# Success or Bust? An Analysis of Draft Position and NFL Success 

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#### Abstract

The National Football League (NFL) draft is a reverse-order event that positions the teams with the worst record in the NFL to draft first, thus enabling those teams to get the best talent from the National Collegiate Athletic Association (NCAA) to help their team grow and be successful. In today's NFL draft, there are 7 rounds of selections which includes 32 selections for 32 teams. While literature exists on what statistics are relevant toward evaluating specific positions and how that knowledge is used to select draft picks, there is no existing research that examines NFL success based on statistics and draft position. This gap in the knowledge lead to the question do individual offensive skill players who were drafted in the 3rd through 7th rounds of the NFL draft have more successful careers than those drafted in the 1st and 2nd rounds? By understanding the trends in the data that lead to flaws in scouting, one can then present the findings to the GM's in charge of draft decision and give analytic review of the facts that exist in the scouting industry today. The results of the research show that $60 \%$ of the running backs and wide receivers in the 3 rd- 7 th round sample have amassed greater average career statistics than the 1 st and 2 nd round players they were compared with. Players were randomly selected from the 2008-2012 drafts, where 4 players per position (quarterback, running back, wide receiver) were selected for each year. Two players per position were selected from the 1st and 2nd round, while the other two players per position were selected from the 3rd-7th rounds. These players were then put through a statistical test to determine success.

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#### Abstract

The National Football League (NFL) draft is a reverse-order event that positions the teams with the worst record in the NFL to draft first, thus enabling those teams to get the best talent from the National Collegiate Athletic Association (NCAA) to help their team grow and be successful. In today's NFL draft, there are 7 rounds of selections which includes 32 selections for 32 teams. While literature exists on what statistics are relevant toward evaluating specific positions and how that knowledge is used to select draft picks, there is no existing research that examines NFL success based on statistics and draft position. This gap in the knowledge lead to the question do individual offensive skill players who were drafted in the 3rd through 7th rounds of the NFL draft have more successful careers than those drafted in the 1st and 2nd rounds? By understanding the trends in the data that lead to flaws in scouting, one can then present the findings to the GM's in charge of draft decision and give analytic review of the facts that exist in the scouting industry today. The results of the research show that $60 \%$ of


the running backs and wide receivers in the $3^{\text {rd }} 7^{\text {th }}$ round sample have amassed greater average career statistics than the $1^{\text {st }}$ and $2^{\text {nd }}$ round players they were compared with. Players were randomly selected from the 2008-2012 drafts, where 4 players per position (quarterback, running back, wide receiver) were selected for each year. Two players per position were selected from the $1^{\text {st }}$ and $2^{\text {nd }}$ round, while the other two players per position were selected from the $3^{\text {rd }}-7^{\text {th }}$ rounds. These players were then put through a statistical test to determine success.

## Introduction

The National Football League (NFL) draft is a reverse-order event that positions the teams with the worst record in the NFL to draft first, thus enabling those teams to get the best talent from the National Collegiate Athletic Association (NCAA) to help their team grow and be successful. In today's NFL draft, there are 7 rounds of selections which includes 32 selections for 32 teams. In theory, this means that there is one pick per team in each round; however, this is not always the case due to opportunities for teams to trade their draft position in order to move up in the order, or to gain picks in future drafts (Draft History, retrieved from www.NFL.com). This has led to a chess game between General Manager's (GM's) on each NFL franchise which has favored some teams in the history of the draft. Essentially, if a team has decided they want to take a certain player in the draft, but their current draft position will not allow them to select that player, that team can then trade up, or trade their pick and one or more picks in subsequent rounds to a team that is picking earlier in the order than them to get the player that they wish to select. This style of drafting has been done in every draft since trading picks was first established in the NFL draft, and has benefited those teams who have managed their number of draft picks successfully and had multiple picks to trade away. However, this style of drafting leaves some players in a constant decline in draft position because teams can now move up to fill their needs instead of settling for
players as the draft moves on. This means that a player who was given a $2^{\text {nd }}$ round draft grade could then find himself not being selected until the $3^{\text {rd }}$ round or worse. In every draft, there are instances of players falling in the draft, or having their projected round that they will be drafted in change to later rounds in the draft. With that being said, this leaves room for GM's to overlook players and draft prospects that they feel are the best selection for their team, but sometimes those picks end up never being successful and the players that fell in draft position have better careers. It is paramount that GM's and franchises maximize future success on their draft picks, and it is clear that there are flaws that exist in the way GM's value certain players (Romer, 2006).

Draft day is a culmination of months and even years of evaluation and testing of potential draft picks, and it all boils down to just seven rounds of choices. Athletes are not just picked on instinct or gut feelings; they are chosen based on every piece of information that could possibly exist about the players athletic and personal life (Terry, 2007). This is not a universal process as each team of executives and General Managers weigh certain variables higher than others, and such variables and tests include the Wonderlic Cognitive Test, the NFL scouting combine, and previous college statistics (Lyons, Hoffman, Michel, \& Williams, 2011).. This is where there is clearly room for error, and in turn a flaw in the scouting system that allows athletes who will produce more than others to slip through the figurative cracks on draft day.

If one were to analyze the history of the draft, there would be many instances to suggest evidence that General Managers either looked like geniuses or looked completely clueless due to the success or lack of success of their draft picks. On one hand, the first round draft pick you choose could and should, based on all the

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evaluations of the player, go on to have great success for your organization. On the reverse, that same player could go on to have a less than stellar career and in turn get out played by a player of the same position that was drafted in a later round. In the past decade of the NFL, there have been numerous instances where players who were drafted in the $3^{\text {rd }}$ through $7^{\text {th }}$ rounds, even undrafted athletes, have been more successful than their first and second round peers (Brown, 2011). This leads one to ponder how an athlete like Arian Foster, Running Back for the Houston Texans, went undrafted in 2009 and has since taken the league by storm as one of the top premier Running Backs in the NFL (Brown, 2011). In 2003, the Detroit Lions selected Wide Receiver (WR) Charles Rogers with their first pick of the draft, and the second overall selection of the entire NFL draft. He was projected to be a star in the NFL and was given an early first round grade. Scouts were reporting that Rogers would be a star and would be a franchise receiver for many years (NFL draft grading, 2003). However, Rogers went on to play just three years in the NFL, totaling 36 receptions and just 4 touchdowns in those three years (Draft History, retrieved from www.NFL.com). Compare that to another wide receiver that was selected in the same 2003 draft, but in the fourth round. Brandon Lloyd was given an early second draft grade, and was analyzed as lacking the speed and physicality to compete in the NFL as an elite player (NFL draft grading, 2003). Due to these negative reports, Lloyd ended up slipping through the cracks and was not drafted until the fourth round of the draft. Lloyd went on to play 11 years in the NFL and is still currently playing in the league and has racked up more than 380 receptions and just came off of a season where he totaled 911 receiving yards (Draft History, retrieved from www.NFL.com). While there are few who would

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consider Brandon Lloyd among the elite NFL receivers, the numbers speak for themselves and there was clearly a lapse of judgment when analyzing these two players future success.

## Research Question

Do individual offensive skill players who were drafted in the 3rd through 7th rounds of the NFL draft have more successful careers than those drafted in the 1st and 2nd rounds? By understanding the trends in the data that lead to flaws in scouting, one can then present the findings to the GM's in charge of draft decision and give analytic review of the facts that exist in the scouting industry today. This could then allow teams to not waste multi-million dollar deals on players who end up not producing, and instead spend their money on a player who will succeed in the NFL.

If in fact $3^{\text {rd }}$ through $7^{\text {th }}$ round picks have a better NFL career in terms of statistics and wins than their first round counterparts, then one would assume that these athletes are out playing their contracts and were victims of a flawed scouting system. The question is why do such great athletes and budding superstars go overlooked? If this question is answered, GM's can then have a better understanding of overlooked variables and not miss an opportunity to select a future superstar, even if it means spending more money.

## Literature Review

Through the review of existing literature, there has been a reinforcing of the fundamental components to evaluating an NFL prospect, which are speed, strength, and intelligence. To determine each athlete's ability in each variable, the athletes are put through the annual NFL combine to test them in 40 yard dashes and agility drills, 225 pound bench press, and the Wonderlic Cognitive test (Terry, 2007). Those who are familiar with the NFL combine and the subsequent draft are aware that there is a great stake put on the 40 yard dash, and in some instances it can put a projected first round pick into the late second or third rounds. Furthermore, an article that assesses whether past performance or physical ability is a better predictor of future success has determined that physical ability, such as speed, agility, and strength, are not as efficient in predicting future success as past performance. This study found that only the 40 yard dash has any positive correlation to future success in the NFL, while the agility and strength of the athlete does not accurately predict a successful player (Lyons, Hoffman, Michel, \& Williams, 2011). This is important for these NFL franchises to realize because scouts are focusing more on what the athlete does in the combine rather in terms of the speed and agility drills rather than past performance, which has been determined to be the greatest indicator of future success. On the contrary to the article that found that speed and agility as well as strength were not as efficient in predicting future success, one article that examines the bench press test has determined that the strength test is in fact a good predictor. The article found that the bench press test accurately predicted performance in six careers of similar nature (Blakley, Quinones, Crawford, \& Jago, 1994). However, this article did not examine professional football, so while this serves

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as a counter argument, it can be determined that the results of this research do not have an effect in the NFL and therefore isometric testing should not be a large factor in the grand scheme of scouting. A supplementary piece of literature determines that overall masculinity is attributed with the performance of prospects in the NFL combine, and that NFL scouts have a bias toward those athletes that display masculinity in the form of strength and speed, as well as physical appearance (Oates, \& Durham, 2004). I will use this article to better explain the impact of speed, agility, and strength in regards to the NFL scout's perception and analysis of a player. The third category of testing is the intelligence factor, which is determined by giving the prospects the Wonderlic cognitive test. In an article that analyzes the impact the Wonderlic test has on NFL performance, the authors determine that the test results did not relate to future NFL performance, selection decisions during the draft, and the number of games that the athletes started in (Lyons, Hoffman, \& Michel, 2009). Another piece of literature that examines the Wonderlic cognitive test uses race as a variable to determine whether the test truly determines adaptability of players into the NFL. The article found that the test is more informative for white players rather than African American players on the basis that a general fallacy exists that African American players will still be more successful than a white player in the same position. The study also concluded that the cognitive test is more important in explaining draft positions of quarterbacks, offensive lineman, and tight ends which are all typically dominated by white athletes (Gill \& Brajer, 2012). While I am not concerning my research with race as a predictor of success, there are aspects of this study that will be beneficial to the research conducted in terms of
determining just how affective the cognitive test is in determining future success in the NFL.

While it is common for NFL GM's to rely heavily on these three tests to make a decision about a draft pick, there is a less clear area of evaluation that comes from statistical analyses of players past performance. If a player is not productive in college, the general trend is that the player in question will either be drafted in the later rounds, or not be drafted at all. This is where my research will come in to play as I will research NFL draft picks in the past decade and compare their college and NFL statistics and then compare those same statistics to comparable first and second round athletes and determine if there is a statistical difference.

While there is no existing literature that compares NFL draftees by round by evaluating combine results, past statistical performance, as well as current NFL statistical performance, there are a number of journals that provide information on each variable that goes in to the overall analysis of the NFL prospects.

The NFL draft is a time of uncertainty, even if the scouts feel they have accurately analyzed a player. An article that examines the uncertainty of hiring, and then relates it to the NFL draft has determined that statistical discrimination among NFL prospects leads GM's to make decisions using statistics, which then results in players with lower past statistical performance to be discriminated against. This then causes those players to be given a lower draft grade which eventually results in a lower contract, which is what statistical discrimination means (Hendricks, DeBrock, \& Koenker, 2003). This information will be vital to understanding how GM's view statistics
and then base decisions off of that. By adding in NFL performance as well as combine performance, there will be a better understanding of the end result of decision making by GM's and will help to explain why some players are not valued as high as others but then go on to perform better. In addition to management decision involving draft choices, there is literature that exists to determine whether management's decisions are maximizing success in their draft picks. For instance, one article that examines whether the franchises are maximizing on their potential success by analyzing the decision to forgo punting the ball away and instead trying to convert a first down by going for it on fourth down. The authors determine that this decision making plays a large role in the chances that the team will win, which is what all franchises set out to do (Romer, 2006). While this article examines the maximization of winning percentage by looking at fourth down, some of the traits that lead to making decisions can be pulled and implemented to the decision making on draft day. All firms wish to maximize their potential, which is why the NFL draft is so important in the scheme of a team's development. Some firms are not maximizing their success by drafting players who do not perform well in the NFL and instead bypass players that eventually perform well in the league. Another article that supplements the previous research deals with the performance of NFL football teams. The results display that a key component of franchise success if through the decision making processes of team managers. The quality of the decisions being made directly relates to team success, which falls in the hands of the team decision makers including GM's and coaches (Hadley, Poitras, Ruggiero, \& Knowles, 2000). One more additional source dealing with managerial efficiency has determined much of the same that the survivability of managers and the overall success of NFL franchises falls in the

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hands of the managers making decisions (Scully, 1994). These sources solidify the fact that the managers of NFL teams are directly responsible for the success of the team, and that success starts from drafting competent and successful players.

In order to develop a starting point for how to value players in terms of success, literature is needed to set a ground work for evaluating players and the numerous statistics and formulas needed to do so. Multiple articles relating to the valuation of quarterbacks exist, but there is reason to believe that some of these evaluations are lacking key statistics that will display the over-all success of a player. For instance, an article that examines the draft choices in regards to quarterbacks has determined three measures for determining the success of NFL quarterbacks. Those three variables are the number of years played in the league, the number of passes thrown, and the quarterback rating. The number of years is a representation of the quarterbacks durability, the number of passes thrown distinguishes the contribution of the quarterback to the team, and the quarterback rating which measures the efficiency of the quarterback in terms of number of completions, yards gained per attempt, and touchdowns per attempt. It also factors in the number of interceptions per attempt which gives an overall rating that can then be compared among all quarterbacks to display efficiency. The results of this research show that while GM's are not perfect in selecting quarterbacks, they are very close to accurately determining future success (Boulier, Stekler, Coburn, \& Rankins, 2010). While I agree that these variables are important, I would like to include a few more statistics for quarterbacks that I feel more accurately paint a picture off comparison and success. These additional statistics are total yards thrown, total touchdowns thrown, and total scoring which includes both
passing and rushing touchdowns. The entirety of these stats will provide a wider range of variables to compare and contrast. One article dealing with quarterbacks analyzes the process in which quarterbacks are selected in the draft. The authors found that a number of the factors that enhanced a quarterback's draft position did not correlate between draft day evaluations and subsequent NFL performance. This article declares that there is a problem with the NFL draft process, and that the way GM's and scouts value quarterbacks is flawed and does not accurately predict future performance (Berri \& Simmons, 2009). There are numerous variables that a quarterback is evaluated on, and each of these variables relates to a certain statistical valuation. An article that examines the broad variables of quarterback traits finds that a successful quarterback should be evaluated in terms of accuracy, anticipation, footwork, pocket presence, athleticism, decision making, and mental toughness. The author claims that these are the seven most important traits in a quarterback and must be utilized to determine the success of an NFL quarterback (Dumonjic, 2013). These seven traits can each be related back to a statistic which encompasses just how well the quarterback embodies these traits. For instance, accuracy, anticipation, and decision making would relate to the completion percentage of the quarterback, while footwork and pocket presence would relate to number of times sacked. Athleticism would also relate to number of times sacked, as well as rushing yards, while mental toughness would relate to the cognitive tests and number of games played. Each of these variables are extremely important when evaluating quarterbacks, and must be added to the discussion of what a successful quarterback is. An article that displays more evaluation of successful quarterbacks gives examples of players who were analyzed as possessing the
important skills of a successful quarterback before the draft, and then went on to be unsuccessful in the NFL. Such quarterbacks as Phillip Rivers and Colt McCoy were among the mentioned quarterbacks, and the author concluded that flawed scouting analysis has left teams to draft quarterbacks who will turn out to not perform well (O'Brien, 2011). In addition to quarterbacks, wide receivers have certain variables that some find effective in determining success. These variables are the number of years played in the league, and the total yards receiving. Again, the number of yards displays durability while the number of receiving yards shows the offensive contribution to the team. These two lone variables are what the author believes is a measure of success (Boulier, Stekler, Coburn, \& Rankins, 2010). Again, there are a few stats that are missing from this valuation that will be added including number of receptions, number of touchdowns, number of dropped passes, and number of yards after catch. These three extra variables will provide a clearer comparison between players and will show a better depiction of success over failure. The final component of comparison will come with running backs, which there are multiple articles in academia that display the evaluation of running backs in the NFL draft as well as the league itself. One such article has developed a formula that is similar to the quarterback rating formula, but has developed it to test the efficiency of running backs. This formula uses the average yards gained per rushing attempt (YD), the percentage of touchdowns per carry (TD), and the percentage of fumbles per carry (F) (Crippen, 2012). The end formula is as such: Rusher Rating $=[(Y D)+(T D)+(F)] \times(100 / 4.5)$

The calculations for each component are as such:

YD= Total yards/(4.05 x rushing attempts)

TD= (39.5 x touchdowns)/rushing attempts
$\mathrm{F}=2.375-((21.5 \times$ fumbles $) /$ rushing attempts $)$

This formula will provide a relatively new way to evaluate running backs and to try and bring a solidifying conclusion in terms of running back success. Another article that deals with running backs displays how running backs of trended in the NFL draft. This article explains that running backs typically are not selected in the early rounds, and even the top running back prospects fall victim to the norm that a GM can select a good running back later in the draft. This article gives examples such as Arian Foster, who was undrafted but has since gone on to be among the elite NFL running backs. Another example given by the author is LeGarrette Blount who was also undrafted and then led all rookies in rushing yards. The article goes to further explain that GM's who select running backs early in the draft are taking a big risk because in recent years, running backs taken in the first round have not been successful in the NFL minus a few who have (Brown, 2011). This trend may be the reason that GM's overlook some running backs in the draft, because if they are already waiting until the second and third rounds to select the top running back prospects, then there is a higher chance for running backs who are talented to slip even further, or potentially go undrafted such as Foster and Blount.

When it comes to running backs, there are traits that scouts look for to determine whether a running back will be successful or not. An article that discusses these traits states that there is more to running backs than just speed when it comes to success.

The author says that these traits include quickness, size, being able to run into the defenses center, being able to run toward the outside of the defense, receiving, and blocking. These traits combined together makes for a very successful running back (Alder, 2013). In the NFL today, running backs are evaluated by possessing one of two styles of play. These styles are either being a receiving running back, where your skill set better suits you as a pass catching running back, or as a rushing player, where your skill set is designed to carry the ball more than you catch it. There are very few running backs who possess both skill sets, and those running backs are the elite. This means that most running backs are drafted by teams that will utilize their skill set. For instance, a running back that is predominately better in catching the ball will be drafted by a team that passes the ball much more than they run. On the reverse, a player who is strictly a rushing back will be drafted by a team that primarily runs the ball. This is known as specialization, and it is paramount that GM's know what type of player they are drafting to fully utilize their skill set (Simmons \& Berri, 2009).

A further dimension that could cause GM's to make the decisions that they make can be found in an article that examines the idea that controlling either the rushing game or passing game is the key to winning. The author is trying to determine which aspect of the offensive football scheme is most important in securing victories. The results show that controlling the passing game, or leading the other team in total passing yards, at half time provides a higher win percentage than controlling the rushing game. In fact, the author concludes that controlling the rushing game has no significant advantage in terms of wins, and this declares the dominance of the passing game in the NFL (Arkes, 2011). This article can further explain why running backs are drafted in the
later rounds, and why running backs may not be valued as high as other offensive skill positions.

## Method

To analyze players based on position and draft picks, I limited my participants to randomly selected offensive skill positions, which include quarterbacks, running backs, and wide receivers in the past 5 seasons (2008-2012). Each position was evaluated based on a select number of position-specific variables, and then compared to players who were randomly selected from the same draft year at an earlier round. For instance, I examined a randomly selected wide receiver that was drafted in the $3^{\text {rd }}$ through $7^{\text {th }}$ round of the 2009 draft and then compared his statistics to a randomly selected receiver in the same draft that was taken in the first or second round. This will then give me a todate look at player success and if these players are greatly different.

In order to select my participants in the form of which players will be analyzed, I placed all wide receivers, quarterbacks, and running backs from the years 2008 through 2013 into a spreadsheet and then used a random generator formula to select 2 players per position from the rounds 3-7, and then from the rounds 1-2 and then compare those players. The formula to do this is as follows:
$=\operatorname{INT}\left(\right.$ RAND ()$\left.^{*} \mathrm{~N}\right)+1$
$\mathrm{N}=$ the number of total data
$1=$ to start from the first piece of data

## Research Tradition

This research is taking the post-positivist approach, in which there is no completely concrete way to determine if a player is completely successful or not (Gratton \& Jones, 2010). I cannot say that all great running backs could both catch and run well, and I cannot say that all great quarterbacks did not throw many interceptions. There are instances where the negative statistics associated with being unsuccessful are found in players who have proven to be among the best at their position. The results I find will provide a great outlook on my research question, but it will have limitations that are inherent to this type of research. Theories can only be disproved about draft picks such as a quarterback who threw a lot of interceptions will not be successful in the NFL. This cannot be verified because some of the most successful quarterbacks in NFL history through hundreds of interceptions, but were ultimately successful due to their abundance of other statistics.

## Conceptual Framework

This research uses the term successful or unsuccessful throughout, and there are certain aspects about the players that will determine whether they are or are not successful. In this analysis of the NFL draft, a successful player will be defined as a player who has entered the NFL and has generated a high career average of critical statistics for their position. This player will have higher average career statistics than his comparable player, and will have attributed greatly to his team as determined by the amount of statistical value that the player adds to the team itself. A comparable player
will be defined as a player of the same position and draft year who was randomly selected. If a quarterback from the first round of the 2010 draft is selected, that player's comparable player will be a quarterback from the third through seventh round in the 2010 draft. This study is only concerned with average career statistics in order to attempt to control for injuries that may cause players to sit out for a half or a few games. By comparing player's average career statistics, this will enable a control for the injury variable that may skew the cumulative statistics, and to determine which player had the best average career stats in each category per position.

The average career statistics that this research will analyze are as follows:

Quarterbacks:

Average Completions per Season- This will be calculated by dividing the career total of completions by the number of seasons played.

Average Yards per Season- This will be calculated by dividing the career yards by the number of seasons played.

Average Touchdowns per Season- This will be calculated by dividing the career total of touchdowns by the number of seasons played.

Interceptions- This will be calculated by dividing the career total of interceptions by the number of seasons played.

For the wide receivers and running backs, their respective statistics will be calculated into an average by dividing the statistic being examined by the number of years played.

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Furthermore, a break-down of successful variables for each position that will be analyzed is necessary to display.

## Quarterbacks

Success will be determined by having better career average statistics in yards, touchdowns, interceptions, and completions. Players from each draft year will be compared to another player from the same draft year and position, and the comparison will use each of the variables listed above.

## Running Backs

Success will be determined by having better career average statistics in yards, attempts, touchdowns, and yards per attempt. Players from each draft year will be compared to another player from the same draft year and position, and the comparison will use each of the variables listed above.

## Wide Receivers`

Success will be determined by having better career average statistics in yards, touchdowns, and receptions. Players from each draft year will be compared to another player from the same draft year and position, and the comparison will use each of the variables listed above.

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There are a number of potential intervening variables that will have to be taken into consideration in order to obtain a more full interpretation. For instance, a large variable as to why a player was drafted in the round he was could be the college system he came from. If a quarterback from Georgia Tech, which is predominately a triple option team, was hoping to enter the draft, that player would most likely not be drafted until the late rounds due to the lack of experience in a pro-style offense. Along with the system type, another variable would be the success of a player in their college career. If that same quarterback from Georgia Tech were to have a high career rushing average, but lacked in the passing category because the team mostly runs the ball, then that player would find it difficult to enter the NFL as a quarterback.

In addition to the definition of success, players may be successful in multiple categories but not in others. This is why comparing average career totals in each of the categories listed is important because a player can still be considered successful if he is lacking in a certain category compared to another player of the same position. If this is the instance, by leading the comparable player in the majority of the statistical categories then the player will be deemed more successful.

## Theoretical Framework

In a perfect system, a player that is drafted in the first round of the NFL draft or even the second round is someone that should produce and be a successful player for years to come. However, that is not the case. My hypothesis is that there are many players who are drafted in the third through seventh round that end up being just as successful or even more. This is where my research will take its substance from. It
would be very helpful to determine just how many players in the last five seasons were inaccurately drafted and in turn resulted in a wasted draft pick.

When players who are expected to be superstars end up being failures, there is not one singular reason but possibly many. Similarly, when a GM drafts a player who is supposed to be great, but turns up a failure, there is not one reason but many. For instance, a scout could have weighed a player's speed too high, and did not look at the player's actual skill as much as he should have. In the case of a quarterback, fundamentals are key. A player who was a great college quarterback does not necessarily mean that he will also be a great NFL quarterback. For instance, Jamarcus Russell was a QB for LSU and posted incredible numbers such as touchdowns and yards, but he was very heavy and lacked good fundamentals which would eventually end his career. When dealing with college football players, there are so many variables that need to be measured, but then there are some that just cannot. This qualitative information on players is hard to register and ultimately spells doom for scouts who take a chance on projected first round athletes.

Through research of current literature, measures of success of quarterbacks, wide receivers, and running backs are as listed.

Quarterbacks- Number of years played, number of passes thrown, and quarterback rating (Boulier, Stekler, Coburn, \& Rankins, 2010)

Running backs- Running back rating, Total number of rushing yards, and years played in the NFL (Crippen, 2012).

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Wide Receivers- Number of years played, and total receiving yards (Boulier, Stekler, Coburn, \& Rankins, 2010).

## Expected Results

What I am expecting to find is that there is a slight advantage to offensive skill players being drafted in the later rounds than the players who are drafted in the first and second round. The reason I feel this way is because in one article that analyzes running backs success in the draft and NFL, I found that running backs that are drafted in the first two rounds generally are not successful and the running backs who are drafted later tend to do better. This has made the trend for NFL GM's to not select a running back early because they will most likely still be around in the later rounds (Brown, 2011). Recent analysis of the NFL draft classes of the past decade have shown that there are in fact numerous players that have been drafted between the third and seventh rounds that have gone on to have greater success than their first round counterparts (Draft History, retrieved from www.nfl.com). One big example is Tom Brady, quarterback of the New England Patriots. Brady was drafted in the $6^{\text {th }}$ round of the draft, and later went on to win numerous super bowls, win numerous MVP titles, and set NFL records. One notable quarterback that was the first QB taken in that draft class was Chad Pennington, who played in only 89 games before falling out of the league. There were six quarterbacks that were drafted head of Brady, which goes to show that too much emphasis was put on the combine performance (Brady did not have a good combine) instead of college statistics.

## Results

The sample was composed of twenty quarterbacks, twenty running backs, and twenty wide receivers who were randomly selected by using a random generator in a spreadsheet. Each year of data came with four new players from each position; two from the $1^{\text {st }}$ and $2^{\text {nd }}$ rounds and two from the $3^{\text {rd }}$ through $7^{\text {th }}$ rounds. From the NFL seasons of 2008 through 2012, two $1^{\text {st }}$ and $2^{\text {nd }}$ round selections from each position and two $3^{\text {rd }}$ through $7^{\text {th }}$ round selections from each position were compared in unique statistical areas to determine the more successful players. Quarterbacks were tested using the average completions per season, average yards per season, average touchdowns per season, and average interceptions per season. Running backs were tested using average yards per season, average rushing attempts per season, average touchdowns per season, and yards per carry. The receivers were tested using average receptions per season, average yards per season, and average touchdowns per season. These tests determined if in fact individual offensive skill players who were drafted in the 3rd through 7th rounds of the NFL draft have had more successful careers than those drafted in the 1st and 2nd rounds. There were instances where both subjects being compared had no statistics in a particular category, and that category was not used to determine success in those specific instances. For instance, quarterback Brian Brohm of 2008 and quarterback Kevin O'Connell have had no
touchdowns in their careers, so that category was not used to determine success for those two players when compared.

The findings show that $40 \%(4 / 10)$ of $3-7^{\text {th }}$ round quarterbacks have had more successful careers through the 2012 season. Therefore, the majority of $1-2^{\text {nd }}$ round quarterback samples had better careers than those who were not selected in the first and second round. The running backs selected in the $3-7^{\text {th }}$ round showed the reciprocal of the quarterbacks' results, where $60 \%(6 / 10)$ of the $3-7^{\text {th }}$ round running backs had more statistically successful careers than their first and second round comparable. The same is true for the $3-7^{\text {th }}$ round wide receivers. The results show that $60 \%$ of $3-7^{\text {th }}$ round wide receivers posted more successful statistical careers than the first and second round sample of wide receivers.

In 2008, both of the randomly selected first and second round quarterbacks were determined to be more successful than the $3-7^{\text {th }}$ round quarterbacks by having higher statistics in at least three out of four statistical categories. Brian Brohm and Chad Henne, who were both second round picks, edged out Kevin O'Connell and Matt Flynn in three of the four categories. The running backs from the first and second round split with the running backs from the $3-7^{\text {th }}$ round. Third round pick Jamaal Charles had higher statistics in three out of four categories than first round pick Jonathan Stewart while first round pick Felix Jones did the same in comparison to fifth round pick Tim Hightower. The wide receivers in 2008 were also split as second round pick Donnie Avery had higher average statistics than third round pick Harry Douglas in all three statistical categories. Sixth round pick Pierre Garcon also dominated all three categories over second round pick Malcom Kelly.

The quarterbacks from 2009 also split the decision as first rounder Josh Freeman and fourth rounder Stephen McGee had higher average statistics in three out of four categories over their compared player. Third round running back Shonn Greene had higher average statistics in all four categories than NFL superstar Knowshon Moreno, who was drafted in the first round- number 12 overall. First round running back Donald Brown showed higher career average statistics than the sample he was compared against, sixth round running back Bernard Scott. In 2009, both wide receivers from the $3-7^{\text {th }}$ rounds had higher average statistics than the wide receivers that were drafted in the first and second round; those receivers were third round pick Mike Wallace and sixth round pick Brandon Gibson.

For the first time in the data, both quarterbacks who were drafted in the $3-7^{\text {th }}$ round in 2010 have had more statistically successful careers than the two quarterbacks who were taken in the first and second round. Colt McCoy, a third round pick, was compared with Tim Tebow who was drafted in the first round and McCoy had the edge in three out of the four statistical categories. The same was true for fifth round quarterback John Skelton, as he too was higher in three categories than second rounder Jimmy Clausen. First round running back C.J. Spiller had higher statistical averages than sixth round running back Jonathan Dwyer in all four categories while sixth round running back James Starks did the same compared to second round back Montario Hardesty. In 2010, first round wide receiver Dez Bryant dominated sixth round pick Dezmon Briscoe in all three receiver categories. Likewise, third round receiver Eric Decker also recorded higher career averages in all the categories over second round pick Arrelious Benn.

The data from 2011 showed that both first and second round quarterbacks Jake Locker and Andy Dalton had higher career average statistics in three out of four categories compared to fifth round quarterback T.J. Yates and sixth round Tyrod Taylor. However, the two third round pick running backs, DeMarco Murray and Steven Ridley dominated both second round running backs Shane Vereen and Daniel Thomas in all four career average categories. First round wide receiver Julio Jones led third round receiver Austin Pettis in all three receiver categories while second rounder Titus Young led in two categories over fourth round receiver Cecil Shorts.

In the last year of data collected, 2012, first round quarterback Ryan Tannehill recorded higher career average statistics than third rounder Nick Foles in three of four categories. Third round quarterback Russell Wilson did the same when compared to second round pick Brock Osweiler by dominating in all but one category. First round running back Doug Martin also recorded higher average statistics when compared to fourth round running back Lamar Miller. Perhaps the most compelling piece of data came from sixth round running back Alfred Morris as he recorded nearly 1,600 more yards per season, 325 more rushing attempts per season, and 13 more touchdowns per season than early second round pick Isaiah Pead. The 2012 season data also showed that both $3-7^{\text {th }}$ round wide receivers T.Y. Hilton and Chris Givens posted higher career average statistics than first and second round receivers Brian Quick and Michael Floyd in at least two of three categories. Below are the data charts for each season recorded:


Quarterbacks RD1-2
Tim Tebow Quarterbacks RD1-2 Ryan Tannehill Brock Osweiler

QB's RD 3-7
Nick Foles
Russell Wilson Running Backs RD1-2 Doug Martin Isaiah Pead

RB's RD 3-7 Lamar Miller
Alfred Morris

Wide Receivers RD1-2
Brian Quick
Michael Floyd

WR RD 3-7
T.Y. Hilton

Chris Givens

RD/\#
RD 1/25
AVG Completions/Season AVG Yards/Season AVG TD's/Season AVG Interceptions/Season
RD/\# AVG Completions/Season AVG Yards/Season AVG TD's/Season AVG Interceptions/Season

| RD 1/8 | 282 | 3,294 | 12 | 13 |
| :--- | ---: | ---: | ---: | ---: |
| RD 2/57 | 2 | 12 | 0 | 0 |


| RD $2 / 57$ | 2 | 12 | 0 | 0 |
| ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
|  | 161 | 1,699 | 6 | 5 |
| RD 3/88 | 252 | 3,118 | 26 | 10 |
| RD 3/75 |  |  |  |  |


|  | YRDS/Season | Attempts/Season | Yards per Carry | TD/Season |
| :--- | ---: | ---: | ---: | ---: | ---: |
| RD 1/31 | 1,454 | 319 | 4.6 | 11 |
| RD 2/50 | 54 | 10 | 5.4 | 0 |
|  |  |  |  |  |
|  |  |  |  |  |
| RD 4/97 | 250 | 51 | 4.9 | 1 |
| RD 6/173 | 1,613 | 335 | 4.8 | 13 |


|  | Receptions/Season |  | YRDS/Season |  | TD/Season |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| RD 2/33 | 11 | 156 | 2 |  |  |  |
| RD 1/13 |  | 45 | 562 | 2 |  |  |

## 2012

## Discussion

The results show that $60 \%$ of first and second round quarterbacks analyzed have higher career average statistics or success than the $3^{\text {rd }}-7^{\text {th }}$ round compared players. In the microcosm of data that represents the NFL as a whole, this shows that when it comes to General Managers and front office employees drafting quarterbacks in the first or second round they tend to select the right players who go on to have more successful careers. The data shows that when a quarterback was more successful than their compared player, the one statistical category that the more successful quarterback did not lead in was average interceptions per season. The reason for a quarterback leading in all but one category could be seen through the average completions per season statistic. If a quarterback led the compared player in average completions per season,
that would essentially make one assume that the quarterback threw the ball more times than the compared player, which would account for more opportunities to throw interceptions. The data shows that even when one quarterback would overwhelmingly lead the compared quarterback in average yards, completions, and touchdowns per season that player would also have a higher average interceptions per season. This particular statistical category did not seem to help prove whether a quarterback had a more successful career than the compared player due to the fact that interceptions seem to have a direct correlation with the other statistical categories. For instance, 2012 first round quarterback Ryan Tannehill nearly doubled third round quarterback Nick Foles in all four statistical categories including interceptions. Thus, it can be determined that as average yards, completions, and touchdowns increase, so too does average interceptions per season. This evidence in important to be studied because it gives a glimpse into draft day success, and the results show that when drafting quarterbacks in the first and second round, NFL franchises get the majority of the selections right and do not take major risks when selecting quarterbacks.

Where the results get interesting is when one would analyze the running backs and wide receivers from the 2008 draft to the 2012 draft. Findings show that $60 \%$ of running backs as well as wide receivers who were drafted in the third through seventh round of the NFL draft actually have had higher average career statistics in the categories that each position was compared in. This means that in the data's sample size, running backs and wide receivers that were drafted in the late rounds of the NFL draft ended up being more successful than the first and second round players from each respective draft year.

There were two running backs that were drafted in the third round that had higher statistical averages than their first round compared players. However, the more intriguing result is that there were two running backs that were drafted in the sixth round who dominated in the statistical categories for their position. James Starks, a sixth round pick, recorded higher average career statistics in all four categories over second round pick Montario Hardesty. Most impressively, Alfred Morris, also a sixth round draft pick, clearly had higher average career statistics in three out of four categories as he recorded nearly 1,600 more yards per season, 325 more rushing attempts per season, and 13 more touchdowns per season than early second round pick Isaiah Pead. The one category that Morris did not control was yards per carry, as Isaiah Pead had 5.4 yards per carry over his career while Morris had 4.8 yards per carry. However, this statistic may be misleading in this instance as Pead has had only 10 rushing attempts per season through the 2012 season and rushed for only 54 yards per season in that same time frame. Conversely, Morris averages 335 rushing attempts per season and averages 1,613 yards per season as well. With just 10 rushing attempts and 54 yards per season, Pead would average 5.4 yards per carry over his career thus far. As the rushing attempts exponentially increase, such as Morris' 335 attempts per season, the likelihood of maintaining 5.4 yards per carry would decrease. With the average yards per carry in the NFL being around 4.0, Morris' 4.8 yards per carry is higher than the mean and would prove to be a tremendous average for a player who carries the ball more than 300 times per season (Stuart, 2006). If the random number generator would have paired Morris with first round running back Doug Martin, the results would have shown that Morris had higher career average statistics in all four categories which also
shows that as the average number of carries per season increases, the average yards per carry would be lower. The fact that a sixth round draft pick, who was only 3 running back selections away from being drafted in the seventh round, has had a more successful career thus far than a first round selection shows just how difficult it is for General Managers to make decisions on who will be the best selection.

The results of this research displays that the running backs analyzed in the third through seventh round have had more successful careers than the running backs drafted in the first and second round. This information could be significant to NFL front offices due to the fact that decision makers can see data that shows that $60 \%$ of the sample of running backs that were drafted in the third through seventh rounds have had more successful careers through the 2012 season than those running backs that were drafted in the first and second round. It is no secret that the earlier the round selected, the more expensive the contract will be, and if decision makers are selecting running backs in the first and second round who do not perform on the field, then they are essentially throwing money away that could have been used to draft a player who will perform.

In addition to the third through seventh round running back sample, the third through seventh round wide receiver sample has shown that 60\% of these receivers drafted have had more successful careers than those receivers drafted in the first and second round through the 2012 season. Sixth round draft pick Pierre Garcon has more than tripled second round wide receiver Malcolm Kelly in all three statistical categories. While Garcon's average career stats through the 2012 season are not higher than some of the first and second round receiver sample, he still has higher average statistics than
at least half of the first and second round receiver population in this data. In 2009, Jeremy Maclin was drafted in the first round, selection number 19 overall. In that same draft, Mike Wallace was drafted in the third round, selection 84 overall. Wallace has recorded 1,010.5 receiving yards per season and 8 touchdown receptions per season while averaging just 58.75 receptions per season. Wallace was randomly selected to be compared with first round pick Jeremy Maclin, who through 2012 has 863.25 receiving yards per season and 6.5 touchdown receptions per season with a higher average of receptions per season at 64.5. Wallace has caught the ball on average 5.75 times fewer per season than Maclin over their careers, yet Wallace has amassed 147.25 yards per season and 1.5 touchdowns per season more than Maclin. This shows that Mike Wallace, the third round draft pick, has done more with fewer opportunities than first round pick Jeremy Maclin. Another third round receiver T.Y. Hilton has had higher average statistical success than second round draft pick Brian Quick by scoring 5 more touchdowns per season and 705 receiving yards per season than Quick. Furthermore, fourth round draft pick Chris Givens has had more success in two of the three average statistical categories than first round pick, selection 13 overall, Michael Floyd. Generally, when a franchise drafts a player in the first round, they are expecting that player to excel on the field and to contribute to the team in the form of statistics. However, a fourth round receiver has had more of an impact for his team, and has helped the team achieve success. The findings in terms of receivers have shown that with $60 \%$ of third through seventh round draft picks in this sample compiling higher average career statistics than receivers drafted in the first and second round, there lies an issue in the way that decision makers manage their draft picks and pass on
receivers who could have more of an impact on the field than the receivers they end up drafting earlier.

The limitations to this research made it difficult to accurately portray the NFL as a whole in that 20 players from each position were randomly selected to be the sample. With another year of research, it could be possible to analyze every draft pick from the years 2008 through 2012 and that would provide a completely accurate representation of the NFL draft issues. Furthermore, more time would permit research on each player before the NFL draft in the form of college success. By understanding the numerous factors that eventually lead to a draft choice one could begin to analyze further. By not researching each samples college statistics and college system, the findings of this research were strictly displayed in the form of quantitative data. If qualitative data were used as well, such as what role a player had in college or what type of offense that player was in during college, then the findings to this research could have been more in depth and could have helped to explain why a player was drafted in the round they were.

## Conclusion

Acknowledging that the sample for this research did not include every quarterback, running back, and wide receiver, the data may not accurately represent the NFL as a whole. However, the findings display evidence that individual offensive skill players that were drafted in the third through seventh round of the NFL draft do in fact have more successful careers than the individual skill players that were drafted in the first and second round. More specifically, this data illustrates that $60 \%$ of the third

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through seventh round running back and wide receiver sample have been more successful on the field than $40 \%$ of the same first and second round sample. With this information, NFL franchise front offices can re-evaluate their draft day selections and perhaps take more risks that could likely pay off in the future.

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