

Bryant University

HONORS THESIS



Education Pays Off for NFL Retirees: A Study of the Impact that an NFL Retiree's Educational Background Has on Their Post-Retirement Financial Success

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Submitted in partial fulfillment of the requirements for graduation with honors in the Bryant University Honors Program

APRIL 2021

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Bryant University Honors Program
Honors Thesis
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April 2021

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ABSTRACT

With a large frequency of professional sports retirees going broke, this study aims to uncover potential causes which may increase the risk of bankruptcy in retirees. Previous studies in the field have analyzed demographic, background, and playing career characteristics that may lead to a higher risk of bankruptcy among retirees in various professional sports leagues. This study analyzes factors pertaining to a player's educational/collegiate background to determine whether these factors may lead to an increased risk of bankruptcy among NFL retirees. Data was collected on a sample of 80 NFL retirees, who retired between the years of 1971 and 2015. The data was run through a probit regression model to find out whether one's educational background may increase the risk of bankruptcy. Overall, the results of study find that NFL retirees who graduated either before, during, or after their NFL career were less likely to experience bankruptcy than those who did not graduate at all.

INTRODUCTION

Professional sports are a keystone of the American culture. Many Americans are fans and followers of the professional leagues, devoting time and money to the sports. Not only do the sports and teams receive attention and wide scale following, but the individual athletes draw the attention of millions of fans. Accompanying the wide scale attention athletes receive, are multi-million-dollar annual paychecks throughout much of their career. There are many anecdotal stories of athletes finding themselves broke despite earning millions of dollars throughout their professional careers.

With the many incidents of players going broke despite their earnings, several studies have attempted to identify the underlying causes of why these athletes go broke. A 2009 *Sports Illustrated* article by Pablo Torre placed an estimate on the frequency of financial hardship among NFL and NBA retirees. In his article, it is reported that an estimated “78% of former NFL players have gone bankrupt or are under financial stress” and that “within five years of retirement, an estimated 60% of former NBA players are broke” (Torre). Several articles have cited these statistics, using the report as the motivation for further analysis of the underlying causes of financial distress among retired professional athletes. Others have questioned the validity of the percentages, attempting to find more accurate estimates of how many athletes feel the pressure of financial distress. However, these estimates can be hard to estimate, as financial information is private to the individual and not publicly available. The only information that is available to be used as a proxy for financial distress is bankruptcy, thus the number of athletes experiencing financial distress will be understated.

Since the publication of the *Sports Illustrated* article, the topic has received much more attention. Professional sports player associations done more to address the issue of financial success. From creating lists of reputable financial advisors to bringing in professionals to help get athletes involved in their finances, these associations are doing more to help set their players up for success in recent years. Retired athletes who have experienced financial hardship or bankruptcy have also gotten involved. Two examples of this are retired NBA player, Antoine Walker, and NFL retiree, Jack Brewer. Antoine Walker paired up with Morgan Stanley and has begun speaking to young NBA players about his experiences with

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bankruptcy to help inspire them to avoid the hardship he went through (Barrabi). Jack Brewer has teamed up with Fordham University, in an attempt to help players achieve their MBA, believing that a lack of education contributes to the increased rate of bankruptcy in professional athletes (Limitone).

LITERATURE REVIEW

The frequency of athletes going broke appears to be very high, with many anecdotal stories about former successful athletes blowing their millions on a lavish lifestyle that they cannot maintain in retirement when their income goes away. Sports fans across the country are familiar with the stories of successful, famous athletes going broke, such as Antoine Walker, Mike Tyson, Allen Iverson, Curt Schilling, and Warren Sapp. Many studies that have been conducted aim to analyze underlying causes and conditions which make athletes more likely to go bankrupt than others. These studies aim to categorize players into many subcategories, such as career length and earnings, basic demographics, whether the player has experienced certain major life events, draft position, and many others. Many of the studies conducted on bankruptcy among former professional athletes focus on the NFL and NBA when studying bankruptcy, as these sports appear to have higher bankruptcy rates than other major sport leagues such as the MLB or NHL.

In 2009, Pablo Torre wrote an article for *Sports Illustrated*, titled, *How (and Why) Athletes Go Broke*. This article aims to analyze the reasons that many former professional athletes are going broke and discover what financial stresses drain them of their high career earnings. Many studies that have been conducted since the publishing of this Sports Illustrated article have cited statistics from this article. Torre reports that “within 2 years of retirement, 78% of former NFL players have gone bankrupt or are under financial stress” and “within five years of retirement, an estimated 60% of former NBA players are broke”.

After stating the estimates for the frequency of athletes going broke, the article highlights several of the reasons as to why many athletes find themselves losing the large sums of money they earned in their careers. The first reason outlined in the article was what Torre

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called the “Lure of the Tangible”. Players often splurge too much, blowing their paychecks on expensive items, including cars, jewelry, expensive nights out, and other big-ticket items. The players are distracted by these purchases and do not realize that these large checks need to be stretched to provide savings for them once they retire. Another cause that the article talks about is what Torre refers to as “family matters”. Many players find themselves taken advantage of by family members after they receive their large paychecks. Players may find that family members turn to them asking for large sums of money, and the players often feel obliged to help them out through a sense of loyalty. Another issue that pertains to the idea of “family matters” is divorce or relationships. If players are not careful with their relationships, they can find a large portion of their savings and earnings going to a former spouse upon divorce and legal issues. Lastly, the article talks about the idea of “great expectations”. Players often find themselves in the mental trap of believing that their careers will take off and that the checks will keep flowing. If players do not perform well enough to earn new contracts or if they find themselves injured, their high earnings may be more short-lived than expected, and if the players did not prepare for this case, they may have not saved enough money to support themselves in their unexpected retirement.

The Torre article also talks about the idea of misplaced trust. Oftentimes, players do not have the proper knowledge to manage their paychecks and plan for their future. Thus, they become easy targets for agents and financial advisors to prey upon. Many players lose large portions of their income to these individuals because they place too much trust into them, and have their money taken through fraud or exploiting contracts. An article written by Christopher Danowski titled, *The Importance of Financial Management for Professional Athletes and the Prevention of Bankruptcy*, talks about the idea of misplaced trust in financial advisors. This article explains that misplaced trust into financial advisors poses a large problem, as many professional athletes have found themselves the victim of fraud and financial abuse at the hand of irresponsible advisors and agents. The article highlights a couple ways to mitigate the risk of financial abuse among professional athletes. One of the findings is that the NFL Players Association has created a list of reputable financial advisors to reduce fraud and mistrust. Another suggestion from the article is that athletes need to take an active role in their

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financial plan. The findings indicate that players who take an active role in their investing strategy find themselves in better financial shape than those who do not.

Another key study about NFL players was published in the National Bureau of Economic Research. This article was titled, *Bankruptcy Rates among NFL Players with Short-Lived Income Spikes*, and it analyzes the frequency of bankruptcy among NFL athletes, as well some of the underlying causes for the risk of bankruptcy. The data source used for this research was collected from publicly available information of players who were drafted into the NFL by teams from 1996 to 2004. Using this data, along with publicly available information of bankruptcy records, the researchers found the frequency with which NFL retirees filed for bankruptcy and compared these factors to career earnings and length of career.

The research found some clear indications that bankruptcy rates among former NFL players are higher than the general population. Within two years of retirement, 1.9% of players had filed for bankruptcy, and within twelve years of retirement, 15.7% of players had filed for bankruptcy. In contrast with this, it is very unlikely for active NFL players to go bankrupt, with a hazard rate of practically zero. Interestingly, it is more common for players with careers lasting exactly 5 years, one year beyond the typical rookie contract, to go bankrupt. One possibility for this outcome could be that the players see their career taking off and future pay to be high after the signing of this new contract, causing them to spend more lavishly. Another key finding from this article is that career earnings do not have a strong effect on bankruptcy rates, so having a lengthy, successful career is not a good barrier to bankruptcy. Overall, this article generates conclusions from their research which contrast with the Sports Illustrated article, which states that 78% of NFL players are bankrupt or financially distressed within two years of retirement.

Another key article used in preparation for this study is titled, *Study of Retired NFL Players*. The motivation of this study was to analyze the quality of life of retired NFL players, and furthermore to compare the results of retired athletes to the general American population with similar education levels. The study was conducted through a survey which was sent out to NFL retirees. At the time of the study, there were 6,983 individuals who have retired from the

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NFL, and 1,063 survey responses were collected of the population of these 6,983 retired NFL Players. One of the key findings of the article, which relates to the findings from the *Bankruptcy Rates among NFL Players with Short-Lived Income Spikes* article, is that retired NFL players between the ages of 30-49 with some college have a higher poverty rate than that of the civilian population with similar educational background (Weir et al.).

Another article used in the motivation for the study was published by Shelby Christensen, titled *Identifying Themes Among Broke Former NFL Athletes*. This article also aims to analyze underlying causes as to why former NFL athletes find themselves blowing their high career earnings. Since financial distress can be felt by athletes in many ways which are not publicly available to the public, the study needed a common metric for measuring financial distress. The key factor that was used in the study was whether the player has filed for bankruptcy after retirement. The researcher gathered a sample of retirees broken into two groups: those who have filed for bankruptcy and those who have not. To discover the underlying causes of NFL players filing for bankruptcy, many variables needed to be included in the model. These variables included: whether they experienced a career ending injury, the age they filed for bankruptcy, their playing position on the field, whether the player graduated from college, their divorce/marital status, their number of children, the number of years in the league, when the player was taken in their draft class.

The key takeaway from this article is that athletes that possess one or more of these characteristics are more likely to go bankrupt: drafted in the first round, drafted in the fourth round, have become divorced, and play at the running back position. In other studies, it has been found that those who stay in the league for a longer career length have more trouble transitioning to life outside of football; however, this study did not show that this factor leads to a higher risk of bankruptcy in retirement. One of the major relationships that can be found between this article and the Torre article from *Sports Illustrated* is that divorce is a key underlying factor which may lead to an increased risk of financial distress.

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DATA

The data set used in the study consists of 80 retired NFL players, 16 of which went bankrupt and 64 of which have not. The sample of players broken down by 20% of players who have experienced bankruptcy and 80% of players who have not filed for bankruptcy. This sample construction was determined based on an estimate from the article, *Bankruptcy Rates among NFL Players with Short-Lived Income Spikes*. In this study, they estimated that of their sample, 15.7% of NFL retirees had filed for bankruptcy. Since the sample in this study consists of a wider timespan of players than the formerly mentioned sample, I increased the estimate slightly to account for a higher likelihood of bankruptcy later into retirement due to potential poor long-term planning.

Below, a table summarizes the summary statistics of the quantitative data collected in the study.

	Mean	Std. Deviation	Minimum	Maximum
Career Length	11.3 years	3.0 years	5 years	20 years
Age at Retirement	33.1 years old	3.2 years old	27 years old	41 years old
Draft Year	1987.7	10.6 years	1956	2006
Last Year of Play	1998.1	10.2 years	1971	2015
# of Teams Played On	2.2 teams	1.2 teams	1 team	7 teams
Time Spent in College	3.8 years	.5 years	2 years	5 years

A player's draft year was one of the important control variables included in the study. In the sample, there were 38 players that were drafted before the year 1989, 40 players that were drafted after 1989, and 2 players that were drafted in 1989. This is significant because Barry Sanders was one of the first players to ever be drafted before using his full college eligibility. Until Barry Sanders was the first player to be drafted before exhausting his eligibility in 1989,

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players needed to fully use the eligibility before being eligible for the draft. This could lead to the reason that the average years spent in college is close to 4 years, which is the number of years of college eligibility that a player has. This does not mean that the player must graduate however, they can still leave after their season before finishing their course requirements. This explains why graduation is the key variable in the study. Completing the degree could indicate that a player is more responsible or likely to take their professional and personal decisions seriously, which could lead to financial success. This is what the basis of the study is conducted around.

Further statistics on the players included in the sample can be found below, summarizing the qualitative variables in the study.

Graduation Status	52 Graduated Before Draft	11 Graduated Later	17 Did Not Graduate
Bankruptcy Status	16 Bankrupt	64 Non-bankrupt	
Offense vs Defense	55 Offense	25 Defense	
LOS vs Skill	21 LOS	59 Skill	

Lastly, to control for any differences in financial education resources and planning that may be provided to players by any teams in particular, the last team that a retiree played for was controlled for in the data collection process. The 80 players in the data sample represented 31 of 32 teams in the league as the last team that they played for in their career. Controlling for this variable ensured that a more representative sample of players could be collected throughout the entire league.

METHODOLOGY AND DATA SOURCES

Many professional athletes have found themselves wasting the high income they earned throughout their professional careers. Various causes have been identified through previous studies conducted about what factors increase the probability that a player will find themselves blowing their savings. There have not previous studies conducted with a focus on a player's college experience leading to an increased risk of financial distress in retirement.

Previously conducted studies that have been conducted with a similar motivation have used several different methods for data collection. Some studies have collected data from publicly available sources, while others have conducted surveys of retired players. As a means of creating the sample for this study, the data will be collected from publicly available sources.

There is very limited public information available about savings and cash holdings of professional athletes, active or retired, as this information is private. Thus, the dependent variable to be focused on in this study is whether a player has filed for bankruptcy, as this information is publicly available. This dependent variable will be used for a proxy of whether the player was financially successful in retirement. Much of the career information on each individual player was gathered from pro-football-reference.com. The information on graduation status and college major was gathered on the players through individual searches of newspaper articles, interviews with the players, and other primary sources.

The variables of focus for the study will be those regarding the players college experience, as previously stated. It is hypothesized that a certain level of education and guidance may be attained from different schools, the amount of time spent in college, or the area of study of a player, which could help the player realize more financial success. This level of education or guidance could vary based on these underlying conditions and may create a higher probability of bankruptcy for a player. Thus, differences in these variables will be the focus of the study, and the other variables in the function will serve as controls for the regression.

Certain variables in the model were collected as "dummy variables", which are only entered into the model as whether the underlying conditions exists in the players life. These variables include be the player's bankruptcy and graduation status. Other variables will be collected as

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continuous variables, where the values will be quantitative values on a continuous scale. These variables include the player's career length, year entering and exiting the league, age at retirement, number of teams they played for, and years spent in college. Categorical variables will be included in the model as well, where the data is qualitative in nature. The data collected of categorical variables include college attended, school conference college major/area of study, the last team they played for, and player position.

Ultimately, the data was be used to run several probit regression models through Stata to determine whether the variables of interest had a significant impact on the likelihood of bankruptcy. Below is a list of the regression equations used to analyze the sample:

$$\text{Model 1. } \text{Bankrupt}_i = \beta_0 + \beta_1 \text{Years in College}_i + \varepsilon_i$$

$$\text{Model 2. } \text{Bankrupt}_i = \beta_0 + \beta_1 \text{Graduated before draft}_i + \beta_2 \text{Graduated after draft}_i + \varepsilon_i$$

$$\text{Model 3. } \text{Bankrupt}_i = \beta_0 + \beta_1 \text{Graduated at any time}_i + \varepsilon_i$$

$$\text{Model 4. } \text{Bankrupt}_i = \beta_0 + \beta_1 \text{Graduated before draft}_i + \varepsilon_i$$

$$\text{Model 5. } \text{Bankrupt}_i = \beta_0 + \beta_1 \text{Graduated at any time}_i + \beta_2 \text{Career Length}_i + \beta_3 \text{Year Exiting League}_i + \varepsilon_i$$

$$\text{Model 6. } \text{Bankrupt}_i = \beta_0 + \beta_1 \text{Graduated at any time}_i + \beta_2 \text{Career Length}_i + \beta_3 \text{Year Exiting League}_i + \beta_4 \# \text{ of Teams Played For}_i + \beta_5 \text{LOS vs Skill}_i + \beta_6 \text{Offesne vs Defense}_i + \varepsilon_i$$

$$\text{Model 7. } \text{Bankrupt}_i = \beta_0 + \beta_1 \text{Graduated before draft}_i + \beta_2 \text{Career Length}_i + \beta_3 \text{Year Exiting League}_i + \varepsilon_i$$

$$\text{Model 8. } \text{Bankrupt}_i = \beta_0 + \beta_1 \text{Graduated before draft}_i + \beta_2 \text{Career Length}_i + \beta_3 \text{Year Exiting League}_i + \beta_4 \# \text{ of Teams Played For}_i + \beta_5 \text{LOS vs Skill}_i + \beta_6 \text{Offesne vs Defense}_i + \varepsilon_i$$

RESULTS

In a basic regression, with no controls, years spent in college is not statistically significant to increasing bankruptcy risk in NFL retirees, as seen in Table 1. However, there may be underlying bias in this finding. The bias may arise due to the need for players to exhaust their full eligibility prior to the 1989 draft, when Barry Sanders broke this standard for future players. Players entering the draft after 1989 could leave school before exhausting their full eligibility, which would allow for more variation in this variable post-1989. Since players did not have this option prior to 1989, the variable becomes biased as players used their full four years of eligibility prior to entering the league. Years spent in college is also not included as a variable in regressions with the graduation variable discussed below due to an issue of collinearity between the two variables.

Due to the nature of the graduation variable in the study, there are several groupings of this variable that were used in regression. The information gathered on the players shows that each player could have graduate before entering the league, after entering the league, or not graduating at all. These groups are analyzed independently, as well as in groupings where players who graduated at any time are combined and where only players who graduated before their careers are considered as graduates.

In a basic regression, with no controls and each of the graduation categories considered independently, those who graduated are less likely to go bankrupt than those who did not at a 90% significance level. On the other hand, there is no significant change in bankruptcy risk between those who did not graduate and those who graduated after being drafted, either during or after their NFL career. These results are summarized from the regression results in Table 2.

The next set of regressions include no control variables and categorize the graduation variables as either graduating at any time versus graduating only before one's career. The results of this regression can be found in Table 3. Players who graduated at any point, either before drafting or after career, are less likely to go bankrupt than those who did not graduate at all at a 90% significance level. When considering players graduating only before they enter

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the league, there is no significant change in bankruptcy risk for those who graduated before being drafted versus those who did not graduate at all or graduated after entering the league.

In a model where graduating players from both categories, either before or after entering the league, are considered together, these players are less likely to go bankrupt than those who did not graduate at all at a 90% significance level, when controlling for career length and the year that they left the league. Career length and year of league departure are important variables to control for in this study. The career length variable was used as a proxy for career earnings of a player, as a player stays in the league for longer will continue to receive income relative to their annual salary. Year of league departure is important to control for as well to see how well players have managed to stretch their income over retirement. Players who retired a longer time ago have needed to smooth their consumption out over a longer period, which may increase their risk of bankruptcy over a player who may have retired just a few years ago. Neither of these control variables had a significant impact on a player's likelihood to experience bankruptcy in retirement. These findings are summarized from Model 5 which is represented in Table 4.

After analyzing the results from the previous regression in Table 4, additional controls were added to control for more specifics about the players. This model builds upon the previous one, controlling for career length, the year of league departure, the number of teams they played for, whether they played offense or defense, and whether they played on the LOS (line of scrimmage) or a skill position. When using these controls in a model where all graduations, either before or after the draft, are considered, players in the graduated category are less likely to go bankrupt than those who did not graduate at a 95% significance level. The results of this model are summarized from Table 4, under Model 6. The controls included in this model attempt to capture differences between players based on their position, whether they are a lineman or a "skill" player, as well as whether they played offense or defense. The control for the number of teams a player has played for was included to capture whether there is an effect on players who have been traded around more frequently and forced to move around and adapt to new environments as a result. None of these control variables in this regression had a significant impact on a player's likelihood to experience bankruptcy in retirement.

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Models 7 and 8 repeat the same implementation of controls from Models 5 and 6, respectively, using a different grouping of graduation status. Rather than grouping players together who graduated at any time, Models 7 and 8 regress players who graduated only before they entered the league against those graduating later or not at all. When players are categorized in this manner, there is no significant change in bankruptcy risk between those who graduated before being drafted versus those who graduated later or not at all. None of the controls included in the models are found to be statistically significant in affecting bankruptcy risk either. The results from Models 7 and 8 are summarized in Table 5.

While Models 7 and 8 provide different results than Models 5 and 6, it can still be comfortably said that graduating college at any point reduces a player's risk of bankruptcy in retirement from the NFL. It is more impactful to study whether a player graduated at any point for the purpose of this study, versus only before their career. There are many factors that play into whether a player can graduate before their career, including draft preparations such as the combine and pro days. Thus, it is more meaningful to include players into the graduation category if they finished their degree during or after their careers. Finishing one's degree is a sign of discipline and commitment to bettering themselves professionally and personally, and such players who graduated at any point should be included in the graduation category.

CONCLUSION AND AREAS OF FOCUS FOR FUTURE RESEARCH

Overall, the findings indicate that there is a lower bankruptcy risk among players that took their education seriously and graduated before, during, or after their NFL career versus those who did not graduate. The lower risk for bankruptcy holds true in a basic model with no controls, as well as when controlling for factors such as, career length, year of retirement from the league, number of teams played for, playing on the line of scrimmage versus a "skill" position, and playing offense or defense. This is the most meaningful finding from the study, indicating that those players who aim to seriously pursue an education find themselves less likely to experience financial distress. Even if a player takes longer to graduate and returns to finish their degree later, it still shows the desire to improve one's education, which leads to a

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decreased risk of bankruptcy as seen in the study. It is also important to note that when the previously listed controls were included in the regressions, none of the control variables were statistically significant in affecting bankruptcy risk in any of the regressions, either positively or negatively.

There are several things that came up as the study unfolded that presented restrictions on the study as well as opportunities for future research. One of these instances arose through the availability of information on the private finances of NFL retirees. If data availability were no issue, it would have been ideal to study changes in net worth and include players who may have lost a significant portion of their savings without going bankrupt. However, due to the lack of readily available, public information on this on a large scale for players, thus study was not feasible. If the information on player net worth at various times throughout their career and retirement, this could offer great insight into the struggles and factors that play into financial distress on a more in-depth basis.

If there was more time available for data collection, there are some things that could have been done to improve the quality of the underlying data in the study. Some of the improvements that could have been made to the data include, obtaining a larger sample size and controlling for career earnings of the players. There was not enough time to obtain a larger sample of players due to the time-intensive nature of data gathering. Since the educational background of each player needed to be combed through multiple sources, this part of the data gathering process occupied most of the time that could have been used gathering more players. This time restriction also hindered the ability to control for career earnings, which would have been another time-consuming part of the data gathering. Rather, the career length of the player was used as a proxy for career earnings, as players who stay in the league longer continue to receive more income over time relative to their salary. In future research, the sample in this study could be used as a base for another study to control for career earnings when evaluating another variable of interest.

Another area of study related to a player's career earnings which could be studied in future research is the implementation of the salary cap. The salary cap was introduced to the NFL in 1994, restricting a team's ability to spend more money on player contracts than outlined by

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the NFL policy. This helps create a more even balance of talent throughout the league, by controlling how much teams can spend on top level talent and spreading these top tier players throughout the league. The salary cap also helped popularize payroll engineering strategies, such as deferred compensation plans. These plans allow for teams to play around with the salary cap and defer payment to players from this year and spread these contract payments over years to come. Receiving smaller portions of one's income over a longer period may help players smooth their spending habits and allow for greater long-term financial success. As time passes and more retirees emerge from the salary cap era, it will be interesting to see if these players are better set up to avoid financial distress in retirement from their playing careers.

There were some parts of the educational background that became unfeasible to include in a quantitative study. In the study, the school and quality of the education was a variable of interest to me. However, due to the wide dispersion of players from different schools, this was not able to be studied with a sample of this size. As a proxy for school quality and education strength, I broke the schools into smaller categories based on conferences. This also became an issue in the sample, as in this sample there were 26 different conferences represented. This also could not be analyzed using quantitative analysis due to the size of the sample. To make the schools and conferences able to be studied in a regression analysis, there would need to be more controls in place to limit the number of schools and conferences allowed to be included in the study which I did not want to do for this study. The purpose of this study was to analyze educational background among all NFL retirees, and limiting the number of schools and conferences in the study would create bias in the results. There is potential for future research to develop a study with limited schools and conferences included in the sample to test whether certain schools and conferences are better able to prepare their players to avoid poor financial decision making.

A similar issue arose when trying to study whether a player's college major may affect the bankruptcy risk that the player faced in retirement. The data on college major was not available for many of the players due to the private nature of this information. The data was also not available for many of the players who left school early for the draft since many of

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these players had yet to declare a college major. For the players that did have readily available information on their college major, a similar issue arose to the one faced with the school attended variable. There was a wide variation in the number of college majors, making it unfeasible to perform quantitative analysis on this variable with a sample of this size. There is potential for future research in this variable as well. In future studies, college major could be broken down into categories such as business, liberal arts, sciences, etc. among athletes that finished their degree, and the categories could be compared against one another.

REGRESSION TABLES

Table 1 – Model 1 (Years Spent in College Regression)

```
-----  
                                     (1)  
                                BankruptDummy  
-----  
  
Years Spent           -0.428  
In College            [-1.33]  
  
_cons                 0.788  
                     [0.64]  
-----  
N                       80  
-----  
t statistics in brackets  
* p<0.1, ** p<0.05, *** p<0.01
```

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Table 2 – Model 2 (3 Category Regression with No Controls)

```
-----  
                                (2)  
                                BankruptDummy  
-----  
  
Graduated          -0.643*  
Before Draft      [-1.71]  
  
Graduated          -0.531  
After Draft       [-0.98]  
  
_cons              -0.377  
                  [-1.21]  
-----  
N                  80  
-----  
t statistics in brackets  
* p<0.1, ** p<0.05, *** p<0.01
```

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Table 3 – Model 3 & 4 (Grouped Regressions with No Controls)

	(3)	(4)
	BankruptDummy	BankruptDummy
Graduated at Any Point	-0.622* [-1.70]	
Graduated only Before Draft		-0.454 [-1.38]
_cons	-0.377 [-1.21]	-0.566** [-2.25]
N	80	80

t statistics in brackets
 * p<0.1, ** p<0.05, *** p<0.01

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Table 4 – Model 5 & 6 (Any Time Graduation Group Regressions)

	(5)	(6)
	BankruptDummy	BankruptDummy
Graduated at Any Point	-0.682* [-1.81]	-0.747** [-1.96]
CareerLength	-0.0390 [-0.72]	-0.0460 [-0.82]
YearExiting	-0.00296 [-0.19]	-0.00698 [-0.41]
#ofTeams		0.109 [0.79]
LOSvsSkill		-0.0753 [-0.19]
offenseDummy		0.330 [0.83]
_cons	6.024 [0.19]	13.74 [0.41]
N	80	80

t statistics in brackets

* p<0.1, ** p<0.05, *** p<0.01

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Table 5 – Model 7 & 8 (Pre-Career Graduation Group Regressions)

	(7)	(8)
	BankruptDummy	BankruptDummy
Graduated only Before Draft	-0.486 [-1.44]	-0.492 [-1.43]
CareerLength	-0.0303 [-0.56]	-0.0326 [-0.59]
YearExiting	-0.00277 [-0.17]	-0.00533 [-0.32]
#ofTeams		0.0708 [0.51]
LOSvsSkill		-0.113 [-0.28]
offenseDummy		0.259 [0.67]
_cons	5.320 [0.17]	10.22 [0.30]
N	80	80

t statistics in brackets

* p<0.1, ** p<0.05, *** p<0.01

APPENDICES

Appendix A (List of Players in the Bankrupt Group)

Vince Young
Jamal Lewis
Johnny Unitas
Warren Sapp
Duece McAllister
Lawrence Taylor
Andre Rison
Bernie Kosar
Luther Elliss
Terry Long
Billy Sims
Raymond Clayborn
Archie Griffin
Dermontti Dawson
Mike Vick
Mark Brunell

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Appendix B (List of Players in the Non-Bankrupt Group)

Matt Light	Terry Bradshaw	Tiki Barber
Kevin Faulk	Jerome Bettis	Phil Simms
Andre Tippett	Eddie George	Bill Bergey
Steve McNair	Coy Bacon	Randall Cunningham
Mike Renfro	Boomer Esiason	Tre' Johnson
Allen Pinkett	Corey Dillon	Art Monk
Bart Starr	Brian Sipe	John Randle
Greg Jennings	Courtney Brown	Audray McMillian
Reggie White	Steve Everitt	Charles Woodson
Leon Lett	Bennie Cunningham	Walter Payton
Donovan McNabb	Tom Nalen	William Perry
Joe Namath	Rod Smith	Barry Sanders
Marvin Powell	Kellen Winslow	David Sloane
Ronnie Lott	Marcellus Wiley	Orlando Pace
Marvin Jones	Mark Carrier	Brett Favre
Keyshawn Johnson	Emmitt Smith	Ricky Watters
Joe DeLamielleure	Everson Walls	Rueben Mayes
Jim Kelly	Ronald McKinnon	Al Toon
Tim Green	Tony Boselli	Desmond Howard
Marshall Faulk	Darren Woodson	Andre Dyson
Randy McMillan	Anthony Weaver	Bryan Cox
Chip Banks		

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