Is the NBA Salary Cap Fair?*

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ABSTRACT

This paper provides a context in showing the different factors that may be influencing salary for the NBA. The NBA Salary Cap has been adopted by the NBA to provide fair and equal advantage for each of the teams in the NBA. Having a personal domain relationship with the data you are working with can be biased but when discussing the findings of the data it is important to stay neutral. NBA salaries may be seen as a fair and equal. However, these statistics may have a hidden story to show why some salaries for teams are higher than others.

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1 INTRODUCTION

The National Basketball Association was founded in 1946. In the early career of the NBA they tried to impose a salary cap, but it ended after only a season. The NBA wouldn't start a salary cap again until the 1984-85 season. The salary cap was to ensure that all teams and players are provided fair and equal advantage and a level playing field.

The reason I choose to specifically look into NBA salary data, because I am an avid consumer who watches the NBA and loves it. I noticed a trend of some teams in the NBA who stack players onto their roster with big salary contracts. For example, are certain teams more likely to spend more for bigger contracts than others?

To figure out this information, I had to obtain a data set for NBA Salary data and use literature pieces that discuss NBA salary and how they contribute to influencing how the salary cap is determined. These articles also showed that certain exception rules and factors may or may not give an advantage to the specific team.

The impact of my results may have a correlation for teams with more cap space having better advantages. For example, for the current upcoming 2018 season of the NBA, the team with the most

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Conference'17, July 2017, Washington, DC, USA © 2018 Copyright held by the owner/author(s). ACM ISBN 123-4567-24-567/08/06. https://doi.org/10.475/123_4 salary cap space was the Los Angeles Lakers with 61.9 million 1 and as we learned Lebron James signed with the Lakers.

2 BACKGROUND

In a San Diego Law review by Mitchell L. Engler titled "The Untaxed King of South Beach: Lebron James and the NBA Salary Cap," Engler addresses the problem of the salary cap. He also claims that the lack of state tax adjustment may be a source to undermine the cap's goal. Engler's main argument and point of view came from the look into the season in which Lebron James entered to play with Dwayne Wade and Chris Bosh in Miami Heat. Engler chose this season in particular due to the fact that many of Miami's actions that season were correlated to the benefit that it received by not needing to pay for state or local income tax. Engler draws a conclusion that the salary cap limit allows for no-tax teams to offer max individual contracts and in doing so creates a higher after-tax salary than teams which have to pay for state or local income tax.[3]

In the Sports Law Journal "When Negotiations Fail: An Analysis of Salary Arbitration and Salary Cap Systems ", Melanie Aubut discusses the styles of negotiation from different sport teams. Aubut discusses that the NBA salary cap system is similar to NFL system. Both organization's promote to grow the cap together and has goals of sharing more of the it with teams and players. On the other hand, in MLB and NFL the players are more likely to take more of the owner's piece of the salary.[2]

The research questions that have arisen as inferences from the findings in my articles are: Does the NBA salary cap provide an fair and equal competitive balance for its team and players? Does the NBA salary cap provides bigger advantages to team with a larger salary cap?

3 METHODS

It is commonly known on ESPN[4] where to find NBA salary data for a specific season. The difficultly came in obtaining the data as comma separated values. I found a git hub link to an individual's own analysis on NBA player and salary data[1] I used his CSV file and removed the one column, leaving only my column headers as Rank, Player, Team, and Salary. The Rank column ranks the highest paid player as 1 and least paid as last. The Player column lists all the player for the 2015-2016 season of the NBA. Team column lists the teams for 15-16 season. The last column is salary which is count in millions and depicts all the salaries for each player. For the wrangling of my data, the first visualization I wanted to create was to compare salary for certain NBA teams. To accomplish this task I had to only look at Rank and Salary columns for the specific NBA

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¹https://www.forbes.com/sites/kurtbadenhausen/2018/06/19/the-lakers-bulls-and-76ers-head-the-teams-with-the-most-2018-salary-cap-space/3faf823253e7

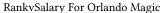
Table 1: Descriptive Statistics

	Rank	Salary(millions)
mean	209.000000	5.074814
std	120.521782	5.221437
min	1.000000	0.030888
25percent	105.000000	1.270964
50percent	209.000000	3.000000
75percent	313.000000	7.000000
max	417.000000	25.000000

team I was looking at by using a where statement which allowed for me to pick a specific column and search for specific value. To answer my research questions, I need to compare each column to salary and analyze and discuss the results from these findings. Table 1 above features comparison of salary giving its mean, min and max values, and 25% 50% and 75% percentile distributions.

4 RESULTS

My First Visualization was to depicting the comparison of the rank of players to their perspective salaries looking at specific teams. For Figure 1, I choose to compare for the Orlando Magic because for the 2015-2016 season the Orlando Magic had the highest salary cap for the season.



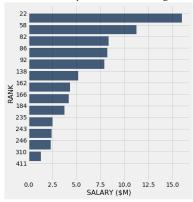


Figure 1: A bar graph depicting Rank of Players versus Salary for the Orlando Magic.

My Second Visualization also depicting RankvSalary for this time the Los Angeles Lakers. I picked the Lakers because in the 2015-2016 season, number 1 ranked salary was Kobe Bryant who is on the Lakers.

My Third Visualization was to compare NBA teams by how many players do each team have. I compared each NBA team to the count of how many players are in their roster salary listed.

5 DISCUSSION

My First visualization depicts the correlation of rank and salary for the Orlando Magic. Our results suggest that compared to the Figure

RankvSalary For Los Angeles Lakers

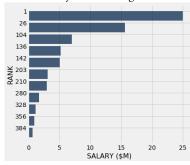


Figure 2: A bar graph depicting Rank of Players versus Salary for the Los Angeles Lakers for the NBA, 2015-16 season.

Team versus Count for all NBA team in 2015-16 Season

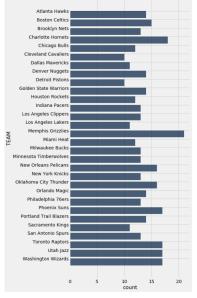


Figure 3: A bar graph depicting each NBA team and their count for player salary roster for the 2015-2016 season.

1 the distribution of rank for the Orlando Magic has more players below Rank 100 compared to the Los Angeles Lakers. This signifies that Orlando Magic compared to Lakers spend more on salary for players below rank 100 to get stronger players as for the 2015-2016 season it is known that Orlando Magic for that season had that highest salary cap to spend for the season and the graph represents this finding. An important note to make is that in Florida does not have a state income tax, in doing so giving more for an advantage than teams that have to pay state income tax.

My Second visualization shows how the Los Angeles Lakers when having a superstar on the team like Kobe Bryant, he is eligible for a max contract and which Kobe Bryant for the 15-16 NBA season received a salary of 25 million, therefore ranking number one in salary for the NBA. This shows the Lakers by giving max contract

salaries leave not much room to replace or change other players which is shown in Figure 2.

My Third visualization shows the count of player salaries for each NBA team for the 2015-2016 season. The highest count of player salaries in the NBA was by the Memphis Grizzlies, this makes sense because using Sportac NBA cash tracker tool, for the 15-16 season the Grizzlies had the most cash with 119, 161, 192.[6]

6 CONCLUSIONS

All in all, the NBA salary cap is a relevant topic to today's audiences. Although at the surface it may seem to be a fair system, the data reveals a different case. As mentioned, there are various factors to which a team can have advantages, such as not having to pay income tax. These advantages may start small, but they can build up, resulting in an unfair advantage to a team. In the world of sports, fairness is key, and in such instances as these, it is important to evaluate the data to find the source of discrepancy. This data analysis is important, because it shows influences on the salary cap, and gives clear statistics and information that can be visualized. It is also important, because it is a neutral platform of displaying the information. A salary cap does provide equality in some ways, but there are other factors at play that reveal there may not be true equality among teams and players. For example, The Golden State Warriors recently for this season acquired another top player Demarcus Cousins for only 5.3 million dollar deal.[5]

A HEADINGS IN APPENDICES

- A.1 Introduction
- A.2 Background
- A.3 Methods
- A.4 Results
- A.5 Discussion
- A.6 Conclusions
- A.7 References

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