

# Python analysis - Jaylen Brown

## Introduction

After falling short of championship aspirations in the past two seasons, Jaylen Brown from the Boston Celtics has been under scrutiny by fans and many are questioning whether he needs to be traded for the Celtics to reach their full potential. I have been under the impression that many of these fans are under the influence of recency bias and have lost sight of the big picture. I therefore decided to do a simple analysis of some of Brown's strengths and weaknesses as of the latest NBA season (2022-23), as well as progression since his rookie year.

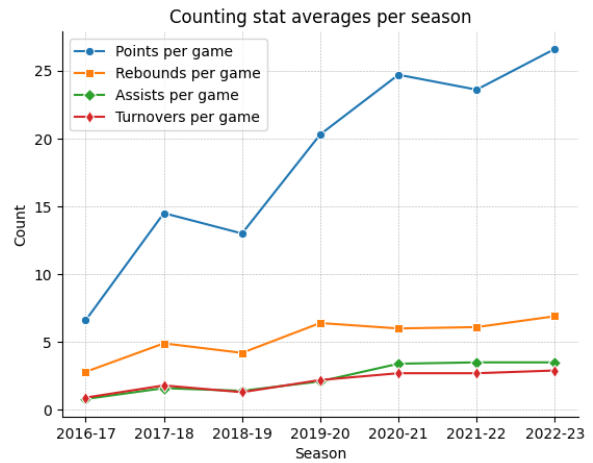
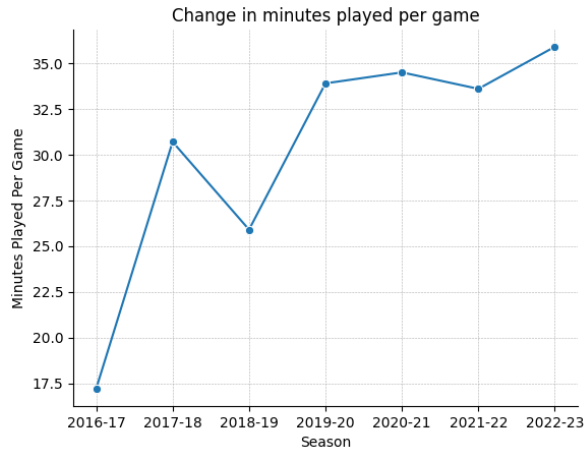
This analysis is limited to individual offensive count and efficiency measures and no advanced statistics were used. Player impact is difficult to quantify, particularly factors such as team chemistry (or lack thereof), effort, clutch performance, and defensive impact; statistics cannot tell the whole story. Thus, the insights from this analysis are best used to complement experience watching extended gameplay or full games.

Data sourced from: [nba.com/stats](https://nba.com/stats), [basketball-reference.com](https://basketball-reference.com)

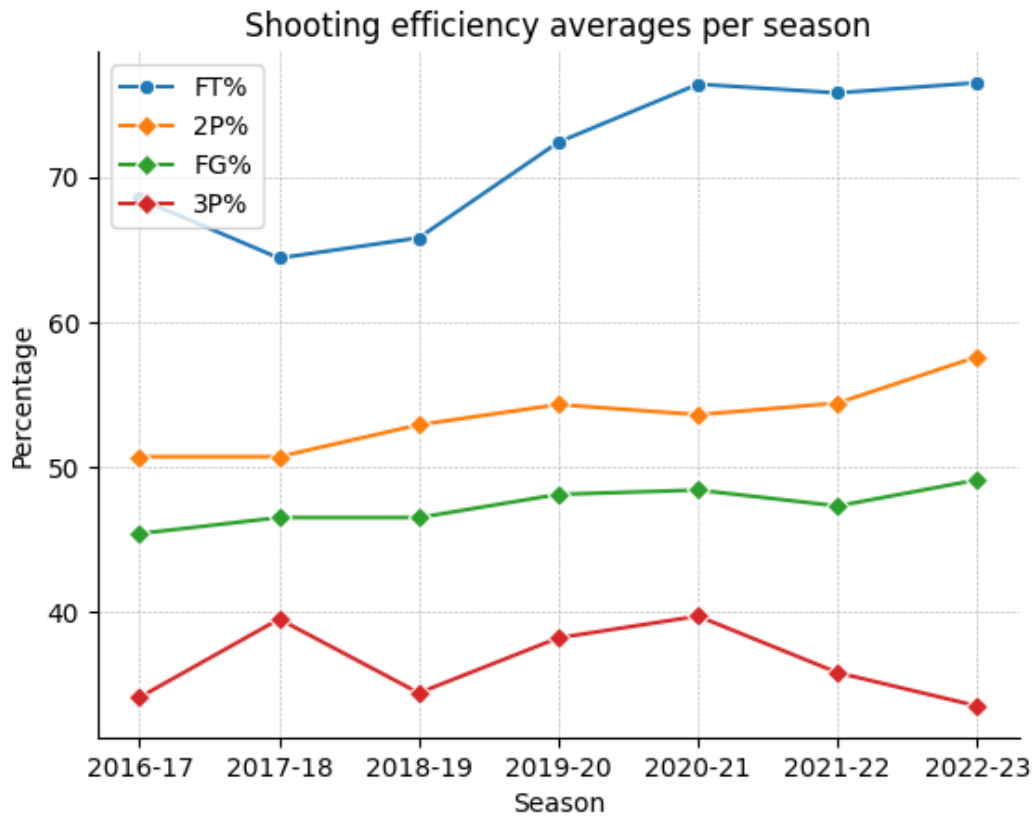
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## Overview

### Brown's statistics over the years



- Sophomore year production increase can be attributed to drastic increase in playing time
- 2018-19 dip in production can be attributed to having his role reduced and changed due to star teammate Kyrie Irving returning from injury.
- From 2018-19 onwards, there has been a positive trend in production, even after his minutes per game have stayed relatively stagnant since becoming a starter in 2019-20.

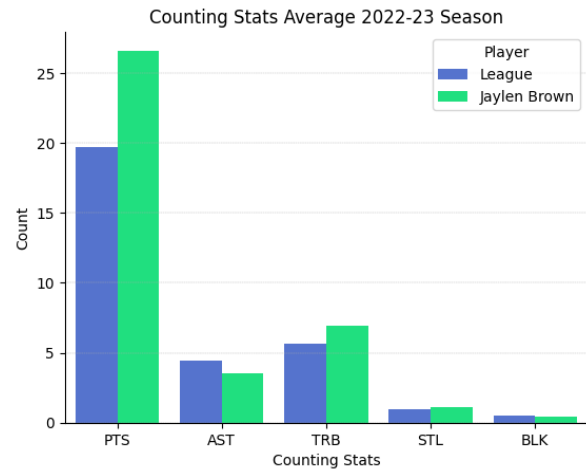
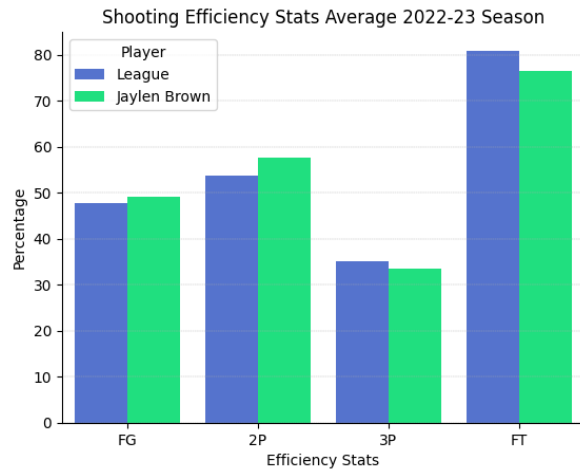


- Shooting efficiency, with the exception of the 3-pointer which has dipped to an all-time low, has also improved over the years.

## Comparing Brown's average statistics to the league average

*Out of players who:*

- *played at least 45 games*
- *averaged at least 30 minutes per game*



- Brown is above average in overall shooting efficiency, including 2-pointers. However, he is below average on 3-pointers and more significantly so on free throws.
- He is well above average in points per game.

## Takeaway

Brown has continuously increased his offensive production and overall shooting efficiency since entering the league. With the exception of a couple of slump-years, Brown has continued to bounce back and improve his production and efficiency on the court to have his best season yet. He excels in scoring, however 3-point and free throw shooting are not his strengths.

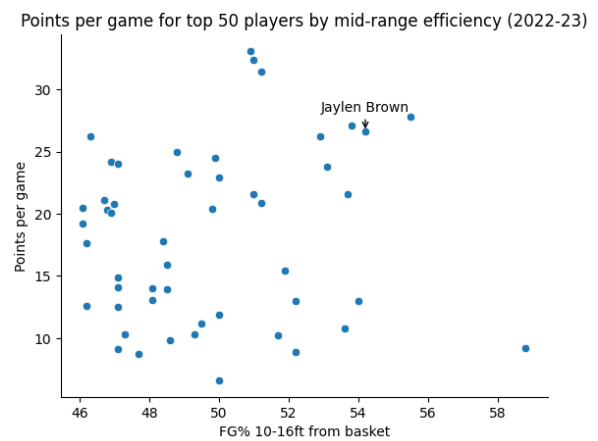
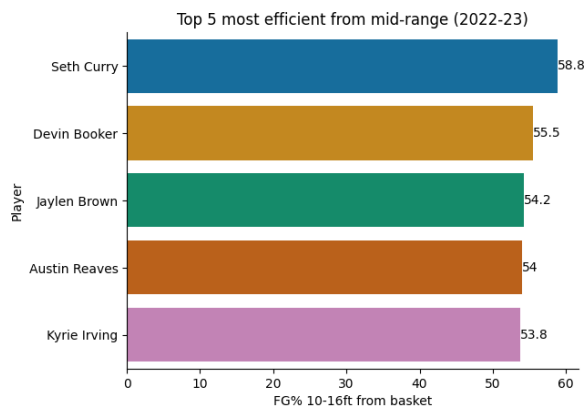
## Strengths

### Mid-range efficiency

*Out of players who:*

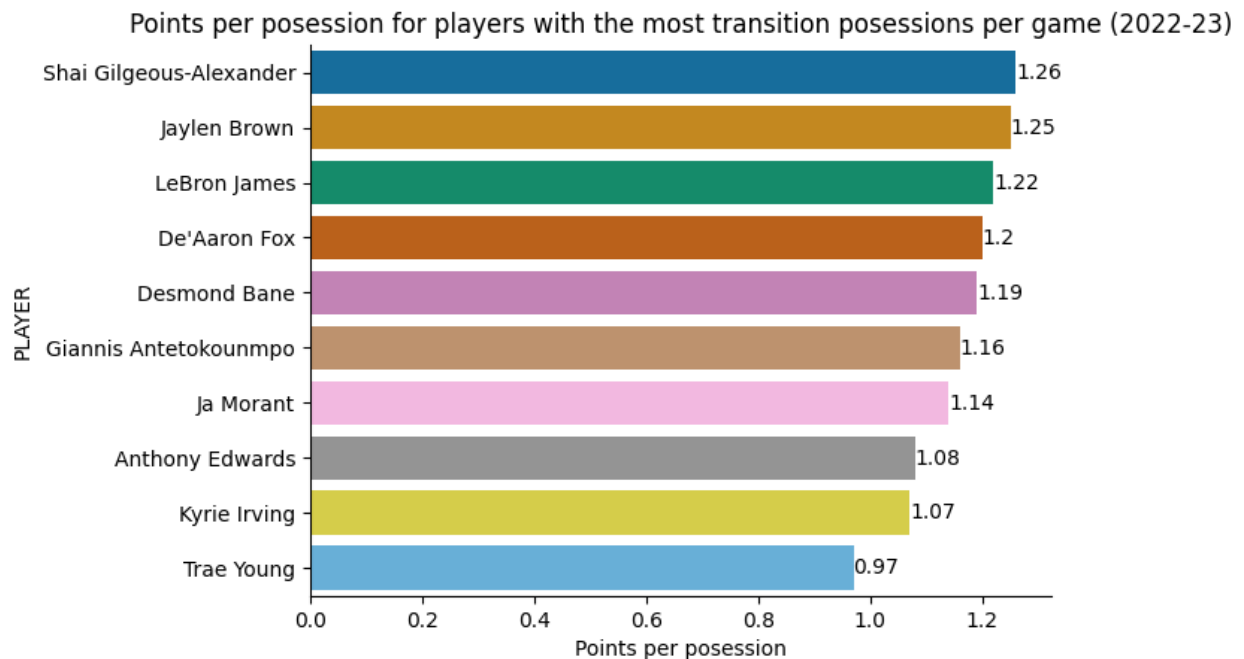
- *took at least 10% of their shots from 10-16ft*
- *played at least 1000 minutes*

- *played in at least 50/83 games*



- Brown was the league's 3rd most efficient player from mid-range in the 2022-23 season behind Devin Booker and Seth Curry, shooting 54.2%.
- Brown was among the highest scorers in the top 50 most efficient mid-range shooters.

## Transition points



- Out of the top 10 players with the most transition possessions per game, Brown converts the second highest number of points per possession at 1.25, ahead of the likes of LeBron James and Giannis Antetokounmpo.

## Takeaway

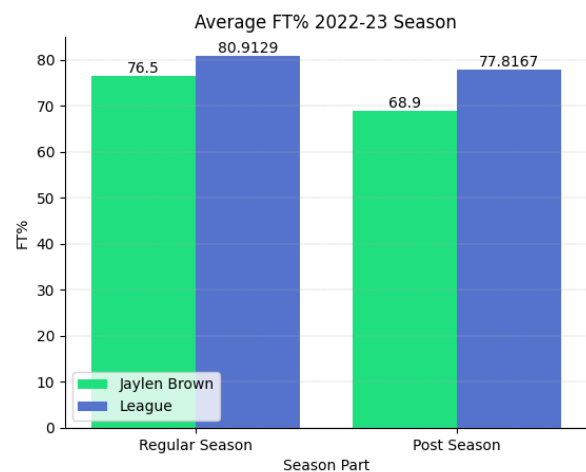
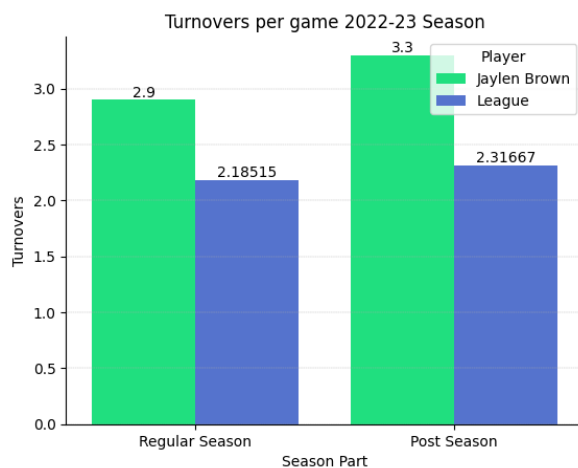
Brown was one of the league's leaders in mid-range shooting efficiency while producing a high number of points. He is also one of the best at converting transition possessions into points while having one of the most transition possessions per game.

## Weaknesses

### Brown's turnover and free throw struggles

*Out of players who:*

- *played at least 45 games (regular season only)*
- *averaged at least 30 minutes per game*



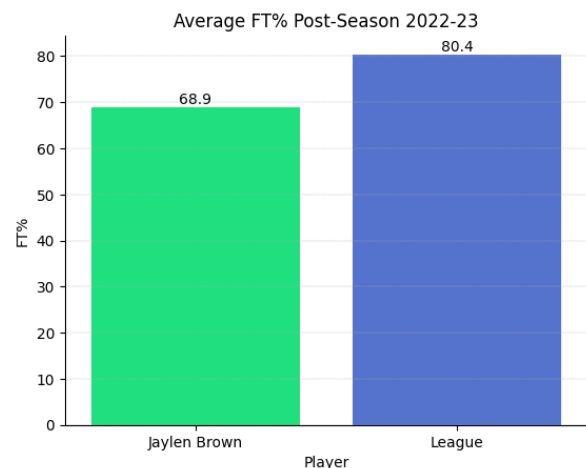
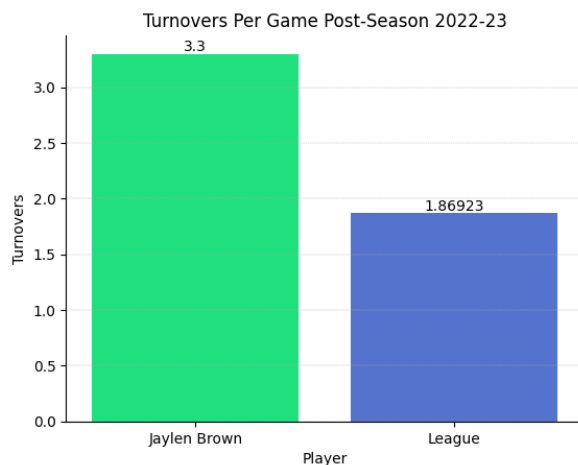
- Brown averages 0.7 more turnovers per game than league average during the regular season. This difference becomes more marked at 1 more turnover per game in the post-season.

- A similar trend can be seen with free throw percentage - his free throw percentage differential drops from 4% below average to 9% in the post-season.

## Is there a bias against players who played more games and went deeper into the post-season?

This question was posed because Brown played much more games than the average player in the 2022-23 post season, and would have been more fatigued.

- *players must have played at least 18 games*



- The difference only grows (11% for free throws, 1.5 for turnovers) when compared to players who played almost as many games or more during the post-season, and it is not reflected that playing more games in the post season increases a player's turnovers or decreases a player's free throw percentage.
- It may be that other players who have played more games and have presumably advanced further into the post-season are simply better in this regard.

## Takeaway

As Brown's free throw and turnover differences grow in the playoffs and even more so deep in the playoffs, he must work on closing this gap in order to compete at the highest level.

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## Summary

Brown is a player that has been consistently improving since entering the league in 2016. He has improved his production in points, assists, and rebounds, and also improved his field goal percentage and free throw percentage. His 3-point shooting efficiency has dipped in the past two seasons, however, there is no clear trend and it is close to league average.

A great strength in his game is his ability to shoot efficiently from mid-range (3rd in 2022-23) while producing a high number of points, well above the average of those who played similar minutes over most of the season. He also generates the second most points per possession in transition out of the top 10 players with the highest transition possessions per game.

His main weaknesses are free throw shooting and turnovers. While Brown has improved his free throw shooting since entering the league, it has stagnated in the past 3 years, along with his turnovers. He is below average in both of these areas, with the difference growing from regular season to post-season, and even more so deeper into the post-season as competition gets better.

All in all, Brown is just entering his prime years at 27 years of age, and from the trends we see over his career, seasons where his stats slumped or stagnated have been followed by an improvement. While his free throw shooting and ability to not turn the ball over should be improved in order to be successful at the highest level, he is an incredibly valuable player that shows promise.