In the 2016 basketball season, the Golden State Warriors scored a staggering 1,025 3-pointers (Cohen, 2016), of which one man, Stephen Curry, set a record by attempting more three pointers by himself than any average NBA team had ever attempted from 1980 to 1994 (Rudy, 2016). To add to this, Stephen Curry is scoring them at an average rate of 45.6%, which is higher than the NBA average for all attempted shots (Cohen, 2016).

The 3-pointer has crept into basketball, and with it have come legends, records, and unexpected last-minute comebacks. But its acceptance and incorporation into modern basketball has been a long and controversial process.

Anyone under the age of thirty might hardly remember a time without the 3-point line, but the NBA only adopted the 3-pointer in 1979 (Wood, 2016), and with it came waves of criticism. Boston Celtics president Red Auerbach dismissed the 3-pointer, believing it was just a gimmick intended to deal with poor television ratings. “I say leave our game alone”, he said to the *New York Times*. John MacLeod, the coach of Phoenix Suns, famously commented “I’m not going to set up plays for guys to bomb from 23 feet. I think that’s very boring basketball.” (Mather, 2016)

That has not changed. Resentment of the 3-pointer exists even today, with many veteran players holding it in contempt for the kind of gameplay it encourages. Charles Barkley called the modern NBA “watered down” and “the worst I’ve seen it”, while Tracy McGrady wondered aloud whether Stephen Curry could have won his MVP titles so easily in the past (Eger, 2016).

One thing that *has* changed over the years, though, is the teams’ incorporation of the shot into their actual gameplay over the years. Although the 3-pointer was introduced nearly four decades ago, most teams shied away from using it, with 3-pointers making up only 3% of total attempted shots in the year it was introduced (Cohen, 2016). This could have been, in part, due to the high success rate necessary to make a 3-pointer “worth it” (Rudy, 2016). However, the shot’s usage has steadily increased with each passing season, seeming to plateau recently at 22% of all attempted shots (Cohen, 2016). This may be in part due to the increasing popularity of mathematics in basketball (Eger, 2016). Where coaches would once pick players based on their “gut feeling” after watching them play, they began to instead spend hours poring over play statistics. An overall trend emerged, with a focus on “points per possession”, with the assumption that possession of the ball alternates between teams roughly equally, and so 3-pointers (which are worth 50% more than their 2-pointer counterparts) would pay off in the long run, if one could hit a minimum success rate (Eger, 2016).

As the fraction of 3-pointers attempted increased over the years, so too did the successful 3-pointer attempts. Teams are not just shooting them; they’re making them too! While the successful 2-pointer percentage plateaued around 49 percent decades ago (Eger, 2016), the successful 3-pointer attempts have been steadily increasing since it was first introduced.

This study aimed to address the following questions:

1. What is the overall trend in 3-point shots? Is the trend demonstrated by the **(attempted? Made?)** 3-pointers statistically significant?
2. How have 3-pointers contributed to win rate?
3. How accurately do 3-pointers predict win rate over the years when compared to the “4 factors” as an indicator?
4. What are the trends in 3-pointer attempts across different teams and for Golden State Warriors in particular over the last twenty years?
5. Can individual player height play a role? How does player height correlate with performance?

**Franchise Changes**

The data used for the study spanned the 1980-2016 seasons, during which multiple franchises were renamed or relocated. Certain assumptions were made for the data to account for this:

1. The same team played under the names Brooklyn Nets and New Jersey Nets for a period. The data for these two teams were combined.
2. The San Diego Clippers were rebranded as the Los Angeles Clippers upon their relocation, and their data were combined.
3. The Vancouver Grizzlies relocated and were rebranded as the Memphis Grizzlies, and their data were also combined.
4. The Charlotte Hornets team relocated to New Orleans and became the New Orleans Hornets, which then moved to Oklahoma City and was temporarily named the New Orleans/Oklahoma City Hornets. The franchise then renamed itself the New Orleans Pelicans and returned the “Hornets” name to the original city of Charlotte. Concurrently, the Charlotte Bobcats team, which had established itself in Charlotte, renamed itself the Charlotte Hornets. For ease of data processing, the data for the Charlotte Bobcats and Charlotte Hornets were combined, and the data for the New Orleans Hornets, the New Orleans/Oklahoma City Hornets, and the Oklahoma City Pelicans were combined.
5. The Washington Bullets were renamed the Washington Wizards, and their data were combined.
6. The Kansas City Kings renamed themselves to the Sacramento Kings, and their data were combined.
7. The Seattle SuperSonics were rebranded the Oklahoma City Thunder post-relocation, and their data were combined.

The total number of teams after data merging was 30.