An Analysis of MiLB Salaries and Cost of Living: How does the ability to live on MiLB salaries differ based on player contract and city?

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An Analysis of MiLB Salaries and Cost of Living: How does the ability to live on MiLB salaries differ based on player contract and city?

Abstract
The purpose of this research was to determine how Minor League Baseball (MiLB) player ability to live on different MiLB salaries change from city to city. This research set out to discover if the salaries made by MiLB player’s during the 2016 season was sufficient enough to cover the cost of living in each MiLB city. An increasing level of disparity between MLB and MiLB salaries has developed, but no research specifically compared MiLB city cost of living to MiLB salaries. The results of this study are valuable for Minor League Baseball players because it allows for individual cost of living analysis on all 60 MiLB cities at the Double-A and Triple-A level. This would allow players to gain knowledge on the difficulty to live in specific MiLB cities before being placed there, ultimately increasing self-awareness of the financial hardships they may endure, while also emphasizing the importance of alternative employment and budgeting practices. Quantitative secondary data was utilized. The entire population (n=60) was studied. Cost of living data were collected from Sperling’s Best Places. The results indicated that the assumption that MiLB players live on poverty (Babb & Castillo, 2016) while in some cases true, in others is false. It was found that MiLB players do, indeed, have a difficult time covering living costs over a 12-month period, and in some cases, cannot cover living costs for their city of employment when living there during the season only (six months). It was also found that while all of the highest paid MiLB players can cover living expenses, the overwhelming majority of the lowest paid players end up living at less than minimum wage level.

Document Type
Undergraduate Project

Professor’s Name
Dr. Katherine Burakowski

Subject Categories
Sports Management

This undergraduate project is available at Fisher Digital Publications: https://fisherpub.sjfc.edu/sport_undergrad/141
An Analysis of MiLB Salaries and Cost of Living:

How does the ability to live on MiLB salaries differ based on player contract and city?

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Executive Summary

The purpose of this research was to determine how Minor League Baseball (MiLB) player ability to live on different MiLB salaries change from city to city. This research set out to discover if the salaries made by MiLB player’s during the 2016 season was sufficient enough to cover the cost of living in each MiLB city. An increasing level of disparity between MLB and MiLB salaries has developed, but no research specifically compared MiLB city cost of living to MiLB salaries. The results of this study are valuable for Minor League Baseball players because it allows for individual cost of living analysis on all 60 MiLB cities at the Double-A and Triple-A level. This would allow players to gain knowledge on the difficulty to live in specific MiLB cities before being placed there, ultimately increasing self-awareness of the financial hardships they may endure, while also emphasizing the importance of alternative employment and budgeting practices. Quantitative secondary data was utilized. The entire population (n=60) was studied. Cost of living data were collected from Sperling’s Best Places. The results indicated that the assumption that MiLB players live on poverty (Babb & Castillo, 2016) while in some cases true, in others is false. It was found that MiLB players do, indeed, have a difficult time covering living costs over a 12-month period, and in some cases, cannot cover living costs for their city of employment when living there during the season only (six months). It was also found that while all of the highest paid MiLB players can cover living expenses, the overwhelming majority of the lowest paid players end up living at less than minimum wage level.
Introduction

Professional baseball has been considered one of America’s greatest pastimes as it dates back to the early 1870s (Nathan, 2012). As baseball has taken flight, leagues have been developed and sectioned off into categories based on skillset and development opportunities. Minor League Baseball (MiLB) teams, which play host to players who have a lesser skill set than those who play for Major League Baseball (MLB) teams, are independently owned entities affiliated with MLB organizations and ready players for Major League service time (MiLB.com Frequently Asked Questions, 2017). The MLB, which runs a monopolized baseball industry in the United States, has a long, infamous history of exploiting its employees through its compensation practices dating back to the leagues inception. (Carney, 2015).

Ted Berg, an employee at USA Today has indicated that the rate of pay for MiLB players is simply not keeping up with the rising levels of inflation (Berg, 2017). MiLB players, who in addition are not able to unionize under Major League Baseball and federal court ruling, have been extremely underpaid for their services (DiGiovanni, 2015). Today, a similar issue occurs as the cities that play host to MiLB teams have different costs of living, ultimately making it harder for some players to live in comparison to their counterparts. Although there is not a distinguishable difference in average pay rates between players, it has yet to be determined what the actual effect of different living costs are (Baseball Prospectus, 2017).

The objective of this research was to determine the difficulty players have living on a MiLB salary from one city to another. The research question of this study was:

How does the ability to live on MiLB salaries differ based on player contract and city?
The aim of the research was to present a better understanding of how the cost of living in MiLB cities affects similarly paid Minor League Baseball players based on their team location. Although it has been concluded that MiLB players are unfairly compensated (Berg, 2017) (DiGiovanni, 2015) (Axisa, 2015), research has yet to be conducted on how their salaries hold up in different cities. This research design offered a practical application because it could ultimately play a role in whether a player decides to continue with organization that drafted him, or venture to find an alternative employment opportunity.

**Background Information**

**Wage Determination**

Wage determination has been a long disputed topic and will continue as many new precedents are set each year in regard to pay regulations and formulation of a pay structure by employers (DeSilver, 2017). From overtime laws, minimum wage, and discrimination on gender and sexual orientation, employers are often constrained on the ability and willingness to raise wages due to rising costs which include healthcare, dental coverage, and other insurances (DeSilver). Fair pay is defined based on the type and quality of work done and not according to the age, race, sex, religion, political association, ethnic origin, or any other individual or group characteristic unrelated to ability, performance, and qualification (BusinessDictionary, 2017). Consensus has not been reached regarding fairness of wages for Minor League Baseball players due to many factors; most notably because of a lack of proper union representation (DiGiovanni, 2015).

Professional athletes are competitors who are compensated by their representative league/organization for their services and skills. The difference between major and minor league
athletes is the role in which each league plays. The minor league level serves as a developmental stage as it readies players for a potential future in the MLB. All MiLB teams are affiliated under a MLB club. On the other hand, the MLB consists of those once developing players who are now in a position to succeed while playing at the highest level to possibly obtain. (Winfree, 2005).

Athletes’ wages are determined by using a tool called market reference point (MRP). An athlete's value, or MRP, can be thought of as the number of wins an athlete produces for their team, multiplied by the value of each victory (Mildner & Santo, 2010). An athlete like Alex Rodriguez, former third baseman for the New York Yankees is a great example of properly utilized MRP. His day-to-day production was arguably better than anyone else’s during his ten year stretch with the Yankees. The Yankees therefore could afford to pay Rodriguez over $20,000,000 because his play on the field generated at least that amount in ticket sales, jersey sales, television broadcasting rights, and other streams of revenue during that time (Mildner & Santo, 2010). In Minor League Baseball, although the lack of union representation plays a role in determining salaries, information is not readily available to teams to determine the revenue generated by a player, ultimately making MRP hard to determine at the MiLB level.

Having union representation is important for major league players and leads to higher salaries. According to the Major League Baseball Player’s Association (MLBPA), the MLBPA is the collective bargaining representative for all current Major League Baseball players. It assists players with grievances and salary arbitration, and works closely with the MLB in ensuring that the playing conditions for all games involving Major League players meet proper safety guidelines. As MLB players have this representation, their counterparts in the minor leagues do not. A 40-man roster includes a combination of players on the 25-man roster, plus 15 reserves that reside on minor league teams which can be brought up at any time. In order for a club to add
a player to the 40-man roster who is not already there, they must remove a player from the 40-man (Hunt, 2011). Therefore, minor league players whom are either absent from the 40-man roster or still within their first few years of professional baseball, are subject to the harsh salary and wage conditions set by Major League Baseball.

When discussing minor league salaries and the effects that such a low wage has on the player’s ability to live a comfortable life, taking inflation into account is important. (DeSilver, 2014) suggested that minor league salaries, although are very low, may have been keeping up with the economy in terms of purchasing power. DeSilver presented the idea that although wages on paper have gone up since the 1970’s across the workplace, the real wage, or the wage that is determined after inflation is taken into account, has changed very little since then. The MLB uses this to their advantage by enticing MiLB players with the chance to one day possibly make it to the highest level of play, where the pay is significantly greater. Garrett Broshuis, former pitcher in the San Francisco Giants minor league system, talked about MiLB players stating that, “They’re chasing this boyhood dream that they’ve been after since they were four years old. So guys are reluctant to do anything that might put that dream in jeopardy” (Gordon, 2014).

Ian Gordon, a sports managing editor at Mother Jones suggests that since 1976, the lowest salaries in the major leagues have increased over 2500% while MiLB salaries have increased only 70% during that same period of time. This shows that with inflation increasing over 400% since the 1970’s, that a MiLB player has much lower current purchasing power then they once had (DeSilver, 2014) Through DiGiovanni: (2015) analysis, it was shown that a fast food worker makes two to three times more money than a MiLB player.

Kiplinger eased the confusion in regards to what it would truly cost an organization to pay its MiLB players a ‘fair wage’. He stated that for an industry (MLB) that profits $10 billion
dollars annually, providing an annual rate of $535,000 to the lowest paid player while the average makes $4.4 million a year, should be ashamed at the fact that they are exploiting the more than 6,000 MiLB players through lower than minimum wages. When comparing the salaries of minor leaguers and major leaguers, a minor league player makes only a quarter of a percent (0.25%) of what a major leaguer makes per year (Kiplinger, 2017). Kyle Johnson, a farm system player for the New York Mets organization, stated that a ‘fair wage’ would be around the $50,000 per year range (Berg, 2017). This wage allows a player to focus solely on becoming a better asset for the organization and makes it so minor leagues do not have to find alternative financial support at the end of the season; taking away from their ability to train. Paying each player in a minor league system a salary of $50,000 would cost each team $12,500,000 per year (250 players per minor league system). That is just over half of the $20,750,000 that Carl Crawford gets paid each year to sit the bench for the Los Angeles Dodgers (Axisa, 2016). Another professional minor league sport, the American Hockey League (AHL) offers what Kyle Johnson would agree to be considered a ‘fair wage’ to its employees.

The AHL, is the MiLB equivalent for the National Hockey League (NHL) and can be used for comparison. The AHL has also successfully unionized, allowing for greater pay rates. The professional baseball season places a toll on players because roughly 144 games are played in about six months of the regular season. The minimum class AAA baseball salary per year, as of the 2016 season was $10,750 per season (Berg, 2017). The AHL, which schedules only 72 games per season excluding playoffs, makes sure that its players are paid a minimum of $45,000 per season. This figure is more than the amount a player makes in the MiLB even after serving 40-man roster time. After calculating the salaries of each player, there is more than a 300% difference between what AHL hockey players make, and what MiLB players make. On top of
that, AHL players only participate in game play 72 games per year whereas a MiLB schedule plays double the amount of games. MiLB, unlike hockey brings an average of 6,394 fans to each game; much more than the average AHL hockey game. In addition, the AHL ensures postseason bonuses to their players if there are postseason berths, something the MiLB does not grant (USA Today Sports, 2017).

Another disputed topic to distinguish pay disparity between the two sports is the travel per diem that each player receives when they are on the road, per day, for food. In the AHL each player is presented $72 per day in per diem money. For MiLB players, each is given $25 per day to support their food intake only for days which the team is on the road. (Gordon, 2014) presented Major League Hassles, which shows that a MiLB per diem of $25, is less than what unionized MiLB umpires receive for per diem ($56 per day), along with MLB players ($92 per day)

**Collective Bargaining**

Teams are considered individually owned entities of the four major sports leagues in the United States (National Hockey League (NHL), National Basketball Association (NBA), National Football League (NFL), and Major League Baseball (MLB) are all required to adhere to their governing organizations rules and regulations regarding a salary cap. Salary cap is defined as a system which limits the total amount of salaries paid out by a club to its players (Dietl, Franck, Lang, & Rathke, 2011). The regulations on salary caps have been constructed, then implemented by league officials, in order to even out the playing field and rid their respective leagues of any competitive imbalance that may exist. Each league, which follows their own set of rules in regards to the salary cap, generally punishes offenders with a luxury tax which is then dispersed amongst smaller market teams, or through a hard cap which has no exemptions to the
An Analysis of MiLB Salaries and Cost of Living

rule of overpaying (Dietl, Franck, Lang, & Rathke). A luxury tax, or competitive balance tax, is a surcharge on the aggregate payroll of a sports team that exceeds a predetermined limit set by the corresponding sports league. The National Basketball Association (NBA), follows a very similar salary cap system as the MLB. Since 1999, the NBA has made each team who exceeds the league salary cap to pay a 100% tax on each dollar spent, similar to the MLB (Dietl, Lang, & Werner, 2010).

MiLB players have a lack of representation in contract (pay) negotiation compared to MLB players. At one point in time, all players were subject to the “reserve clause” under professional baseball ruling. A reserve clause can be defined as a situation where a player contract expires and they are contractually bound to resign with original team, unless they are traded or their contract is sold. Players are not free to enter into contract with another team upon the expiration of the contract. This was later abolished and replaced by free agency in 1975 to give higher level players more leverage after salary arbitration. Carney (2015) also suggested that MiLB players are not exempt employees under the Fair Labor Standards Act (FLSA). In 2018, President Donald Trump confirmed the current status of MiLB pay rates by signing into law a provision that classifies minor league baseball players in the same manner as some executives and administrative staff members on salaries who are exempt from minimum wage and overtime law under the Fair Labor Standards Act of 1938 (Brown, 2018).

Salary arbitration occurs when players have been under organizational contract with the same team for three full seasons but less than six. Once a player achieves being under contract for six years, they are eligible for free agency. MLB service time, meaning games played at the MLB level in ones’ career, also plays a role in whether or not someone is considered arbitration eligible. Once arbitration is granted, there is much more flexibility for a player to negotiate
salary, but they are not able to negotiate the organization played for as the player is still contractually bound to the organization which drafted him. A third-party arbitrator settles salary disputes between the player and organization if there is failure of reaching a settlement prior to the arbitration hearing (Carney, 2015).

Free agency occurs after six years of service time occurs in the MLB or the same duration of time on the 40-man roster. Negotiation, like salary arbitration, occurs in this stage and if a player cannot agree with their organization on their desired salary amount, then that player is free to shop their talents to other organizations. Free agency is most beneficial for both the player and the organization because players are able to negotiate for more lucrative contracts while the team may pursue to maintain the rights of the player and benefit from talents and attributes that they possess (Carney, 2015).

According to the U.S. Department of Labor, employees must be compensated on a salary basis which states that employees are to be paid a predetermined salary which cannot be reduced based on the quality or quantity of work (Carney, 2015). If an employee is ready, willing, and able to work, deductions may not be made, even when work is not readily available (off-season). During the offseason, minor league players are not compensated which makes the MLB organizations (payers of salaries) actively practicing improper deductions as the players are ready to work (Carney).

MLB used previous precedents and laws to help support their case for paying players lower than normal wages. One of the ways they attempted to support their argument was through creative individualism. The concept of creative individualism ultimately allows employers to exempt their employees from receiving fair and proper wages set out by the U.S. Department of Labor, Wage, and Hour Division.
MiLB players do not satisfy either of the criteria to be considered a creative individual. When determining creative individualism, the employee also cannot be paid less than the specified minimum salary set under section 213(a)(1) of the FLSA which is set at a minimum of $455 per week. According to Law, this would mean an MiLB player needs to be compensated a minimum of $23,600 per year ($455/week). MiLB salaries, on average, range from $3000 to $7500 for the five month season, going unpaid in the offseason as well.

Axisa (2016) stated that it is not fair to compare MiLB players to artists and musicians, whom are considered creative individuals. He stated that artists and musicians are free to take their talents and shows wherever they please while MiLB players are locked into six year contracts that hinders their ability to showcase their skills elsewhere. Axisa elaborated on the fact that artists and other creative professionals are free to shop their services to the highest bidder. If someone pursued a career in baseball, a team owns their rights until they get released or reach six years of service time and become a free agent (Axisa, 2016).

Since the beginning of 1922, Major League Baseball has been exempt from federal antitrust laws (DiGiovanni, 2015). Antitrust laws were implemented in the United States to prevent companies from monopolizing an industry, ultimately preventing competition. However, the Curt Flood Act determined the fate of MLB’s responsibility to adhere to these laws. The act stated that “federal antitrust laws are to apply to all matters related to the employment of Major League Baseball players….armed with the exemption, MLB has been able to artificially suppress minor leaguers’ salaries and contractual mobility” (DiGiovanni). The Curt Flood Act made negotiations and lawsuits against the MLB only if you are on the 40-man roster. However, this ruling did not provide the same opportunities for MiLB players. Due to the contractual restrictions MiLB players experience during their first six years of service time under an
organization, players cannot shop their skillset in the market of 30 organizations, ending up powerless for several years. Figuring out a way around MLB’s antitrust exemption was the first order of business. The exemption, in place since 1922, shields teams from allegations of monopolistic business practices, such as colluding to suppress minor leaguers’ wages. But it doesn’t protect MLB from federal wage and overtime laws. This is why MiLB players become extremely underpaid employees.

One of the most major and relevant lawsuits to occur in professional sport in regard to fair pay was Senne v. Office of the Commissioner of Baseball. In this case, MiLB players alleged that the MLB functioned as a cartel and has failed, and will continue to fail, to pay federal minimum wage and mandatory overtime required by the FLSA (Carney, 2015). In this case, the plaintiffs said that the efforts of MiLB players to unionize had been unsuccessful because the players feared retaliation by the league and its franchises. The case is still currently under review and has been classified by the trial judge as a class action lawsuit. The exact composition of the class is yet to be determined, but it will likely include minor leaguers who worked in the California League since 2010. That could affect as many as 2,100 former minor leaguers who played between 2010 and 2015 if played out in the way MiLB players hope (Calcaterra, 2017).

**Methods**

The purpose of this research was to determine how players’ abilities to live on different MiLB salaries changes from city to city. This study provided a better understanding of which minor league cities have the greatest disparity between cost of living and MiLB player wages. The population of this study included the cities that had AA and AAA MiLB teams at the end of
the data collection. Because there were only 60 cities that hosted AA and AAA baseball teams, the entire population was used instead of a sample of the population.

**Procedure**

Cost of living for the study was defined as median gross rent cost (Takes utilities into account), median cost of transportation, and estimated cost for food. These variables for each city were accessed on bestplaces.net. This source was best suited for this study because it provided all the variable information needed. After data were collected, minor league salaries were compared to the cost of living in each city.

Due to the complexity of minor league salaries, using the average of four different minor league salaries based on the 2012-16 MLB Collective Bargaining Agreement was practical. Group One represented players who served time on a 40-man roster in two consecutive years with at least one day of service time at the MLB level. These players made a minimum salary of $82,700 per year between 2012-2016. Group Two included players who had no service time at the MLB level but had been placed on the 40-man roster. These players made a minimum salary of $41,400 between 2012-2016. Group Three was made up of players who had yet to be placed on a 40-man roster, and had yet to serve MLB service time but played at the AAA level. Between 2012-16, the average monthly salary was $2,150 and pay was only applicable during the championship season. Group Four was comprised of players who had yet to be placed on a 40-man roster and had yet to tab MLB service time. These players competed at the AA level. Between 2012-16, the average monthly salary was $1,700 and pay was only applicable during the championship season (5 months on average). Although professional baseball players only paid over the course of the season, all Groups received monthly payment for the purpose of this study as MiLB players are paid and taxed based on where they provide their services.
In addition to six and 12 month analyses of how MiLB salaries hold up in each city, the research looked to discover how many months an MiLB salary could hold up in the most costly cities.

**Analysis**

After collecting the data, it was used it to assess where the disparity truly lies between Minor League Baseball salaries, and the cost of living in that current city they play in.

**Results**

**Description of the Sample**

As previously stated, the sample data was made up of Minor League Baseball (MiLB) cities that host teams competing at the Double-A and Triple-A levels. The sample of the study used in this research was the entire population (n=60). Due to a limited amount of MiLB cities in existence between Double-A and Triple-A Baseball, it was deemed that if the entire population was used instead of a sample of the population, the sample would be representative of the population.

Cost of living was determined using concept variables which included median cost of rent, cost of transportation, and cost of food (computed as 6% of monthly salary used on groceries and another 5% used on dining). The advantage of this study was that it narrowed the focus on a smaller group of subjects (60 MiLB teams and their corresponding cities) rather than individual MiLB players. This allowed for a greater picture to be seen in regards to how MiLB salaries hold up in each minor league city rather than how one player from each of the four salary groups can live in their respective location.
Descriptive Statistics & Analysis:

Of the sample, 17 of the 60 cities (28.3%) were operating on a 12-month deficit. Group 1 and Group 2 players for all cities had no problem living on the salary they made if spent like an average citizen living in the area during the time the data was collected. The average cost of living for a Group 1 player was $1,559.03. The average cost of living for a Group 2 player was $1,179.45 per month. The average cost of living for a Group 3 player was $937.91 per month while the cost of living per month for a Group 4 player was $896.27.

Additionally, this study measured how the concept variables that made up the cost of living held up in comparison to the national average (N/A). It was found that 67.5% of MiLB cities fell below the N/A in terms of housing cost. It was found that 55% of MiLB cities had a greater transportation cost in comparison to the N/A. It was also found that 67.5% of MiLB cities fell below the N/A in terms of average food cost.

The mean of estimated income per capita (IPC) across all four groups of cities was $2033.69 per month. It was also found that the average MiLB “take home” was $1923.72 per month. This showed that where the average person made just over $2000 per month across the sample, the average MiLB player had very close to $2000 left over each month after computing what it costs for them to live.

When discussing per capita income for each of the four groups in comparison to the national average, the figures looked as followed. Group 1 players made an average of $6891.67 per month, nearly double of the national average population reported ($3632.92 as the highest reported national average). Group 2 players made an average $3450 during the 2016 season, better than 98.3% of the national average population. Group 3 players, who make $2150 per
month over a 6-month season, averaged making $1075 per month for a 12-month period, better than 2.5% of the national average population. Finally, Group 4 players made on average $850 per month over a 12-month period ($1700 per month for a 6-month season), worse than 100% of the national average population.

Group 1 players had a mean disposable income of $5333.60 left each month after calculating in the cost of living whereas Group 2 players had a mean of $2270.50 left over each month. In regards to the Group 3 and 4 players, they respectively had means of $137.09 and -$46.27 left over after factoring in the cost of living each month. It was therefore costing Group 4 players nearly $50 more per month to live in their collective cities than what they were paid. It is important to keep in mind that the study assumes that players in each Group are being paid over a 12-month basis when in reality, players are paid and taxed based on the city they play in, and on a per-game basis which generally lasts six months. Bowie, Maryland, which plays host to the Double-A Bowie Baysox, and affiliate of the Baltimore Orioles Organization, was the only city from the study where a Group 4 player salary did not hold up over a six month span of time, making $1700 per month with the cost of living being $1846.08.

Table 1 shows the mean differences in the amount of discretionary income players’ in each Group had left each month after computing the cost of living variable in both the 6-month and 12-month categories:
An Analysis of MiLB Salaries and Cost of Living

Table 1

Cost of Living Differences (6 and 12 Months)

<table>
<thead>
<tr>
<th>Group</th>
<th>6-Month Difference</th>
<th>12-Month Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mean 2666.82</td>
<td>5333.63</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>Mean 1135.28</td>
<td>2270.55</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Mean 68.55</td>
<td>137.09</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Mean -23.15</td>
<td>-46.27</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

After finding that Group 4 is the most exploited of the four groups in terms of salary pay; below is a Table 2, which depicted the Group 4 cities that ran a deficit each month. The table shows the 12-month difference between salary and cost of living throughout the sample population while providing insight on how many months a Group 4 salary could hold up in each respective city.

Table 2

Difference Between Cost and Income over 12-Month Period (Group 4 Only)

<table>
<thead>
<tr>
<th>Team</th>
<th>City/State</th>
<th>Difference</th>
<th># of Months Salary Could Cover Living Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowie Bay Sox</td>
<td>Bowie, MD</td>
<td>-996.08</td>
<td>5.526</td>
</tr>
<tr>
<td>Frisco RoughRiders</td>
<td>Frisco, TX</td>
<td>-404.08</td>
<td>8.133</td>
</tr>
<tr>
<td>Trenton Thunder</td>
<td>Trenton, NJ</td>
<td>-353.08</td>
<td>8.478</td>
</tr>
<tr>
<td>New Hampshire Fisher Cats</td>
<td>Manchester, NH</td>
<td>-247.08</td>
<td>9.297</td>
</tr>
<tr>
<td>Hartford Yard Goats</td>
<td>Hartford, CT</td>
<td>-229.08</td>
<td>9.452</td>
</tr>
<tr>
<td>Midland RockHounds</td>
<td>Midland, TX</td>
<td>-226.58</td>
<td>9.474</td>
</tr>
<tr>
<td>Portland Sea Dogs</td>
<td>Portland, ME</td>
<td>-171.08</td>
<td>9.989</td>
</tr>
<tr>
<td>Richmond Flying Squirrels</td>
<td>Richmond, VA</td>
<td>-110.08</td>
<td>10.624</td>
</tr>
<tr>
<td>Jacksonville Jumbo Shrimp</td>
<td>Jacksonville, FL</td>
<td>-95.08</td>
<td>10.793</td>
</tr>
<tr>
<td>Corpus Christi Hooks</td>
<td>Corpus Christi, TX</td>
<td>-70.08</td>
<td>11.086</td>
</tr>
<tr>
<td>San Antonio Missions</td>
<td>San Antonio, TX</td>
<td>-51.08</td>
<td>11.319</td>
</tr>
<tr>
<td>Mississippi Braves</td>
<td>Pearl, MS</td>
<td>-4.08</td>
<td>11.942</td>
</tr>
<tr>
<td>Montgomery Biscuits</td>
<td>Montgomery, AL</td>
<td>-2.08</td>
<td>11.971</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>-</td>
<td><strong>-227.66</strong></td>
<td><strong>9.853</strong></td>
</tr>
</tbody>
</table>
Discussion:

Ultimately, through the study it was found that MiLB players are exploited in terms of salary pay. It was also found that based on the location in which an MiLB player is employed, they may be more exploited in comparison to their counterparts. As mentioned, over the years there have been discussions, lawsuits, and findings in regards to the degree of exploitation, most notably the 2010 publication by Milder and Santo in regards to wage determination through evaluating the market reference point of an athlete (MRP). The article refers directly to Alex Rodriguez and the revenue he generated for the Yankees during his tenure but lacks to refer to the MRP of minor league players. It can be determined that MiLB players in the top tier (Group 1), bring greater levels of revenue to an organization due to their re-acquisitions to the major league level. Here, MiLB players have the opportunity to add more wins to an organization, become a greater asset in terms of merchandise sales, along with name recognition. Lower tier players, compiling of the players that fall into Groups 3-4, are the ones which bring less revenue to an organization which is one of the key reasons why MiLB players in these groups have such a difficult time living on the salaries which they make in their representative cities.

It is clear that Group 4 players who meet the criteria of no 40-man roster time, no major league service time, and is an active participant at the Double-A level making $1,700 per month are the most exploited group of the Four. It was found through the study that 36.7% of all Double-A cities operating at Group 4 salary end up running a deficit in terms of the difference between the cost of living along with income made. This number is significant and shows that for every two Group 4 players that end up having discretionary income left over after incorporating the cost of living component, there is one player who is not in the same financial situation.
It was also found through the results generated by SPSS that the mean estimated per capita income across all cities sat at approximately $2033.70. This number, which sits significantly higher than the average MiLB salary of Groups 3 and 4 by a significant amount as shown through the results section. Indexes came in handy when determining the cost of living because the study was able to see the difference between the overall cost of living indexes for both cities in Group 4, along with the cities that fell between Groups 1-3. It showed that the mean average index (with the national average being 100) of cities in Groups 1-3 reported a 96 on the index scale, just below the national average. On the other hand, Group 4 reported a mean of 87.5 which is well below the national average. Whether or not the MLB chooses cities that have an easier cost of living for players who get paid less money is unknown but has shown to be true through this study.

**Conclusion:**

There are a few things that would be recommended moving forward that would make this research more accurate. The main issue in carrying out the research was the lack of information readily available to the public on minor league salaries. The main source used for determining what the best numbers were for salaries was Jeff Euston from *Baseball Prospectus*. After contact with Mr. Euston, it was determined that the numbers presented to him for each group were the closest the research could get in terms of accurate minor league salaries. Because there was such limited information on these salaries, the reliability of the results from tests is as accurate as it could get. In order to make the research better, there would need to be more time in carrying out the study. During the extra time, speaking directly with minor league players, or if the
information was ever released publically on ranges that minor league players make in more depth, the study could become more accurate.

Secondly, determining what variables needed to be used in order to compute the ‘cost of living’ component included in the research was difficult. Because this study only used housing, food, and transportation, it made it difficult to determine if the cost of living component was accurate to how a MiLB player lives. The idea behind using only these three variables to determine cost of living was that it most closely resembled what a college student pays for on such a limited budget. There is a great disparity between how much money a Group 1 player makes in comparison to a Group 4 player. With more discretionary income for players sitting in the Group 1 pool, they are more likely to own more expensive things, spend more money on food, and possibly have a different level of health insurance that a Group 4 player simply cannot afford. This would decrease the amount of money that a player has left over after the cost of living component is added in at the Group 1 level. In addition, there are many Group 1 players who have more major league service in comparison to the other Group 1 players. Their salaries can range anywhere from $82,000 per year to upwards of a few million dollars per season. This wide range ultimately makes the salaries of Group 1 players unreliable in terms of money made. In order to ease these issues in future studies, one should research specifically minor league baseball players who compete at the Double-A level. Because the range of salaries at the Double-A level, or the players who were put in the Group 4 salary bin are so much closer in similarity, this would have made it easier to determine if the salaries made by the overwhelming majority of these players were close enough to each other to use.

When referencing back to the 2017 Berg article which used Kyle Johnson, a two-way player between Double-A and Triple-A in the New York Mets organization, it is easy to see why
Johnson feels that a $50,000 salary per year would allow players to live more accurately. Johnson, who fell between Group 3 and Group 4 due to the level that he played at, is most likely making somewhere in the $10,000 to $12,000 range. This salary according to the study, would hold up in the cities presented, but would allow for very little flexibility in terms of spending more money on food, better housing, and other expenditures which the player wishes to spend money on. It is also to keep in mind that Kyle Johnson has a wife and a newborn child to take care of as well. This would most likely prompt him to find additional employment in the offseason, allowing him to keep a steady flow of income over a 12-month period. As mentioned by Johnson and other MiLB players who spoke in the article, it isn’t the two-way players between the MLB and Triple-A that have issues living on a MiLB salary, but the players who spend the majority of their time in Double-A. This is why it would be suggested to use only Double-A pay rates if this study was to be conducted further as there would be analyze only on the discriminated players rather than the MiLB as a whole.

Earlier, the AHL was used as a comparable league to the MiLB. The AHL, which serves as the minor leagues for the NHL, plays home to players as they ready for the professional stage. It was mentioned in the article that during the 2016 season, the minimum salary of an AHL player was $45,000 per season. This is more than not only the Group 3 and 4 players, but the Group 2 salaries in the study as well. Berg mentions that the 300% difference in MiLB and AHL salaries is one that is unexplainable, as MiLB games bring in a greater amount of fans, and play over double the amount of games during the season. The research conducted in this study proves that as 36% of Group 4 players cannot live on the wages they make, the average AHL player gets a larger per diem for food than a Group 4 player makes in total salary throughout the season.
This continues to prove the point that Group 4 players are extremely underpaid and in most cases, are being paid less than the federal minimum wage.

Along with the findings, there were limitations and delimitations that occurred during the research. As mentioned, the main limitation was lacking to have proper information that was publicly available on MiLB salaries, forcing Groups to be developed in the research. Delimitations was lacking to use Single-A (low and high A) and rookie ball salaries salaries due to the complexity of incorporating signing bonuses into the mix. Signing bonuses were not incorporated in any piece of this study which is something that needs to be kept in mind for future studies in order to receive more accurate results. Incorporating signing bonuses might help a future study determine how much money a player has prior to making an annual salary for their service. Another delimitation was not taking inflation into account over time. By doing so, it would have allowed the study to determine if living on an MiLB salary has become more or less difficult over time. It also would allow the researcher to predict a trend on how MiLB salaries hold up in their particular city over time as the discussion on exploitation has gained speed over the past decade.
References


