

3 Tips on Winning in Fantasy Basketball

Business Questions

1. What are the key drivers for top fantasy scores?
2. What positions offer the most value from a fantasy score perspective?
3. What trends can be observed during the NBA season from a fantasy score perspective?

INTRO

While fans of the NBA are waiting patiently for the 2019-2020 season to resume, we found time in quarantine to dig into basketball data. Whether it's your first time playing fantasy basketball or you are a seasoned fantasy veteran, these tips may shed some light on winning in your league.

DISCLAIMER

This analysis was based only on the 2018-2019 NBA season due to the cost of data. The figures presented here are for informational purposes only and do not represent a definitive study because of the small sample size.

1. Scoring is important, but don't forget about multi-category players.

Back in 2017, the NBA embraced fantasy basketball by adopting an official fantasy scoring system. The scoring system includes six categories: a point is worth one point, rebounds worth 1.2 points, assists worth 1.5 points, steals and blocks are both worth 3 points, and turnovers are -1 points. While this is common knowledge for the seasoned fantasy player, it still begs to question what stats should a fantasy player focus on? And do punt strategies win?

In our analysis of the 2018-2019 NBA season, we used a Random Forest, which is a tree-based learning algorithm that uses a collection of decision trees to perform classification or regression tasks. Decision trees consist of multiple nodes testing an attribute on some feature, and the advantage of pooling multiple decision trees significantly increases the robustness of the modeling process. Furthermore, the feature importance method for Random Forests is extremely valuable as it shows what features contributed to, and to what scale, the drivers behind the model. So what does this mean?

When predicting fantasy score, the feature importance show that points are, by far, the most important feature. The next important features, to a lesser degree, are total rebounds, assists, steals, and blocks. So does that mean one should focus solely on players that score? Not necessarily. The competitive fantasy player should also consider specific positions that offer multi-category stats. More on that below.

Source: https://www.espn.com/fantasy/basketball/story/_/id/20916781/fantasy-basketball-nba-embraces-fantasy-basketball-introduces-official-scoring-system

2. It's a star-driven league but centers and point guards offer the most ROI.

In our analysis of top fantasy scores, it is obvious that drafting superstar players in the early rounds is key to building a top-notch fantasy team. In the 2018-2019 NBA season, there were 6 players that averaged 50+ fantasy points, and 19 players that averaged scores in the 40-49 range. If you are in a 12-team league, you need to draft 2 of these players in the first two rounds in order to be competitive.

But what about in the middle and late rounds? In our analysis, it seems that, on average, centers and point guards offered much higher fantasy points than shooting guards and small forwards. This would support our earlier feature importance assessment as centers are more likely to collect rebounds and blocks while point guards are more likely to get assists and steals.

So what does this say about shooting guards and small forwards? While there are definitely quality players in those positions that offer great value, late round shooting guards and small forwards may score but lack in other categories such as rebounds, assists, steals or blocks.

This makes sense in today's NBA. Shooting guards and small forwards playing the 3-and-D role help space the floor with wing shooting, and as such, may be in a more limited ball-handling role. In comparison, centers are often tasked with rebounding the ball and defending the rim and point guards with distributing the ball and defending the opponent's primary ball-handler. While shooting guards and small forwards may be collecting defensive stats, one could argue that drafting another point guard could not only help with steals and another

power forward/center with blocks but also still help your team with assists and rebounds, respectively.

3. Slow starts are part of the game but it seems that centers, point guards, and shooting guards improve closer towards the playoffs.

Slow starts to the season happen to players for any number of reasons but is there an observable trend happening? Earlier in our analysis, we saw how, on average, centers and point guards offered the most value. By plotting the trend of average fantasy scores by position over time, it seems that centers, point guards, and shooting guards saw an improvement over the course of the season.

This makes sense as players coming into the season are not in game-shape and get better over the course of the season. But what's interesting is that small forwards and power forwards declined closer to the playoffs from a fantasy score perspective. While it's not exactly clear why this is the case, one hypothesis may be that small forwards and power forwards are more likely to be injury-prone.

To test this hypothesis, we used a proxy for injuries by looking at "Days Rest" by "Position". This showed a similar picture in the 2018-2019 NBA season, as small forwards and power forwards averaged a higher number of rest days throughout the season and saw spikes at key points in the NBA season, specifically during the Christmas and All-Star breaks.

Please check out my [GitHub](#) where I've posted my data, code, and analysis. Thanks for reading and until next time!