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Thesis Paper

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Table Of Contents:**Page Number:**

<u>Chapter 1:</u>	4
Introduction to the Chapter.....	4
Statement of Problem	4
Research Population.....	4
Purpose	4-5
Research Questions.....	5
Definitions	5-8
Significance of study.....	8
<u>Chapter 2:</u>	8
Introduction to the Chapter.....	8
Lit categories.....	8-13
Summary/Restate Problem.....	13
<u>Chapter 3:</u>	13
Introduction to the Chapter	13
Sample Population	13

Methods/ Procedure.....	14-17
-------------------------	-------

Page Number:

Chapter 4: 17

Introduction to the chapter	17
-----------------------------------	----

Results of Research	17-19
---------------------------	-------

Tables and Descriptions	19-26
-------------------------------	-------

Chapter 5: 29

Introduction to the Chapter	29-30
-----------------------------------	-------

Explanation of findings	30-31
-------------------------------	-------

- Similarities.....	31-32
---------------------	-------

- Differences	32
---------------------	----

Possible Reasons for Results	33
------------------------------------	----

Implications	33-34
--------------------	-------

Future Research	34
-----------------------	----

References	35-36
------------------	-------

Chapter One:

Introduction to the Study

Major League Baseball Executives (MLB) uses statistics to evaluate players depending upon their circumstance, whether it's signing a new contract, trading for certain players or bringing up Triple-A Prospects to play in the MLB parent team. For my research I will be asking the general public on: Does OPS give us a better image of MLB Prospects than a person within solid baseball knowledge?

Statement of Problem:

Does Minor League OPS provide better projection of major league prospects success in the MLB, than a person with baseball experience?

Research Population:

The population that we chose to study was to cover minor league prospects, and the prospects that we collected from was the Minor League Baseball website. We collected the top 40 players and we are going to survey 30 students from Nichols College. These students are

going to be part of the Nichols Baseball Team, and also any other student who has basic knowledge and background who understand how baseball is played.

Purpose:

The purpose of the study and what I am looking forward to is to see what the general public put for prospects and how they would rate them. When we first looked up the original rankings and OPS's, we found out what the overall numbers were. But now we are going to find out what the people who have either played baseball or who have past experience feel about the players and what they would put for an OPS and there Ranking.

Research Question:

The research questions that guide this study are:

1. The purpose of the study is to see if OPS give us a better image of MLB Prospects than a person with solid baseball knowledge.

Please Group these Triple-A Players in Four Sections. Using the given statistics, (using an eyeball approach) please circle your prospect rating for each player based on following scale:

1= Top 25% Minor League Player

3= 51%-75% Minor League Player

2=26%-50% Minor League Player

4= Bottom 25% Minor

League Player

Operational Definitions:

1. **BA:** Batting average (also abbreviated AVG) - hits divided by at bats (Gary Gillette, Pete Palmer , March, 17 2012, PG1)
2. **Bill James:** Bill James, the field's most celebrated author, and is derived from the acronym "SABR", for the Society for American Baseball Research. (S, Smith, P. Palmer, G. Gillette, October , 11 2012).
3. **Billy Beane:** He is the general manager (GM) and minority owner of the Oakland Athletics of Major League Baseball (MLB). (Smith,Palmer,Gillette, S. October , 11 2012)
4. **Double:** Double - hits on which the batter reached second base safely without the contribution of a fielding error. (Gary Gillette, Pete Palmer , March, 17 2012, PG1)
5. **GM:** In most professional sports, the general manager is the team executive responsible for acquiring the rights to player personnel, negotiating their contracts, and reassigning or dismissing players no longer desired on the team.
6. **G:** Games played - number of games where the player played, in whole or in part (Gary Gillette, Pete Palmer , March, 17 2012, PG1)
7. **H:** Hits - times reached base because of a batted, fair ball without error by the defense (Gary Gillette, Pete Palmer , March, 17 2012, PG1)
8. **Henry Chadwick:** Henry Chadwick was a journalist who created boxes scores for baseball. He was called “Father of Baseball.” (Gary Gillette, Pete Palmer , March, 17 2012, PG1)

9. Homerun: Home runs - hits on which the batter successfully touched all four bases, without the contribution of a fielding error. (Gary Gillette, Pete Palmer , March, 17 2012, PG1)

10. MLB: Major League Baseball

11. Moneyball: For the statistical approach sometimes referred to as "Moneyball"

Moneyball: The Art of Winning an Unfair Game is a book by Michael Lewis, published in 2003, about the Oakland Athletics baseball team and its general manager Billy Beane. Its focus is the team's analytical, evidence-based, sabermetric approach to assembling a competitive baseball team, despite Oakland's disadvantaged revenue situation. (Smith,Palmer,Gillette, S. October , 11 2012).

12. Oakland Athletics: The Oakland Athletics are a Major League Baseball team based in Oakland, California.

13. OBP: On base percentage - times reached base ($H + BB + HBP$) divided by at bats plus walks plus hit by pitch plus sacrifice flies ($AB + BB + HBP + SF$). (Gary Gillette, Pete Palmer , March, 17 2012, PG1)

14. OPS: On-base plus slugging - on-base percentage plus slugging average (Gary Gillette, Pete Palmer , March, 17 2012, PG1)

15. RBI: Run batted in - number of runners who scored due to a batters's action, except when batter grounded into double play or reached on an error (Gary Gillette, Pete Palmer , March, 17 2012, PG1)

16. Sabermetrics: Sabermetrics is the study of baseball using statistics.

17. Scouts: In professional sports, scouts are trained talent evaluators who travel extensively for the purposes of watching athletes play their chosen sports and determining whether their set of skills and talents represent what is needed by the scout's organization.

18. Single: Single - hits on which the batter reached first base safely without the contribution of a fielding error. (Gary Gillette, Pete Palmer , March, 17 2012, PG1)

19. SLG: Slugging average - total bases divided by at-bats (Gary Gillette, Pete Palmer , March, 17 2012, PG1)

20. Triple: Triple - hits on which the batter reached third base safely without the contribution of a fielding error. (Gary Gillette, Pete Palmer , March, 17 2012, PG1)

21. WARP: Wins Above Replacement Player, or WARP, is a statistic published in Baseball Prospectus that attempts to measure the "total value" of a player over a given season.

Significance of Study:

This study is significant because baseball executives and scouts primarily go by scouting and past experiences as a player. As I mentioned, during my research we talked about how baseball statistics were first born. Even though it was a huge deal back in the 70's and 80's, it's still has become a huge tool to evaluate prospects and any other future prospect that are scouted and that come through the system.

Chapter 2:

Introduction to the Study

The purpose of Chapter two is to talk about the research why this research is important to our topic. The purpose of this research is to see if OPS gives us a better image of MLB Prospects than a person with solid baseball knowledge. In this Chapter 2 it talks about how it list the categories of what research we are going to cover, it shows the summary and shows the restated research problem that we are asking to the surveyed people.

List Categories:

Introduction to the Study

Major League Baseball Executives (MLB) uses statistics to evaluate players depending upon their circumstance, whether it's signing a new contract, trading for certain players or bringing up Triple-A Prospects to play in the MLB parent team. For my research I will be asking the general public on: Does OPS give us a better image of MLB Prospects than a person within solid baseball knowledge?

Henry Chadwick:

Statistics first started being used back in the 19th Century and introduced by Henry Chadwick.(Andrew 2008) Chadwick is called “the father of baseball,” introduced box scores and the use of statistics. Chadwick was a journalist and was elected to the Baseball Hall of Fame back in 1938. (Andrew 2008) As the game of baseball grew so did the use of statistics and became more popular in the 1970's. The study of Baseball Statistics is called Sabermetrics

(SABR)(2008). Bill James is an author who focuses his studies on baseball statistics who created the term Sabermetrics.

Research Question:

The purpose of the study is to see if OPS give us a better image of MLB Prospects than a person with solid baseball knowledge.

HO: OPS gives us a better image of MLB Prospects than a person within solid baseball knowledge.

HA: OPS does not give us a better image of MLB Prospects than a person with solid baseball knowledge.

Moneyball:

These Statistics are used in many organizations today, and recently there was a book written about this topic called Moneyball. The book, Moneyball (Lewis, 2003) was written about baseball and how the Oakland Athletics Baseball Organization would be financially stable in order to play against the big market teams.

“Moneyball, describes how Billy Beane, general manager of the Oakland Athletics, revolutionized Major League Baseball (MLB) by exploiting an inefficiency in the baseball labor market- the ability to get on base had been seriously undervalued.” “Beane exploited the inefficiency by implementing an employee (player) performance measurement and feedback system that allowed him to field a highly competitive team while having one of the lowest payrolls in MLB.” (2007) Besides baseball, other sports are adopting the statistic of moneyball.

According to Gerrard (2007), it was found that there were three burrows, which are technological, conceptual, and cultural when transferring moneyball approach to other team sports.

According to (Farrar, Bruggink 2011), they talk about how MLB GM's rely solely just on one statistic rather than including both statistics to a players value. One of the Statistics that Gm's relied on too much was Slugging. GM's just looked at Slugging when they produced runs rather than if they are going to get on base during a percentage of the time. "In particular, slugging is overcompensated relative to its contribution to scoring runs." "This causes an inefficiency in run production as runs (and wins) could be produced at a lower cost (Farrar, Bruggink 2011)."

According to (Farrar, Bruggink, A. (2011), Moneyball and the innovation of statistical analysis will take a while to adapt into the MLB. The author pointed out that the batting average (BA) is still more prevalent than On base percentage (OBP) and also receives more attention in the evaluation process. "Finally, the adoption of Moneyball is not limited to baseball." "General Managers in hockey (6), basketball (8), football (5), and soccer (2) are beginning to see the same advantages in using statistical analysis to supplement or replace conventional wisdom in making decisions on personnel and strategy (Farrar, Bruggink, A. (2011)." The author also points out those sports teams (colleges and professional teams) make a judgment on data driven results rather than the old style of scouting and evaluation.

According to (Gerrard, B. (2007), he concluded that the movement of statistical analysis has helped MLB executives to find better ways to recruit /acquire or trade for players besides the

traditional way of scouting for them or signing for big contracts. He talks about how the Oakland Athletics are the second lowest payroll in baseball and try to find the most affordable and players that can perform well and under- the radar. This tends to be overlooked and helps small market teams become more successful when they compete against New York when they have a high payroll.

WARP/Sabermetrics (Winning Above Replacement Player):

Another Statistic that Baseball executives use is called WARP (Wins Above Replacement Player). WARP tries to measure the “total value,” of a player over certain seasons. “WARP, intuitively, attempts to express the total number of wins that a given player adds this team over the course of a season by comparing the players performance with that of a fictitious “replacement player” is assumed to be an average Triple-A call up who might appear in the majors only as a replacement for an injured player, and whose hitting, fielding, and (if applicable) pitching skills are far below league average.” (2007)

According to (Gerrard, B. 2007), that in professional team sports, the economic power of teams depends upon your geography location and past history. Gerrard pointed out that certain teams that are located in a large metropolitan area and has a history of sporting success are able to acquire the best talent for their large fan base. Gerrard also talked about his overall concern that does not just focus on baseball, but focuses on a world wide spectrum for all sports leagues.

The reason for Gerrard’s concern is that he feels that the sports leagues should maintain competitive balance for fans overall experience and for leagues to limit the amount of money per organization. If this happens, the top teams could not hold on to their top players and have a

chance for every single team to attempt to acquire about the player's services. This approach tries to even out the playing field and attempt to have competitive seasons and games.

“Alternatively, leagues have regulated the players' labor market via salary caps, luxury taxes on excessive payrolls, reserve clauses, transfer fees, and centralized drafting of new players.” “The MLB has been one of the least regulated professional sports leagues (Gerrard, B. 2007).”

OPS (On Base Plus Slugging):

Another way evaluate a baseball players production is called OPS(On-Base Plus Slugging). This is what I am basing my research on MLB prospects. OPS is another statistic which is in the family of Sabermetrics, which shows an overall offensive players performance. OPS is taking the slugging percentage of the certain prospect and adding the OBP (On Base Percentage) together to make the OPS. “Since MLB teams have focused on the conventional measures of hitter performance rather than OBP, this would imply that the market valuation of players would tend to undervalue players who rank much better on their OBP statistics than batting and slugging averages (Gerrard, B. (2007))”.

The biggest reason why GM's tend to stay away from these types of statistics is because they rely on the old traditional way of scouting top prospects. According to (Wolfe,et al, 2007), the article talks about how scouts are considered the best judgment towards evaluating baseball talent and using the naked eye. “The desired attributes on which scouts assessed positing players were the “five tools”: hitting for average, hitting power, fielding, foot speed, and arm strength.” “Sabermetrics, on the other hand, applies rigorous statistical analysis to determine the traits most

associated with scoring runs and winning ballgames rather than the traditional attributes (Wolfe, et al, 2007).”

Re-statement of Problem:

Does Minor League OPS provide better projection of major league prospects success in the MLB, than a person with baseball experience?

Chapter 3: Research Design and Methodology

Introduction to the Chapter:

The purpose of Chapter three is to talk about the research design and methodology used in this study. The purpose of this research is to see if OPS gives us a better image of MLB Prospects than a person with solid baseball knowledge. In this Chapter 3 it talks about how, it restates the problem, research questions, and definitions of terms, population and sample, instrumentation and data collections, data collection procedures and limitations of study.

Sample Population:

In my study there were two populations that surveyed for my information. The two populations were the Nichols College Baseball Team and Coaches, and any Nichols College Students that had knowledge and followed baseball before. During our population sample, I gathered prospects from four different Triple-A Leagues

Design of Study:

The design of this study was to look at Triple-A Prospects that have never been called up by their organization. The way we did it was to research and look at the high OPS's that the prospects had without being called up. Then we surveyed people who had some knowledge and background in the sport of baseball. When we first made the survey, we gave them the players, statistics and to rank them according to their OPS. We also gave them: Batting Average, Doubles, Triples, Runs Batted In, and Homeruns.

Even though we know the OPS, but also wanted to find out what the people thought about the overall players and have them rank themselves. We surveyed people using survey monkey, and also email to figure out how they would rank them. We gave them four groups and they had to choose and place each player in a different section. After they would do that, we would rank them and add up the total number of points for that section. After we collect the data, we would compare these survey scores that the Nichols College Baseball team would score and we also would take the actual OPS scores from each minor league player that I ended up taking from the website.

Sample Population:

In my study there were two populations that surveyed for my information. The two populations were the Nichols College Baseball Team and Coaches, and any Nichols College Students that had knowledge and followed baseball before. During our population sample, I gathered prospects from four different Triple-A Leagues

Instrumentation and Data collection:

The instruments and tools that were used in this study to survey the population were by using Microsoft Excel, Microsoft Word, and using email to distribute the survey. When we first started creating the survey, we took minor baseball players who played for Triple-A leagues. I went to the minor league website for minor league website to find the stats and took players from each league in Triple-A. We found out that there were only 3 leagues, so we divided up the players by researching each player and trying to find out if they were called up to the majors (MLB). If a minor leaguer was called up, then we would not use them. We only used minor leaguers who was still played in the minors and was the next to be called up.

Next, we took ten (10) players from each league, starting with the International League, Pacific Coast League, and lastly the Mexican League. After we chose ten players, we took stats and put them into Microsoft Excel in alphabetical order. After we found the players, we created the survey and put the survey into Microsoft Word. Besides putting in the stats and setting up the survey, we built the question and figured how the results would work.

We took another Microsoft Excel assignment and put the ratings and scores in another document. The people that we are going to survey, is the Nichols College Men's Baseball Team and Staff. If we feel that our survey is insufficient because of the small data sample, then we would survey Nichols College Students and Staff who are knowledgeable about baseball and has played the sport since they had prior experience playing the sport. After we create the survey, then we would put the Microsoft Word document into an email document and send it off asking the Coach of the Men's Baseball Team to send it to the team to take the survey.

Data collection procedures:

In the previous section, I talked about how we created the survey and set up the document to record the results. Each person from the Nichols College Men's Baseball Team will fill out a survey and then send it back to my Nichols College email. From there, I will take each survey and record the results in a Microsoft Excel document. The way we record results is by categories, the categories go from:

1= Top 25% Minor League Player

3= 51%-75% Minor League Player

2=26%-50% Minor League Player

4= Bottom 25% Minor League

Player

Each person will record the results ranging from 1-4, and after we record each person's results, we use Microsoft Excel to create the average OPS that we created from the team being surveyed. We add up the scores using the excel spreadsheet formulas to figure out the averages. We then take the averages and compare them to our own personal OPS's that we have recorded from the actual results of the Minor League players. After we record the scores in excel, we compare our survey scores to the real OPS scores that have been already been recorded and are used by the Minor Leagues and the MLB.

Limitations of study

This Study was conducted to this certain question that we asked ourselves: Please Group these Triple-A Players in Four Sections. Using the given statistics, (using an eyeball approach) please circle your prospect rating for each player based on following scale:

1= Top 25% Minor League Player

3= 51%-75% Minor League Player

2=26%-50% Minor League Player

4= Bottom 25% Minor League Player

We stayed in the confines of this question because we would be covering a broad topic to discuss. We also confined our search to just offensive players/hitters out-put. When we looked at the Statistical Analysis we found that just looking at offensive out-put would help our search rather than combining both pitching (defense) stats (ERA's) to batting (offense).

Chapter 4: Results:

Introduction:

The purpose of Chapter Four is to talk about the results that we collected from our surveys and conclude our results from our research. The purpose of this research is to see if OPS give us a better image of MLB Prospects than a person with solid baseball knowledge. In this Chapter 4 we introduce the chapter and this chapter talks mostly about our results from our research and also any other tables that we may include with our results. The results will also include tables of surveys and any others tables that we may done work on. In the tables we will be describe what is actually going on in the table.

Results Of Research:

Over the course of the Spring Semester, I asked students from Nichols College who are on the Nichols College Baseball Team and any other students to take my survey regarding Minor League Baseball and minor league prospects. During my survey I surveyed other students who attend the college besides the baseball team who have a basic background of baseball knowledge. The research question that I asked Nichols College students does OPS give us a better image of MLB Prospects than a person within solid baseball knowledge?

When I began researching these top 40 prospects from the minor league baseball website, I looked at the end of the season statistics for these baseball players. The results showed that there OPS's were high on the website. When I surveyed the Nichols College, I surveyed 30 students who had some basic background in baseball. The results came back and it showed that some of the baseball players got rated at a level where they should be at, and other prospects got rated differently. As the students rated these players, I found that they did not think that this prospect was as good as I thought he was. I ended taking the recorded players and putting them into tables to where they rank on the list. As it looked clearer to me, it showed that a prospect that made it to one table did not make it to another table.

The last table that I made up showed a list of five prospects and each of them poses two factors that show why they make that list. Once is that they are ranked high as a prospect from a rating of 1-4. If they are ranked close to a 1 then they are considered top candidate for a prospect. The second factor is that they have a high OPS. The higher OPS, the higher prospect and it show that the prospect can hit for average and can get on base. But as I looked closer, it shows a catcher by the name of Cesar Tapia who has a career minor league average of 0.345. Most

catchers are not power bats and tend to hit more singles, but uncharacteristically shows that he had 25 doubles and 3 triples to his name. He was selected for a high OPS number but not a high eyeball approach or ranking as we call it.

Once I gathered all the scores, I decided to put them in categories and groups to show how they are supporting our thesis question. In the last couple tables we showed an OPS table, estimate table, and lastly a table where it's a combined list of prospects and they came from the two previous lists. We combined the players that had a high ranking and also high OPS and showed the top prospects out of our list.

Tables:

Survey Sample Table 1:

		Rating:								
		AVE.	2B	3B	RBI	HR	1-25%	26-50%	51-75%	76-100
		%								
Agustin Murillo	3B	0.337	24	1	56	10	1	2	3	4
Alan Sanchez	CF	0.34	13	2	44	5	1	2	3	4
Barbaro Canizares	1B	0.374	32	0	112	29	1	2	3	4
Ben Paulsen	1B	0.292	32	10	79	18	1	2	3	4
Brad Snyder	OF	0.311	29	5	60	12	1	2	3	4
Brandon Guyer	LF	0.301	23	6	41	7	1	2	3	4
Brian Barden	3B	0.277	22	3	56	5	1	2	3	4
Cesar Suarez	LF	0.327	35	0	80	16	1	2	3	4
Cesar Tapia	C	0.345	25	3	80	11	1	2	3	4
Chris Dominguez	3B	0.294	24	5	65	15	1	2	3	4
Chris Rahl	OF	0.293	21	5	42	8	1	2	3	4
Dan Robertson	CF	0.285	24	9	53	2	1	2	3	4
Dean Anna	2B	0.331	38	5	73	9	1	2	3	4
Donell Linares	DH	0.343	27	0	75	17	1	2	3	4
Eder Salcedo	RF	0.332	29	3	43	12	1	2	3	4
Eric Campbell	OF	0.314	25	3	66	8	1	2	3	4
Fernando Valenzuela		0.346	26	2	56	5	1	2	3	4
	1B									
Frank Diaz	RF	0.36	29	2	83	21	1	2	3	4
Gregorio Petit	SS	0.292	26	3	61	4	1	2	3	4
Hector Garanzuay	2B	0.331	22	2	48	10	1	2	3	4
Jaime Brena	2B	0.351	26	2	49	5	1	2	3	4
Jim Negrych	2B	0.285	27	1	44	3	1	2	3	4
Jonathan Galvez	LF	0.276	24	1	51	6	1	2	3	4
Jordan Lennerton	1B	0.278	25	1	57	17	1	2	3	4

Jose Castillo	2B	0.369	29	4	108	25	1	2	3	4
Josh Fields	DH	0.289	26	3	45	4	1	2	3	4

Rating

		AVE.	2B	3B	RBI	HR	1-25%	26-50%	51-75%	76-100	%
Leslie Anderson		0.292	28	1	74	14	1	2	3	4	
Luis Fonseca	RF	0.376	21	9	73	20	1	2	3	4	
Luis Jimenez	1B	0.285	16	2	73	18	1	2	3	4	
Luis Suarez	LF	0.413	27	2	57	6	1	2	3	4	
Matt Angle	CF	0.283	20	8	62	8	1	2	3	4	
Matt Long	OF	0.293	21	6	71	14	1	2	3	4	
Oswaldo Morejon	2B	0.383	36	1	66	9	1	2	3	4	
Sandy Madera	DH	0.39	28	3	92	19	1	2	3	4	
Stefen Romero	LF	0.277	23	4	76	11	1	2	3	4	
Steve Tolleson	2B	0.288	28	1	53	8	1	2	3	4	
Vince Belnome	1B	0.3	35	3	67	8	1	2	3	4	
Willis Otanez	1B	0.356	22	0	93	26	1	2	3	4	
Yangervis Solarte	2B	0.276	31	0	75	12	1	2	3	4	

Survey Sample Table1 Explanation:

This table shows us what I have been surveying people on. During any point during my research, I would send it to people, teams, or students of Nichols College to take my survey that looked like this. When people would take this survey, they would rank the prospect depending upon what they gave as a number.

Eyeball Approach Table 2 :

PLAYER		ESTIMATE	OPS
Oswaldo Morejon	2B	1.87	0.93
Gregorio Petit	SS	1.90	0.72
Jaime Brena	2B	2.03	0.90
Dan Robertson	CF	2.07	0.76
Jim Negrych	2B	2.13	0.75
Vince Belnome	1B	2.17	0.85
Agustin Murillo	3B	2.20	0.91
Brandon Guyer	LF	2.20	0.73
Luis Fonseca	RF	2.23	1.07
Matt Long	OF	2.23	0.84
Willis Otanez	1B	2.23	1.08
Jonathan Galvez	LF	2.27	0.72
Brian Barden	3B	2.30	0.83
Fernando Valenzuela	1B	2.30	0.86
Steve Tolleson	2B	2.30	0.81
Alan Sanchez	CF	2.33	0.82
Eder Salcedo	RF	2.33	0.90
Luis Suarez	LF	2.33	1.04
Sandy Madera	DH	2.33	1.05
Stefen Romero	LF	2.33	0.78
Brad Snyder	OF	2.37	0.86
Hector Garanzuay	2B	2.37	0.87
Matt Angle	CF	2.37	0.81
Donell Linares	DH	2.43	0.92
Jose Castillo	2B	2.47	1.04
Dean Anna	2B	2.50	0.89
Eric Campbell	OF	2.50	0.91

Josh Fields	DH	2.53	0.74
Luis Jimenez	1B	2.53	0.85
Yangervis Solarte	2B	2.53	0.73
Frank Diaz	RF	2.57	0.98
Leslie Anderson		2.57	0.83
Matt Hague	1B	2.57	0.79
Cesar Suarez	LF	2.60	0.91
Cesar Tapia	C	2.60	0.91
Ben Paulsen	1B	2.63	0.87
Chris Rahl	OF	2.63	0.74
Jordan Lennerton	1B	2.73	0.81
Barbaro Canizares	1B	2.83	1.10
Chris Dominguez	3B	2.93	0.80

Eyeball Approach Table 2 Explanation:

This table explains how people rated the players themselves using an eyeball approach. This table works by: If the number is high, the player is not as good. You are looking for a player who has a ranking close to 1 on the left as you can.

OPS Table 3:

PLAYER	ESTIMATE	OPS
Barbaro Canizares 1B	2.83	1.10
Willis Otanez 1B	2.23	1.08
Luis Fonseca RF	2.23	1.07
Sandy Madera DH	2.33	1.05
Jose Castillo 2B	2.47	1.04
Luis Suarez LF	2.33	1.04
Frank Diaz RF	2.57	0.98
Oswaldo Morejon 2B	1.87	0.93
Donell Linares DH	2.43	0.92
Cesar Tapia C	2.60	0.91
Eric Campbell OF	2.50	0.91
Agustin Murillo 3B	2.20	0.91
Cesar Suarez LF	2.60	0.91
Jaime Brena 2B	2.03	0.90
Eder Salcedo RF	2.33	0.90
Dean Anna 2B	2.50	0.89
Hector Garanzuay 2B	2.37	0.87
Ben Paulsen 1B	2.63	0.87
Brad Snyder OF	2.37	0.86
Fernando Valenzuela 1B	2.30	0.86
Vince Belnome 1B	2.17	0.85
Luis Jimenez 1B	2.53	0.85
Matt Long OF	2.23	0.84
Brian Barden 3B	2.30	0.83
Leslie Anderson	2.57	0.83
Alan Sanchez CF	2.33	0.82
Jordan Lennerton 1B	2.73	0.81

Steve Tolleson	2B	2.30	0.81
Matt Angle	CF	2.37	0.81
Chris Dominguez	3B	2.93	0.80
Matt Hague	1B	2.57	0.79
Stefen Romero	LF	2.33	0.78
Dan Robertson	CF	2.07	0.76
Jim Negrych	2B	2.13	0.75
Josh Fields	DH	2.53	0.74
Chris Rahl	OF	2.63	0.74
Brandon Guyer	LF	2.20	0.73
Yangervis Solarte	2B	2.53	0.73
Gregorio Petit	SS	1.90	0.72
Jonathan Galvez	LF	2.27	0.72

OPS Table 3 Explanation:

This table explains their OPS. OPS (Offense Plus Slugging) shows number on the right ranging from 1.10 to 0.72. In this case, you want a high OPS. If a player has a low OPS, which means that you are not as good as the player in front of you. A high OPS means that there is a probability that you will get on base a lot, but its unpredictable on how you get on base (single, double, triple, homerun, i.e.)

Estimate Quartile Table 4:

Survey					
		Quartile	Quartile	Quartile	Quartile
Mean	SDV	1	2	3	4
2.38	1.07	1.00	2.00	3.00	5

Estimate Quartile Table 4 Explanation:

This table is a quartile table and it sections the baseball prospects into 4 categories. Since these categories are all estimates. We took the estimates and the ones that were close to 1 which was quartile 1 were the best and top 25% of the prospects. If they were picked to be placed in quartile 4, then they would be bottom 25% of the prospects.

OPS Table 5:

OPS					
		Quartile	Quartile	Quartile	Quartile
Mean	SDV	1	2	3	4
0.87	0.11	0.79	0.86	0.91	1.099

Table 5 Explanation:

This quartile table was an OPS Table. This table shows how the prospects were ranked by their OPS numbers. If they were placed in Quartile 1 then they would be ranked poorly. If they were selected and placed in Quartile 4, they were considered highly ranked and the best among the prospects in the list.

Finished Survey Table 6:

Rating:									
	AVE.	2B	3B	RBI	HR	1-25%	26-50%	51-75%	76-100
									%
Agustin Murillo 3B	0.337	24	1	56	10	1	2	3	4
Alan Sanchez CF	0.34	13	2	44	5	1	2	3	4
Barbaro Canizares 1B	0.374	32	0	112	29	1	2	3	4
Ben Paulsen 1B	0.292	32	10	79	18	1	2	3	4
Brad Snyder OF	0.311	29	5	60	12	1	2	3	4
Brandon Guyer LF	0.301	23	6	41	7	1	2	3	4
Brian Barden 3B	0.277	22	3	56	5	1	2	3	4
Cesar Suarez LF	0.327	35	0	80	16	1	2	3	4
Cesar Tapia C	0.345	25	3	80	11	1	2	3	4
Chris Dominguez 3B	0.294	24	5	65	15	1	2	3	4
Chris Rahl OF	0.293	21	5	42	8	1	2	3	4
Dan Robertson CF	0.285	24	9	53	2	1	2	3	4
Dean Anna 2B	0.331	38	5	73	9	1	2	3	4
Donell Linares DH	0.343	27	0	75	17	1	2	3	4
Eder Salcedo RF	0.332	29	3	43	12	1	2	3	4
Eric Campbell OF	0.314	25	3	66	8	1	2	3	4
Fernando Valenzuela	0.346	26	2	56	5	1	2	3	4
1B									
Frank Diaz RF	0.36	29	2	83	21	1	2	3	4
Gregorio Petit SS	0.292	26	3	61	4	1	2	3	4
Hector Garanzuay 2B	0.331	22	2	48	10	1	2	3	4
Jaime Brena 2B	0.351	26	2	49	5	1	2	3	4
Jim Negrych 2B	0.285	27	1	44	3	1	2	3	4
Jonathan Galvez LF	0.276	24	1	51	6	1	2	3	4
Jordan Lennerton 1B	0.278	25	1	57	17	1	2	3	4

Jose Castillo	2B	0.369	29	4	108	25	1	2	3	4
Josh Fields	DH	0.289	26	3	45	4	1	2	3	4
Leslie Anderson		0.292	28	1	74	14	1	2	3	4
Luis Fonseca	RF	0.376	21	9	73	20	1	2	3	4
Luis Jimenez	1B	0.285	16	2	73	18	1	2	3	4
Luis Suarez	LF	0.413	27	2	57	6	1	2	3	4
Matt Angle	CF	0.283	20	8	62	8	1	2	3	4

Rating:

		AVE.	2B	3B	RBI	HR	1-25%	26-50%	51-75%	76-100
										%
Matt Hague	1B	0.285	37	2	69	8	1	2	3	4
Matt Long	OF	0.293	21	6	71	14	1	2	3	4
Oswaldo Morejon	2B	0.383	36	1	66	9	1	2	3	4
Sandy Madera	DH	0.39	28	3	92	19	1	2	3	4
Stefen Romero	LF	0.277	23	4	76	11	1	2	3	4
Steve Tolleson	2B	0.288	28	1	53	8	1	2	3	4
Vince Belnome	1B	0.3	35	3	67	8	1	2	3	4
Willis Otanez	1B	0.356	22	0	93	26	1	2	3	4
Yangervis Solarte	2B	0.276	31	0	75	12	1	2	3	4

Finished Survey Table Explanation 6:

This table is an example of a person who took my survey. His answers are highlighted in yellow, and show how he ranks that certain prospect. In this we see that he ranked some players at 1's for being poor and other players at 4 being really good.

Making Both Lists Table 7:

Players Making Both

Lists	ESTIMATE	OPS
Willis Otanez 1B	2.23	1.08
Luis Fonseca RF	2.23	1.07
Agustin Murillo 3B	2.20	0.91
Jaime Brena 2B	2.03	0.90
Oswaldo Morejon 2B	1.87	0.93

Making Both Lists Table 7 Explanation:

In the previous two tables which were Table 4+5, which were called Estimate Table and OPS Table. This table shows players have made both Table 4 and 5. It shows there Estimate ranking and their OPS. Some of the players that had very good OPS numbers never made it to the estimate list or this Table at all. I combined both list into one list to show the top OPS and top estimates to show who was ranked the best out of the possible 40 prospects.

Chapter 5:

Introduction:

The purpose of Chapter Five is to talk about how I concluded my paper and any other conclusions that I thought about during m research. The purpose of this research is to see if OPS gives us a better image of MLB Prospects than a person with solid baseball knowledge. In this Chapter 5, I introduce everybody to how we concluded my paper and then we explain our

findings with similarities, and differences. I also talk about the possible reasons for the results and the recent and future implications and any other Future Research.

Explanation of findings:

In my conclusion, I have researched many ways on how baseball executives and scouts have tried to evaluated baseball prospects. Most baseball scouts have used the traditional way of scouting, usually you have to play the game and have knowledge about the game. In the past recent years, scouts and baseball executives have relied on statistics rather than just pure evaluation. Now they are tracking their statistics on a computer or paper to figure out what there statistics are. In my paper the big question that I am asking is: Does Minor League OPS provide better projection of major league prospects success in the MLB, than a person with baseball experience?

During my conduction of my research I have used a program called excel where I put the numbers that people have chosen from that certain prospect. I surveyed 30 people but before I actually put the numbers in. I put in formulas in excel to calculate and help project these 40 players myself. During these formulas we put in formulas for Total number that the person put that prospect. I also put in averages, and the real OPS number that I took online.

I then made two tables where I found the mean, standard deviation, and took all four quartiles for the 40 players. I then made another table called an OPS table which put the OPS's for all 40 players and put them into four quartiles as well. Once I calculated them, I took the prospects that had high estimated rankings and also had high OPS and made three columns. The

three columns were Estimated Ranking, OPS's, and a combined table. When I made the 3 tables, I took the high rankings and the high OPS for all 40 projected players.

I made a cutoff point for putting projections for these players in the combined list. In this combined list I took the highest estimated ranking and also the highest OPS as well. The list of the combined prospects was selected by a number: Any player who had a high estimated number close to 1. For the OPS, we had a number and it had to be over a 1 to make the list. The cutoff point for estimated rankings was 2.30 and the cutoff point for OPS was 0.87. When I put this survey table and survey together, I had a general sense on which players were actually good.

The players that had an overall good OPS had to be over a 1. The highest OPS that a prospect received was a 1.10, and the lowest OPS was 0.72. The highest ranking/estimated ranking I had was close to 1. If you had a prospect that was rated close to a 1 than he was considered a top 25% minor league prospect. In that instance, the top number that a estimated prospect received was a 1.87. The lowest number that a prospect number was a 2.93. There were many prospects that had either the same number as some other prospects or the same. If the prospect was ranked in the bottom quartile of the survey/table then they would be considered the Bottom 25% of the Minor League prospects.

The last table that I put together was a table that was called Making Both Lists Table, and it shows which prospects actually made both lists. If they made both list, I took them and put them on a list where they made both. That list shows their top OPS number and their top expected number as well.

Similarities:

In my research, I found some similarities when I calculated my results by putting together tables that the prospects fell into for each category. As I mentioned above, I put together seven tables, but the last three tables in particular were very important to my research. It showed which prospects had the highest ratings, OPS numbers and a combined table. I thought when I made the combined table; it became a very important table because to my research for two reasons.

The first reason was because it showed which players made both lists for OPS numbers and estimated numbers. The second reason is because it showed the people I am presenting to and me which players were successful and considered good baseball players. In the world of professional sports a lot of people in general ask how a player is evaluated and how a player can be considered good. I think this is a good reason to show how player are evaluated but mostly how a player is categorized and since we put them in certain categories where it means a certain statistic.

Differences:

In my defense of my research, I did not cover anything else but offensive players so when you look at differences and any issues. The differences is when you look at certain players that you thought that would make the list. When I looked at their real OPS numbers compared to their evaluated numbers, it became clear to me how people feel about a certain prospect. That's because there was one prospect in particular that I was surprised that did not make both lists.

This prospect was a catcher named Cesar Tapia with a 2.60 for an estimated ranking and OPS of 0.91. The uncommon characteristic for this catcher is that he did not have a high

enough estimated ranking but ended up with a high OPS. The only reason why I say that is because Cesar had a high batting average with a lot more doubles than a normal catcher would have. He had a lot of homeruns and could hit for power.

Possible Reasons for Results:

The possible reasons for results was that I tried to keep the prospects with similar statistics. Their statistics could be higher or altered if they were called up by a Major League team and put up big numbers. The other reason why was because I pulled players from three different leagues and the people that are being surveyed are just college students. The people that were surveyed are just normal people and not professional executives and scouts.

These college students from Nichols are students that watch the game because they love it and are addicted to it, but I feel that they look at batting averages, homeruns and RBI's (Runs Batted In) rather than look at the combined statistics that scouts look at during a daily basis. Executives look at a wide range of possibilities when they look at certain players they acquire or draft prospects and people usually only look at power numbers. I put in all of the calculations and I feel that the surveyed prospects for power rather than producing runs or just getting on base. When I look at OPS, the statistic is mostly used for offensive statistics. They look at it, and try to analyze the results and try to figure out how much do the player reaches base and how often do they reach base.

Implications:

The Implications about my research is that when you survey only 30 people, the numbers tend to only tell you a small portion of how that certain player performed. Since I only looked at once combined statistic, we tend to not believe the numbers that are calculated. Even though I calculated them all, I tend to only see parts of the research. As people, we all tend to look information and always think of the number of possibilities of why the player did not perform, or did not do well. Since its only research, I feel that you have survey more people than 30 but that was the target number that I was looking survey. I have a sample size that shows us how the player performed offensively but does not show the whole picture.

As a baseball fan, I look at many statistics but for every phase of the game, there is a different statistics that can tell why that player as not performed well. I also targeted 40 different players for each league, so I could have looked at more players than only 40. The difference of the sample size can tell how the players are categorized and rated and surveyed.

Future Research:

Back then in baseball, statistics were not as prevalent back in the 70's, 80's, as it is today. Now that statistics is so huge: books, movies, magazines, and other research has become popular to sports fans that watch the sport. Since I did this, I have learned a lot even though we only looked one portion of statistics. There are many other statistic research projects, and thesis projects that can be conducted. There are several topics that I have not covered in my research that are so huge in baseball. I love baseball and have a huge passion for it. But, in the end when you focus on baseball statistics you tend to focus on one rather than hundreds of other formulas and other statistics that can help people with arguments when they try to figure out which player

is better and how they are better. Since I can only predict and show so many results, I feel that there could be many other ideas that people can do to find out how that player is successful and his offensive output.

In the future, I think baseball will become statistically driven besides the traditional scouting. There are so many ways to predict a players outcome and try to figure out how they are doing it.

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