

24 April 2015

Who is really the Top Running Back in the NFL?

Introduction

This statistic's project will observe data of ten running backs in the National Football League. Many people have their opinions on who is the best running back in the league. This project will focus on ten running backs in the NFL whose names appear on most of the top lists. To determine who is the league's top running back, their stats for the season will be observed from the sixteen regular season games that are played. The statistics that will be observed for each player is the number of yards they earned, number of touchdowns they made, and the number of fumbles they committed during the season to come to the conclusion on who is the best running back.

Methodology

The population of the study is all the running backs in the National Football League. The sample of the project is the top ten names of running backs that appear on most of the lists that say who is the best. The ten running backs that will be analyzed are Arian Foster, LeSean McCoy, Jamaal Charles, Marshawn Lynch, Frank Gore, Matt Forte, DeMarco Murray, Eddie Lacy, Le'Veon Bell, and Lamar Miller. The observational unit in this project is the running back, and the data that will be used to compare the ten individuals is a quantitative variable of yards rushed, and just numbers of touchdowns and fumbles.

One issue that may cause error in the statistics is if the player was injured, or they do not get as much playing time. However, the names chosen were the names that appeared on the tops of the most of the lists found.

Data Exploration

	Arian Foster	LeSean McCoy	Jamaal Charles	Marshawn Lynch	Frank Gore	Matt Forte	DeMarco Murray	Eddie Lacy	Le'Veon Bell	Lamar Miller
Yards Rushed	1246	1319	1033	1306	1106	1038	1845	1139	1361	1099
Touch-downs	8	5	9	13	4	6	13	9	8	8
Fumbles	2	3	4	1	2	1	3	3	0	2

Table 1. Values for Each Players Yards Rushed, Touchdowns, and Fumbles

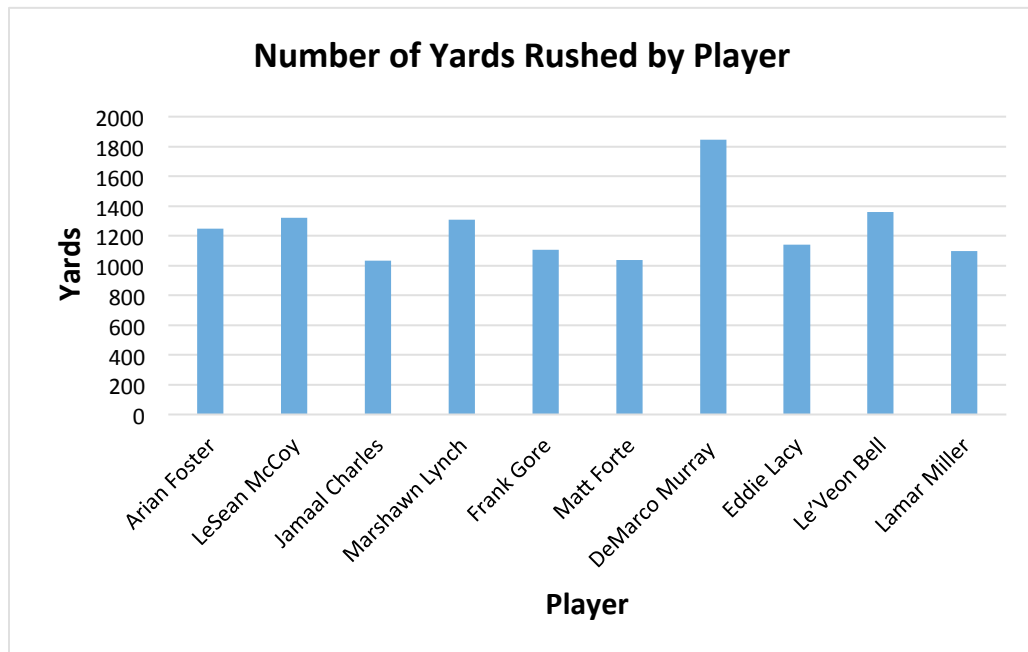


Figure 1. How Many Yards Each Individual Players Rushed in 2014 Season.

As noted in Figure 1 and Table 1, the number that each individual rushed for the season varies. Although if one looks at the Figure 1, they would be able to see that there is one individual that stood out amongst the rest. The name of that player is DeMarco Murray. He rushed 1845 yards throughout the season. The average for the data in Figure 1 is 1249.2 yards. In addition since the number of yards rushed by him is 1845, which is much higher than the rest of the numbers in the data set, this value drives up the value of the mean. This number is known as an outlier. If the number was removed from the data set, the mean value would be more accurate.

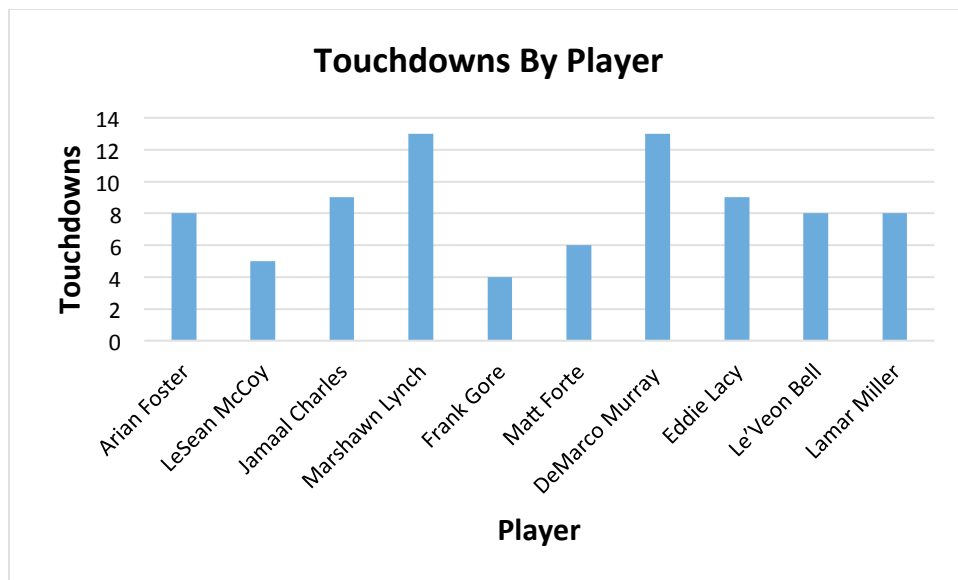


Figure 2. How Many Touchdowns Were Completed by Each Player in the 2014 Season

As shown in Figure 2, the number of touchdowns completed by each player throughout the season ranges. There are two individuals that stood out in this data set. These two players are Marshawn Lynch and DeMarco Murray. These two individuals scored 13 touchdowns throughout the season. The average for the data set is 8.3, however, you can round this number to 8 because 0.3 of a touchdown is not a true idea.

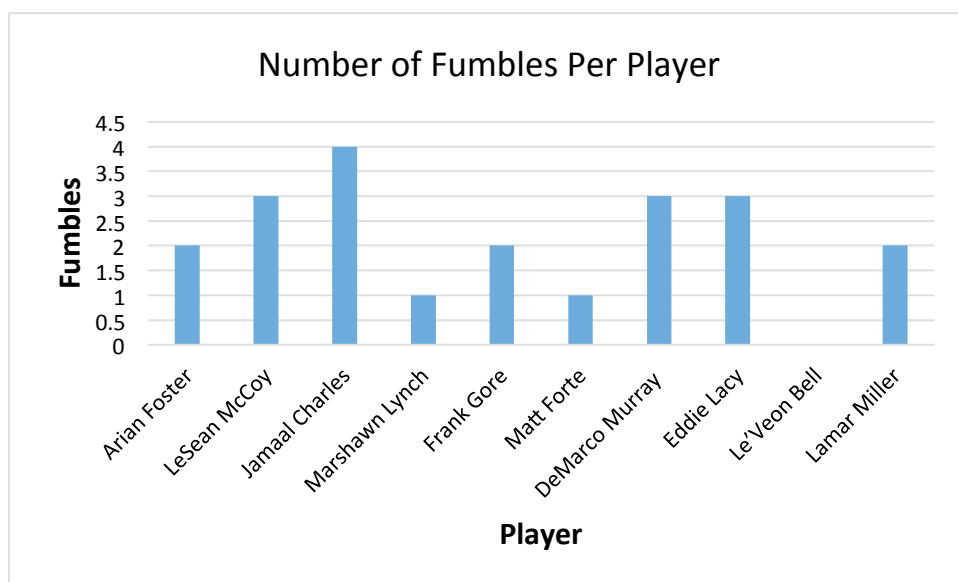


Figure 3. How Many Fumbles Committed by Each Player in the Season

As seen in Figure 3, the values in this data set vary just like the others. The player that fumbled the ball the most throughout the season is Jamaal Charles, who committed 4 fumbles in the season. Le'Veon Bell completed the least amount of fumbles in the season with 0. The mean in this data set is 2.1, but one can say the mean is 2 because 0.1 of a fumble does not exist.

Results

	LeSean McCoy	Marshawn Lynch	DeMarco Murray	Le'Veon Bell
Yards Rushed	1319	1306	1845	1361
Touchdowns	5	13	13	8
Fumbles	3	1	3	0

Table 2 Top Four Players

As seen in Table 2, the data set has been narrowed down from ten to four. These are the players that the number of yards they rushed in the season were above average. In addition, all the players except LeSean McCoy are at or above the average for the number of touchdowns scored. For the fumbles it is different. Fumbles are not a good thing in football so in that category the player wants to be below average. Out of the people selected, this aspect is true for Marshawn Lynch and Le'Veon Bell, but not DeMarco Murray and LeSean McCoy. Even though these two players are not below average there numbers in the other two categories, yards rushed and touchdowns, above average compared to other players that had below average numbers in fumbles. The player that can be concluded as the top running back in the NFL for 2014 is DeMarco Murray.

Conclusion

DeMarco Murray is the best running back in the National Football League for the 2014 season. When Murray's statistics are compared to his competitors, he stands out and is the most consistent in the categories that were analyzed. He rushed 1845 yards in throughout the entire season. Rushed yards mean the amount of yards the player ran. The other individuals did not come close to the number that Murray produced. The closest person to his number rushed 484 yards less than he did. In addition DeMarco Murray was also a leader in the touchdowns category with 13 touchdowns for the season. However, Marshawn Lynch also scored 13 touchdowns for the season, but he did not rush close to the yards DeMarco Murray did. This fact still puts Murray at the top. When it comes to the category of fumbles, the player wants to be below average. The reason for this is because fumbles in the game of football are bad. A fumble is when the player drops the ball, which can lead to the other opposing team taking possession. Le'Veon Bell had the least amount of fumbles in the 2014 season. The Marshawn Lynch had the next lowest number, only committing 1 fumble for the season. DeMarco Murray is tied for third with LeSean McCoy in the category with 3. Even though Murray did not commit the least number of fumbles in the season, his numbers in the other categories make up for this. A number that could verify this is the number of times the player caught the ball in the season. This would tell us the proportion of how many times the player fumbled out of how many times they caught the ball. This number would have been beneficial to have. Also, the other individuals' numbers in both the yards rushed and touchdowns categories do not compare to DeMarco Murray's number in both of the categories. He is overall the best candidate to be the number one running back in the NFL's 2014 season.

Future Study

If I had more time to complete the study, I would analyze more categories of statistics. I would also do further research to see how much playing time each individual received for the season to see if that factor affected the numbers produced by each player. In addition, I would see if the player obtained any injuries throughout the season, inhibiting their playing time and performance. One last thing that I would change if I had more time to complete the project is to look at each individual's statistics per game instead of for the season. I believe analyzing that would produce better results for the project.