

Project 1: NBA Player vs Season Analysis
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Software/Programming Languages Used: SQL, Python, Power Bi, Excel

Initial Data Set: On My Github - @Nasserdotcom

Page 1 Takeaways:

1. In general, There has been a slight upward trend for likelihood that a star player puts up a top 100 season.
2. Between the years of 2014 to 2018 there was a uptrend in average offensive rating, and a general decrease in defensive rating. Contextually, this can be attributed to the fact that players and teams in general saw drastic increases a number of threes pointers shot, causing higher average point games, and offenses to be rated much higher, with defenses becoming seemingly worse. This fact bundled with extreme efficiency of these sharp shooting players, created this trend.
3. One area of interest is the 2018 season, where offensive ratings skyrocketed and defensive ratings dropped significantly. Which can be attributed to a rule change that was made where the the shot clock will reset to 14 seconds in offensive rebounding situations, instead of the usual 24 seconds. Essentially this meant teams had less time to score a basket on average, but these teams and they're scary efficiency from the three-point line made it so this rule only increased the amount of opportunities they had in a game to score points. It was as simple as less time per possession = more possessions for each team.

Page 2 Takeaways:

1. Stephen Curry's performance offensively in his 2015-16 mvp season is by far the highest of any player in that 9-year stretch. This was the year that he recognized the three-point shot, and showed teams how an efficient shooter from range could change the game.
2. Similarly, James Harden has the second highest peak, which occurred in his 2018 mvp season, which also can be largely attributed to his three-point shot making ability in the 2018 season.
3. Defensively we see that Draymond Green had the highest defensive rating in that nine-year span, which gives us a little insight on what made the Warriors such a prolific team. Having the greatest offensive player in nearly a decade, partnered with the greatest defensive player in that same decade, is a recipe for a 73 win, 9 loss team record, the greatest in NBA history.

4. In general offense has higher peaks than defense, there's only so much you can do defensively to a player who just doesn't miss. After all the chances of somebody stealing or blocking the ball is much lower than the chances of a player just making the shot.

Page 3 Takeaways:

1. Many people have said that the NBA is on an upwards trend in skill and scoring ability, however by looking at the top 100 performances between a 2014-2018 and comparing that to the 2019-2023 seasons, a same span of 4 years, in general players have gotten worse both offensively and defensively.
2. Players in the last 4 years have become more offensively oriented as we can see by the very focused amount of dots on the top left of the second graphic. Essentially this means players have more impact on offense and less in fact on defense.
3. The Stars in the League have less impact generally nowadays, except for Jokic.

Page 4 Takeaways:

1. The WAR score stands for Wins Above Replacement, which essentially says, compared to the average player in that same position, this is the amount of wins that this player can be attributed to causing.
2. The Highest Peak in Actual Value to a teams winning belongs to Stephen Curry in the 2015-16 season with a WAR score of over 25. Which means having Curry results in 25 more wins.
3. Jokic in the 2022-23 Season is 2nd place.
4. Draymond, Curry's teammate that same year, had by far the highest defensive rating in that 8 year span, which helped him be the 3rd. This explains what made the Warriors dynasty so strong, with Draymond causing 23.5 more wins plus Curry's 26.7 wins, they alone caused a win increase of almost 50 in a 82 game season.