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American League East Draft Tendencies

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American League East Draft Tendencies

The Major League Baseball Draft is a very long and confusing event but it drastically shapes the entire organization each year. There are typically fifty rounds that take place each year not including compensation round picks (Siegel, 2004). General Managers have an immense amount of pressure on themselves to accurately predict who to draft and when to draft players.

There are many different ways to look at the possible explanation of the team's draft practices. Some organizations may prefer to draft an athlete out of high school in hopes of conforming them to the team's organizational beliefs and ideals. On the other hand other teams may prefer to draft a player that is more developed and matured out of college. Drafting a player out of college could then in return allow them to possibly move through their minor league system faster and have a greater impact sooner. This then leads into the business practices of the organization and ultimately what their draft practices are. Often a team will have to offer an athlete who was drafted out of high school more money as an incentive to join the organization and decide not to attend college (Lewis, 2003). Whereas an athlete drafted after completing college has little bargaining power because they do not have the fall back plan of going back to school to continue their career. There are both positive and negative aspects for each premise mentioned and researching this idea will provide information on whether certain teams have a philosophy about the optimal time to draft a player. If you have an interest in baseball and want to learn more about the draft this investigation will provide you with a detailed account into the strategies of five teams and their business implications.

Literature Review

There are a number of variables that come into play when teams are determining when and where to draft each player. The three factors that most affect draft stock are physiological factors, psychological factors, and financial implications towards teams. Seeing as every team

has different resources and different backgrounds it can be assumed that each of their strategies and beliefs for their particular practices in regards to the variables or factors outlined will also vary.

The first variable that will be analyzed is physiology of potential draft choices and this will be broken down into three categories including, physical development, injury concerns and team's workout regimen. Starting with physical development when the body is brought to peak condition and the mind is completely focused, an individual can achieve the extraordinary (Tolson, Kleiner, & Marcus, 2000). One standpoint believes that it is more beneficial to draft younger players out of high school so you can sign them before they are finished maturing. This way they can develop through your minor league system, train with your trainers, and become familiar with the organizational beliefs (Ebben, Hintz, & Simenz, 2005). The other perspective feels that there is too much of a risk when drafting high-school athletes. For the most part the players are not fully matured and relatively unchallenged so you are drafting on potential which is usually risky and inconsistent (Bradbury, 2009). They would rather view a player's progression and see how they fare at a more competitive level before fully investing in them.

In an article about major league baseball players career lengths it was quoted that "Most likely, players who start at younger ages will enjoy longer careers because they may have demonstrated promise early on; may have faster reaction time, speed, and muscle mass; may be less prone to injury; and if injured, may recover more quickly" (Shulz et. al. as cited from Witnauer & Rogers, 2007, p. 373). This study endorses the idea of drafting a player earlier because of familiarity and injury concerns. Further support comes from an article published by individuals from the Marquette University Program in Exercise Science which discusses the different strategies and types of lifts emphasized by each team and wanting their players to

follow (Ebben, Hintz, & Simenz, 2005). This shows that if teams have strong exercise ideals then they feel that they could maximize the player's potential through their strength training program. If a team does wait they could be risking the possibility of allowing most of this development to come during college where they have no impact and input into the athlete's workout regimen.

In contrast to that belief, a study published in the Journal of Sport Sciences reported that baseball athletes do not reach their peak performing level until age 29 as a hitter and age 28 as a pitcher (Bradbury, 2009). This study also shows dramatic increases in peak performing levels when a player is twenty three as opposed to twenty two and again when a player is twenty five (Bradbury, 2009). Based on this data it would make sense to wait and draft an older player because they will still experience a significant increase in peak performing levels, it would just occur within the first few years with the organization. This supports the idea of drafting a player out of college so they can have an impact on your major league team faster. Another beneficial study that was done supporting this idea entitled "Anthropometric and Performance Comparisons in Professional Baseball Players" analyzed a number of specific performance variables and compared them at each of the professional ranks (Hoffman, Vazquez, Pichardo & Tenenbaum, 2009). This study compared anthropometric and performance variables in professional baseball players and examined the relationship between these variables and baseball-specific performance (Hoffman et. al, 2009). The idea of this does not specifically support one physiological position but if used, teams could put an athlete they are considering drafting through this performance study and analyze where they fall with the averages of each professional level and determine if they want to draft that player. The athlete could be a player out of high school with abnormally high results and feel that it is worth the investment or possible the athlete is a player from college

who is more mature and projects at a high professional level immediately. So if used this idea could support and reject the beliefs from each viewpoint.

The next factor that will be analyzed is the psychological background and readiness of the athlete. Psychological readiness varies between athletes and the maturing process does not happen on a continuum (Patsiaouras, 2008). This then has teams questioning whether to have an athlete experience college and spend more time learning and maturing or high school. The article “Does Education Matter” explores this link between education and health benefits.

“One theory suggests that the positive education–health link is causal, because education makes people more efficient producers of health—that is, people with more education better understand how to stay healthy by using and combining various resources, such as food, exercise, and medical inputs, and are more likely to recognize health problems and better articulate those problems to health care providers” (Grossman, 1972 as cited in Kalist & Peng, 2007, p. 654).

Later in the article the authors said

“However, it can be argued that MLB players are well informed on the production of good health, regardless of their formal education. In many cases, these athletes have their own personal trainers in addition to being under the watchful eye of their team’s trainers, strength and conditioning coaches, and physicians (Kalist & Peng, 2007, p. 654).

So the real question from this article is whether or not the younger athletes are being educated by their organizations sufficiently enough to compensate for the lack of formal education.

Another important factor of psychology is the idea of athlete burnout. “Burnout is like a candle that once glowed brightly, began to flicker, and eventually extinguished. This analogy suggests the image of bright, promising young athletes who get fed up with sport participation and stop competing at what should be the top of their career” (Raedeke, Lunney & Venables, 2002, p. 181). If you are drafted out of high school in June and are assigned to a professional team you actually get sent to a team immediately upon signing your contract. Then your season will not finish until September, continuing upon the high school season you have already

completed and thus extending the amount of time and the number of game you end up playing dramatically. Athletes who are not accustomed or prepared for the professional schedule could be increasingly susceptible to burnout (Raedeke et al., 2002). This leads to the uncertainty of whether the experience will be beneficial or if it is too much for someone of that age.

Finally, financial perspectives always have an influence even though there are different ways of viewing what is more cost effective. Some people believe that by drafting a player out of high school you are able to draft them before they reach their potential therefor getting them at a bargain price initially instead of waiting three years for when he is eligible again (Lewis, 2003). The other view is that there is too much uncertainty with high school athletes and it is better to draft someone you have seen excel that way eliminating much of the hesitation you may have originally had. A perfect example of these two different approaches comes from two players that have recently been drafted. One of these players was drafted in the 42nd round out of high school. This athlete received a signing bonus of \$120,000 plus college paid for up to the price he would have paid if had did attend the four year institute he was committed to (B. Bostick, personal communication, November 19th, 2011). The other player that was drafted was chosen in the 25th round but he had completed college. The signing bonus he received was for less than \$1,000 with no other incentives included (D. Jurik, personal communication, November 10th, 2011). This disparity can be attributed to the fact that the team drafting the high school player did not want to lose him to the college he committed to earlier. The other draftee did not really have any choice but to accept his deal if he wanted to play professionally because he could not go back and play in school. This real life example shows the difference in bargaining between players of different draft statuses and the financial impact it can have for the teams drafting the athletes.

This research will attempt to uncover any correlations in teams drafting strategies and provide insight into their business model. Answering this question will provide valuable information about each team's priority and beliefs in regards to draft choices. Each player is an investment and an asset who will be assigned to a team within the farm system and will develop from there. These decisions have to be made for the overall benefit of the organization and learning the ideals of each team will allow everyone to see their choice of action.

Method

Sampling Procedures

The population of this study is every Major League Baseball team and the specific sample analyzed is the group of American League East Teams: the New York Yankees, Boston Red Sox, Tampa Bay Rays, Toronto Blue Jays, and the Baltimore Orioles. The American League East is a perfect division to study because it consists of two large market teams, an extremely small market team, and also two other teams that fall within the range of those three. Examining these five teams provides a great sample due to the variety and differential of the teams. Also the small market team has won the division twice in the last four years and made the playoffs in three of the last four years which will make the study even more interesting to see what if anything are they doing differently to succeed. Finally, the years of 1998-2007 were chosen to provide a lengthy time period to analyze while also to allowing the players drafted to work their way through the minor leagues and contribute to their Major League team.

Measures and Operational Definitions

In this study the drafted players were organized by team according to year selected and the selection number they were chosen. An additional comparison was the point of entry into the draft (whether they were selected out of high school, junior college, or from a four year

institute). In order to be draft eligible you must follow these requirements “Graduating high school seniors who have not yet attended college, junior college players, players attending a four-year college and have completed their third year, and players who turn twenty-one-years old within forty-five days of the draft are all eligible for the draft” (Cafagna, Farrel, & Hazen, 2006, p. 696). These statistics were decided because they are the main forms of reference prevalent in the major leagues of an extended period of time.

This will be determined by the number of players that reached the major leagues and the extent of their achievements. Their success will be determined by nine different statistical categories, four primarily geared towards position players and five towards pitchers. These statistics include: batting average, home runs, runs batted in and stolen bases for position players, then for pitchers wins, losses, earned run average, saves, and strikeouts (see Appendix A for the formal definitions of each of these statistics).

Research Design

The content analysis of this study was conducted on the five teams from the American League East in the years of 1998-2007 and each of their draft selection. Using <http://mlb.mlb.com/mlb/history/draft/draft.jsp>, five different charts were created, one for each team studied. Charts were built by adding player name, draft year, position in the draft, point of entry into the draft, and the nine different statistical categories. Then after sorting the data chart was made comparing the total statistics, the total number of players drafted from each point of entry, and the total number of players from each point of entry reaching the major leagues (See appendix C). Finally the information was translated into SPSS to find the correlations of each team in reference to the point of entry and round selected plus the position played and round selected.

Data Analysis

When studying the groups of the players drafted by each team this research tried to discover if there are any correlations for each team. The areas that were examined include whether the round selected is affected by the players point of entry into the draft and if there is a tie to the market size of the franchise and the average number of players from each group. Then when that was completed, further statistical analysis of the player's contributions to the major league team was done to discover the success of the teams and their drafting strategies. Along with that, a listing of each player's position is compared to the round they were selected determining the correlation between the two. Additionally, the total statistics for each of the players reaching the major leagues will be grouped by team and compared to the other team's totals. This was done to easily organize and sort the different variables showing the possibility of possible correlations within the data set. After the players have been grouped on the factors of round selected and point of entry along with round drafted and position played, an analysis was done to look for correlations and patterns, among each team and also if the market of the team impacts the drafting ideals of the organization. In addition to the analysis of the type of player drafted and their position played further examination will be done as to the success of each player drafted and as a total for the team.

Results

In the ten year period being examined from 1998-2007 the Baltimore Orioles drafted 496 players. Of these 496 players 204 of them were drafted out of high school, 48 of them were drafted out of junior college and 244 of them were drafted from a four year institute. Only sixty of the players drafted in these ten years made it to the Major Leagues, twenty one from high school, four from junior college, and thirty five from a four year institute. The Orioles also had a

-.174 significant correlation between the round in which a player was drafted and their point of entry into the draft, and a -.03 correlation in regards to the round a player was drafted and their position. When looking at the total statistics from the Orioles' draftees and the players reaching the Major Leagues they did not have a great deal of success. On average they finished third or fourth in many of the statistical categories. Their pitching staff did show more success than the position players but overall within the division the Orioles drafting was mediocre.

Now looking at the Boston Red Sox they drafted 497 players in the ten years. 204 of these players came from high school, 42 of them were drafted out of a junior college and 251 of the players attended a four year institute. The Red Sox did have sixty nine players reach the major leagues and make contributions to their team. Twenty three of the players to reach the MLB were drafted out of high school, five of them were from a junior college, and thirty five of them came from a four year institute. The correlation of the Red Sox for the round they drafted a player and their point of entry is -.162 significance; the correlation for the round they draft a player in and the position they play .052. The statistics from the Boston Red Sox's draftees were above average in reference to the other teams in the American League East. For the most part the Red Sox finished in second or third in the nine statistical categories outlined. The Red Sox did lead the American League East in the saves category.

The New York Yankees have drafted the most players (n=504) among the five teams over the ten year span. The Yankees selected 181 high school athletes, 62 junior college players, and 261 players from a four year institute. The 62 junior college players are also the most of any of the teams studied. When looking at the round they draft a player and their point of entry the Yankees had a -.243 significant correlation. Then for the round they draft a player and position which they play their correlation was -.02. The draft selections by the Yankees during this ten

year period did not have a great deal of influence on the Yankees roster and statistics. The Yankees finished near or at the bottom of all the statistical categories especially with the position players where they were last in all four of those categories.

The Tampa Bay Rays over the course of the ten year period drafted 495 players. The Rays though did progress more players than any of the other four teams having 83 of the players drafted make it to the major leagues. Of the 83 players to make it to the major leagues forty seven of them were drafted out of high school, eight of them were from a junior college, and twenty eight of them attended a four year institute. The forty seven high school athletes to reach the major leagues is more than double the amount for any of the other teams. Tampa Bay was the only team to have a positive correlation in regards to the round in which a player was selected and their point of entry into the draft with that being .016. The Rays were also the only team to have a significant correlation between the round a player was selected and the position of the player and this was -.121. The Tampa Bay Rays were by far the most successful team with drafting players that would help impact their major league team. The Rays compared to the other teams in the American League East finished first in almost every total statistical category and near the top in the average statistical categories.

The Toronto Blue Jays drafted the least number of players compared to the other teams in the American League East only selecting 484 from 1998-2007. They also had the least number of players reach the major leagues and contribute to the team with only fifty seven. Surprisingly, the Blue Jays did record the most players reaching the MLB from a four year institute with forty two. Unfortunately, they had the fewest players reach the major leagues from both high school with thirteen and junior College with two. Their correlation between the round in which they selected a player and their point of entry into the draft was -.187, and the correlation for the

round in which they selected a player and the position they play was .038. The Toronto Blue Jays did not have much success developing their draft choices during this ten year span. Not only did they have the least amount of players reach the major leagues they also produced the second worst overall results of the statistics examined. The New York Yankees were the only other team to collectively have worse results from their draftees during this span. Unfortunately, for the Blue Jays because the Yankees are in a larger market and generate more revenue they are able to compensate for that by signing more players in free agency. The Blue Jays though are unable to spend a great deal of money on their overall salary to make up for the lack of player development through the draft because their revenue generated is not nearly as high. This is a bad combination and is most likely the reason why the Blue Jays did not make the playoffs during the time period studied and not since 1993.

A closer comparison of all of these results can be found in Appendix C and Appendix D. These appendices categorize each element used to analyze the results by placing the five teams in alphabetical order with findings. Each element is separated into a different table in order to view to corresponding data of each team with that of the other teams. This allows for an easier comparison when associating the data for each team and their results.

Discussion

This study sought to explore if the five teams in the American League East had specific drafting procedures and also whether their market size had any effect on those ideals. It was discovered that each team had a basic strategy that it followed throughout most of the drafts leading to significant correlations from the data sets. One important finding is the uniqueness of the Tampa Bay Rays and the success they had overall. The Rays have had more players reach the major leagues and as a whole their statistics are far and away better than any of the other four

organizations. When looking at the correlations for each team between the rounds they selected a player and the point of entry the Rays were the only ones with a positive correlation. This means that the Rays were the only team to draft high school athletes earlier on with junior college in the middle and four year institute athletes later in the draft. Each of the other four teams had significant negative correlations meaning that they drafted in the opposite order four year institute athletes first then junior college and finally high school athletes last.

When looking at the results, the Rays had the most players reach the MLB and a significant amount of those players were drafted out of high school (see Appendix C). This shows the benefit generated by the Rays focusing on high school athletes while the other teams prioritized players from four year institutes. In addition to these correlations the Rays were also the only team to have a significant negative correlation in regards to the variables of round selected and the position of the player selected. The Orioles, Yankees and Blue Jays also had negative correlations for these variables also but the correlations were not significant. The Red Sox were the only team with a positive correlation though the correlation was not significant. This shows that the Red Sox ranked pitchers as their top priority and selected them in the beginning of the draft, then moving to infielders and finally outfielders. With a significant negative correlation this means that the Rays prioritized position players first in the drafted and then later shifted to pitchers. With this correlation it shows that the Rays favor position players from high school and pitchers who are more proven from junior college and four year institutes. With these correlations and the resulting ideas practiced the Rays have demonstrated to be the benchmark in the American League East with regards to drafting and developing players to make contributions for their major league team.

Conclusion

Comparing correlations among the five teams in regards to point of entry and round selected plus position played and round selected provides a greater sense of clarity not only for what each team has done when drafting but the success they have had. After going through and analyzing the type of player each team drafted and when, this study went more in-depth by looking at each player categorized by point of entry into the draft and how successful each was. Success was determined by nine different major league statistics and was calculated by totaling each team's draftees and the statistics they compiled with that franchise in the MLB. Creating this data set expanded upon the first set of results and built off the question of why a team drafts a player where they do, to including the most successful draft statuses plus the round and position to select a player. The composition of this data will be valuable for general managers to see what have been the most beneficial strategies and what have been the least successful. Interpretation of the results could then lead to general managers into formulating their own strategies.

Based on the results it appears that the Tampa Bay Rays have a strategy for drafting which has helped them remain extremely competitive in the American League East Division despite having the smallest market by far. This strategy of drafting high school athletes first and athletes from four year institutes later along with waiting on drafting pitchers until later in the draft proved to be essential to their success. The Rays drafted at least thirty four more high school athletes than any of the other teams in the American League East. Also they had fourteen more players from these drafts reach the major leagues and contribute to the team. Additionally, of the total number of players they Rays drafted seventeen percent of them reached the major leagues, the next highest was fourteen percent. Based on the correlations it appears that teams should first look at high school athletes and progress to players from four year institutes later in the draft. Also, waiting on pitching until on in the draft has shown to be more beneficial.

After analyzing the choices of the Rays it appears that they want to take risks on players out of high school. This shows that they want to draft players before they reach their full potential and are forced to pay them significantly more money. Also, going along with that by doing this they have the opportunity to shape the workout regime in the fashion they feel best suits the player. Plus, they do not feel that it is necessary for a potential athlete to be formally educated into health concerns as they can provide those services through personal team trainers. General Managers can benefit from viewing these tendencies of the Tampa Bay Rays and determining what has been successful for them and then establishing how then can optimize these results for their own team.

The New York Yankees' drafting practices on the other hand oppose those of the Tampa Bay Rays and thus have caused them to be the least successful team in regards to the statistics of drafted players. The Yankees had a significant negative correlation when comparing the round of a player drafted and their point of entry while the Rays had a positive correlation. Also the Yankees had a very low negative correlation for the position of a player and the round they were selected and the Rays had a strong significant negative correlation. This means that even though both the Yankees and Rays had negative correlations the Yankees did not have a real concerted focus to draft that way. With a low negative correlation there is not a strong connection from the round a player was drafted and the position they play only a general trend. The Rays with a significant negative correlation show that they are committed to this practice and follow it each year. With these differences it is not surprising to see that the Yankees did not experience the success the Rays had with their draftees. Their strategies completely oppose each other and their emphases are different. The Rays do not have the luxury the Yankees have to compensate their

poor drafting by signing free agents, the Rays are a small market and need to rely on scouting for their drafts and player development.

Limitations

There are many limitations that come within this research in the overall scope of the major leagues and what the research shows. First with the small sample size of the American League East it is hard to compare what is considered successful and what is not. If you were able to look at a greater sample size success would become more apparent and the results would mean more. Another limitation is what the previous drafts it is extremely possible that some of the less successful teams may have drafted and developed a player that started for them during the duration of the time span studied. This could skew the data and the results drawn from it.

A final limitation involved the possible trades of players. When a player that was a part of the data set is traded from that team, but remains in the major leagues, this process discounts that as continued years of service. The player(s) in this instance even though they did not directly help your team the player(s) received may have. Completing this research and analyzing the results is not a perfect science especially since it has never really been completed before but even with the results determined a lot can be gained from the information.

Direction for Future Research

This research has an immense amount of possibilities in which could be built off of it. One way is to further examine these teams and the players drafted to analyze each player's success in the different levels of the organization in the minor leagues. This would provide additional information as to which type of players advance the furthest and who generally has the most success. Another way to expand upon this research is to compare each team in Major League Baseball instead of just the teams in the American League East. With this information

there would be a greater reliability in the overall results and conclusions drawn. Further comparisons could examine the National League teams and the American League teams since there is a different style of play considering the designator hitter in the American League. It would be interesting to see if there were significant differences in the philosophies of the teams in the different leagues along with determining if there is one universal method that seems to be the most successful throughout all of the MLB. Both of these further developments of the research would provide additional information that would greatly enhance the information gathered on a smaller sample size of the American League East and the success of the draftees in Major League Baseball.

With this study Major League Baseball General Managers can use this information to compare their own drafting strategies with those of the successful and unsuccessful members of the American League East. By comparing the strategies hopefully they will be able to enhance their previous ideas and develop an even more effective approach for drafting. Also, for readers who are not general managers they should be able to learn more about the MLB Amateur draft and how teams decide on whom to select when. Plus, they will see actual results from previous drafts with the correlations of the teams showing how they prioritize their potential draftees. With this new knowledge and a greater audience maybe the MLB draft despite its fifty rounds will receive more coverage and attention each year for the fans.

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Appendix A

Statistical Definitions:

“A base hit is a statistic credited to a batter when such batter reaches base safely, as set forth in this Rule 10.05.

(a) The official scorer shall credit a batter with a base hit when:

(1) the batter reaches first base (or any succeeding base) safely on a fair ball that settles on the ground, that touches a fence before being touched by a fielder or that clears a fence;

(2) the batter reaches first base safely on a fair ball hit with such force, or so slowly, that any fielder attempting to make a play with the ball has no opportunity to do so;

Rule 10.05(a)(2) Comment: The official scorer shall credit a hit if the fielder attempting to handle the ball cannot make a play, even if such fielder deflects the ball from or cuts off another fielder who could have put out a runner.

(3) the batter reaches first base safely on a fair ball that takes an unnatural bounce so that a fielder cannot handle it with ordinary effort, or that touches the pitcher’s plate or any base (including home plate) before being touched by a fielder and bounces so that a fielder cannot handle the ball with ordinary effort;

(4) the batter reaches first base safely on a fair ball that has not been touched by a fielder and that is in fair territory when the ball reaches the outfield, unless in the scorer’s judgment the ball could have been handled with ordinary effort;

(5) a fair ball that has not been touched by a fielder touches a runner or an umpire, unless a runner is called out for having been touched by an Infield Fly, in which case the official scorer shall not score a hit; or

(6) a fielder unsuccessfully attempts to put out a preceding runner and, in the official scorer’s judgment, the batter-runner would not have been put out at first base by ordinary effort.

Rule 10.05(a) Comment: In applying Rule 10.05(a), the official scorer shall always give the batter the benefit of the doubt. A safe course for the official scorer to follow is to score a hit when exceptionally good fielding of a ball fails to result in a putout.

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(b) The official scorer shall not credit a base hit when a:

(1) runner is forced out by a batted ball, or would have been forced out except for a fielding error;

(2) batter apparently hits safely and a runner who is forced to advance by reason of the batter becoming a runner fails to touch the first base to which such runner is advancing and is called out on appeal. The official scorer shall charge the batter with a time at bat but no hit;

(3) pitcher, the catcher or any infielder handles a batted ball and puts out a preceding runner who is attempting to advance one base or to return to his original base, or would have put out such runner with ordinary effort except for a fielding error. The official scorer shall charge the batter with a time at bat but no hit;

(4) fielder fails in an attempt to put out a preceding runner and, in the scorer’s judgment, the batter-runner could have been put out at first base; or

Rule 10.05(b) Comment: Rule 10.05(b) shall not apply if the fielder merely looks toward or feints toward another base before attempting to make the putout at first base.

(5) runner is called out for interference with a fielder attempting to field a batted ball, unless in the scorer's judgment the batter-runner would have been safe had the interference not occurred.”

To receive a run batted in (RBI) a player must:

“A run batted in is a statistic credited to a batter whose action at bat causes one or more runs to score, as set forth in this Rule 10.04.

(a) The official scorer shall credit the batter with a run batted in for every run that scores

(1) unaided by an error and as part of a play begun by the batter's safe hit (including the batter's home run), sacrifice bunt, sacrifice fly, infield out or fielder's choice, unless Rule 10.04(b) applies;

(2) by reason of the batter becoming a runner with the bases full (because of a base on balls, an award of first base for being touched by a pitched ball or for interference or obstruction); or

(3) when, before two are out, an error is made on a play on which a runner from third base ordinarily would score.

(b) The official scorer shall not credit a run batted in

(1) when the batter grounds into a force double play or a reverse-force double play; or

(2) when a fielder is charged with an error because the fielder muffs a throw at first base that would have completed a force double play.

(c) The official scorer's judgment must determine whether a run batted in shall be credited for a run that scores when a fielder holds the ball or throws to a wrong base. Ordinarily, if the runner keeps going, the official scorer should credit a run batted in; if the runner stops and takes off again when the runner notices the misplay, the official scorer should credit the run as scored on a fielder's choice.”

In order to be credited with a stolen base a runner must:

“The official scorer shall credit a stolen base to a runner whenever the runner advances one base unaided by a hit, a putout, an error, a force-out, a fielder's choice, a passed ball, a wild pitch or a balk, subject to the following:

(a) When a runner starts for the next base before the pitcher delivers the ball and the pitch results in what ordinarily is scored a wild pitch or passed ball, the official scorer shall credit the runner with a stolen base and shall not charge the misplay, unless, as a result of the misplay, the stealing runner advances an extra base, or another runner also advances, in which case the official scorer shall score the wild pitch or passed ball as well as the stolen base.

(b) When a runner is attempting to steal, and the catcher, after receiving the pitch, makes a wild throw trying to prevent the stolen base, the official scorer shall credit the runner with a stolen base. The official scorer shall not charge an error unless the wild throw permits the stealing runner to advance one or more extra bases, or permits another runner to advance, in which case the official scorer shall credit the runner with the stolen base and charge one error to the catcher.

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(c) When a runner, attempting to steal, or after being picked off base, evades being put out in a run-down play and advances to the next base without the aid of an error, the official scorer shall credit the runner with a stolen base. If another runner also advances on the play, the official

scorer shall credit both runners with stolen bases. If a runner advances while another runner, attempting to steal, evades being put out in a run-down play and returns safely, without the aid of an error, to the base he originally occupied, the official scorer shall credit a stolen base to the runner who advances.

(d) When a double- or triple-steal is attempted and one runner is thrown out before reaching and holding the base such runner is attempting to steal, no other runner shall be credited with a stolen base.

(e) When a runner is tagged out after over sliding a base, while attempting either to return to that base or to advance to the next base, the official scorer shall not credit such runner with a stolen base.

(f) When in the scorer's judgment a runner attempting to steal is safe because of a muffed throw, the official scorer shall not credit a stolen base. The official scorer shall credit an assist to the fielder who made the throw, charge an error to the fielder who muffed the throw and charge the runner with "caught stealing."

(g) The official scorer shall not score a stolen base when a runner advances solely because of the defensive team's indifference to the runner's advance. The official scorer shall score such a play as a fielder's choice. Rule 10.07(g) Comment: The scorer shall consider, in judging whether the defensive team has been indifferent to a runner's advance, the totality of the circumstances, including the inning and score of the game, whether the defensive team had held the runner on base, whether the pitcher had made any pickoff attempts on that runner before the runner's advance, whether the fielder ordinarily expected to cover the base to which the runner advanced made a move to cover such base, whether the defensive team had a legitimate strategic motive to not contest the runner's advance or whether the defensive team might be trying impermissibly to deny the runner credit for a stolen base. For example, with runners on first and third bases, the official scorer should ordinarily credit a stolen base when the runner on first advances to second, if, in the scorer's judgment, the defensive team had a legitimate strategic motive—namely, preventing the runner on third base from scoring on the throw to second base—not to contest the runner's advance to second base. The official scorer may conclude that the defensive team is impermissibly trying to deny a runner credit for a stolen base if, for example, the defensive team fails to defend the advance of a runner approaching a league or career record or a league statistical title.

(h) The official scorer shall charge a runner as "caught stealing" if such runner is put out, or would have been put out by errorless play, when such runner

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(1) tries to steal;

(2) is picked off a base and tries to advance (any move toward the next base shall be considered an attempt to advance); or

(3) over slides while stealing.

Rule 10.07(h) Comment: In those instances where a pitched ball eludes the catcher and the runner is put out trying to advance, the official scorer shall not charge any "caught stealing." The official scorer shall not charge any caught stealing when a runner is awarded a base due to obstruction or when a runner is called out due to interference by the batter. The official scorer shall not charge a runner with a caught stealing if such runner would not have been credited with a stolen base had such runner been safe (for example, when a catcher throws the runner out after such runner tries to advance after a ball that had eluded the catcher on a pitch)."

A pitcher can earn a win or a loss by:

“Rule 10.17(a) Comment:

Whenever the score is tied, the game becomes a new contest insofar as the winning pitcher is concerned. Once the opposing team assumes the lead, all pitchers who have pitched up to that point and have been replaced are excluded from being credited with the victory. If the pitcher against whose pitching the opposing team gained the lead continues to pitch until his team regains the lead, which it holds to the finish of the game, that pitcher shall be the winning pitcher.

(b) If the pitcher whose team assumes a lead while such pitcher is in the game, or during the inning on offense in which such pitcher is removed from the game, and does not relinquish such lead, is a starting pitcher who has not completed

(1) five innings of a game that lasts six or more innings on defense, or

(2) four innings of a game that lasts five innings on defense, then the official scorer shall credit as the winning pitcher the relief pitcher, if there is only one relief pitcher, or the relief pitcher who, in the official scorer’s judgment was the most effective, if there is more than one relief pitcher.

Rule 10.17(b) Comment: It is the intent of Rule 10.17(b) that a relief pitcher pitch at least one complete inning or pitch when a crucial out is made, within the context of the game (including the score), in order to be credited as the winning pitcher. If the first relief pitcher pitches effectively, the official scorer should not presumptively credit that pitcher with the win, because the rule requires that the win be credited to the pitcher who was the most effective, and a subsequent relief pitcher may have been most effective. The official scorer, in determining which relief pitcher was the most effective, should consider the number of runs, earned runs and base runners given up by each relief pitcher and the context of the game at the time of each relief pitcher’s appearance. If two or more relief pitchers were similarly effective, the official scorer should give the presumption to the earlier pitcher as the winning pitcher. (c) The official scorer shall not credit as the winning pitcher a relief pitcher who is ineffective in a brief appearance, when at least one succeeding relief pitcher pitches effectively in helping his team maintain its lead. In such a case, the official scorer shall credit as the winning pitcher the succeeding relief pitcher who was most effective, in the judgment of the official scorer.”

A losing pitcher is a pitcher who is responsible for the run that gives the winning team a lead that the winning team does not relinquish.

Rule 10.17(d) Comment: Whenever the score is tied, the game becomes a new contest insofar as the losing pitcher is concerned.

(e) A league may designate a non-championship game (for example, the Major League All-Star Game) for which Rules 10.17(a)(1) and 10.17(b) do not apply. In such games, the official scorer shall credit as the winning pitcher that pitcher whose team assumes a lead while such pitcher is in the game, or during the inning on offense in which such pitcher is removed from the game, and does not relinquish such lead, unless such pitcher is knocked out after the winning team has attained a commanding lead and the official scorer concludes that a subsequent pitcher is entitled to credit as the winning pitcher.”

An earned run can be defined as:

“An earned run is a run for which a pitcher is held accountable. In determining earned runs, the official scorer shall reconstruct the inning without the errors (which exclude catcher’s interference) and passed balls, giving the benefit of the doubt always to the pitcher in determining which bases would have been reached by runners had there been errorless play. For the purpose of determining earned runs, an intentional base on balls, regardless of the circumstances, shall be construed in exactly the same manner as any other base on balls.(a) The official scorer shall charge an earned run against a pitcher every time a runner reaches home base by the aid of safe hits, sacrifice bunts, a sacrifice fly, stolen bases, putouts, fielder’s choices, bases on balls, hit batters, balks or wild pitches (including a wild pitch on third strike that permits a batter to reach first base) before fielding chances have been offered to put out the offensive team. For the purpose of this rule, a defensive interference penalty shall be construed as a fielding chance. A wild pitch is solely the pitcher’s fault and shall contribute to an earned run just as a base on balls or a balk.

Rule 10.16(a) Comment: The following are examples of earned runs charged to a pitcher:

- (1) Peter pitches and retires Abel and Baker, the first two batters of an inning. Charlie reaches first base on an error charged to a fielder. Daniel hits a home run. Edward hits a home run. Peter retires Frank to end the inning. Three runs have scored, but no earned runs are charged to Peter, because Charlie should have been the third out of the inning, as reconstructed without the error.
- (2) Peter pitches and retires Abel. Baker hits a triple. While pitching to Charlie, Peter throws a wild pitch, allowing Baker to score. Peter retires Daniel and Edward. One run has scored, charged as an earned run to Peter, because the wild pitch contributes to an earned run. In an inning in which a batter-runner reaches first base on a catcher’s interference, such batter runner shall not count as an earned run should he subsequently score. The official scorer shall not assume, however, that such batter would have made an out absent the catcher’s interference (unlike, for

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108example, situations in which a batter-runner reaches first base safely because of a fielder’s misplay of a ball for an error). Because such batter never had a chance to complete his time at bat, it is unknown how such batter would have fared absent the catcher’s interference. Compare the following examples:

- (3) With two out, Abel reaches first on an error by the shortstop in misplaying a ground ball. Baker hits a home run. Charlie strikes out. Two runs have scored, but none is earned, because Abel’s at-bat should have been the third out of the inning, as reconstructed without the error.
 - (4) With two out, Abel reaches first on a catcher’s interference. Baker hits a home run. Charlie strikes out. Two runs have scored, but one (Baker’s) is earned, because the official scorer cannot assume that Abel would have made an out to end the inning, absent the catcher’s interference.
- (b) No run shall be earned when scored by a runner who reaches first base
- (1) on a hit or otherwise after his time at bat is prolonged by a muffed foul fly;
 - (2) because of interference or obstruction; or
 - (3) because of any fielding error.
- (c) No run shall be earned when scored by a runner whose presence on the bases is prolonged by an error, if such runner would have been put out by errorless play.

(d) No run shall be earned when the scoring runner's advance has been aided by an error, a passed ball or defensive interference or obstruction, if in the official scorer's judgment the run would not have scored without the aid of such misplay.

(e) An error by a pitcher is treated exactly the same as an error by any other fielder in computing earned runs.

(f) Whenever a fielding error occurs, the pitcher shall be given the benefit of the doubt in determining to which bases any runners would have advanced had the fielding of the defensive team been errorless.

(g) When pitchers are changed during an inning, the official scorer shall not charge the relief pitcher with any run (earned or unearned) scored by a runner who was on base at the time such relief pitcher entered the game, nor for runs scored by any runner who reaches base on a fielder's choice that puts out a runner left on base by any preceding pitcher.

Rule 10.16(g) Comment: It is the intent of Rule 10.16(g) to charge each pitcher with the number of runners he put on base, rather than with the individual runners. When a pitcher puts runners on base and is relieved, such pitcher shall be charged with all runs subsequently scored up to and including the number of runners such pitcher left on base when such pitcher left the game, unless such runners are put

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out without action by the batter (i.e., caught stealing, picked off base or called out for interference when a batter-runner does not reach first base on the play). For example:

(1) Peter is pitching. Abel reaches first base on a base on balls. Roger relieves Peter. Baker grounds out, advancing Abel to second base. Charlie flies out. Daniel singles, scoring Abel. Abel's run is charged to Peter.

(2) Peter is pitching. Abel reaches first base on a base on balls. Roger relieves Peter. Baker forces Abel at second base. Charlie grounds out, advancing Baker to second base. Daniel singles, scoring Baker. Baker's run is charged to Peter.

(3) Peter is pitching. Abel reaches first base on a base on balls. Roger relieves Peter. Baker singles, advancing Abel to third base. Charlie grounds to short, with Abel out at home plate and Baker advancing to second base. Daniel flies out. Edward singles, scoring Baker. Baker's run is charged to Peter.

(4) Peter is pitching. Abel reaches first base on a base on balls. Roger relieves Peter. Baker reaches on a base on balls. Charlie flies out. Abel is picked off second base. Daniel doubles, scoring Baker from first base. Baker's run is charged to Roger.

(5) Peter is pitching. Abel reaches first base on a base on balls. Roger relieves Peter. Baker reaches first base on a base on balls. Sierra relieves Roger. Charlie forces Abel at third base. Daniel forces Baker at third base. Edward hits a home run, scoring three runs. The official scorer shall charge one run to Peter, one run to Roger and one run to Sierra.

(6) Peter is pitching. Abel reaches first base on a base on balls. Roger relieves Peter. Baker reaches first base on a base on balls. Charlie singles, filling the bases. Daniel forces Abel at home plate. Edward singles, scoring Baker and Charlie. The official scorer shall charge one run to Peter and one run to Roger.

(7) Peter is pitching. Abel reaches first base on a base on balls. Roger relieves Peter. Baker singles, but Abel is out trying to reach third base and Baker advances to second base on the throw. Charlie singles, scoring Baker. Baker's run is charged to Roger.

(h) A relief pitcher shall not be held accountable when the first batter to whom he pitches reaches first base on four called balls if such batter has a decided advantage in the ball and strike count when pitchers are changed.

(1) If, when pitchers are changed, the count is

2 balls, no strike,

2 balls, 1 strike,

3 balls, no strike,

3 balls, 1 strike,

3 balls, 2 strikes,

and the batter gets a base on balls, the official scorer shall charge that batter and the base on balls to the preceding pitcher, not to the relief pitcher.

(2) Any other action by such batter, such as reaching base on a hit, an error, a fielder's choice, a force-out, or being touched by a pitched ball, shall cause such a batter to be charged to the relief pitcher.

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Rule 10.16(h) Comment: The provisions of Rule 10.16(h)(2) shall not be construed as affecting or

conflicting with the provisions of Rule 10.16(g).

(3) If, when pitchers are changed, the count is

2 balls, 2 strikes,

1 ball, 2 strikes,

1 ball, 1 strike,

1 ball, no strike,

no ball, 2 strikes,

no ball, 1 strike,

the official scorer shall charge that batter and the actions of that batter to the relief pitcher.

(i) When pitchers are changed during an inning, the relief pitcher shall not have the benefit of previous chances for outs not accepted in determining earned runs.

Rule 10.16(i) Comment: It is the intent of Rule 10.16(i) to charge a relief pitcher with earned runs for which such relief pitcher is solely responsible. In some instances, runs charged as earned against the relief pitcher can be charged as unearned against the team. For example:

(1) With two out and Peter pitching, Abel reaches first base on a base on balls. Baker reaches first base on an error. Roger relieves Peter. Charlie hits a home run, scoring three runs. The official scorer shall charge two unearned runs to Peter, one earned run to Roger and three unearned runs to the team (because the inning should have ended with the third out when Baker batted and an error was committed).

(2) With two out, and Peter pitching, Abel and Baker each reach first base on a base on balls. Roger relieves Peter. Charlie reaches first base on an error. Daniel hits a home run, scoring four runs. The official scorer shall charge two unearned runs to Peter and two unearned runs to Roger

(because the inning should have ended with the third out when Charlie batted and an error was committed).

(3) With none out and Peter pitching, Abel reaches first base on a base on balls. Baker reaches first base on an error. Roger relieves Peter. Charlie hits a home run, scoring three runs. Daniel and Edward strike out. Frank reaches first base on an error. George hits a home run, scoring two runs. The official scorer shall charge two runs, one of them earned, to Peter, three runs, one of them earned, to Roger and five runs, two of them earned, to the team (because only Abel and Charlie would have scored in an inning reconstructed without the errors).”

According to Major League Baseball rules a pitcher records a save if they:

“Rule 10.20 in the Official Rule Book states:

Credit a pitcher with a save when he meets all three of the following conditions:

- (1) He is the finishing pitcher in a game won by his club; and
- (2) He is not the winning pitcher; and
- (3) He qualifies under one of the following conditions:
 - (a) He enters the game with a lead of no more than three runs and pitches for at least one inning; or
 - (b) He enters the game, regardless of the count, with the potential tying run either on base, or at bat, or on deck (that is, the potential tying run is either already on base or is one of the first two batsmen he faces; or
 - (c) He pitches effectively for at least three innings. No more than one save may be credited in each game.”

“10.15 STRIKEOUTS

A strikeout is a statistic credited to a pitcher and charged to a batter when the umpire calls three strikes on a batter, as set forth in this Rule 10.15.

(a) The official scorer shall score a strikeout whenever a batter:

- (1) is put out by a third strike caught by the catcher;
- (2) is put out by a third strike not caught when there is a runner on first before two are out;

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- (3) becomes a runner because a third strike is not caught; or
 - (4) bunts foul on third strike, unless such bunt on third strike results in a foul fly caught by any fielder, in which case the official scorer shall not score a strikeout and shall credit the fielder who catches such foul fly with a putout.
- (b) When a batter leaves the game with two strikes against him, and the substitute batter completes a strikeout, the official scorer shall charge the strikeout and the time at bat to the first batter. If the substitute batter completes the turn at bat in any other manner, including a base on balls”

(Retrieved from, http://mlb.mlb.com/mlb/downloads/y2011/Official_Baseball_Rules.pdf)

Appendix C

Table 2

MLB Player Statistics

Team	AVG	HRs	RBI s	SBs	Wins	Loses	Save	ERA	SO
Baltimore:	0.207	437	2242	631	476	459	168	5.38	6168
Boston:	0.209	997	4356	567	411	442	235	5.85	4872
New York:	0.160	175	883	295	360	366	97	5.32	5507
Tampa Bay:	0.177	1457	6046	1290	787	892	21	5.59	10098
Toronto:	0.161	752	3279	467	348	370	143	5.74	4568

Table 3

Breakdown of drafted players

Team Totals	HS	JC	4YI	Total
Baltimore	204	48	244	496
Boston	204	42	251	497
New York	181	62	261	504
Tampa Bay	240	48	207	495
Toronto	146	39	299	484

Table 4

Number of MLB Players:

Team	HS	JC	4YI	Total
Baltimore	21	4	35	60
Boston	23	5	41	69
New York	21	9	34	64
Tampa Bay	47	8	28	83
Toronto	13	2	42	57

Table 5

Percentage of players Reaching the MLB

Team	HS	JC	4YI	Total
Baltimore	10%	8%	14%	12%
Boston	11%	12%	16%	14%
New York	12%	15%	13%	13%
Tampa Bay	20%	17%	14%	17%
Toronto	9%	5%	14%	12%

Appendix D

Table 6
Correlations of draft results

Teams	Draft Round*Point of Entry	Draft Round*Position Selection
Baltimore Orioles	-.174***	-.030
Boston Red Sox	-.162***	.052
NY Yankees	-.243***	-.020
Tampa Bay Rays	.016	-.121**
Toronto Blue Jays	-.187***	-.038