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# MLB Franchises & Predictors of Valuation

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## MLB Franchises & Predictors of Valuation

MLB Franchises & Predictors of Valuation

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Education in Recreation and Sport Management

by

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Oklahoma State University  
Bachelor of Business Administration in Economics & Sport Management, 2013

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University of Arkansas

This thesis is approved for recommendation to the Graduate Council

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## **Abstract**

There have been many studies done, for MLB, regarding multiple economic factors, yet there is previous research done to investigate the predictors a team's valuation. This study aims to investigate what, if any, of certain predictor variables effect the valuation of an MLB franchise over a five year span, beginning in 2008. The study includes 29 MLB franchises and looks at secondary fiscal and performance data throughout the five year span. The results of a regression analysis concluded that three predictor variables, market size, average ticket price, and salary expense, were significant indicators of valuation while the remainder of the variables were not significant predictors.

## **Acknowledgements**

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## **Dedication**

This edition of *MLB Franchises & Predictor Variables* is dedicated to every person in my life that helped to fuel my passion for sports and taught me to follow my dreams no matter what.

## Table of Contents

I.	Introduction.....	1
II.	Literature Review.....	3
A.	Purpose of Study.....	8
III.	Methodology.....	9
A.	Research Design.....	9
B.	Participants.....	9
C.	Measures.....	9
D.	Procedures.....	10
E.	Data Analysis.....	11
F.	Assumptions.....	11
G.	Limitations.....	11
H.	Delimitations.....	12
IV.	Results.....	13
V.	Conclusions.....	15
VI.	References.....	18
VII.	Appendix.....	20

## **I. Introduction**

In more recent decades, *Forbes* (2009), magazine has made financial data available for professional sports leagues. Considering the fact professional league teams are private corporations, they are not required to post their fiscal data publically each year; therefore, making this addition by *Forbes* helpful when looking at the going rate of teams by their owner in the open market (Humphreys & Mondello, 2008). *Forbes* ranks these teams, within their league, by team value from highest to lowest. Value is determined, by *Forbes* (2015), as the collective contribution from revenue sharing, market size, brand, and the stadium.

However, even with the access to this information, there has not been much research done in what factors help to effect the changes in valuation for a given team. It is surprising that more has not been done considering knowing the value of a franchise is important to the owner, if they are looking to sell. Especially considering the multiple instances of team owners and even the commissioner of baseball openly commenting about the losses inquired during baseball's long history (Fort, 2006).

The study looks specifically at baseball because of its uniqueness in the way the salary expense is determined across the board for their league through their collective bargaining agreement. MLB and the MLB Player's Association have agreed upon a luxury tax system as their method in which to determine the salary expenditure for each individual team in the league. This system is defined as tax that is assessed to teams that exceed the indicated salary expense threshold for a given season (MLBPA).

Understanding how to properly allocate the salary expenses as well as all revenues can affect the valuation of a team in the MLB is especially important to owners especially when an owner is ready to sell their organization (Fort, 2006). It is well documented that the largest expense for a team is player salaries and media contracts dominate a majority of an MLB teams'



revenues; therefore, being able to properly allocate these factors to ensure league efficiency (Regan, 2012; Lewis, 2008). It will also help to promote the continuation of a rising overall franchise and league value (Elnolf, 2004). Therefore, this study will continue to investigate the factors that potentially affect a franchise's overall value by looking into a five year snapshot of the MLB starting with the 2008 season information.

## **II. Literature Review**

A multitude of social media outlets surfacing, in recent years, there has been lingering questions about the economic health of the MLB (Humphreys et al., 2008). According to statisticbrain.com the average salary in MLB is more nearly three million dollars continuing a pattern of increase throughout baseball history. With both of these statements being true there has still been little research done to investigate the value of franchises in MLB (Humphreys et al., 2008). However, MLB owners and the players do have to come to certain agreements when it comes to expense paid for players, revenue sharing, and free agency (Dickerson, 1996; Mondello & Maxcy, 2009).

Owners and players understand that they are each looking to create the most value possible; therefore, to help make that happen they create contractual agreements that have the ability to change and evolve, with the times, to prevent stagnant play and loss of fan interest (Berri & Krautmann, 2006; Deming, 2012). This idea of “fan interest” is what has kept one particularly profitable team from buying up all the players and leaving no competition for them to play against (Neale, 1964).

The luxury tax model used in the MLB invokes a tax on each team, in their league, based on their player salary expenses (Taft, 2012). This model allows teams freedom to spend what they see fit, but enforces a limit in which the league feels is considered the payroll threshold. According to MLB.com, this threshold is to change every few years (increasing the overall team salary expenditure) and is renegotiated with every new CBA. This model has not always been the case for baseball, however; the luxury tax was implemented prior to the 1997 season after a long work stoppage that rendered most of the 1994 season as unplayable, the league missed 920 games that season, and forced the owners and players to use an expired CBA for the 1995 and

1996 seasons before the development of the luxury tax to play in 1997 (Taft, 2012; Aubut, 2003).

Different from the initial luxury tax that only taxed the top five payrolls in the league, today the CBA is more restrictive with different levels of tax depending on the number of times the team has exceeded the salary expense threshold (MLBPA). Currently the 2014 salary expense threshold is set at 189 million dollars. If teams exceed that amount for the first time, they pay one level of tax; however, if it is a team's second offense they pay a higher tax, so on and so forth. (MLBPA) These taxes continue to climb up to the New York Yankees who have exceeded the threshold the past four years straight putting their tax at approximately 28 million for the 2013 season (MLBPA).

The creation of this model was to try to infiltrate funds to the smaller market teams before MLB increased their revenue sharing policies (Taft, 2012). Alexander and Kern (2004) looked more into the idea of market size and how it effects value and determined that amongst other predictors, market size did have an effect on the value of MLB teams in their study. MLB owners; therefore, agreed that a revenue sharing system in addition to the luxury tax would still allow the large market teams to thrive but allowed for the smaller market teams to have some welfare even without the market size component (Zimbalist, 2010).

Considering the comments mentioned by Fort (2006) earlier, regarding owners worrying about making ends meet it is important for MLB franchises to continue to grow their value. Neale (1964) expresses that gate receipts and fan interest will decline if there is a loss of competitive balance. He went further to explain that the more the standings change the greater the change for increased gate receipts for a particular team (Neale, 1964).

A majority of studies have been focused on the ideas of competitive balance and fan attendance because these factors have been shown to be highly linked to one another (Dietl & Lang & Rathke, 2011). Competitive balance can be described as the equality of player talent amongst teams within the given league during the season (Lewis, 2008; Humphreys, 2002). Research has shown that the uncertain outcome in sports is a large contributor to why the sport industry remains as a popular entertainment option (Dietl & Lang & Werner, 2009).

Neale (1964) concluded that competition in sport was unlike typical business competition because each team needs the other teams to be as closely matched to them as possible to them in order to keep their fans coming to games, call the "League Standing Effect". When fans start to lose the feeling of "uncertainty" they begin to lose interest in their team and eventually that interest declines in even the most fanatic stadiums potentially causing an entire league to suffer (Humphreys, 2002). 50 years after Neale's 1964 study, researchers are still investigating ways to prevent competitive imbalance in hopes to keep fan attendance high because fan attendance equals an increase in gate receipts and other revenues for teams (Lewis, 2008; Taft, 2012). Humphreys (2002) reiterated the conclusions made about uncertainty in professional sports from Neale's (1964) study and divulged that winning percentage was not necessarily the determinant of competitive balance but more what the fans determined competitive balance to be because as consumers generate the revenues.

Competitive balance is a large factor in fan attendance but the idea of the super star player is also a large contributor to keeping fan interest as well (Franck & Nuesch, 2012; Borghesi, 2008). The idea of paying for a few high profile players was reiterated during the "Money ball" era for the Oakland Athletics because fans believe that the superstar players are the ones that promote winning (Franck et al., 2012). The Oakland Athletics demonstrated this to be

the case when they had one of the most efficient payrolls in baseball and won more than 50 percent of their games, putting them in the top five winning percentages, yet did not manage to bring in half a season of sellouts (Regan, 2012). Both of these two ideas have been at the forefront of professional sports and for good reason with the costs of providing superstar players rising and the need of gate receipts to continue to rise as well, but researchers have done little in investigating the true value of the MLB (Regan, 2012).

Entertainment industries, with similarities to MLB in their operation, have done research about the best ways to increase revenues and other factors that attribute to value whereas across all professional sports little research has been done about the factors that attribute to the valuation of a team. A recent study of the amusement park industry discussed the importance of demand-pricing and how to work in different ways to maximize gate receipt revenues (Heo & Lee, 2009). Another element Heo et al. (2009), studied was perishable inventory that an amusement park has during a given day and season and how to minimize this inventory to help keep expenses down. The study describes “perishable inventory” as things that have a one-time use and the cost of producing those goods when they are unused can be a major expense for an amusement park and could also be a great indicator or wasteful expense of a professional sports team as well (Heo et al., 2009).

In addition to the study done on amusement parks, the Broadway industry looked at another factor that directly corresponds the revenues a sports team would also encounter regarding capacity in an arena or stadiums and what the appropriate size should be to maximize revenues without leaving seats open as well as finding the ticket price that would yield return without overstating the quality of the show being presented (Reddy & Swaminathan & Motley, 1998).

More recently researchers have investigated the effects determining valuation, however, minimal literature on the subject has been produced, but as mentioned in the introduction there have been a few studies that have looked at valuation in how it relates to professional sports and specifically the MLB and its franchises (Humphrey et al., 2008). Alexander et al. (2004), studied the effects market size, winning percentage, and new facilities had on the valuation of a franchise as well as if a regional team name as opposed to a state affiliated team name had a greater effect on the valuation. The results of the study indicated that all three factors do in fact play into an increased valuation the next year for a franchise (Alexander et al., 2004). The more interesting result of the study was the fact that regional identities were more valuable to MLB teams than teams in other leagues that used regional identities as opposed to a state-wide one (Alexander et al., 2004).

In an additional study researching the predictors of valuation, Humphreys et al. (2008), looked into the market value of teams and which factors increased the team's value, for an owner, when looking to sell or looking to purchase a franchise. It resulted with similar variables showing an effect, with the greater impacts being the market size of the team's location, the competition within the market, and the ownership of the facility that the team plays in during the season (Humphreys et al., 2008). These studies, in collaboration with a few others, demonstrate the beginnings of research being done on the valuation and its factors in professional sport but there is room for continued research behind this idea.

After expressing the studies that have been previously conducted it is necessary to expand on these ideas in order to continue to explore the phenomena behind MLB and the ability to continue to increase value even in time of economic downturn. This study will help to expand upon the predictors that previous research has indicated as significant and look to determine if

changes in length of study or era of baseball in which study was conducted indicates different predictors of valuation.

**A. Purpose of Study**

The purpose of this study is to investigate which predictor variables effect the valuation of MLB teams during a five year period.

### **III. Methodology**

#### **A. Research Design**

This is a longitudinal regression model that will investigate how certain predictor variables effect the valuation of MLB teams during a five year period with a one year lag due to the fact that a team's valuation is determined upon the fiscal information and playing information from the season prior.

#### **B. Participants**

The study will consist of 29 Major League Baseball teams; Toronto has been eliminated from the study for inability to accurately find their market size with sources being used. Each team's fiscal data and team's performance information for the past five years starting with data collection in 2008 will be investigated.

#### **C. Measures**

The full list of variables and their sources is located in the Appendix in Table 1.

Valuation – dollar amount given to an MLB franchise based on contributing revenue factors starting with the 2009 season and running through the most current dollar amount for the 2014 season, according to the Forbes website

Stadium Factors – percent of stadium capacity, age of stadium, and average ticket price

Percent Stadium capacity – the number of guests in attendance at each game divided by the number of seats in the stadium for a given year between the years of 2008 and 2013

Age of stadium – the age of the stadium for each of the five years being investigated by this study, with any new stadiums starting at year 0 if there was a new one to be built within the five year span



Average ticket price – the average price of a ticket for a single game ticket during the season, starting in 2008 and going through the year 2013

Tradition Factors – years in league, change of ownership, appearances in the post season, and appearances in the World Series

Years in league - this variable demonstrates the number of years the teams have been in the league, making year zero their first season in their current demographic location

Change of ownership – dummy variable used to express whether a team sold their franchise to a new owner, in any given year, between the seasons of 2008 and 2013

Appearances in the post season – dummy variable that illustrates which teams made it to the playoffs each year (including the teams that participated in the “play-in game” otherwise known as the single game Wild Card that was added in the 2012 season to add an additional two teams to then post season)

World Series appearances – dummy variable used to recognize the two teams, each year, which made it out of the playoffs and into the World Series for a chance to win the Championship

Demographic factors– Market size for all for all the markets that are home to a MLB team, excluding the team that does not have a home location in an American city, determined by the number of households that are in that given market for the five years being investigated

#### **D. Procedures**

The process of this study will begin by creating an excel spreadsheet with all the MLB teams participating in the study, excluding the Toronto Blue Jays as previously mentioned, organized in alphabetical order by team mascot. Then the addition of the independent variables will be added to the spreadsheet with each variable having five columns, one for each year being

investigated in the study. Finally the dependent variable, valuation, will be added to the study with five designated valuations to be filled in starting the year after the independent variables and running a year later than those variables because the valuation of a team is determined based on the fiscal data and team success statistics from the season prior, this is commonly referred to as a year lag variable setup. The sources for each variable have already been recorded in a separate spreadsheet to ensure that all information is consistent indicating to the researcher where to look for each piece of information to fill in for the 29 teams participating in this study. Once all of the variables have been recorded for each team, for every year of the study, then they will be imported into a SPSS program to run a regression.

#### **E. Data Analysis**

The data analysis for this study will include a single regression using the longitudinal data obtained for the past five years in the MLB and locate which factors demonstrate an effect, if any, on the overall value of a franchise.

#### **F. Assumptions**

Assumptions for this study include the proper recording of fiscal and performance information by the secondary sources used to conduct the investigation. It is important to assume that the sources involved in the study are accredited and that each team's information comes from the same list of resources to keep consistent results and prevent an analysis with unreliable data. Also, the researcher assumes that the program used to conduct the regression will produce accurate results and be able to interpret all variables properly.

#### **G. Limitations**

Limitations for this study include the use of secondary financial data for all variables because it is not feasible to gain access to primary from each team's business office and because

they are not required to post it for the public to view since they are private corporations. In addition, the Toronto Blue Jays have been excluded from the study because the information regarding market size is for markets only within the United States leaving out the number of households in Toronto, Canada.

#### **H. Delimitations**

The delimitations for this study include that all information will be recorded only if it was from one of the sources recorded in the variable spreadsheet located in the Appendix. Only teams currently playing in the MLB will be included in the study, with the exception of Toronto as mentioned in the limitations. Lastly, this study will only include the financial and performance information from the previous five fiscal years, starting with the lag year in 2008 and ending with the valuation information from year 2014.

#### IV. Results

Valuations across all MLB franchises rose during the five year period investigated in this study. The valuation numbers for the first season, in this research, demonstrated that 23 of the 29 MLB teams investigated had a value of less than five hundred million dollars. By the end of this study, the number of franchises valued at less than five hundred million dollars had dropped from 23 to four and multiple franchises had climbed up into values of more than a billion dollars. The New York Yankees at the top worth two and half billion dollars with the Pittsburgh Pirates being at the opposite end valued at less than three hundred fifty million dollars.

Focused upon the research question, what, if any, of the predictor variables have an effect on the valuation of a MLB team, the results demonstrate that three variables do indicate an effect on the valuation of a MLB franchise; average ticket price, market size and salary. The descriptive statistics can be reviewed in Table 2 located in the Appendix. The skewness and kurtosis statistics, overall, fell within a range that indicated normality with the logged salary variable being the outlier and in a range outside of normality. When the regression was initially run the salary variable was very non-normal and the addition of a logarithmic transformation helped fix the problem, but not completely. As demonstrated by Table 1 the standard deviation for logged salary was much greater than the other independent variables which help to explain why the skewness and kurtosis were outside the normal range for that variable.

The results showed that a majority of the independent variables were not significant predictors of the dependent variable, MLB franchise valuation. However, ticket price ( $t(15)=5.564$ ,  $p < .000$ ), market size ( $t(15)=7.558$ ,  $p < .000$ ), and logged salary ( $t(15)=2.753$ ,  $p < .007$ ) did have an effect on the valuation of a team. The full table is located in Table 3 found in the

Appendix. The R squared value for this regression is .730. The value helps to determine how well the data points fit to the regression line.

As viewed in the full table the Unstandardized Beta values for ticket price (13,248,362.7), market size (78.645), and logged salary (165,212,382.9) represent a change of one unit in the dependent variable. The model suggested that team valuation tended to increase as the ticket price, market size and logged salary increased. Ticket price and market size were the best predictors of team valuation.

## V. Conclusions

The results indicate that market sizes, salary expense, and ticket price were significant predictors of value which is not surprising when looking at the MLB teams that are consecutively in the top ten according to their valuation. In the past five years, the New York Yankees, Los Angeles Dodgers, Boston Red Sox, and Chicago Cubs have been within the top ten franchises according to their valuations. All of these MLB clubs are located in large markets with a high number of households and have the potential for a large fan base as well as the ability to secure large television contracts (Alexander et al., 2004; Scelles & Helleu & Durand & Bonnal, 2013).

The fact that market size was a significant contributor to predict valuation corresponds to previous research conducted by Alexander et al. (2004) that also found market size to increase value of professional sports teams. Taking this into a more real life application, the MLB franchises within the top five according to value, also show to be the markets that contain the largest number of households show further expressing why market size would be one of the variables that does have some effect on overall valuation. However, the Alexander et al. (2004) study represented only a one year season snapshot indicating team performance and stadium age to also be significant when it was not in this study that looked at a larger snapshot of time for MLB franchises.

An application of how the market size variable showed to effect valuation in the study can be express through the unstandardized beta value. The value for market size is 78.645. This value indicates the increase to the value of a team for each additional household added to a certain market. To explain this idea further, here is an example of how this number corresponds to a change in valuation. If there is a market size that has 100 million households, controlling for

other variables, that approximate addition to valuation would be 79 million dollars. Seeing the real life application it is understandable the emphasis previous research has demonstrated.

Ticket price, on the other hand does not have as explicit of an application as that of the effect of market size on the value of a franchise. Ticket price can be expressed in many ways depending on the particular franchise. The Boston Red Sox, for example, sold out their stadium 90 percent of the time and averaged a ticket price of nearly 51 dollars whereas the Florida Marlins only sold out there stadium about 45 percent of the time and sold their tickets for an average of 20 dollars. Seeing these numbers it is evident that demand for the tickets is higher in Boston than it is in Florida controlling for other variables. Taking this idea of demand further, the teams that rank in the top five for value, during this study, did also sell out about 80 percent of their stadium for each of the seasons as well as sold their tickets for about 40 dollars.

Although, this idea does not infer that teams can raise their ticket price and in return increase their value. As Heo et al. (2009) mentioned setting a ticket price that corresponds to demand helps to prevent leaving extra tickets unsold throughout the season. Raising the ticket price to increase value would not work if the demand for those tickets was not previously shown.

In addition to market size and ticket price being significant, salary expense demonstrating significance helps to further explain the argument made by Regan (2012). The Regan (2012) study involving the Oakland Athletics discussed the “moneyball era” for the franchise and how payroll efficiency affected fan attendance. Regan (2012) estimated that high paid players otherwise known as the super stars on a team make it possible for approximately 650 more fans to want to attend games during the season. Even though percent attendance was not a significant variable, it does help to validate the idea of salary expense’s effect on valuation. For example, the Athletics sold out approximately 60 percent of their stadium over the five years where as The

Yankees sold out approximately 80 percent of theirs and the salary expense, during the study, of the Yankees was three times that of the Athletics.

The three variables expressing some effect on a team's valuation, ticket price, salary expense and market size, are variables that work together to potentially affect the number of fans a team has for a given season. Even though there is contradictions amongst previous research and this study, market size seems to be a contributor to valuation in most all of the studies that have included the variable (Alexander et al., 2004; Scelles et al., 2013).

It is necessary that further research be done to determine if changing the length of the study or the league involved would affect which predictors are significant when looking at valuation. It has already been expressed that a short, season long, snapshot presented team performance as a significant contributor to valuation (Alexander et al., 2004). Also, it is crucial to apply this type of study to other North American professional leagues to see if different league structures have any effect on the way the valuation can be predicted based on the variables used in this study. As previously mentioned, the MLB is unique in its method of monitoring salary expense and looking at a league with more restrictive policies may demonstrate differing results.



## VI. References

- Alexander, D., & Kern, W. (2004). The Economic Determinants of Professional Sports Franchise Values. *Journal of Sports Economics*, 5(1), 51-66.
- Aubut, M. (2003). When Negotiations Fail: An Analysis of Salary Arbitration and Salary Cap Systems. *Sports Law Journal*, 10(N/A), 189-239.
- Berri, D. & Krautmann, A. (2006). Shirking on the Court: Testing for the Incentive Effects of Guaranteed Pay. *Economic Inquiry*, 44(3), 536-546.
- Borghesi, R. (2008). Allocation of scarce resources: Insight from the NFL salary cap. *Journal of Economics & Business*, 60(N/a), 536-550.
- Deming, N. (2011). Drafting a Solution: Impact of the New Salary System on the First-Year Major League Baseball Amateur Draft. *Hastings Communication and Entertainment Lawyers Journal*, 34(N/A), 427-445.
- Dietl, H., Lang, M. & Rathke, A. (2011). The Combined Effect of Salary Restrictions and Revenue Sharing in Sports Leagues. *Economic Inquiry*, 49(2), 447-463.
- Dietl, H., Lang, M. & Werner, S. (2009). Social Welfare in Sports Leagues with Profit-Maximizing and/or Win-Maximizing Clubs. *Southern Economic Journal*, 76(2), 375-396.
- Einolf, K. (2004). Is Winning Everything?: A Data Envelopment Analysis of Major League Baseball and the National Football League. *Journal of Sports Economics*, 5(2), 127-150.
- MLB Team Valuations. (2009, January 1). Retrieved April 16, 2015, from <http://www.forbes.com/teams>
- Fort, R. (2006). The Value of Major League Baseball Ownership. *International Journal of Sport Finance*, 1, 9-20.
- Franck, E. & Nuesch, S. (2012). Talent or Popularity: What Does it Take to be a Superstar?. *Economic Inquiry*, 50(1), 202-216.
- Heo, Y. C. & Lee, S. (2009). Application of revenue management practices to the theme park industry. *International Journal of Hospitality Management*, 28(N/A), 446-453.
- Humphreys, B. (2002). Alternative Measures of Competitive Balance in Sports Leagues. *Journal of Sports Economics*, 3(2), 133-148. Retrieved March 23, 2015.
- Humphreys, B., & Mondello, M. (2008). Determinants of Franchise Values in North American Professional Sports Leagues: Eve. *International Journal of Sport Finance*, 3(2), 98-105.

- Lewis, M. (2008). Individual Team Incentives and Managing Competitive Balance in Sports Leagues: An Empirical Analysis of Major League Baseball. *Journal of Marketing Research*, 45(N/A), 535-549.
- Major League Baseball Players' Association, (2012) 2012-2016 Basic Agreement. Retrieved 10 Nov 2014, from: [http://mlb.mlb.com/pa/pdf/cba\\_english.pdf](http://mlb.mlb.com/pa/pdf/cba_english.pdf).
- Neale, W. (1964). The Peculiar Economics of Professional Sports: A Contribution to the Theory of the Firm in Sporting Competition and Market Competition. *Quarterly Journal of Economics*, 78(1), 1-14.
- Reddy, S., Swaminathan, V. & Motley, C. (1998). Exploring Determinants of Broadway Show Success. *Journal of Marketing Research*, 35(3), 370-383.
- Regan, C. (2012). The Price of Efficiency: Examining the Effects of Payroll Efficiency on Major League Baseball Attendance. *Applied Economic Letter*, 19(N/Aa), 1007-1015.
- Scelles, N., Helleu, B., Durand, C., & Bonnal, L. (2013). Determinants of Professional Sports Firm Values in the United States and Europe: A Comparison Between Sports Over the Period 2004-2011. *International Journal of Sport Finance*, 8, 280-293.
- Taft, K. (2011). For The Love of The Game: Why Major League Baseball Players Should Demand a Salary Cap and Revenue Sharing in The 2011 CBA. *Mississippi Sports Law Review*, 1(1), 179-203.
- Zimbalist, A. (2010). Reflections on Salary Shares and Salary Caps. *Journal of Sports Economics*, 11(1), 17-28.

## VII. Appendix

Table 1

*List of Variables and Sources*

Variable	Definition/Year	Source
Percent Attendance	average game attendance divided by stadium capacity (2008-2013)	ballparkofbaseball.com & baseball-reference.com
Age of Stadium	number of years stadium has been in use (2008-2013)	forbes.com
Average Ticket Price	the average price of a ticket to stadium for a game during given season (2008-2014)	teammarketing.com
Player Salary Costs	dollar amount spent on payroll for players of the team (2008-2013)	forbes.com
Years in League	number of years organization has been active in league in this location (2008-2013)	mlb.com
Winning Percentage	the total number of wins divided by the total number of games played in a given season (2008-2013)	baseball-reference.com
Number of World Series Appearances	number of times a team made it to the World Series (2008-2013)	baseball-reference.com
Number of Post Season Appearances	number of times a team made the post season; including teams in one game Wild Card playoff starting 2012 (2008-2013)	baseball-reference.com
Market Size	measurement of the total households in a given market (2008-2013)	www.tvb.org
Valuation	dollar amount given to team based on attributing revenue factors (2009-2014)	forbes.com

Table 2

*Descriptive Statistics for MLB Teams' Valuation and Predictors Variables*

Variable	<i>M</i>	<i>SD</i>
Valuation	607,714,367.8	359,630,949
Percent Attendance	.69709	.170784
Stadium Age	22.01	24.861
Ticket Price	26.8810	10.08816
Years in League	64.29	40.905
Winning Percentage	.50036	.071065
Market Size (House Holds)	2,561,201.44	1,792,074.567
Log Salary	18.4810	.39662

Table 3

*Correlations, Beta Values, Significance Levels, and T-statistics for Predictor Variables*

Variable	Beta	<i>t</i>	<i>sig.</i>	Correlation
Percent Attendance	-1,29202,337	-1.048	.296	.424
Stadium Age	-367,426.701	-.537	.592	.288
Ticket Price	13,248,362.7	5.564	.000	.675
Years in League	130,699.619	.304	.761	.269
Winning Percentage	626,228,987.3	1.947	.053	.262
Post Season Appearance	-10,998,444.2	-.221	.825	.192
World Series Appearance	7,749,459.96	.120	.905	.105
Market Size (House Holds)	78.645	7.558	.000	.665
Owner Change	11,724,102.4	1.396	.165	.005
Logged Salary	165,212,382.9	2.753	.007	.677