Helton Pongnon

Matthew Rattigan

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For my final project, I decided to work by myself to take a deeper look at NBA player Jayson Tatum's postseason statistics through his three seasons in the NBA. As a Forward for the Celtics for these past three playoff seasons, he has played a total of 45 playoff games. Throughout the basketball community, it is a well known fact that Jayson Tatum has grown into an impressive basketball player, but for my project I wanted to specifically look at his growth statistically every season. While each postseason of his career has different context behind it, my research has shown that overall he has had a somewhat linear growth from his first postseason his rookie year to his 3rd postseason (this past year).

To attain this information, I used the nba_api and downloaded all of his playoff career game logs. From there, I split them up by year by creating a pandas DataFrame for each postseason. This allowed me to look at each year individually and get a rough idea of what his stats were like for each year. From there, I decided to look at his growth by analyzing 7 specific statistics through his playoff runs: points per game, assists per game, rebounds per game, field goal percentage, three point percentage, free throw percentage and his plus/minus. I did this by adding up each of these stats and dividing them by how many games he played in his playoff run that year, In 2018, he played 19, in 2019 he played 9, and in 2020 he played 17. I also rounded the averages to the nearest tenth of a decimal and multiplied the statistics that were percentages by 100 so they would report as percentages instead of decimals. After that, for each statistic, I

created a bar chart that compared his averages in that specific statistic in comparison to the different years he played. The data did end up showing that Jayson Tatum improved as a basketball player through his year. His rebounds per game and his three point percentage linearly improved each post season he played, while the rest of his stats showed that his most recent playoff season was the one where he averaged the most points and assists, while maintaining his highest shooting percentages from the free throw line and having the highest plus/minus. His regular field goal percentages dropped slightly, but that is due to the fact that he took more shots per game his past season. All in all, the data shows evidence that Jayson Tatum did improve throughout his postseason appearances.

The most challenging part of this project was reprocessing the data so that it could be used as visual in the bar charts I created. I spent a lot of time making sure the graph encompassed the right data by making sure each statistic was properly represented (whether it be a plain float or a percentage that needed to be converted). I then made sure that each bar graph had the actual value of the average for that year so it was not only easy to visually compare the growth, it was easy to compare how much improvement each year had. Using mathplotlib, numpy and pandas helped me be able to complete these tasks more simply than if I had tried to do them on my own manually. In the future, to get an even better look at Jayson Tatum's statistical growth through his three postseasons, I would be curious to investigate even more basketball statistics like his turnovers per game, steals per game, blocks per game and the amount of fouls he committed per game. Nonetheless, the statistics investigated in this project give overwhelming evidence to suggest that not only Jayson Tatum has improved, but that he is only getting better with time!