a team's point differential per 100 possessions. The per 100 possessions is another key piece, as it adjusts for pace, which will theoretically even the playing field for those Western Conference teams that may be playing slower.



The Net Rating visual certainly changes things and has different teams at the top and bottom than the win percentage visual did. However, the distribution remains the same, the East has a marginally higher mean than the West, even when making this adjustment. Additionally, that difference still isn't statistically significant. This data only adds more evidence to the idea of parity in the NBA; when adjusting for pace and strength of schedule by net rating, the distribution remained the same, and if anything, the West was potentially marginally worse than the East.

In conclusion, the analysis presented challenges the conventional wisdom regarding the dominance of NBA conferences. While the Western Conference has seen success in terms of championships, a deeper examination reveals a more nuanced story. The East showcases competitive teams with comparable performance, and the marginal differences observed are not statistically significant. Geographical considerations, such as travel and fatigue, further contribute to the parity observed in the league. It is important to additionally note the difficulty of assessing NBA teams, as teams are constantly fielding injuries, coaching changes, and other turmoil. Ultimately, the NBA landscape is characterized by a level of parity that transcends conference boundaries, which I believe invites a reevaluation of preconceived notions about conference strength.

Basketball Data Provided by BasketballReference.com

U.S. State Boundary Data Provided by United States Government Census Bureau