AN EXAMINATION OF COLLEGIATE BASKETBALL PLAYERS EARLY ENTRY INTO THE NBA "SHOULD I GO OR SHOULD I STAY?"

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ABSTRACT

Byron Sanders: An Examination of Collegiate Basketball Players Early Entry into the NBA.
"Should I Go or Should I Stay?"
(Under the direction of Erianne Weight)

Players going into the NBA before the end of their college eligibility has caused much discussion about the merit of their early departure from school. The discussion is based upon whether it is beneficial to go early or whether a player should stay for four years of school. This study compared base salary, longevity and minutes per game for collegiate players who left early for the NBA to those who stayed in college. Statistics were compiled of all collegiate players selected in the first and second rounds of the NBA draft from 1993 to 2004. Furthermore, this study explores the effects of early entry by player position. Mixed results were produced when including the grouping variable position. However, when examining classification by year of eligibility (freshman, sophomore, etc) only, it was concluded that collegiate NBA prospects leaving school early had better overall NBA careers than those who stayed in school. The results suggested freshmen prospects benefit more than any other class level from leaving school early to enter the NBA. Base salary, longevity, and production decreased as a player's collegiate classification increased.

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CHAPTER I

INTRODUCTION

As a college student-athlete, I was fortunate to have attended one of the top basketball universities in the country. In doing this, I was able to play with and against top collegiate players. The question “should I go or should I stay?” was asked by two former teammates of mine who were contemplating leaving school early to enter the NBA draft. My answer to both of them was the same: “GO!!!” I always believed if you have an opportunity to take a job that will propel your career then you have to go for it. Less recognized students like ones in the music department or business school with similar opportunities most likely would not pass on the opportunity. My last statement to both of them was “This opportunity may not be here next year. You can always come back to finish your degree.”

The first teammate, who was thinking about leaving early, left and was drafted in the first round. Because of lingering injuries suffered in college, he only played five years in the NBA. While playing in the NBA, he obtained his college degree. Because the NBA is the top basketball league in the world, his NBA experience made him a highly valuable player in the European basketball leagues in which he is currently playing. The second teammate was predicted to be a first-round draft pick but decided to stay in college. He was drafted late in the second round but never signed with an NBA team. He is currently playing overseas and will never know what could have been relative to his NBA career if he would have left earlier.

While commentating a basketball game Jay Bilas, a college basketball analyst for ESPN, stated that NBA prospects who are thinking about leaving school early, not only need to think about what they will initially earn, but how long their NBA career will last, how much they can potentially make and how valuable they will be for a NBA team. He expressed that most collegiate NBA prospects will benefit if they stay in school longer even though they will most likely be picked later in the NBA draft. On this basis, my thoughts of an early entry into the NBA study were formed.

In 1997, eighty-six percent (86%) of the NBA All-Star game, which annually represents the top five percent of the professional basketball players, spent three or four years in colleges (Bernucca, 2012). Among them were greats such as Michael Jordan, Charles Barkley, Shaquille O'Neal, Scottie Pippen, Karl Malone, John Stockton, Patrick Ewing, Clyde Drexler and Gary Payton. By 2002, just five years later, the number had dropped to fifty percent (50%) with names such as Tim Duncan, Steve Nash, Ray Allen, Paul Pierce and Vince Carter (Bernucca, 2012). In 2012, only twenty percent (20%) of the All-Stars spent three or more years in college (Bernucca, 2012). When these players made their decision to go into the NBA draft, there was much speculation about the effect this would have on college sports and the NBA. (Bernucca, 2012)

Players going into the NBA before the end of their college eligibility has caused much discussion about the merit of their early departure from school. The discussion is based upon whether it is more beneficial to go early or whether a player should stay for four years of school. The new NBA commissioner, Adam Silver currently is in heavy debate about increasing the NBA's entry age limit from nineteen and one year removed from high school to twenty and two years removed. He stated, "…that an increased age limit helps all parties. The upside for the

NCAA is obvious, and NBA teams certainly would prefer more time to scout prospects. But the numbers suggest that the players themselves might not benefit as much from another year on a college court" (Pelton, 2014, p. 1).

The challenge of making a big career decision can be very difficult. This important decision for basketball stars is made at a very early age and the decision greatly impacts the player's well-being, his family, and the culture of men's basketball (Auerbach & Martin, 2014). This study will serve as a resource for young basketball players and their families by providing data relative to the career effects of early entry into the NBA through examination of the careers of players who left school early and those who remained in college. This study quantifies their base salary in the NBA, the length of their careers and minutes averaged per game (MPG) for both players who left early and stayed in college. It will focus on whether an early entrance to the NBA is good for careers, salaries, longevity, and production (MPG) or whether it is a factor at all. The goal of this study is to determine if there are true advantages or disadvantages for student-athletes to leave college early for the NBA.

Statement of Purpose

The purpose of this study is to determine the effect collegiate NBA prospects' early entry into the NBA have on their NBA career salary, length, and production.

Research Questions

1. Is there a significant difference (by position: guard, forward, center) if collegiate NBA prospects enter the NBA after their freshmen, sophomore, junior, or senior year in;

    A. Total base salary: up to ten years;

B. Longevity: up to ten years played;

C. Production: average MPG up to ten years?

2. Do collegiate NBA prospects benefit more if they enter the NBA draft before their senior year?

Research Hypotheses

Leaving school early to enter the NBA draft seems like the best move for collegiate NBA prospects if they are predicted to be a valuable draft pick for an NBA team. After collecting and analyzing the collegiate NBA prospects' data, there will be a significant difference between seniors that completed college and early entries in the NBA. Collegiate NBA prospects will see a significant increase in salary, longevity and production (MPG) if they leave early as possible. The earlier you get to experience the NBA level of play, the faster you will develop into a beneficial NBA player.

Definition of terms

<u>Collegiate NBA Prospect</u>: An elite collegiate basketball player who is predicted to be an NBA draft-pick.

<u>Collegiate Eligibility</u>: Every student-athlete is allowed a five-year period to compete during four years. (6^{th}-year exception can be granted by NCAA)

<u>NBA (National Basketball Association)</u>: The highest professional basketball league in the world with 30 teams in the United States and Canada. The NBA season usually starts at the end of October and ends in the next year at the beginning of June.

NBA draft: A yearly event (usually at the end of June) where NBA teams select new, elite basketball players from the group of eligible players from U.S. colleges and professional leagues around the world.

NBA Collective Bargaining Agreement (CBA): The contract between the NBA (commissioner and owners) and the NBA Players Association that regulates players' contracts, revenue distribution, the NBA Draft, salary cap, etc…

Rookie Salary Scale: A payment scale for first-round draftees that is regulated by the CBA. The initial term of the rookie contract is 3 years for the years being analyzed (1998-2004). NBA teams have an option to resign the player in their 4th year. The 5th year is a qualifying year in which the current team has to match other teams offers.

In the current CBA, the rookie scaled contract is guaranteed for 2 years; 3rd and 4th years are team options; and 5th is a qualifying year.

MPG- Minutes Per Game

Point Guard: also known as the one position, is typically the team's best ball handler and passer.

Shooting Guard: also known as the two position, is usually the team's best shooter, and typically is the second best ball handler and passer.

(Point and Shooting Guards are usually interchangeable positions)

Small Forward: also known as the three position, is typically somewhat shorter, quicker and leaner than power forwards and centers.

Power Forward: also known as the four position, typically plays closer to the basket than a small forward and usually has more shooting range than a Center.

Center: also known as the five position, is typically biggest and tallest player that usually plays near the basket.

(Centers and Power Forwards are usually interchangeable positions)

Assumptions

For the purposes of this study, it is assumed that:

- RealGM Basketball, Patricia's Various Basketball Stuff and National Basketball Players' Association website's databases accurately provide NBA players' biography, collegiate year(s), draft picks, and salaries.

Delimitations

- This study examines former and current NBA players that were drafted from college between 1993 and 2004.
- Statistics that are being examined include longevity (years played), production (MPG), and base salary in the NBA between 1993 and 2013
- The year 1993 was chosen to gather 20 years of data about the careers of former and current NBA players that were drafted from college.
- All data will be collected up to ten years from the players draft year.

Limitations

- This study is limited to the number of collegiate basketball players that were drafted in the two rounds of the NBA draft between 1993-2004. Non-collegiate international players, high school players and players not drafted are not included.
- Players that suffer career ending injuries or death is another limitation but is extremely rare in the NBA.
- The NBA Collective Bargaining Agreement (CBA) limits the salary data only for draftees in the years of 1998 to 2004 because of the changes in rules and regulations of the CBA in 1995-1998 and 2005-present.
- When the players are grouped by position in each class, the sample sizes decrease.

Significance of Study

The findings of this study may aid collegiate NBA prospects in their decision whether to leave school early to enter the NBA draft. This study will help provide a clearer picture of how leaving school early will affect NBA careers. This analysis may show that leaving school early could benefit players' NBA careers initially but hamper their longevity, production and salary.

In a recent article, college and NBA analysts discussed the effects of a possible increase to the NBA's entry age rule. Jay Bilas stated the NBA would improve if the NBA increases it's age limit to twenty and two years removed from high school. He stressed, "The NBA wastes money on the development of young talent that is simply not prepared to make an immediate impact" (Bilas & Goodman, 2014, p. 1). This study may show the pros and cons of an increase to the NBA's age limit.

College coaches may also find this information useful when they consult their players about entering the NBA draft. They can refer to this study and reference its findings to determine how their player's NBA career could potentially be in terms of length, playing time, and income. The results of the study can assist in making a very difficult decision for a player's future.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In order to understand early entry in the NBA, we need to look at how it evolved within the NBA. In 1961, the NBA implemented a rule that a player could not make himself available for the draft until four years after his high school graduation (Grave, 1998). The rules changed again in 1971 after Spencer Haywood brought suit against the league saying the age requirement was never collectively bargained and clearly violated under anti-trust law (Denver Rockets, 1971). In1972, a hardship draft was conducted for players who could show financial hardship, but this was eliminated a year later. Beginning in 1973, anyone declaring hardship was included in the regular draft. In 1976, the policy for declaring hardship was completely eliminated and the early entry process proceeded (Grave, 1998). This allowed any athlete with college eligibility to enter the NBA draft. In order to do this they had to forfeit NCAA eligibility. As a result, during the 1970s three high school student-athletes also entered the NBA draft (Broussard, 2003). It took twenty years until the next high school athlete (Kevin Garnett, 1995) would forgo college for the NBA draft (Carter, 2006).

In 1983, the CBA reduced the NBA draft from ten to seven rounds, beginning in 1985. 1985 was also the first year the draft lottery was conducted. The number of draft rounds was further reduced to three rounds in 1988 and then in 1989 to the current two round system (CBA, 1983). Even though the "modern" NBA draft rules have been in place since 1989, the way NBA teams use the draft is significantly different. The main difference is teams have shifted away from selecting college seniors and are now looking at "potential" when picking draft prospects.

A highly rated collegiate NBA prospect by the name of Glen Robinson was rumored to get $100 million for his first contract. Robinson signed a $68 million deal that currently stands as the NBA richest rookie contract. After the $100 million scare, NBA owners demanded a cap on the rookie salaries (Schmidt, 2009). In 1995, the rookie salary scale was implemented. NBA teams could sign a first-round pick for three years at a capped amount in the first rookie scale (CBA, 1995). In the current system, teams sign two-year contracts with their first-round draftee(s) and possess team options for the third and fourth years (CBA, 2011).

The rookie scale system gave NBA owners the motive to acquire younger player in the draft (Groothuis, Perri & Hill, 2007). As this process evolved, and more early entrants declared for the NBA, then commissioner David Stern pushed for an increased age limit. Therefore, in 2006 the NBA implemented a rule that required basketball players to be nineteen and one year removed from high school (CBA, 2005).

As a result of this NBA legislative change, today we see fewer college seniors selected in the draft and an increase in the number of underclassmen. "In fact, over the past six years (2006-2011), a total of 37 seniors have been taken in the first round of a draft out of a total of 180 selections, meaning that underclassmen and international players comprise 80% of first round draft picks" (Zola p. 163). Critics say each year a player stays in college, his value decreases because of the ability for NBA teams to develop potential "stars." (Zola, 2012)

A Grand Discussion About the "One and Done"

"It tarnishes what we're trying to do as coaches…I don't know of any person I've talked to who says, 'I like the one-and-done'" (T. Boyle, qtd in Auerbach & Martin, 2014).

"…I think the reality is there's been a lot of players who've come out of high school that were much more successful on average than players that went to college…It seems like the system really isn't teaching players anything if you go to college" (K. Bryant, qtd in Highkin, 2014).

The first statement by Colorado's head coach Tad Boyle and the second statement by NBA's high school draft pick and Lakers' mega star Kobe Bryant has been part of immense debate that might change the future of high school, college, and NBA basketball.

A recent article written by Nicole Auerbach and Jeffrey Martin, revealed a dilemma with the "one and done" rule on all levels of basketball. Currently, players are not allowed to enter the NBA draft until they are nineteen and one year removed from high school (2014). The new NBA commissioner, Adam Silver says he is in support of increasing the minimum age to enter the NBA draft from 19 to 20. Since the increased age limit was implemented in 2006, players have opposed the rule change. Even players that left school early but struggled to stay in the NBA agree on not changing or removing the one and done rule (Auerbach & Martin, 2014).

College coaches like Duke's Mike Kryzewski have spoken out against the current rule in favor of an age limit increase. ESPN and other sport channels have analysts debating mostly on which freshmen or underclassmen have been playing the best and comparing their draft stock. This attention has created high expectations for young players that result in great pressure to get to the NBA as soon as possible (Auerbach & Martin, 2014).

The effect of “one and done” players are also felt by college basketball programs. The impact of “one and done” players on college basketball was studied in 2009 by Brandon Fanney. He focused on five variables: winning percentage, NCAA tournament games, attendance, merchandise sales, and roster turnover. Fanney found NCAA tournament games were the only variable to be significantly impacted by “one and done” players leaving school. Fanney stated, “because of the popularity and importance of the NCAA tournament, it can be concluded that one-and-done players have had a significant effect on Division I Men’s College Basketball Programs” (Fanney, 2009, p. iii)

Early Entry into the NBA

Professors Peter Groothuis and Timothy Perri of Appalachian State University and Professor James Hill of Central Michigan University conducted a study that examined the influence of unraveling (jumping-the-gun), human capital (investing to develop talent, on-the-job-training), and option value (option of keeping or releasing talent) in early entry into the NBA (2007). The study showed players who enter the NBA early improve more quickly, which was measured by a dramatic increase in player efficiency rating (PER) and play fewer minutes in their first year than players with four years of college experience.

Under the terms of the 2003 CBA, NBA teams must guarantee three year contracts with a fourth year team option to first round draft picks. Because of the team option, NBA teams are willing to take less skilled, younger players to develop them into valuable NBA players. The professors noted with the fourth year team option, both teams and players have incentives for early entry so players can develop skills through on-the-job training instead of in the NCAA.

According to this study, early entry into the NBA makes sense for both the team and player because of the rookie salary scale. This gives the team incentive to pick riskier, younger talent and develop them into a "star" player (Groothuis et al., 2007). If the player does not progress then the team has the option to release them after two years, according to the current CBA.

In an extended study by Groothuis et al., Nick Sugai (2010) examined the 19-year-old age minimum to enter the NBA and the option between on-the-job training and schooling for NBA prospects. Sugai focused on the effects of players entering the NBA directly from high school and the development associated with on-the-job training. He included high school rankings into his data, which created low significance because of the smaller group size. He stated "the general pattern in the data would suggest that less-skilled players perform at a lower level when they enter the NBA earlier and are therefore helped by the 2006 age minimum…For more-skilled players, the trends in the data seem to suggest that entering the NBA at an earlier age might have a neutral if not positive effect" (Sugai, 2010, p. 47)

Sugai's results imply that elite players are more likely to benefit from on-the-job training and less-skilled players would benefit from attending college. Instead of focusing on entire careers, he set parameters that included eight years of data from the time a player was drafted. Setting those boundaries helped focus on the best years of a NBA player's career (2010).

A 2003 study by L.J. Hepp assisted in a better understanding of the significance of leaving school early to enter the NBA draft by examining the relationship between draft position and success in the NBA. NBA success was determined by three statistical categories: the number of years a player played in the NBA, the number of years a player started on an NBA team and the number of years a player was selected to the NBA all-star team. Hepp concluded the relationship between draft order and success is reasonably consistent. The earlier a player is picked in the draft, the more success he will have in the NBA.

The study focused on career statistics of all basketball players selected in the first and second round of the NBA draft from 1980 to 1989. Simple correlations were produced for each variable in relation to draft position. The test showed that 82% of the variation in years of play in the NBA is explained by or is associated with draft position, 66% of the variation in years as a NBA starter is explained by or is associated with draft position, and 41% of the variation in years of selection to the NBA all-star team is explained by or is associated with draft position. The results suggested a decrease in success for draft positions after the first 14 selections of the draft (Hepp, 2003).

There are many factors that could determine how successful one could be in the NBA. A collegiate NBA prospect may want to see how long he could potentially play, how much he could potentially earn, how much playing time he could potentially have, etc. when deciding how successful he could potentially be if he leaves school early. Success is a term that may be best determined by the individual.

Conclusion

The lures of an NBA career have directly affected the decisions of NBA college prospects. When the NBA implemented the rookie salary scale in 1995, it resulted in an increase of early entrants into the NBA. After the 2006 age limit rule was instituted, a majority of early entrants came out of college. The enticing leap to the NBA has created a dilemma for collegiate NBA prospects to make a difficult decision. This study will attempt to see if there is an advantage or disadvantage to declare early for the NBA draft by measuring collegiate NBA draftees' departure from school and how it impacts their NBA salary, longevity, and production.

CHAPTER III

METHODOLOGY

Subjects

The subjects for this study included collegiate basketball players that were drafted to the NBA between 1993 and 2004. To compare NBA salaries to NBA draftees' years played (by position) in college, the years 1998 to 2004 were chosen in order to collect up to ten years of salary figures from each collegiate draftee within the selected years. The 1998 Collective Bargaining Agreement (CBA) and Rookie Scale structure were the same for the selected years. Then, the rookie scale guaranteed first-round draftees three years, a 4th year team option and a 5th year qualifying offer. In the 4th, 5th, or 6th year a first-round player can become a free agent therefore, he can negotiate any amount within the rules and regulations of the CBA (CBA, 1998). The results for this analysis will give an idea of the relationship between salaries and years played in college even though the current CBA and rookie salary scale is different. Currently, first-round NBA draftees acquire four-year contracts, in which the 1st two-years are guaranteed and the last two-years are team options. The 5th year is still a qualifying year. Second-round NBA draftees will be included in this part of the study. They operate under a different system, in which they are not guaranteed any salary. Second-round rookies negotiate their contract deals. Many second-round NBA draftees get a season or two guaranteed salaries (CBA, 1995). Salary figures utilized in the analysis were adjusted for inflation to reflect 2014-dollar figures ("US Inflation Calculator").

The NBA's CBA has undergone many changes in payment structure, rookie contract scale, and salary cap since it was established in 1995. Between 1998 and 2004, the CBA experienced very little change (CBA, 1998). Even though the salary variable offers important information, it still does not completely describe the effects of early entry into the NBA. A player's value is mostly determined by his durability and performance in the NBA.

Therefore, the variables longevity (years played) and production (MPG) are included. One would say production should include points, rebounds, player efficiency rating (PER), etc. Those statistics would not represent the players that play major minutes but do not fill the stat sheets. To compare NBA longevity (years played) and production (MPG) to NBA draftees' years played (by position) in College, the years 1993 to 2002 were chosen in order to collect up to ten years of data from each collegiate draftee within the selected years. There are players that have played more than ten years but the data within a ten-year career will give an adequate representation of how early entry will affect a NBA career. Most players' best years are within the first ten years of their career.

Data Collection

The NBA draftees' salary figures were collected from the website Patricia's Various Basketball Stuff (PVBS) and the National Basketball Player Association site (NBPA). These databases contain NBA players' salaries from each year being analyzed (1998-2013). The data in the NBPA database only contained salaries from 2008-2014, thus the database from PVBS was used to supplement the NBPA database for the years 1998-2007. The figures from the years of overlap were compared to validate the reliability of the data, and the figures were identical.

The majority of the collegiate NBA draftees' information will be collected from the website RealGM Basketball. This website's database contains their collegiate classification, position, MPG, and years played in the NBA.

Data Analysis

After the collection of the dependent variables (NBA MPG, length, and salary) and the independent variables (collegiate NBA draftees' years played in college and position) between 1993 and 2013, a series of one-way ANOVAs were utilized to determine the effects between each variable.

All variables were included in the first ANOVA test. A second test was performed with all variables except the independent variable position. For a third ANOVA test, both independent variables were included and the freshmen, sophomore, and junior class categories were merged and compared to the senior class category. Lastly, the same tests were performed as the third test excluding the position variable. All tests were conducted using SPSS software.

CHAPTER IV

RESULTS

One-way Analyses of Variance test were conducted to compare means between the classification year a collegiate NBA prospect leaves school (by position) and their NBA total base salary, longevity and production (MPG). Results in Tables 1 through 24 address research questions 1 and 2.

Tables 1 through 3 contain an ANOVA summary on the classification year a collegiate NBA prospect leaves school (by position) on each dependent variable.

The results show a significant difference ($p = .001$) for dependent variable "Salary" at each position (shown in Tables 1, 2 and 3).

In *Table 1*, Post Hoc tests revealed a significant difference between sophomore and senior guards ($p = .004$) and junior and senior guards ($p = .011$). Sophomores have the highest salary mean at $43,099,549 among the guards.

Table 1.
Overall salary based on collegiate class and the guard position

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	4	$35,913,735.5	$35,673,874.8		
Sophomores	15	$43,099,549.7	$45,274,059.6		
Juniors	21	$36,610,212.9	$39,998,146.8		
Seniors	62	$12,698,407.4	$19,625,538.8		
Sophomore v. Seniors				$30,401,142	.004
Juniors v. Seniors				$23,911,805	.011

F = 6.383

In *Table 2*, Post Hoc tests revealed a significant difference between freshmen and senior forwards (p = .018) and junior and senior forwards (p = .024). Freshmen have the highest salary mean among the forwards at $47,057,891.

Table 2.
Overall salary based on collegiate class and the forward position

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	10	$47,057,891.7	$37,640,932.1		
Sophomores	11	$42,100,288.8	$36,951,892.3		
Juniors	56	$41,508,917.8	$43,277,687.6		
Seniors	92	$16,465,857.3	$21,430,067.7		
Freshmen v. Seniors				$30,592,034	.018
Juniors v. Seniors				$25,043,060	.024

F = 5.989

In *Table 3*, Post Hoc tests revealed a significant difference between sophomore and senior centers (p = .027) and junior and senior centers (p = .031). Freshmen have the highest salary mean among the centers at $45,905,220.

Table 3.
Overall salary based on collegiate class and the center position

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	6	$45,905,220.7	$50,942,868.4		
Sophomores	12	$42,499,822.8	$38,089,243.2		
Juniors	20	$37,239,547.8	$36,666,980		
Seniors	70	$16,605,118.7	$22,231,441.9		
Sophomores v. Seniors				$25,894,704	.027
Juniors v. Seniors				$20,634,429	.031

F = 5.567

In *Tables 5 and 6*, the results show a significant difference for dependent variable "longevity" for forward (p = .005) and center (p = .003) positions and a non-significant difference for guards (p = .410) shown in *Table 4*. Freshmen have the highest longevity mean among guards at 7.6 years.

Table 4.
Overall longevity based on collegiate class and the guard position

	N	*Mean*	*Std Dev*
Freshmen	5	7.6000	3.28634
Sophomores	19	6.5789	3.67145
Juniors	25	6.6000	3.52373
Seniors	105	5.7048	3.59199

p = .410

In *Table 5,* Post Hoc tests revealed a significant difference between junior and senior forwards ($p = .023$). Juniors have the highest longevity mean among forwards at 7.7 years. Freshmen and sophomore forwards' means are both at 7.6 years.

Table 5.
Overall longevity based on collegiate class and the forward position

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	9	7.5556	2.60342		
Sophomores	12	7.5833	3.28795		
Juniors	22	7.6818	3.32933		
Seniors	95	5.3263	3.53837		
Juniors v. Seniors				2.3555	.023

F = 4.429

In *Table 6,* Post Hoc tests revealed a significant difference between sophomore and senior centers (p = .011). Sophomores have the highest longevity means among centers at 8.1 years.

Table 6.
Overall longevity based on collegiate class and the center position

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	6	7.3333	2.94392		
Sophomores	22	8.0909	3.14581		
Juniors	34	7.2353	3.25724		
Seniors	137	5.6277	3.52514		
Sophomores v. Seniors				2.4632	.011

F = 4.753

In *Tables 7, 8 and 9*, the results show a significant difference for dependent variable "Production" for all positions: guards ($p = .018$); forwards ($p = .001$); centers ($p < .005$)

A significant difference was found among guards but the Post Hoc tests could not find a specific interaction because the group sizes were too disproportionate (shown in *Table 7*). Freshmen have the highest production mean among guards at 25.8 mpg.

Table 7.
Overall minute per game production based on collegiate class and the guard position

	N	*Mean*	*Std Dev*
Freshmen	5	25.7600	11.64401
Sophomores	19	21.0474	14.41721
Juniors	25	19.0520	11.19234
Seniors	105	14.8981	10.19931

p = .018, F = 3.448

In *Table 8,* Post Hoc tests revealed a significant difference between sophomore and senior forwards (p = .010) and junior and senior forwards (p = .022). Sophomores have the highest production mean among forwards at 24.1 mpg.

Table 8.
Overall minute per game production based on collegiate class and the forward position

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	9	21.3000	8.40417		
Sophomores	12	24.0917	13.16458		
Juniors	22	20.9045	13.45346		
Seniors	95	13.2000	10.62117		
Sophomores v. Seniors				10.8917	.010
Juniors v. Seniors				7.7045	.022

F = 6.117

In *Table 9,* Post Hoc tests revealed a significant difference between sophomore and senior centers (p < .005) and junior and senior centers (p = .011). Sophomores have the highest production mean among centers at 19.9 mpg. Freshmen centers are not far behind at 19.7 mpg.

Table 9.
Overall minute per game production based on collegiate class and the center position

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	6	19.6500	12.95882		
Sophomores	22	19.9091	11.24010		
Juniors	34	16.7588	10.12022		
Seniors	137	11.3642	8.10783		
Sophomores v. Seniors				8.5449	.000
Juniors v. Seniors				5.3946	.011

F = 8.700

Tables 10, 11, and 12 contain an ANOVA summary of the early entry collegiate NBA prospect (by position) on each dependent variable. Early entries at each position have higher means for each dependent variable when compared to the senior class.

In *Tables 10, 11, and 12,* the results show a significant difference ($p < .005$) for dependent variable "Salary" at each position.

Table 10.

Overall salary based on early entrants vs. seniors and the guard position

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	40	$38,974,066.5	$40,800,131.4		
Seniors	62	$12,698,407.4	$19,625,538.7		
				.000	18.986

Table 11.

Overall salary based on early entrants vs. seniors and the forward position

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	36	$43,230,996.1	$38,852,245.7		
Seniors	56	$16,465,857.3	$21,430,067.7		
				.000	18.092

Table 12.

Overall salary based on early entrants vs. seniors and the center position

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	38	$40,268,951.4	$38,524,589.4		
Seniors	70	$16,605,118.7	$22,231,441.9		
				.000	16.424

In *Tables 14 and 15*, the results show a significant difference (p < .005) for dependent variable "Longevity" at the forward and center positions and a non-significant difference at the guard position (p = .111) in *table 13*.

Table 13.
Overall longevity based on early entrants vs. seniors and the guard position

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	49	6.6939	3.50121		
Seniors	105	5.7048	3.59199		
				.111	

Table 14.

Overall longevity based on early entrants vs. seniors and the forward position

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	43	7.6279	3.10930		
Seniors	95	5.3263	3.53837		
				.000	13.472

Table 15.

Overall longevity based on early entrants vs. seniors and the center position

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	38	7.5484	3.16579		
Seniors	70	5.6277	3.52514		
				.000	13.478

In *Tables 16, 17, and 18*, the results show a significant difference for dependent variable "Production" at each position: Guards- (p = .004); Forwards and Centers- (p < .005).

Table 16.
Overall minutes per game production based on early entrants vs. seniors and the guard position

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	49	20.5102	12.48885		
Seniors	105	14.8981	10.19931		
				.004	8.737

Table 17.

Overall minutes per game production based on early entrants vs. seniors and the forward position

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	43	21.8767	12.30077		
Seniors	95	13.2000	10.62117		
				.000	17.872

Table 18.

Overall minutes per game production based on early entrants vs. seniors and the center position

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	62	18.1565	10.72762		
Seniors	137	11.3642	8.10783		
				.000	24.306

Tables 19, 20, and 21 contain ANOVA summaries on the classification year a collegiate NBA prospect leaves school on each dependent variable (Overall salary, longevity, and mpg production). The results show a significant difference ($p < .005$) for all dependent variables (shown in Tables 19, 20, and 21). Freshmen have the highest mean in each dependent category.

In *Table 19*, Post Hoc tests revealed a significant difference between freshmen and seniors; sophomores and seniors; juniors and seniors ($p < .005$).

Table 19.
Overall salary based on collegiate class

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	20	$44,483,259.2	$39,681,282.4		
Sophomores	38	$42,620,902.5	$39,700,254.9		
Juniors	56	$38,147,128.4	$39,080,088.9		
Seniors	188	$15,275,253.1	$21,127,410.7		
Freshmen v. Seniors				$29,208,006	.000
Sophomore v. Seniors				$27,345,649	.000
Juniors v. Seniors				$22,871,875	.000

F = 18.198

In *Table 20*, Post Hoc tests revealed a significant difference between sophomores and seniors (p = .002) and juniors and seniors (p = .001).

Table 20.
Overall longevity based on collegiate class

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	20	7.5000	2.72416		
Sophomores	53	7.4340	3.37701		
Juniors	81	7.1605	3.34461		
Seniors	337	5.5668	3.54258		
Sophomore v. Seniors				1.8672	0.002
Juniors v. Seniors				1.5937	0.001

F = 8.897

In *Table 21*, Post Hoc tests revealed a significant difference between freshmen and seniors ($p = .001$); sophomores and seniors; juniors and seniors ($p < .005$).

Table 21.
Overall minutes per game production based on collegiate class

	N	*Mean*	*Std Dev*	*Mean Diff*	*p*
Freshmen	20	21.9200	10.40023		
Sophomores	53	21.2642	12.73860		
Juniors	81	18.5926	11.41511		
Seniors	337	12.9828	9.62257		
Freshmen v. Seniors				8.9372	0.001
Sophomore v. Seniors				8.2814	0.000
Juniors v. Seniors				5.6098	0.000

F = 16.975

Tables 22, 23, and 24 contain an ANOVA summary on the "Early Entry" collegiate NBA prospect leaving school on each dependent variable.

The results show a significant difference (p < .005) for all dependent variable (shown in *Tables 22, 23, and 24*)

Table 22.

Overall salary based on early entrants vs. seniors

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	114	$40,749,988.3	$39,130,329.5		
Seniors	188	15275253.1	21127410.7		
				.000	53.866

Table 23.

Overall longevity based on early entrants vs. seniors

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	154	7.2987	3.26625		
Seniors	337	5.5668	3.54258		
				.000	26.507

Table 24.

Overall minutes per game production based on early entrants vs. seniors

	N	*Mean*	*Std Dev*	*p*	*F*
Early Entrants	154	19.9442	11.78124		
Seniors	337	12.9828	9.62257		
				.000	47.849

CHAPTER V

DISCUSSION & CONCLUSIONS

Difference by Position in Salary, Longevity & Production

Research Question 1: Is there a significant difference (by position: guard, forward, center) if collegiate NBA prospects enter the NBA after their freshmen, sophomore, junior, or senior year in;

A. Total Base Salary: up to ten years;
B. Longevity: up to ten years played;
C. Production: average MPG up to ten years?

Significant differences for salary were found among all positions. The difference lie between sophomore and senior guards; junior and senior guards; freshmen and junior forwards; and sophomore and senior centers. On average, over the first ten years of their NBA career, sophomore guards make $30,401,142 more than senior guards and junior guards make $23,911,805 more than senior guards; freshmen forwards make $30,592,034 more than senior forwards and junior forwards make $25,043,060 more than senior forwards; sophomore centers make $25,894,704 more than senior centers and junior centers make $20,634429 more than senior centers. Sugai (2010) found players that enter the NBA directly from high school earn about $46 million more in total player's NBA earnings, and about $4 million more yearly compared to players that attend college. Even though this study focuses on college players, Sugai data showed players earned even more money entering the NBA draft from high school.

Significant differences for longevity were found among forwards and centers and a non-significant difference among guards. The differences lie between junior and senior forwards; and sophomore and senior centers. On average, within the first ten years of their NBA career, junior forwards play about 2.4 years longer than senior forwards; sophomore centers play about 2.5 years longer than senior centers. Hepp (2003) found a high relationship in years played in the NBA and draft order. His study concluded that a player is likely to play one less year in the NBA for every four draft positions a player drops in the NBA draft. Hepp's findings relate to early entrants because they current represent most of the first round of the NBA draft.

Significant differences for production (MPG) were found among all positions. The guard position did not report a specific interaction between classes because the sample size varied excessively. The differences lie between sophomore and senior forwards and centers; junior and senior forwards and centers. On average, within the first ten years of their NBA career, sophomore forwards play about 10.9 more minutes per game than senior forwards; junior forwards play about 7.7 more minutes per game than senior forwards; sophomore centers play about 8.5 more minutes per game than senior centers; junior centers play about 5.4 more minutes per game than senior centers. According to Groothuis et al (2003) findings, first round picks, made up mostly of early entrants, average more minutes played per game during each of their first 4 years in the NBA. Groothuis et al (2007) also confirmed the theory that minutes played per game would be lower in early seasons and increase with tenure in the NBA for early entrants.

When looking at classification only, players that left after their freshmen year within the first ten years, have the highest salary mean at $44,483,259; longevity mean 7.5 years; and production at 21.9 mpg. Freshmen show a significant difference in salary and production (MPG) compared to seniors. Sophomores and juniors also show a significant difference when compared to seniors in salary and production (MPG). However, freshmen have the highest mean difference making $29,208,006 more than seniors, playing about 2 years longer than seniors, and averaging 8.9 minutes more than Seniors within the first ten years of their NBA careers.

These results support Groothuis et al (2007) findings that a player with one year of college plays more minutes than a player with two or more years of college after two seasons in the NBA.

Difference between Early Entry and Senior Class

Research Question 2: Do collegiate NBA prospects benefit more if they enter the NBA draft before their senior year?

Significant differences were found for early entrants at almost all positions at each dependent variable when compared to seniors. Longevity for early entry guards did not have a significant difference. On average, within the first ten years, early entry guards make $26,275,659 more; play almost a year more; and play 5.6 more minutes per game than senior guards. On average, within the first ten years, early entry forwards make $26,765,139 more; play about 2.3 years more; and play about 8.7 more minutes per game than senior forwards. On average, within the first ten years, early entry centers make $23,663,833 more; play almost two years more; and average about 6.8 more minutes per game than senior centers.

These results support Sugai's analysis, which suggested, "On-the-job training associated with early entrance results in better and higher-paid players" (2010). Therefore, it is concluded collegiate NBA prospects benefit more if they enter the NBA draft before their senior year.

Conclusion

This study sought to investigate the effects of collegiate NBA prospects leaving school early on their NBA career. These effects have been determined and examined in this study so players, coaches and NBA personnel can utilize the data to make informed decisions regarding early entry into the NBA draft.

To gauge the impact of early entry basketball players, data was collected for every collegiate player drafted in the first and second rounds of the NBA draft from 1993 and 2004. Statistics on salary, longevity and production (MPG) were compiled through the 2012-2013 season with a 10-year cap from each player's draft year.

According to the results, freshmen NBA prospects benefit more leaving school early to enter the NBA. On average, within the first ten years, freshmen made about $45 million, played 7.5 years, and played 22 minutes per game. Salary, longevity, and production (mpg) decreased as the players' collegiate class increased. When looking at the data, out of the twenty freshmen salaries that were tested, 11 made over $45 million. From the remaining eight, only one freshman didn't make over $2 million.

The results were mixed when the grouping variable "position" was included. Including the positions (guard, forward, center) decreased the grouping sizes of early entrants. More early entrants (esp. Freshmen) data is needed to produce a definitive conclusion when including positions.

The findings in this study support previous research about early entry in the NBA. Groothuis et al in 2007 examined early entrance into the NBA from a number of angles. Their findings showed on-the-job training benefit early entry players. Sugai in 2010 also researched early entry using multiple variables. His results showed a negative relationship between the continuance of attending college and both earning and performance. Hepp's study in 2003 found early draft picks consistently have more success in the NBA. Since 2006, 161 early entrants were drafted in the 1st round out of 240 selections (Fr. - 50, So. - 55, Jr. - 56; rest were seniors and international players). This study and Hepp's study both support each other by showing early draft picks benefit if they enter the NBA draft as early entrants.

Jay Bilas statements about early entry formed my basis for this study. He expressed most collegiate NBA prospects benefit in the long run if they stay in college even though they will most likely be picked later in the NBA Draft. According to Hepp's research and this study, Bilas views are not accurate. When examining both studies, Bilas's statements are especially not true for collegiate NBA prospects predicted to go in the lottery, which is usually the top 14 picks in the draft. Continued research on early entry should be done to help young athletes make the best decision for their career. I recommend a study showing the relationship between players' college statistics and NBA draft order. The results should provide an idea of what the collegiate statistical averages are for early draft picks. This could provide college players a blueprint for entering the NBA draft as an early entry. Also, conducting a study from the perspective of collegiate players, coaches, and/or NBA personnel would help understand their views on early entry into the NBA. A recommendation for the National Basketball Players Associate to reject the soon proposed age limit increase from nineteen and one year removed from high school to twenty and two years removed to enter the NBA draft is supported by this study along with other early entry studies that demonstrate that freshmen prospects benefit from leaving school early.

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