QUANTIFYING THE SOPHOMORE SLUMP IN THE NBA

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The idea of the sophomore slump is one that has pervaded the history of the NBA for generations. This theory proposes that stand out rookies often find themselves struggling during their second year in the NBA, due to a plethora of reasons. One reason could be that opposing teams have now watched enough tape on them during the off-season and are now prepared to tackle their offensive and defensive capabilities. Another, that they now have increased expectations and perhaps crumble under the pressure which remained absent during their rookie campaigns. However, we would like to actually quantify this idea of a "slump" and see if there is any actual truth to this. The idea is to scrape together nba data from websites such as basketball-reference.com, nba.com, etc and quanitfy this myth and debate its validity.

For reference, we will be using the any player that finished in the rookie of the year voting for their respective class (i.e received a rookie of the year vote) and comparing their not only their second year stats, but their third, fourth, and fifth year stats as well (if available, for players where data over second season is not available, only the second season will be used) to prevent any bias from what was possibly an anomaly of a rookie season. This data will be accumulated from the historic rookie seasons of 1983 i.e Michael Jordan and Hakeem Olajuwan, to the year of 2018 where Ben Simmons won in a controversial decision over Donovan Mitchell. Through a quarter of a centuries worth of data we will be primarily comparing two metrics, whether the player's Win shares had gone up, and whether their PER (efficiency) had stayed stable during the win share increase or decrease, comparing them not only to their own previous seasons, but also the league averages during those seasons.

We define the slump to be a "dip" or "drop" in production, players who do not improve or worsen will not be considered to be a part of the slump, as stellar rookie stats could be hard to improve upon. Which is why stats such as PER and win shares, can better capture the essence of a value of a player.

Future additions to this project could also be queries such as inquiring the all star, and all NBA potential of rookies who avoid the sophomore slump.

NOTE: Any significant time missed due to injury could be biased and may be omitted from the data if win shares go up or down and could skew the averages. Real impact plus minus was a stat we wanted to use, but it does not date back to the 1983 season, furthermore, stats such as VORP (value of replacement player) could have a downward trend if the team were to say strengthen their bench