

**STRATEGIES USED IN
ROTISSERIE BASEBALL
AND THEIR EFFECTS ON
THE PLAYER'S AUCTION**

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Introduction

Many aspects of owning a major league baseball team are reflected in Rotisserie (Roto) baseball. League owners must draft players to fill out particular positions within their team, and must do so under the constraint of an overall salary cap. The players are drafted at the beginning of the year using an English auction design. To gain a better perspective about how a Rotisserie League operates, it is essential to understand the rules and play of the game itself.

Dan Okrent, a New York writer and editor, invented rotisserie league baseball in 1980. He joined with other like-minded baseball fans to form the Rotisserie League Baseball Association (or RLBA), the very first rotisserie league. The name "Rotisserie" comes from Manhattan's La Rotisserie Francaise restaurant, the now-defunct historic eatery where the RLBA regularly met.

The idea was to simulate owning and managing your very own baseball team comprised of actual players. Players are selected from the rosters of teams in the American or National leagues and compete against other teams in your own unique league. The batting and pitching statistics that your players generate in real life fuel the competition in your Roto league. The winner gets a trophy, cash award, or any other prize the league decides. The rules are similar to actual league play and are outlined below.

First, a Commissioner is chosen from among the existing team owners. He or she is responsible for organizing the league's Draft Day, and communicating with the statistic service and other owners about rosters, trades, transactions, standings, and league business. Team owners meet the week before or after Major League Baseball's (MLB) Opening Day to draft teams comprised of 23 players from either the American or National leagues. The 23 players are broken down by position: nine pitchers, five outfielders, two catchers, one first baseman, one second baseman, one third baseman, one shortstop, one cornerman, one middle infielder, and one utility player. The cornerman position is considered as any player qualifying for either a first base or third base position, and the middle infielder is considered as any player qualifying for either second base or shortstop. Utility players may qualify at any position other than pitcher. Players are eligible for a position if they played in that position for at least 20 games in the previous season, or played that position at least once in the current season after the player's draft.

The typical Draft Day consists of an English auction draft, where players are auctioned to the highest bidder. Each team has a "salary cap" of 260 points to spend. This can either equate

to two dollars and sixty cents, twenty-six dollars, or any multiple of twenty-six, depending on the league. The auction price becomes that player's salary. Minimum bid increments are 10 points. The first year of a league, the owners are randomly selected to form the order of bidders. Once that order is determined, each owner, in succession, places a player on the auction block and begins the bidding. Bidding continues on the player until no more bids are received. The auction ends when each team has been completely filled out. In the event that the league is in successive years, the owner finishing in last place the previous year begins the order of bidding. The order then continues up through the finishing positions from the previous year to the winner of last year's season. The order is repeated until all rosters have been filled.

Once the auction has been completed, league play begins. Owners may change their rosters when, in real life, a player is disabled, traded to another league, or sent to the minor leagues. When that happens, the owner may select any player not already on a team's roster. This "replacement player" stays on the roster until the original player returns (if ever). If the original player does return, the owner must decide whether to keep the replacement player, or waive him and recall the original player. Most leagues establish a one-week deadline for making this decision. If the owner does nothing within that period, he waives his right to the original player, who then returns to the available free agent pool and may be called up by any other owner who has a vacancy for which that player is eligible. A replacement player may also be disabled, traded to the other league, or sent to the minors. In that case, the player who takes that replacement player's spot on the roster becomes the replacement player for the original player. A new player to your team from the free agent pool has a salary of 10 points even if he was drafted with another salary. In addition, every time a player is placed on the reserve list, it costs the team owner 10 points. Any replacement player acquired from the free agent pool also costs the team owner 10 points. These payments go into the general fund along with the original 260 from each owner that is distributed to the winners at the end of the season.

Owners may also trade players. All teams involved in any trade must end up with the same number and type of players as before the trade. There is also a trading deadline at which time no other trades may occur. All trades, regardless of the number of players traded, costs each owner involved in the trade 10 points, and player's traded retain the same salary from the previous owner. League standings are based on each team's composite performance in four hitting categories (home runs, batting average, runs batted in, and stolen bases) and four pitching

categories (wins, earned run average, saves, hit/walk ratio). Some leagues substitute strikeouts for hit/walk ratio or runs produced for RBIs. Leagues may choose up to six batting and six pitching categories. In a twelve-team league, the team winning a category gets 12 points; the next team gets 11 points, etc. Points in all categories determine overall point totals and league standings at any given time. Most leagues hire a statistic service to send them regular statistical reports. Many of these services allow the Commissioner to download the past weeks statistics for every MLB player for a monthly or seasonal fee. You win the league by being in first place in overall points when the final standings come out in October.

Payouts for standings vary widely. Normally, the top three or four teams get a decreasing percentage of the general fund, less expenses for statistic services, software, and other supplies. After the season is over, two choices for the league are possible. Teams can either redraft from scratch every year or "protect" players from year to year. If leagues protect players, their salaries count against a team's salary cap at the next Draft Day, where teams fill out their rosters with unprotected or new players using the balance of their salary cap. Protected players remain with their original team for two years, after which the owner must make a decision. If the protected player remains with the team for the third year, or "option" year, the player's salary will be increased by 100 points for the remaining year. If the owner does not wish to pay this increased salary, the player is waived at the end of the year and returns to the free agent pool. In essence, a perpetual league ensues, and the league may continue on with expansions, ownership changes, etc.; very similar to actual MLB. Rules vary widely throughout the different leagues, but the essence of the game is reflected in how these rules have been laid out.

It is necessary to understand how the behaviors of these leagues closely simulate the actions of actual MLB ownerships. In MLB, players who are a small fraction better than other players earn several times their salary. The intra-team salary structure definitely is not piece rate, nor has it ever been. The pay structure is hierarchical, as in a rank-order tournament (Scully, 1995). Casual observation suggests very large changes in salary for very small changes in a player's share of team output. The crucial issue concerns whether or not their salaries are commensurate with their contribution to the teams' revenues (Downward & Dawson, 2000). Within Roto leagues, this salary inflation is evidenced in "high-output" players. Although the player may not contribute an equivalent amount of "output" for his salary, lack of this "output" would severely degrade the Roto team.

Descriptive salary statistics for MLB players from 1967-1998 (See Table 1) show that there always have been top-end skewed salaries. Are MLB players really worth this much? It has been argued that the distribution of talent that is consistent with the maximum league product occurs when the marginal physical product of talent is equivalent among clubs in the league (Vrooman, 2001). Further, when these free agents are acquired, the teams pay too much for their talent, creating a “winner’s curse” situation.

“If a team bids on, say, ten free agents, then there is a tendency to win a ‘biased’ set of players – those for which the bidder has overestimated value. Increasing the number of bidders only increases the bias effect” (Cassing & Douglas, 1980).

While there is significant evidence of underpayment of non free agents in these studies, there is also consistent evidence that free agents were overpaid relative to their marginal revenue products. The results lead to the conclusion that limited free agent players are systematically paid more than they are worth, not because of their freedom, but because of their artificial monopoly power (Vrooman, 2001). In Roto leagues, the players cannot “bargain” for a better salary. They must accept the highest bid. But, many players taken early in the Roto draft appear to be quite overpaid relative to their projected statistics for the year.

In addition to the advent of free agency within MLB, it is clear that certain players may have very different values among the different teams in the league. A quality pitcher is worth more to a team weak in pitching in relation to its batting strengths. In theory, a team will secure the right to the services of a player if the players’ services are worth more to that team than to any other. When transactions have played themselves out, players find themselves on the teams that value them most highly and, thus, for which they are most productive. But, this is precisely the result that would be yielded by a competitive and unconstrained market (Rottenberg, 2000). This fact is reflected within Roto Baseball Leagues in that each team is subjected to a salary cap, and the acquisition of players during Draft Day restricts the available talent as the draft ensues. Thus, Roto leagues essentially assign players to teams who value the players the most at that point in the draft.

Another interesting aspect of Draft Day, is the theory of declining price anomaly. It is common in auctions where an item sold earlier in an auction will fetch a higher price than the identical item sold later in the same auction. This situation appears to represent unexploited profits, an arbitrage opportunity that should disappear as bidders learn about the auction process.

One explanation for the existence of unexploited profit opportunities could be asymmetric information. Another may be that the value of the item is not known. But, as information is extracted during the auction, these opportunities should disappear. A third explanation could be that the declining price does not represent unexploited profits but that the price results because of risk aversion or quantity constraints (Estenson, 1994).

In 1994, an exercise to determine whether the declining price anomaly would exist in a Roto league Draft Day was conducted. Owners were under budget constraints to the extent that the team's revenues consisted on two parts: a theoretical \$10 million broadcast contract, and additional revenues as a function of the team's winning percentage. The outcome of the draft concluded that although a few bidders did recognize the declining price phenomenon and acted to acquire those profits, a random walk in prices did not occur. In addition, it is not the acquisition of information but rather constraints that lead to the declining price anomaly. In this case, the constraints were a budget/salary cap, and the fear (risk aversion) that sufficient players would not remain to put together a quality team (Estenson, 1994).

Since the organization of Roto Leagues, the owners have become much more informed. Numerous statistical services exist to provide databases of information for every player in MLB, as well as minor league players. Numerous software packages have enabled owners to estimate projected statistics for the coming season, and thus, prospective salaries for the players they wish to acquire. One would deduce from these facts that asymmetric information does not exist in the Roto world. But, despite this observation, asymmetric information does exist. The difference in information is derived by how much time a particular owner spends preparing for the draft. A dedicated Roto owner will compare lifetime player statistics, recent year's statistics, possible year-end contract changes, and a multitude of other factors before arriving at an expected private value for each player on their team. Most importantly, the choice of players boils down to one succinct question: Can a particular player contribute to a particular team more than other players, and can a less expensive salary be attained within the budget constraint? Profit maximization for the Roto owner is crafting a team of players that will result in the maximum payout at the end of the season.

There is no more important aspect of Roto play than the player's draft. One owner put it this way, "Originally I felt the draft was at least 60% responsible, roster maintenance about 20%, and luck the other 20%. I'll say today it is 80% draft and 10% roster management and 10% luck"

(Scalf, 2003). So, as in MLB, Roto league success can be derived from the successful implementation of strategies to acquire the best talent.

The intention of this study is to examine the different strategies currently in use in the Roto world, the advantages and disadvantages of each, and how the auction design affects player's values. A new auction strategy will be introduced to better maximize the potential profits from the auction. In addition, a new auction design will be considered to help alleviate the problems that Roto owners face due to the current design.

Method

Strategies for a Roto Draft Day are infinite. Particular owners claim to have the best strategy for their particular team. In researching for the prominent strategies in use, numerous websites dedicated to the Roto leagues were identified. These sites, dedicated to analyzing the game, and suggesting strategic actions, outlined different strategies and their implications. In addition, the author's experience in participating in seven different Draft Days was also utilized.

The websites included Baseball Notebook.com, Fantasy Baseball Central.com, Draft Help.com, USA Today.com, Roto Auctioneer.com, Addict Fantasy Sports.com, Fantistics.com, and Long Gandhi.com. Each site had specific sections designed to give Roto owners insight on how to be successful during Draft Day. Some strategists had particular formulas associated with picking the right players, and others simply set out particular guidelines on what mistakes not to make. Using the suggestions made by these strategists, coupled with the practical experience of the author, conclusions were reached regarding advantages and disadvantages of each strategy.

In addition, several actual Roto leagues throughout the United States were contacted to attain actual Draft Day results. These results, from both the 2002 and 2003 seasons, contained information as to their values and draft order.

Data

Strategy data obtained from the numerous websites were summarized, and subsequently analyzed for advantages and disadvantages. The authors of the strategies provided some analyses, and additional analysis was conducted during this study. Strategy data, as stated before, are nearly boundless. As one strategist pointed out, “If there was one best way, we all would use that strategy” (Scalf, 2003). Thus, only predominately used strategies were used for this study.

Sixteen separate Draft Day auction results were attained from the 2002 and 2003 Roto league seasons. Of these, only three drafts contained all three elements deemed important to this examination: the player, the order in which the player was drafted, and the player’s final auction salary.

The three drafts were analyzed using linear regressions. The player’s final auction salary was regressed on their order in the draft to see any effects. It is hypothesized that this data will show the declining price anomaly discussed earlier. In addition, using the private values provided by a particular Roto owner, expected values for players prior to the draft were compared to the actual salaries determined in the draft. It is hypothesized that this data will show that players drafted early in the draft will have salaries above that owner’s private values, and players drafted later in the draft will have salaries below that owner’s private values.

Analysis

The auction strategies utilized with the Roto leagues of today vary considerably. All are based on sound strategies, but will only have considerable payoffs if executed properly during the Draft Day. The following strategies will outline their basic premise, and how that strategy can payoff in the end.

Balanced Team Method

This method capitalizes on balancing strength throughout the team. The idea is to finish third or fourth in every category, and cumulatively, that should be enough to win the league. This is, undoubtedly, the most popular strategy used in most Roto leagues. But, it is also the most difficult to plan and execute. Meticulous preparation must be utilized in order to identify the most valuable players that are not “stars.”

The lack of “stars” is the biggest drawback to this method. The team ends up being comprised of mediocre players that have little to no recognition. This fact will certainly restrain the amount of utility that an owner gets from bragging rights. In addition, this method has come to be called “The Bernhard Plan,” as named by the famous Rotisserie owner Mike Vogel. He said, “...this plan is so ugly it is beautiful like Sandra Bernhard” (Scalf, 2003).

Punt Method

In this strategy, an owner decides to sacrifice a category. Using a football term, the owner “punts” a particular category. The idea is to finish last in a category, and save money by not spending valuable dollars on players with strength in that area. The money saved can be used to enhance the owner’s position in the other categories (Scalf, 2003). This strategy has several drawbacks.

First, if any miscalculations develop on Draft Day, and the owner does not sufficiently strengthen the remaining categories, failure may be imminent. “In research for the 2000 season, I found that this was a tough task, though. Of the leagues I researched, only about 1 in 5 won by punting a category” (Scalf, 2003). Also, with most perpetual leagues, at least one other team in the league will be strong in the majority of the categories, or have a balanced team. So, even if this draft strategy is successful, it still may not be enough to win.

Finally, this strategy can be very successful if used in tandem with a planned mid-season trade. For example, if the owner strengthens his SB category on Draft Day, and punts the WINS category, a mid-season trade of SB players for pitchers with potential for WINS will be very attractive. This, too, can be risky. The trade can only happen if the other owner is hurting in the SB category, and is willing to give up a starting pitcher.

The LIMA Method

A very popular and successful strategy widely used today, the LIMA method, which stands for Low Investment Mound Aces, was developed by Rotisserie owner Ron Shandler. Arguably one of the greatest owners in Roto history, Mr. Shandler named the method after Jose Lima, who fit the profile perfectly. By using selected pitching statistics, projections are made about which pitchers will perform better in the upcoming season. Most of the pitchers are relatively unknown before the start of the season. This allows for lower salaries in the pitching area, and more strength in the batting areas. The second portion of this method is to budget 60 points for pitching and 200 points for batting. Strict adherence to this budget is crucial to the success of this method.

Unfortunately, due to the popularity of this method, many Roto owners have adapted to this strategy. With the availability of information today, it is very easy to identify the “LIMA” pitchers, and many owners will bid up the price of these players to make execution of the plan more difficult. Again, the difficulty of execution is the main drawback.

No Starter Strategy

Very similar to the Punt strategy, this method attempts to sacrifice the WINS category and only draft relief pitchers. This allows for a larger percentage of the budget to be spent on batters. As with the Punt strategy, the idea is to save money usually spent on expensive starting pitching, and use that money for the other categories.

It is still possible to win with this method, but leagues have adopted minimums for innings pitched. In other words, each team must have a minimum number of innings pitched, or all points in the pitching categories are forfeited. This fact makes winning the league an impossibility. Another drawback is that when the other owners realize this strategy is being

employed, the prices for relief pitchers will skyrocket. If executed properly, and the owner keeps close track of innings pitched, this method can prove to be very successful.

Don't Draft Over 30 Points Method

This method is very straightforward. The owner refuses to draft any player over 30 points. The owner will miss out on premium star players, but can still attain enough talent to be successful. If the beginning of the draft goes well and the premium star players fetch hefty salaries, the minor stars will be available for reasonable prices. For the perpetual league, this is a very good draft strategy. For future years, it is essential that players with high salaries be removed from the team. This allows for the potential to get the same player back for a lower salary, or a better player for the same salary. By limiting spending to 30 points maximum, this retention problem is minimized.

The drawbacks to this method are similar to the Balanced Team method. The “Bernhard” effect will occur, but not as severe. The big problem with this method in today’s world is, “...because of the success of this plan in the expert leagues, many may copy it in your league... and any strategy is tough to be successful with if several teams are employing it” (Scalf, 2003).

The GM Method

Engineered by Gary Scalf, this method is based on player scarcity by position. Prior to any given draft, there are a finite number of players that are available to be drafted. Even more specific, there are even fewer players eligible for particular positions. This “sub-gaming” strategy breaks down each position and labels each by the amount of talent at each position. For example, a particular position may only have several players available in the draft that can produce significantly helpful statistics. These positions suddenly become much more important to the owner. As the author of the strategy states, “I will get the players in positions where there are not many choices at any cost. Then get low dollar players at the end in positions that have the most talent” (Scalf, 2003). Certain positions are also more productive than others. Outfielders tend to outperform most middle infielders and catchers. Thus, outfielders, in general, should garner a higher value in the draft.

In addition, this method chooses to ignore the “WINS” category, and places an emphasis on the “STOLEN BASES” and “SAVES” categories. WINS are very unpredictable, the

method's author points out. In fact, of all the pitchers in MLB during 2002 with more than 100 innings pitched, the WINS category ranges from 4 to 24. On the other hand, both STOLEN BASES (SB) and SAVES (SV) are extremely valuable commodities. During the 2002 season, there were only 78 players with 10 or more stolen bases in the combined leagues of MLB. Further, only 16 players garnered more than 30 SB's. That accounts for approximately 7.09% and 1.45%, respectively, of all the batters in MLB. SV's are also very rare. Again using 2002 season MLB statistics, only 35 pitchers had 10 or more saves, and only 25 garnered 20 or more. This accounted for approximately 5.83% and 4.16% of all MLB pitchers (MLB.com, 2003).

The basis for this strategy is to focus on the positions where scarcity exists. More salary can be budgeted for these areas, and positions with more talent can be filled with lower salary players. But, as the author of this method points out, "It is much tougher to pull off in today's game with the glut of info a click away from any player" (Scalf, 2003). This means that the advantages from asymmetric information are not as prevalent today, as many veteran Roto owners will attest. In today's world of instant internet access, every owner will have very much the same information. This strategy will work only if some differences exist between owners in their private values. The chance does exist that all owners will adopt this strategy. In that case, player's values will increase even more for the few "scarce" categories.

Although most of these methods can work, almost all of them depend on proper planning and execution. First and foremost, the Roto owner must prepare by doing extensive amounts of research. Second, a strategy must be chosen and, for the most part, executed to near perfection. But, as any Roto owner will tell you, nothing ever goes as planned on Draft Day. Thus, contingency must be incorporated into the strategy. Adaptation during the draft is a trait that every owner must master. Lastly, the owner must realize that player's values are all relative. Just because all of your research told you a certain player would cost X dollars, if he is a player in demand, his price will be higher.

Most preparatory procedures follow the same model. First, a list of available players must be compiled. Once the list has been completed, an owner must assess the quality of each player and assign a value to each. Next, a "want" list is compiled for each position starting with players that the owner values most. Out of the "want" list, a short list of "must have" players are designated. These are players that the team cannot do without. The owner must then create a

budget to follow, and finally choose a Draft Day strategy. Much attention should be given to all aspects of preparation. Each step will be carefully detailed.

In perpetual leagues, the “keeper” lists are usually required to be made available to all owners several weeks before Draft Day. These lists consist of the players that each owner wishes to keep on their team for the following season. All other players are placed into the free agent pool, and are available to draft. Along with the players that are not kept, the players that were not on any team in the league in the previous season are included. This allows every owner in the league to have a complete list of every player available to draft. This list can be compared to the MLB opening day rosters and eliminate players from the draft list that are no longer in MLB. Also, some minor league players may be called up to begin the season at the last minute. These players should be added to the draft list.

Once the list is compiled and confirmed, the owner must then begin to assign values. Some owners prefer to rank order the players by position, then assign values to only the players they are interested in drafting. All other players garner a value of one point. This saves valuable time since a large number of players fall into that 1-point category. Other owners prefer to assign values to every player to allow for any contingencies that may arise. Value projection software is available in many forms, and numerous websites post players values prior to draft day. But, these values are arbitrary, and each owner must compensate for the differences their league presents, and numerous other factors. The most important aspect that must be compensated for is player scarcity.

If there is a position, say shortstop, which is particularly lacking in talent, it is absolutely imperative the owner draft well in that position. By not paying the price for the talent in that position, a tremendous advantage is lost. There are positions that always have ample talent. “There are plenty of opportunities in pitching, especially in today's market. Every year there are pitchers that go undrafted that have good seasons, which could have been had [on a team]...” (Scalf, 2003). By paying the price to get that exceptional shortstop, the owner can wait until late in the draft and almost always get a pitcher or outfielder for very cheap. The owner must be aware that these scarce positions will have considerable salary markup. This inflation factor must be realized and accounted for. In addition to position scarcity, the owner must compensate for many other factors. These include, but are not limited to, the following: the player is on a new and better/worse team, he is in his last year of a contract, he is retiring after year is over, he

is in the middle of a divorce, he is recovering from a major surgery, etc. These factors can be unlimited, and doing the proper amount of research will ensure that this “catch all” variable properly influences their individual private valuations.

Now, the players have been separated by position, ranked by importance, and valued. The owner must now assess what his team is lacking. Each team going into the draft will have strengths and weaknesses. These will determine which players are most important to that particular owner. A list of prospective players must be made for each position the owner has to fill. These are usually five to six players that would fit into the particular team structure. Once this list is compiled, ten to twelve players will be listed “must have” players. Without these players, the weakness of the team in a particular category is difficult to overcome. With these lists, the owner can now move to the budgeting process.

With the available money under the salary cap, the owner must budget tentative amounts for each position. Tentative amounts are made because, as stated previously, Draft Day never plays out the same way as planned. Particular strategies of others may conflict with your own and cause changes during the draft. For instance, if a particular “must have” player is also on another owner’s “must have” list, more money may have to be expended in order to attain that player. This is a very common occurrence during Draft Day. Being adaptable is crucial. Once the budget is set, a strategy can be chosen.

A particular strategy is dependent on the wants and needs of each particular owner. If a team is strong in pitching, then the owner should employ the strategy of placing high-valued pitchers on the auction block. Not only will this deplete other owner’s budgets, it will allow the owner to be in a better position to draft high-value batters because other owners are under tighter budget constraints. But, an owner should be aware that every other owner knows that they have a strong pitching staff, and will compensate to drive up the prices of batters. This fact shows that an owner must not only do research on their own team, but the other teams as well. By knowing exactly what the other teams lack, an owner can predict what strategies the other owners might employ. The final strategy must take those strategies into consideration. As stated before, too many owners employing the same strategy can be catastrophic. Now that a particular strategy has been chosen, it must be executed with precision.

Execution is the most difficult portion of Draft Day. An owner must assume that everyone else has done the same amount of homework as they have. By making this assumption,

an owner places himself in a position to best react to others, given the positions of everyone else. If, in fact, the other owners are not as well prepared, the owner immediately gains the upper hand. The owner must stick to his planned strategy, and attempt to keep that strategy hidden from the others. When the “cat is out of the bag,” things can go downhill quickly. If this happens, the owner must go to the backup plan as soon as possible. Any hesitation will cause limited resources, the salary cap, to be lost. There are numerous ways to keep a strategy hidden, but usually, if the league is very competitive, and most owners are well prepared, strategies are apparent almost immediately.

Draft Day can be the most rewarding experience of the Roto league season. Many owners say that a successful Draft Day can set the tone for the entire season. But, as with real MLB, injuries, fluke years, and sensational rookies can change a Roto league into a very competitive game. Most owners will tell you that a bad Draft Day will most certainly cause a dismal season.

The Modified Method

Up to this point, different strategy methods have been discussed, along with their pros and cons. The most effective strategy for any owner is one that best fits their team. This usually means a mix of all or most of the previously discussed methods. But, several areas of importance cannot be overlooked, and certain aspects of the draft should be incorporated into every owner’s draft.

First, player scarcity is certainly a point that cannot be overlooked. Certain positions in baseball have very few quality players that can produce statistics that will help a Roto team. When compared to other positions, these positions of scarcity present a unique problem. An owner can take a Balanced Team theory, and draft the best possible players available in their positions. This can lead to a lack of “star” players, and give rise to a mediocre team that is destined to finish in the middle of the pack. The owner can also choose to Punt these areas. Since the position has very few quality players, money can be saved there and utilized to strengthen other positions. Unfortunately, this also has a major drawback. By choosing to wait late in the draft to fill that position, an owner may be forced to take a player that will actually do more harm to the team. These players have low batting averages, or high earned run averages that pull down the other quality players on the team. When choosing a strategy related to player

scarcity, an owner must opt for spending the extra money. If the owner chooses to pass on the scarce talent, they also turn their back on future trade opportunities.

Second, the player's auction is the most important part of the Roto game. Without a well-executed draft, the owner will have a lower probability of winning. The key to a good draft is meticulous research. The more information gathered, from different sources, the better prepared the owner will be. With the availability of vast amounts of information on players, there should be absolutely no excuse for an owner not to have the complete picture.

Third, much attention must be given to the SB and SV categories. Very few players are available that excel in these categories. Consequently, owners must be prepared to spend the extra money to gain quality players in these positions. These categories represent 25% of total accumulated points in a traditional league. Forfeiting any advantages gained in these areas will be almost impossible to overcome.

Lastly, make sure that early in the draft auction you do not place a player that you want on the auction block. Evidence clearly showed that players chosen early in the draft drew a much higher salary than players taken later. Regressions were performed on different drafts to see the effect of order on player's salaries (See Table 2). The results showed that, on average, for each position lower in the draft order, the player's salary was reduced by between 0.0026 and 0.0047 points. Although this effect was smaller than expected, it clearly shows that taking a player later in the draft will reduce the player's salary. But, this effect may be caused by the fact that most players taken at the end of the draft have salaries of only one point. Casual observation of portions from three actual drafts show that the majority of players taken late in the draft had salaries of one point (See Tables 3-4). The fact is clear that the later a player is taken in the draft, the lower their salaries will become.

These facts, taken in aggregate, lead to the strategy design. One, the owner must research all variables that would effect the player's value to their team. Effective player valuation by each owner will lead to more effective bidding. Two, players that emerge as "must have" players for an owner, should be attained; even at slightly inflated costs. Three, attention must be given to the SB and SV categories. Neglecting these categories will lead to significant problems. Four, the owner should never place a player on the auction block that they wish to acquire. The later the player is introduced into the draft, the lower his salary will be. Five, the owner should always choose a player for the auction block that other owners desire more than you do. This

will lead to tighter budget constraints for other owners, and increases your advantage over them. Lastly, never have any money left at the end of the draft. The budget salary cap is there to be fully utilized. Money left over equates to lost opportunities. Better to spend money in the weak areas of the team early in the draft, and pick up inexpensive players in positions loaded with talent, than to save money hoping for a “bargain” late in the draft. This can, and does, happen. But, only thorough research will highlight these players.

Some moves should never be made during the draft. Never draft players that are “favorites.” Falling into this mistake can cost an owner valuable resources. One analyst writes, “...do not *ever* get into a bidding war. It's better to be neither a lover nor a fighter” (Hunt, 2003). Never draft unproven rookies for more than 10 points. More often than not, they will remain unproven. Never adopt the idea that players currently on the Disabled List (DL) should not be drafted. If the situation warrants it, draft the injured player, then pick up a replacement after the draft is over for 10 points. The owner now has two players to choose from when the injured player returns. More choices are always a better situation. Try not to draft situational batters. Attempt to fill your entire batting lineup with players that are in the lineup most every game. The more at-bats they accrue, the better off your team will fair, on average. Never believe that mistakes cannot be fixed through trades. If owners find themselves in a situation where a player is drafted, then after the draft is over, that player does not really fit into the structure of the team, do not panic. Players can always be traded. The owner may have to sacrifice something to fix the problem, but most mistakes can be remedied.

Any owner that ignores these facts will undoubtedly lose advantages. Thus, the keys to success in any Roto draft are player scarcity, thorough research, attention to the SB and SV categories, making every effort to get desired players as late in the draft as possible, and spending the money necessary to attain your “must have” players. An owner that takes advantage of these areas will gain a higher probability of winning in the end.

The Auction Design

The open outcry English auction design, utilized in most Roto leagues, leads to inflated/deflated player's salaries. Several properties inherent to the design put the Roto owner in a position where lack of information leads to price distortion. These properties are price uncertainty, the declining price anomaly, and the budget constraint.

With an English auction, as each player is auctioned, the private values for that player of each owner are revealed. Unfortunately, the private values for competitive players in that position are not revealed. This leads to a severe price uncertainty for the owners. The question the owner asks is, “Can I get a comparable player later in the draft for the same price as this player on the auction block?” The owner must play a dangerous guessing game. If they guess wrong, they miss the opportunity to gain a player with a distinct advantage. The “risk aversion” associated with this uncertainty leads to a winner’s curse situation. This means that quality players taken early in the draft will go to the owner who either overvalues the player the most, or, more accurately, who is willing to spend the extra money necessary to gain that player. This leads to an inefficient assignment of the players. Players should always be assigned to the owner with the highest private value for that player. Also, owners should not bid above their private values assigned to that particular player. The English design leads to both of these rules being violated.

As mentioned before, another effect of the English design is the declining price anomaly. As the auction progresses, players become increasingly cheaper to acquire. This is caused, in part, by price uncertainty. As more and more players are auctioned to teams, the effect of price uncertainty becomes less of a factor. The more that private values are revealed, the better an owner can judge future values of remaining players. The declining price anomaly is inherent to the English design, and is difficult to overcome without changing the design itself.

Finally, the budget constraint places even more pressure on the owner. With both of the previous effects conditioning the owner, the budget constraint looms as the proverbial straw that breaks the camel’s back. If an owner spends too much money early in the draft getting those “must have” players, they are sometimes left to choose from a pool of minimal talent. This effect is probably the most important for owners that are very risk averse. Most are not willing to pay the price for the premium players that are necessary for a winning season. This leads to a team full of mediocre players, money left over at the end of the draft, and, most importantly, a losing season.

All of these effects can be lessened, even eliminated with an auction redesign. By utilizing a dynamic proxy auction, or simultaneous ascending auction, both price uncertainty and the declining price anomaly can be eliminated. But, the use of such auction would come with great skepticism from current Roto owners.

A dynamic proxy auction differs from the English auction in that *every* player is bid on simultaneously. This may sound like an incredible burden to most owners, but once utilized it proves much more efficient. By allowing every player to be bid on simultaneously, price uncertainty no longer is an issue. Each owner's bids are shown for each player, and every other owner knows that bid. The auction becomes much more transparent, and players in high demand are immediately identified. Also, opportunities for gains from trade can now be more easily recognized. This makes strategy modification for the owner quicker and less stressful. The owner can see all the possibilities for player choices, and their salaries, at the same time.

The dynamic proxy auction would also eliminate the declining price anomaly. No longer would owners have the uncertainty of knowing which player will be available. They can clearly see if a player is being bid on, and what his salary is. This reduces the incentive of an owner to exceed his private value for the player because there exists a visible alternative. This does not mean that bidding wars and retaliation will not occur. In many Federal Communications Commission (FCC) spectrum auctions, this design has been shown to have many bidding wars and retaliatory bids. Thus, although the declining price anomaly may be eliminated, premium players will still be subject to owners "bidding up" their salaries to deplete other owner's budgets. But, as stated previously, the incentive is far lower than with the English design.

Overall, the use of the dynamic proxy auction will move Roto owners into a better position to make decisions on player choices, and more effectively spend their budgets. The transparency of the auction leads to widespread price realization for the players, and a clear picture of the players in demand. More importantly to Roto players, this design will significantly reduce the time spent on Draft Day. Instead of 100 or more rounds of auctioning, player's salaries will quickly move to their final equilibrium in far fewer rounds. That means more time to enjoy baseball, and less time auctioning players.

Conclusion

Despite the numerous strategies that have been covered, a single successful strategy does not exist that ensures a winning Rotisserie Baseball season. Research of every variable affecting a player's value to a particular team is crucial. Attention must be given to both important scoring categories, such as stolen bases and saves, and to position scarcity. More importantly, effective use of the entire salary cap is imperative. The worst mistake any Roto owner can make is to have money left over at the end of a Draft Day.

The owner must be aware of the inherent problems created by the English auction design. Strategies must involve effective use of the order of players drafted. Effort must be made to avoid placing desired players on the auction block. With the realization of the declining price anomaly, players should be taken as late in the auction as possible. Price uncertainty leads to salary inflation early in the draft, and salary deflation late in the draft. The winner's curse effect will assign premium players to the owner that overvalues the player the most. These factors must be taken into account when comprising an effective auction strategy.

The most important point the author wishes to convey in this study is the importance of the Draft Day auction strategy. The game of Rotisserie Baseball was designed to closely approximate what real MLB owners experience. But, unfortunately, this is not the case. A superior auction strategist will always gain the advantage on Draft Day, and therefore a higher probability of winning. The execution of the strategy is far more important than picking the best players. Optimizing the use of the budgeted salary cap leads directly to a more successful draft. Thus, the owner that best utilizes their money will ultimately have the best draft.

Rotisserie players play the game because they love baseball, not auction strategy. Should Rotisserie players be forced to master auction strategy in order to win? Should owners that can recognize true baseball talent be penalized because they cannot draft effectively? This author believes that the game should undergo some radical changes to take the game back to where baseball fans think it should be; into the control of the owners who know more about baseball vice auctions.

By instituting the dynamic proxy auction design into Rotisserie baseball, auction strategy no longer emerges as the most important factor. The design puts players onto teams that value them the most, and with owners that best estimate that player's value. This makes the talent of

the owner, with respect to valuing baseball talent, more important than designing an effective Draft Day auction strategy.

The game of Rotisserie Baseball has undergone numerous changes over the twenty-three years since its inception. The game will continue to be played as long as there are baseball fans in the world. It is the hope of this author that some light has been shed on some of the inefficiencies of the game, and the alternatives that would improve them.

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