Moreyball: Slam Dunk or Technical Foul?

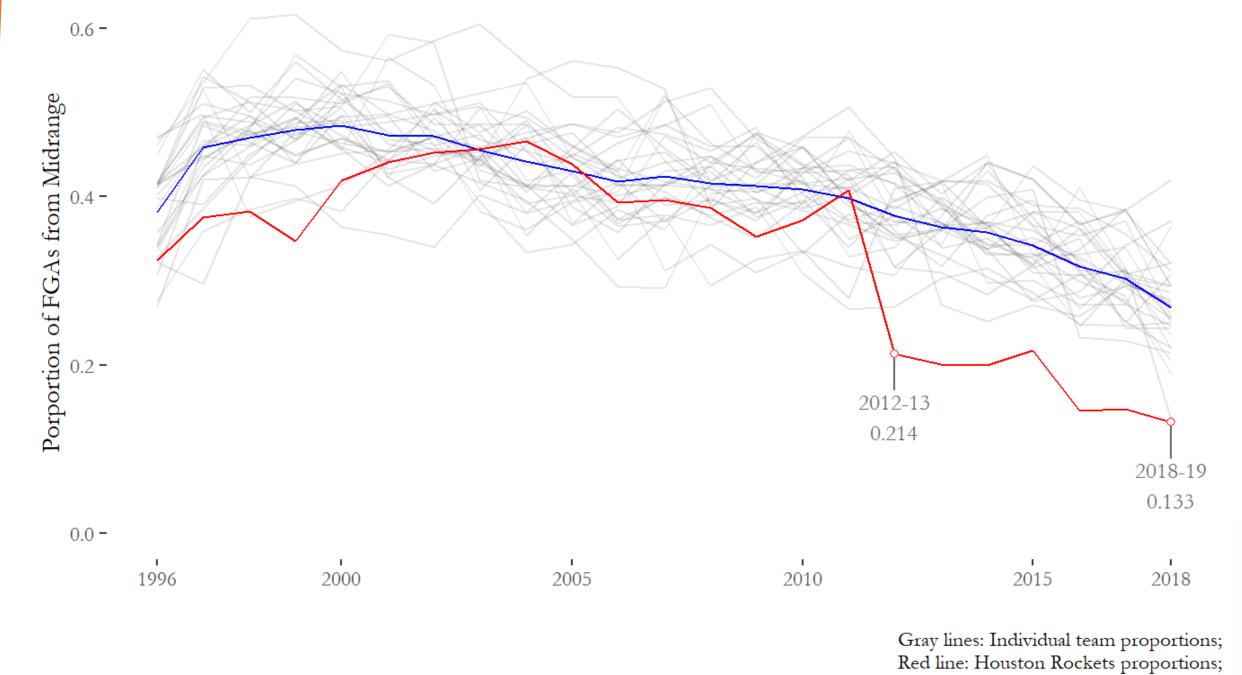
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The world was amazed at the success that advanced data analytics had with the Major League Baseball team the Oakland Athletics in 2002. The success of data analytics used by Billy Beane and the Oakland Athletics has caused ripple effects on other leagues and sports throughout the world. It is no secret that General Managers across all professional sports are utilizing data analytics to enhance their evaluation of talent, most notably by the National Basketball Association (NBA). At the forefront of this movement is the general manager of the Houston Rockets, Daryl Morey. From the beginning his tenure in 2007, Morey has been an outspoken advocate for analytical methods in the decision-making process of the sport. Our research will review the models and methods used by Morey and his team. In addition, we will compare the results of the Rockets' performance against the league averages of the NBA since the implementation of "Moreyball" to see if the results are well-done or over-done. Since joining the Houston Rockets organization, Daryl Morey has been driven to change the landscape of the NBA. From our research, there are three profound areas that Morey has focused his sights upon: the layup/dunk, the mid-range shot, and the three-point shot.

Better Data,

Better Advantage

Proportion of FGAs Coming from Midrange, by Year



WHY IS THIS DATA SCIENCE?

Being a team of young data scientists, we are beginning to understand the value of finding patterns and insight via vast datasets. The industry of professional athletics has been capturing and quantifying data since the moment they began keeping score. Through the advancements in data collection, the significance of capitalizing on said data has increased drastically. Morey has been at the forefront of this movement, and the analysis being completed by his staff has played a major role in changing the ideas of value within the sport of basketball. By looking at their work, we can see which triggers have been pulled that have had the greatest effects.

CONCLUSION

Additional analysis is needed to determine if Morey is overfitting his data. Once he was established as the General Manager in 2010, the Rockets improved in nearly every scoring metric. By comparison to other teams in the league from 2010-2018, the Rockets consistently ranked in the ten (10) in winning percentage and scoring margin. During the 2017 – 2018, the Rockets ranked first in both scoring margin and winning percentage

While this has afforded the Rockets with regular season success, the team has not achieved the same results in the postseason. During this same period (2010 – 2018), the Rockets have lost in the first round of the playoffs on multiple occasions and have lost in the Western Conference Finals twice (2015, 2018).

Moreyball is also having an impact on the entire league. The pace of play has increased, and numerous teams have adapted to the style initiated by Morey. The Golden State Warriors run a similar playbook and have won the NBA championship in 2015, 2017, and 2018.

With further analysis into the analytics Morey has his team working on today, the picture will become clearer if Morey is overfitting the data.



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DELIVERABLES

A future machine learning model: to calculate and demonstrate advantages data scientist look for in the available data from the NBA to inform their teams decisions.

KEYWORDS

National Basketball Association, Daryl Morey, Moreyball, Moneyball; Houston Rockets, James Harden, Advanced Analytics, MIT Sloan Sports Analytics Conference, Shot Selection, NBA League Scoring Margin, Winning Percentage

ACKNOWLEDGEMENTS

We would like to thank and acknowledge all the data scientists and NBA fans putting in the hours to breakdown the numbers behind each NBA game. Additionally, we would like to thank Daryl Morey, the Houston Rockets, the National Basketball Association, Sloan Sports Analytics Conference, and Billy Beane for their contributions to this topic and the advancement of data science in today's arena of professional sports.

