

Final Project

There has been a lot of controversy in the past few years about payroll in baseball and if there should be a salary cap or not. The argument among fans during this time is that richer teams are able to spend more money and guarantee wins, preventing small markets from competing. To further investigate this point, my research question was to see if there is a positive relationship between the amount of money a team spends and the games that they win.

The data for this project was very straightforward. I was able to find the wins for each team through ESPN and their payrolls through USA Today. All of the information is public through MLB so I had new issues with credibility or data cleaning. My linear model illustrated that there was a positive relationship between money spent and games won. Through the linear regression equation that I got through my data, it showed that for every close to \$50 million a team spent on their roster, they would win an additional four games.

There are many variables that go into a team winning games for a season such as drafting, coaching, player development, etc. However, the teams that have the most resources are able to get the top level talent that makes them successful. The two teams that played in the World Series, the Blue Jays and Dodgers, were both top five in payroll as illustrated on my graph. Money isn't a guarantee of winning as there are some outliers. The Mets spent more than any other team in the league at \$323 million and finished with 83 wins, losing a tiebreaker and missing the playoffs. On the flip side, some teams have done more with less like the Brewers who won 97 games for \$115 million.

Even though there is a positive relationship, spending more money does not guarantee winning. The main piece of data that proves this is the p-value. The p-value that I got for this

relationship was 0.005. While the data and results are significant, I don't believe that it is enough to say that we are confident that spending more definitely leads to better results.

There are outliers, but how much a team spends is usually a good predictor of how successful they will be during the season. We know that there are other variables that go into making a winning team. You could have the most money in the league, but if you aren't paying the right people it doesn't always translate to success. The positive relationship answers the question that I had coming into this where we are able to see that spending the most money makes winning more likely but does not guarantee it.

References:

[Final Project.xlsx](#)

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