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Academic Clustering of Student-Athletes: A Case Study of Football and Basketball Programs

Matthew Brett Rowland
University of Arkansas, Fayetteville

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Academic Clustering of Student-Athletes:
A Case Study of Football and Basketball Programs

Academic Clustering of Student-Athletes:
A Case Study of Football and Basketball Programs

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts in Sociology

by

Matthew Brett Rowland
University of Central Arkansas
Bachelor of Science in Psychology, 2010

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University of Arkansas

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Dr. Song Yang
Thesis Director

Dr. Anna Zajicek
Committee Member

Dr. Shauna Morimoto
Committee Member

ABSTRACT

This study explores the topic of academic clustering within the football and men's and women's basketball teams at the University of Arkansas. Given the prominence of collegiate sport in America, this paper examines a relatively understudied topic regarding student-athletes and education. Using a mixed methods approach, the topic of academic clustering is analyzed statistically, as well as through in-depth interviews with student-athletes and academic advisors in the athletic department. Statistical analysis shows significant over- and under-representation of student-athletes in certain University colleges (e.g., Fulbright College of Arts and Sciences, Walton College of Business, and College of Engineering), the presence of academic clustering within the women's basketball team, and a significant relationship between race and choice of major by college. Qualitative findings attempt to explain these statistical findings, as well as highlight a possible unwanted consequence of these findings.

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DEDICATION

This thesis is dedicated to everyone who has tried and failed, but never lost the will to keep trying and keep failing.

“Failure is the condiment that gives success its flavor.” – Truman Capote

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INTRODUCTION

This study will explore the widespread, but understudied issue of academic clustering within collegiate sports. The concept of academic clustering was first developed by Case, Brown, and Greer (1987) when they noticed a disproportionate number of student-athletes enrolled in the same major. They defined academic clustering as 25% or more of members of a sports team being enrolled into a single major (Case et al. 1987). In an effort to further the understanding of this phenomenon, this study examines academic clustering at the University of Arkansas. Specifically, the study employs a mixed methods design to answer the following questions: Is academic clustering occurring at this university? And, if so, why is it happening?

The mixed method approach allows for statistical analysis to determine whether or not academic clustering is a problem at this particular university. Additionally, the design incorporates qualitative analysis to dig deeper and understand the possible causes and consequences of academic clustering. This study will address the shortcomings of available literature and past research to show how this phenomenon may arise in an athletic department. In particular, the study examines the relationship between academic clustering and the academic advising process. By employing a social constructionism theoretical framework, this study examines the ways in which certain majors become defined as “easy majors.”

Statement of the Problem

The role of student-athlete requires a level of dedication that many college students cannot fathom. It could be argued that student-athletes are subject to a degree of stress that might double that experienced by “regular” college students. For instance, while thousands of spectators are watching every move the student-athletes make on the field (or court, track, etc.),

there are also a slew of academic advisors and support staff watching their every move in the classroom. Thus, student-athletes may feel that they are being pulled in opposing directions; making it absolutely necessary to succeed both on and off the field. Given these conflicting demands of time and energy, it makes sense that student-athletes might attempt to travel a path of least resistance in one of these areas. In fact, according to a growing body of research, it appears that large numbers of student-athletes have found a way of effectively balancing these demands: by enrolling in easy, flexible, or less demanding majors (Case et al. 1987; Dowling 2000; Eitzen 2001; Suggs 2003; Finley and Fountain 2007; Fountain and Finley 2009a, 2009b, 2010, 2011; Schneider, Ross, and Fisher 2010; McCormick, 2010; Paule, 2010; Sanders and Hildenbrand, 2010). By doing so, it becomes easier for student-athletes to meet academic eligibility requirements, while still giving a full commitment of time and energy to their respective teams.

Past research has suggested that college athletes, on average, do not perform as well as other students, and are also not as well prepared for college as the majority of incoming students (Purdy, Eitzen, and Hufnagel 1982; Maloney and McCormick 1993; Eitzen 2001; Sanders and Hildebrand 2010). Furthermore, DeBrock, Hendricks, and Koenker (1996) and Simiyu (2012) suggest that the graduation rates for athletes among the high-revenue sports (football and men's basketball) suffered more than athletes of other sports because of the high expectations of financial returns in professional sports. Some researchers contend that many youths view college simply as a means to professional sports, so they focus the majority of their time and effort on athletics, rather than academics (Kelley 1997; Beamon and Ball 2002; Simiyu 2012). Numerous researchers have shown evidence that universities even tend to bend the rules by giving credit for courses not taken, having others take tests for athletes, and pushing them to enroll in easier

courses and major fields of study; all in an effort to ensure that they are academically eligible to play (Eitzen and Sage 1982; Purdy et al. 1982; Dowling, 2000; Eitzen 2001; Donnor 2005; Sanders and Hildenbrand, 2010; Simiyu, 2012).

While the National Collegiate Athletic Association (NCAA) tout their victories with respect to record graduation rates (these will be discussed more in depth later), another problem – possibly as detrimental to student-athletes as poor graduation rates – may have surfaced that should garner just as much empirical attention: academic clustering. Academic clustering was first investigated by Case and colleagues (1987) when they noticed a substantial percentage of players on a basketball team were enrolling in the same major. Though the topic was seemingly ignored for over a decade, a plethora of subsequent studies have examined clustering in the major choice of student-athletes (Finley and Fountain 2007; Fountain and Finley 2009a, 2009b, 2010, 2011; Schneider et al. 2010; McCormick 2010; Paule 2010; Sanders and Hildenbrand 2010). These studies have identified a number of majors that student-athletes tend to cluster into, including general studies, interdisciplinary studies, social sciences such as sociology, and humanities such as communications and journalism. Though student-athletes' graduation rates have risen considerably (NCAA, 2010), the clustering of student-athletes into “easy majors” carries some serious educational implications.

Studies have also shown that academic clustering into “easy majors” tends to affect minority student-athletes more than white student-athletes (Case et al. 1987; Fountain and Finley 2009a, 2009b, 2010). While whites tend to cluster into business programs, minorities tend to cluster into the “easy majors” like general studies and sport management. If it is the case that student-athletes are enrolling in easier majors simply to remain eligible for athletic participation, then there are a number of problems that could result from this practice. For instance, college

athletes with little to no interest in their degree programs and no real career trajectory other than sports are being set up for failure once they leave college (whether they leave with or without a degree). Add to this fact that inequalities already exist between white and minority college attendance and success (United States Department of Education 2012), white and minority pay equality (United States Census Bureau 2012), and white and minority career success (Zweigenhaft and Domhoff 2006; Massey 2007), then academic clustering may be perpetuating already existing inequalities between whites and minorities by not preparing student-athletes equally for life after college sports.

In an attempt to understand this phenomenon, researchers have posited several possible explanations for the occurrence of academic clustering. For instance, some researchers contend that it is administrators and the institutions at large that are placing demands on the student-athletes (Eitzen and Sage 1982; Purdy et al. 1982; Dowling 2000; Eitzen 2001; Donnor 2005; Sanders and Hildenbrand 2010; Simiyu 2012). On the other hand, some posit that the athletes' social networks – their teammates, coaches, and advisors – are the driving force behind the phenomenon (Benson 2000; Suggs 2003; Paule 2010; Schneider et al. 2010; Benson 2000; McCormick 2010). In trying to accurately understand this problem, this study will focus on student-athletes as well as their academic advisors.

Significance of Study

Though most studies into academic clustering have yielded very interesting results, there are some glaring limitations in the body of existing research. First, many studies tend to focus only on one particular sport (Paule 2010; Fountain and Finley 2010) or sports team at a given university (Sanders and Hildebrand 2010). This study seeks to broaden the view of clustering by

examining three of the sports teams at this university. Furthermore, only a few of the studies (Case et al. 1987; Fountain and Finley 2009a, 2009b, 2010) have examined the role of race with regard to academic clustering. Like the original academic clustering study by Case and colleagues (1987), this study will examine academic clustering at this university by looking at both race and gender.

The majority of these studies have also been highly descriptive. To the author's knowledge, the only statistical tests applied in these studies have been averages and cross-tabulations (Fountain and Finley 2009a, 2009b, 2010). This study seeks to add a new dimension to clustering research by employing a more rigorous statistical analysis by constructing a logistic regression model to test a set of predictor variables. Additionally, most studies fail to statistically examine the proportions of student-athletes enrolled in specific majors to those of the general student population. This study will test the enrollment numbers of student-athletes to the enrollment numbers of the general student population at the university to see whether or not significant differences exist.

Though they have succeeded in identifying academic clustering at universities and within specific teams, the existing research has failed to thoroughly investigate the way in which athletes come to be enrolled in clustered majors through the use of qualitative methods. Instead, studies that do use qualitative methods tend to focus on former athletes' college experiences (Beamon 2008, 2010). Rather than simply identifying whether or not clustering is occurring, this study will examine the processes that are responsible for perpetuating academic clustering through the use of in-depth interviews with current student-athletes and academic advisors.

LITERATURE REVIEW

Social Constructionism

Social constructionism is a sociological theory of knowledge that examines how social phenomena or objects of social knowledge develop within the confines of specific social contexts. Famously explored in the work of Berger and Luckmann (1967), social constructionism contends that all knowledge about reality is socially constructed. Depending on individuals' social locations and interests, their ideas and beliefs about reality can be vastly different when compared to the ideas and beliefs of another group of individuals. As Berger and Luckmann point out, "what remains sociologically essential is the recognition that all symbolic universes and all legitimations are human products; their existence has its base in the lives of concrete individuals, and has no empirical status apart from these lives" (1967:128).

This point is especially important when examining the idea of socially constructed "easy majors" within the context of a university's athletic department. The major that has been agreed upon as "easy" within an athletic department might not actually be the same one that most would consider to be the easiest major on campus. For instance, researchers have identified social sciences such as sociology and criminology as some of the "easy majors" that student-athletes tend to cluster into (Fountain and Finley 2009a; Sanders and Hildebrand 2010). Even though most people involved in these fields would argue that there are a number of easier majors – ones where students would not have to take courses in statistics or research methods – these are a couple of the majors that have been identified as being easier than other options at some universities, as illustrated by the clustering of student-athletes into those majors.

However, all universities are different, as are the student-athletes, advisers, and faculty that constitute each institution. Thus, the majors that researchers identify as "easy majors"

oftentimes differ between universities. As Fountain and Finley (2009a) found while examining a number of schools, these majors may range from sociology to sport management to apparel, housing, and resource management. Furthermore, what is considered an “easy major” to a group of traditional students might be drastically different from what is considered easy for a group of student-athletes. Whereas student-athletes might associate “easy” with classes or majors that consist largely of multiple choice exams and very few written assignments, another group of students might consider this type of class to be the complete opposite of “easy,” and instead opt for a major such as journalism, where writing assignments are the primary focus. Similarly, given the empirical research suggesting that white and black student-athletes tend to cluster into different majors (Fountain and Finley 2009a; 2009b), it is possible that what is defined as an “easy major” may not only be different between teams, but also within teams of a given university (i.e. whites consider the business-related programs easy, while minorities consider the social sciences easy).

One key problem with investigating the social construction of “easy majors” within an athletic department is identifying how this construction came about. The origin of these beliefs could be attributed to either the student-athletes, or the academic staff. For instance, it is possible that it was a process first involving student-athletes sharing their thoughts with one another about which courses they found to be the easiest. These ideas could have then been agreed upon and passed down by the student-athletes to the point where advisers began to agree that the major was easy, and then began to suggest it to other student-athletes. Or, the idea could have started with an adviser, or group of advisers, that thought the social sciences were an easy alternative to the hard sciences for groups of student-athletes that they believed needed to be enrolled in less rigorous majors in order to remain eligible. Regardless of where these

definitions first originated, it seems as though many athletic programs have their own constructed “easy major” (Fountain and Finley 2007, 2010; Paule 2010).

Marx’s Theory of Alienation

Marx’s theory of alienation is one that is rooted in his studies of capitalist economic systems. As an economist, Marx argues that all capitalist systems are driven by the pursuit of profit. Those who own and control the means of production (bourgeoisie) rely on workers (proletariat) to produce their goods or products, which can then be sold for a profit. As the owners push to increase profit margins, workers suffer from exploitation (unfair compensation for their labor) and, ultimately, alienation (Allan 2013).

Marx defines four specific types of alienation that affects workers in capitalist systems: 1) alienation from our species-being, or our human nature; 2) alienation from the work process; 3) alienation from the product; and 4) alienation from others (Allan 2013). Marx argues that all workers in capitalist systems are alienated (Allan 2013). In the case of student-athletes and the NCAA, student-athletes can be viewed as workers in one of the most Marxist of capitalistic systems. The NCAA and its member institutions (universities and colleges) control the means of production, while student-athletes produce the product – sports entertainment – to be sold to spectators and television companies.

Educational institutions were not originally founded to be sites of capitalistic gain, but collegiate sports, especially football and men’s basketball have become big business over the years. For instance, the NCAA’s gross revenue for 2013 reached almost one billion dollars (\$913 million to be exact), with a surplus of almost \$60 million (Berkowitz 2014). While hundreds of millions of dollars are being thrown around, the NCAA demands that student-

athletes remain amateurs by receiving no payment for their athletic participation outside of what is provided through their athletic scholarships, with a “full ride” covering all tuition, fees, books, and room and board (NCAA 2013). This also means that free access to a degree (the other product being produced by student-athletes) is supposed to be part of the economic exchange between the NCAA and student-athletes, with the average four year degree costing around eighty thousand dollars (U.S. Department of Education 2012). While some argue this is may be a fair exchange, many see this as a clear-cut example of exploitation of student-athletes (Rhoden 2006), with one researcher calling college sports “the new plantation” (Hawkins 2013). Thus, if college sports are a capitalist economic system, then according to Marx’s theory, all student-athletes experience a certain degree of alienation.

NCAA Reforms

As mentioned earlier, past research had shown that student-athletes participating in major revenue-producing sports - primarily football and men’s basketball - did not perform as well academically, and did not graduate at a rate as high as non-athletes (Purdy et al., 1982; Maloney and McCormick, 1993; DeBrock et al., 1996; Eitzen, 2001). However, in order to combat the growing negative perceptions of their student-athletes, the NCAA has passed numerous academic reform laws over the years. The majority of these reforms have been focused specifically on increasing the graduation rates of student-athletes.

In 2004, all Bowl Championship Series (BCS) (formerly Division I) programs adopted an academic reform plan that established the Academic Progress Rate (APR) to measure the academic performance of sports teams, and created penalties for teams that fail to meet the APR benchmarks. This reform also established the Graduation Success Rate (GSR), which measures

graduation rates of collegiate athletes (NCAA, 2011). The most recent of these reforms seeks to hold the head coaches responsible for the poor academic performance of their respective athletes. In 2008, the NCAA announced that it had approved the creation of a head coach APR measurement, which would collect and compile the single-year APR for head coaches (NCAA, 2011). With stricter rules on eligibility in place, and blame now being cast on the coaches - rather than just the athletes or institutions - a premium was placed on the academic achievement of student-athletes.

After the numerous academic reform plans implemented in the early 2000's, the graduation rate for athletes hit all-time highs. In 2008, the GSR for student-athletes reached 79% (NCAA, 2010). This indicates that 79% of all student-athletes who entered college in the 2001/2002 school year graduated within six years of enrollment. On the surface, this appears to be a monumental success for the NCAA and student-athletes around the country. However, I believe that these reforms may have unintended consequences for universities and their student-athletes in the form academic clustering.

Clustering as a Response

Though coaches may now be held responsible for the academic success (or lack thereof) of their players, they are still subject to the “win now or be fired” mindset of fans and administrations. With these conflicting burdens placed on coaching staffs, they may begin to find ways of keeping athletes eligible without explicitly breaking the rules. Some researchers suggest that athletes are being actively advised to major in fields that will be less demanding of the student-athletes (Suggs 2003; Paule 2010; Schneider, Ross, and Fisher 2010). This fact is highlighted by an interview with David Ridpath, former athletic department compliance director

and liaison to academic services for athletes at Marshall University. He admits, "These kids are getting steered into these less rigorous majors, or majors with friendly faculty...I do admit I did it myself, and I'm ashamed of it, and I wish I'd never done it" (Brady, 2008). Associate professor at the University of Central Florida, C. Keith Harrison even went so far as to call it "a major in eligibility, with a minor in beating the system," (Steeg, Upton, Bohn, and Berkowitz 2008). Furthermore, Benson (2000) and McCormick (2010) suggest that coaches, advisors, teachers, and peers all play a role in pointing athletes in this direction.

Educational Implications

An education is supposed to be the primary goal of attending college, no matter if you are a student-athlete, or a regular student. However, if student-athletes are being advised to forego their desire to pursue a degree in a particular field and enroll in an "easy major" to remain eligible, then it stands to reason that many of them are probably not satisfied with their academic accomplishments. In fact, Meggyesy (2000) noted that many of the degrees obtained by student athletes who do eventually graduate are often of low quality or questionable value. Fountain and Finley (2011) cited evidence that some athletes feel that many of their degrees are practically worthless, and are even hesitant to include them on their professional resumes. Also, Beamon (2008) showed that former players expressed feelings of being exploited, and felt that little attention was paid to them in regard to choosing a major and succeeding academically.

The ease or flexibility of certain majors could explain the high number of athletes who enroll into the same majors, compared to the general student population. Schneider, Ross, and Fisher (2010) noted that a considerable portion of football players (including freshmen and sophomores who have not yet had to declare a major) at the University of Texas A&M shared

majors of agricultural development or agricultural and life sciences, while only 3 percent of all A&M undergraduates chose to major in those two programs. Thus, many researchers contend that the universities are pushing their athletes to enroll in easier courses and major fields of study to ensure that student-athletes remain academically eligible to play (Eitzen and Sage 1982; Purdy et al. 1982; Dowling 2000; Eitzen 2001; Donnor 2005; Sanders and Hildenbrand 2010; Simiyu 2012).

Empirical Research

Though the initial study of clustering was published twenty-five years ago, academic researchers have not spent much time investigating this phenomenon until recently. As reports of improved graduation rates for student-athletes have become available, a plethora of research into the subject has also begun to surface. Thus far, much of the research on the academic clustering of athletes has focused on the football programs of universities. For instance, Fountain and Finley (2010) found extreme levels of clustering in some football programs. They termed cluster levels occurring at 50% or more as “super clusters” and 75% or more as “mega clusters”. Finley and Fountain (2007) also found that on-the-field success is not related to academic clustering, as they found clustering among poorly performing football programs, as well as top tier programs.

Fountain and Finley (2009b) present evidence that clustering at several schools was significantly more widespread among African-American football players than among white football players. Furthermore, Fountain and Finley (2010) showed that minority football players are more likely to cluster at schools in BCS conferences (major conferences such as the SEC, ACC, PAC12, etc.). Fountain and Finley (2009a) found that in six of eleven member schools

(data for Duke University – the twelfth member – was unavailable) of the Atlantic Coast Conference (ACC), 75% or more of the minority players were enrolled into only two majors. They also showed that white players were overrepresented in business-related programs, while minority players were overrepresented in general studies and social science programs (Fountain and Finley 2009a).

Fountain and Finley (2011) also examined the majors of members of one football program over a period of ten years. This longitudinal design allowed them to track the movement of players into and out of majors, especially the movement of athletes into a clustered major midway through their academic experience. Results indicated that players shifted into a single clustered major over time and that a significant number of highly touted high school recruits and National Football League draftees selected the clustered major. They also found that players who had listed general education (University/General Studies) in their first media guide appearances frequently selected the clustered major (Fountain and Finley 2011).

However, not all research has focused on football programs. The original clustering research conducted by Case and colleagues (1987) examined men's and women's Division I basketball programs. They found that more clustering occurred among male student-athletes compared to female student-athletes, and more clustering occurred among African-Americans compared to whites. Paule (2010) also chose to examine clustering in basketball programs. However, she focused only on Division I women's basketball teams. She found that of the 211 universities with usable player data (data on players' major was not available for all of the schools), 94 (or 44.5%) universities exhibited instances of academic clustering (Paule, 2010).

Given the research questions presented earlier, and the literature and empirical studies reviewed in the previous section, several testable hypotheses are proposed:

H1: Academic clustering is occurring at the university.

H2: Male student-athletes will be clustered at higher rates than female student-athletes.

H3: Black student-athletes will be clustered at higher rates than white student-athletes.

H4: Student-athletes enrollment into “easy” majors will be disproportionate to the enrollment of the general student population.

METHODS

Epistemological Choice

In order to adequately address the research questions set forth, I have chosen to examine the issue of major selection and academic clustering by using a mixed method approach. As Becker (1996:317) points out, both quantitative and qualitative designs attempt “to see how society works, [and] to describe social reality.” Both methods are similar in that they each possess their own benefits, as well as their own limitations. Quantitative analyses strive for statistical significance, reliability, and generalizability in the quest for concrete findings, but are typically unable to capture the voice or lived experience of the individuals directly involved in the phenomenon being studied (Charmaz 2006). Furthermore, qualitative analyses, while offering valuable insight into personal experiences, often fall short by focusing on the subjective realities of individuals and by incorporating the possibility of researcher bias (Charmaz 2006).

Thus, employing a mixed methods approach should offer a deeper and clearer understanding of the topic than using quantitative or qualitative methods alone. As Creswell (2003:22) states, “collecting both closed-ended quantitative data and open-ended qualitative data prove advantageous to best understand a research problem.” By using a mixed methods design,

the researcher hopes to capture the best of both designs. Through statistical analysis, the quantitative portion will be able to examine student-athletes' major choice and its relation to a set of independent variables. Meanwhile, the qualitative portion of the study will be able to go past the numbers and shed light on the academic advising experiences of those directly involved. The following sections will discuss the design in greater detail by outlining the sample selection, data collection, and data analysis techniques.

Sample Selection

Quantitative Sample

The sampling frame for this study included all current student-athletes at the university. Following in the footsteps of the majority of empirical works conducted on academic clustering, this study chose to examine the major choice of student-athletes who participate in the revenue-producing sports of football (Fountain and Finley 2007, 2009a, 2010, 2011) and men's basketball (Case et al 1987). Rather than focusing solely on male student-athletes, it was decided that the scope of the study would be greatly improved by including female student-athletes into the analysis. This was done in order to add to the embarrassingly small amount of existing information in the literature about clustering and female student-athletes (see Paule 2010). Therefore, members of the women's basketball team were also selected for inclusion into the analysis. This will allow the researcher to examine the potential differences between men and women that had been observed in past research (Case et al 1987).

Finally, in contradiction to Fountain and Finley (2009a), this study included all student-athletes with available major choice data, even freshmen, redshirt freshmen, and sophomores. Per NCAA rules, student-athletes are not required to declare a major until after the completion of

their sophomore year, or fourth academic semester, and before their junior year, or fifth academic semester (NCAA 2013). Thus, the majority of clustering studies have included only upperclassmen (juniors, and seniors), since underclassmen (freshmen and sophomores) are excluded from analyses. However, this study seeks to examine a larger sample, even though including more young student-athletes could decrease the chances of observing academic clustering. The final sample of student-athletes ($n = 101$) consisted of all of the members of the football team, men's basketball team, and women's basketball team with usable data.

Qualitative Sample

As Mason (2002) points out, sampling and the selection of participants are extremely important parts of all qualitative research projects. Participants for this study were selected using processes that Patton (2002) and Hennink, Hutter, and Baliey (2011) termed purposeful sampling and purposive recruitment, respectively. In order to uncover the processes taking place, this project sought out individuals who could share the most valuable insight or understanding of the issues. Patton (2002:58) and Hennink et al (2011:85) refer to these types of qualitative participants as “information-rich” cases. In regards to this study there are, presumably, two groups who can offer the most valuable insight into the processes surrounding academic clustering: student-athletes and their academic advisors within the athletic department. After some deliberation, it was decided that interviewing both student-athletes and academic advisors within the athletic department would yield the most fruitful results.

Recruitment of academic advisors began with unsolicited emails detailing the purpose of the study being sent to a total of five advisors in the athletic department. In total, four advisors agreed to participate, but only two followed through and completed interviews. Next, access to

student-athletes was obtained as a result of the researcher's position as graduate student and teaching assistant within the Department of Sociology and Criminal Justice. Seven student-athletes, all enrolled in a social data analysis class (a required course for sociology and criminal justice majors), were approached to take part in the research study. Though all initially agreed, only six student-athlete interviews were actually completed. Ultimately eight participants – two academic advisors and six student-athletes were included in the research project. It is important to note that the student-athletes received no extra credit or any type of compensation, as participation in the study was completely voluntary.

The researcher acknowledges that some may take issue with the resulting samples for both the quantitative and qualitative portions of the study. For instance, the sample included in the quantitative analysis is dominated by members of revenue-producing sports, with only one team of female student-athletes included. Additionally, the sample of student-athletes comprising the qualitative analysis is not representative of the general population of student-athletes at the university. All six participants are black males enrolled in either sociology or criminal justice majors. Also, five of the six participants are members of the university football team, while the sixth participant belongs to the university men's basketball team.

Data Collection

Quantitative Data

Consistent with past research, (Case et al. 1987; Fountain and Finley 2009a, 2009b; Paule 2010) a data set was constructed using secondary data extracted from team media guides which are published by the university's athletic department. Media guides are produced annually before the start of the teams' respective seasons and are available online through the athletic

department's website (arkansasrazorbacks.com). These media guides contain several key pieces of information that allow the researcher to build a data set consisting of several variables. For instance, the guides contain pictures of each student-athlete, as well as bits of biographical information, in addition to information pertaining to their sports. Utilizing the information found in the media guides, the researcher is able to extract the student-athletes' race, class level (freshman, sophomore, etc.), transfer status (either came to the university as a freshman or transferred from another institution), and major selection. To ensure accuracy in recording student-athletes' race, an outside observer was consulted on any cases that were not easily identifiable by their picture and profile in the media guide. Finally, the only student-athletes excluded from analysis were those who had undeclared majors or missing data such as pictures. This eliminated one freshman men's basketball player, one sophomore football player, and all incoming freshmen and transfer students on the football team (no pictures or majors available, as the guides are published around the same time they are beginning their first semester). All data was input to SPSS with no way of personally identifying any student-athlete (i.e. no names or jersey numbers were included in the data set).

Qualitative Data

Analyzable qualitative data was collected by conducting semi-structured, in-depth interviews of each of the eight participants. The researcher tried to foster a feeling of engaging the participants in a conversation by asking general open-ended questions and following with probing or clarification questions if an interesting subject was touched upon. Questions varied for advisors and student-athletes, but most covered the same topics. They were asked open-ended questions regarding such topics as: the overall process of academic advising, how they choose/assist in choosing a major, and opinions on resources available to student-athletes.

Interviews were conducted in neutral locations in an effort to make participants more comfortable and, hopefully, more honest. Interviews ranged in duration between thirty-five and fifty minutes.

All interviews were recorded with a voice recorder so they could be transcribed and coded later. In accordance with IRB protocol, each participant was debriefed prior to engaging in the interview. This debriefing ensured that participants understood several things: the purpose of the research, the potential risks (negligible), the potential benefits (knowledge building/policy shaping), the voluntary nature of participation, and the ways in which their identity would be kept anonymous. Anonymity is one important aspect of obtaining accurate findings in qualitative research. To ensure that none of the participants' identities would be divulged, they were each provided with a pseudonym, and any unique information that could be used to identify them was omitted from the final transcript. Furthermore, any names of players, teammates, coaches, or coworkers disclosed during the interviews were also replaced with pseudonyms during transcription. Sample interview questions for advisors and student-athletes are included in the appendix.

Data Coding and Analysis

Quantitative Variables and Analysis

Variables. The student-athletes' choice of major served as the project's single dependent variable. As mentioned before, this nominal variable was obtained through information provided in the media guide. Upon collecting the data, the researcher encountered a problem with a group of the student-athletes on the football team. While almost all football players had a specific major listed, fifteen of the players were identified as being enrolled into a college, rather than

being identified as having an undeclared major (possible reasons for this listing will be discussed later). This “placeholder major” was specific to only the football team, as both men’s and women’s basketball had the athletes’ specific majors listed, or as in the case of one male basketball player, an undeclared major listed. Even more interesting, this placeholder was given disproportionately to black student-athletes. While only two white players were given this placeholder major - one enrolled in Fulbright College and one in College of Business – an astounding thirteen black players were all listed as being enrolled in Fulbright College.

In an effort to rectify this problem without sacrificing sample size, the researcher decided – after consulting the thesis advisor – it was acceptable for the majors to be grouped by their college, rather than by their specific titles. This process is contrary to some past research that has treated these cases as undeclared majors and excluded them from analysis (Fountain and Finley 2007, 2009a). In order to recode the student-athletes’ major selection, the university’s catalog of studies was consulted and each major was recoded into its corresponding college (University of Arkansas Catalog of Studies 2012). For example, business, finance, marketing, and all related major programs are contained within the Sam M. Walton College of Business, while all social science, humanities, fine arts and natural science major programs are housed within the J. William Fulbright College of Arts and Sciences. As a result, the specific major listed for each of the student-athletes were recoded and grouped into their respective colleges. The newly constructed dependent variable, ‘major by college’ was coded as follows: 1 = Dale Bumpers College of Agriculture, Food, and Life Sciences; 2 = Sam M. Walton College of Business, 3 = College of Education and Health Professionals; 4 = College of Engineering; 5 = J. William Fulbright College of Arts and Sciences; 6 = Fay Jones School of Architecture. Though this could be seen by some as devaluing the data, this coding scheme presents a unique

possibility for comparing the enrollment of the sample of student-athletes with the enrollment numbers of the general student population at the university. Comparing enrollment numbers between student-athletes and all undergraduates at a university is something few studies have taken into consideration (see Schneider, Ross, and Fisher 2010 and Suggs 2003). Since statistics are not available for the number of individuals in a specific degree program, this gives the researcher the ability to analyze the sample of student-athletes for clustering, as well as analyze whether or not the proportions of student-athletes enrolled in a college is significantly different than the proportions of the general student population enrolled in the corresponding college.

As mentioned briefly, the study incorporates four independent variables into the analysis plan. The first variable, 'race,' has been coded into a simple dichotomy: white = 0 and black = 1. Next, the 'sport' variable identifies as to which team each of the student-athletes belong. The coding for sport is as follows: football = 1; men's basketball = 2; and women's basketball = 3. The 'class by year' variable is coded based on the student-athletes grade level, also identifying whether or not the student-athlete has been allowed a redshirt season. The coding of the class variable is presented as: freshman = 1; redshirt freshman = 2; sophomore = 3; sophomore redshirt = 4; junior = 5; junior redshirt = 6; senior = 7; senior redshirt = 8. Finally, the 'transfer status' variable identifies whether the student-athlete began his/her academic and athletic career at the university as a freshman or transferred to the university from another academic institution. Thus, the transfer variable is coded into a dichotomy: non-transfer = 0 and transfer = 1.

Statistical analysis. The first statistical test performed on the data was a z-test of proportions. This test analyzes the difference between the proportions of student-athletes enrolled into a college and the proportions of the general student population enrolled into the same college. Next, a series of bivariate cross-tabulations were conducted in order to examine

the relationships between the individual independent variables (race, class, sport, and transfer status) and the dependent variable (major by college). Given the coding scheme of the major variable discussed previously, construction of a major dummy variable was completed after viewing the results of the z-test of proportions (these results will be discussed in detail in the following section). The resulting variable was coded into two categories: colleges where student-athletes were overrepresented (Fulbright and Education) = 1, and colleges where student-athletes were underrepresented (all others) = 0. Furthermore, the sport variable – consisting originally of football, men’s basketball, and women’s basketball – was recoded into 3 dummy variables (football = 1, all others = 0; men’s basketball = 1, all others = 0; women’s basketball = 1, all others = 0) which give the researcher the ability to also examine effects of sex on a student-athlete choosing a major in one of the overrepresented colleges. By constructing these dummy variables, the data lends itself to being examined in through binary logistic regression. This regression will determine which of the independent variables (race, sport, sex, class, and transfer status) increase the likelihood of a student-athlete choosing a major in one of the overrepresented colleges (these will be outlined further in the results section). The analysis was conducted by adding all variables in a single block, while using the men’s basketball variable as a reference.

Qualitative Analysis

Using the basic tenets of Charmaz’s (2006) grounded theory, the coding of the interviews began with only a basic idea in mind, as to allow for the possibility of unexpected themes to emerge from the data. Analysis began with a couple of basic deductive codes based on salient topics discussed in past research and literature. For instance, the researcher expected to encounter certain topics, such as advisers suggesting certain majors, or accounts of student-athletes being indifferent to the academic side of college life. Next, several new inductive codes

were developed as the data began to speak and tell its own story. The codes then progressed from broad initial codes of instances of certain ideas and behaviors, into focused codes where they were narrowed to provide concise analytical categories for the data. After the coding process was complete and the general themes were developed, the results were subjected to peer debriefing in order to avoid the possibility of the researcher's bias dominating the results. An outside volunteer was able to look at samples of the coded interviews, and provide feedback by offering suggestions, pointing out any shortcomings in the coding process, and calling attention to any salient themes that may have been overlooked.

RESULTS

Quantitative Findings

Descriptive Statistics

Table 1 shows the descriptive statistics for all variables included in the analyses. The number of student athletes sampled for this study totaled 101. As mentioned in the previous chapter, the major by college variable was divided into six categories, whereby each major was grouped into categories determined by which college the major belonged. The majority of the student athletes sampled were enrolled into majors within the Fulbright College of Arts and Sciences (n=56, 55.4%). Surprisingly, only one student-athlete was enrolled into an engineering program and zero enrolled into an architecture program. Of the 56 individuals enrolled into majors within the Fulbright college, only two student-athletes – both white football players – chose to major in a 'hard science' (biology), while the vast majority are split between social sciences (predominantly sociology and criminal justice) and humanities (communication and journalism). Next, Table 1 shows that race is dichotomized into the categories white and black,

with black constituting almost two-thirds of the sample (n=66, 65.3%). It should also be noted that within the white group (n=35, 34.7%), two individuals are racially white, but ethnically non-white – one Hispanic and one Arabic/Middle Eastern. Breaking down the sport variable, it can be seen that the majority of the sample belong to the football team (n=75, 74.2%), with fewer numbers belonging to the men's basketball team (n=14, 13.9%) and women's basketball team (n=12, 11.9%). Table 1 also illustrates the class by year variable by giving a breakdown of the sample of student athletes by class, according to their athletic eligibility status. The largest groups represented in this variable are the sophomores and seniors (n=18, 17.9%). Finally, Table 1 shows the last variable, transfer status. The transfer status variable simply divides the sample into non-transfers (those who came to the university directly after high school) and transfers (those who transferred to the university from either a junior/community college or a different four-year university). Only ten members (9.9%) of the sample transferred from another college or university, with the remaining 90.1% of the sample entering the university directly after high school.

Table 1. Descriptive Statistics for Model Variables (n = 101)

Model Variables	Frequency	Percent (%)
Major by College		
<i>Agriculture</i>	6	5.9%
<i>Business</i>	14	13.9%
<i>Education</i>	24	23.8%
<i>Engineering</i>	1	1.0%
<i>Fulbright</i>	56	55.4%
<i>Architecture</i>	0	0%
Total	101	100%
Race		
<i>White</i>	35	34.7%
<i>Black</i>	66	65.3%
Total	101	100%
Sport		
<i>Football</i>	75	74.2%
<i>Men's Basketball</i>	14	13.9%
<i>Women's Basketball</i>	12	11.9%
Total	101	100%
Class by Year		
<i>Freshman</i>	7	6.9%
<i>Freshman (RS)</i>	17	16.8%
<i>Sophomore</i>	18	17.9%
<i>Sophomore (RS)</i>	16	15.8%
<i>Junior</i>	9	8.9%
<i>Junior (RS)</i>	10	9.9%
<i>Senior</i>	18	17.9%
<i>Senior (RS)</i>	6	5.9%
Total	101	100%
Transfer Status		
<i>Transfer</i>	10	9.9%
<i>Non-Transfer</i>	91	90.1%
Total	101	100%

Z-test of Proportions

As discussed briefly in the last chapter, the enrollment numbers of the sample of student-athletes ($n = 101$) were compared to the enrollment numbers of the general student population ($n = 21,009$). This to be an important aspect to test statistically, since much of the previous research on the topic fails to take into consideration the proportions of the general student population who are also enrolled into clustered majors, and instead focuses solely on the proportions of student-athletes enrolled into the majors. To test this difference for statistical significance, a two-tailed Z-test of proportions was used to examine the enrollment for each of the six colleges at the university.

Table 2 shows the results of these tests and indicates both significant and insignificant findings. First, the table illustrates that the differences in enrollment in both the agriculture college (difference = -2.6%, $Z = 1.1.0$, $p > .05$) and the education college (difference = 4.8%, $Z = 1.12$, $p > .05$) are statistically insignificant. Though there is underrepresentation and overrepresentation, respectively, of student athletes in these majors, the results are insignificant, as the Z scores fail to reach significant levels. However, the results of the proportion test for the business college reveal a significant difference (difference = -7.3%, $Z = 2.11$, $p < .05$). This indicates a statistically significant underrepresentation of student-athletes in business majors when compared to the enrollment of the general student population. Furthermore, the results in Table 7 also illustrate a higher level of underrepresentation in both engineering programs (difference = -12.8%, $Z = 12.8$, $p < .001$) and architecture programs (difference = -2.2%, $Z = 21.7$, $p < .001$). Finally, Table 7 shows major overrepresentation of student athletes within Fulbright college majors (difference = 20.1%, $Z = 4.06$, $p < .001$). With a difference of 20.1%, this overrepresentation of student-athletes is the largest disparity found in all six colleges.

Table 2. Z Scores of Proportion Testing

Major by College	Student Athletes (N)	Student Athletes (%)	General Population (N)	General Population (%)	Difference (%)	Z
Agriculture	6	5.9%	1788	8.5%	-2.6%	1.10
Business	14	13.9%	4450	21.2%	-7.3%	2.11*
Education	24	23.8%	3997	19%	4.8%	1.12
Engineering	1	1.0%	2905	13.8%	-12.8%	12.8***
Fulbright	56	55.4%	7406	35.3%	20.1%	4.06***
Architecture	0	0%	463	2.2%	-2.2%	21.7***
Total	101		21009			

p < .05* p < .01** p < .001***

Cross-tabulations

The first cross-tabulation examines the differences in major selection by race, given the presumption that a difference exists between the white and black groups. Table 3 shows that the white and black groups do not have a significant difference in relation to selecting a major, as the chi-square fails to reach a significant level (chi-square = 8.448, df = 4, p > .05). Though the chi-square result is statistically insignificant, a considerable difference exists between the proportion of whites and blacks (Pwhites – Pblacks) enrolled into Agriculture (difference = 8.4%), Business (difference = 9.4%), and Fulbright (difference = -23.6%). These differences suggest interesting over/under-representations of racial groups in certain degree fields.

Table 3. Cross-Tabulation of Major by College and Race

Major by College	Race		
	White	Black	Total
Agriculture	4 (11.4%)	2 (3.0%)	6 (5.9%)
Business	7 (20%)	7 (10.6%)	14 (13.9%)
Education	9 (25.7%)	15 (22.7%)	24 (23.8%)
Engineering	1 (2.9%)	0 (0%)	1 (1.0%)
Fulbright	14 (40%)	42 (63.6%)	56 (55.4%)
Column Total	35	66	N = 101

Note: Chi-square = 8.448, df = 4, p > .05
 Numbers in parentheses are column percentages (frequency divided by its column total).

Next, the differences in major selection based on sport participation are examined. Though past literature suggests that a significant difference might exist between these sports (i.e. football will be more highly clustered), Table 4 shows that the chi-square value does not reach a statistically significant level (chi-square = 9.192, df = 8, p > .05). Though the chi-square revealed no significant differences between these groups, there are considerable differences within some of the categories. For example, the proportion of football players (61.3%) enrolled into Fulbright majors is much greater than the proportion of men's (42.9%) and women's (33.3%) basketball players. Furthermore, the women's basketball team members are overrepresented in the college of education, with half of the team enrolled in education majors. Interestingly, the women's basketball team was also the only team that exhibited true academic clustering – 25% or more in a single major – as defined by Case et al (1987). Five of the twelve

team members (41.7% of the team) were enrolled into the kinesiology major within the education college.

Table 4. Cross-Tabulation of Major by College and Sport

Major by College	Sport			Total
	Football	Men's Basketball	Women's Basketball	
Agriculture	4 (5.3%)	2 (14.3%)	0 (0%)	6 (5.9%)
Business	10 (13.3%)	2 (14.3%)	2 (16.7%)	14 (13.9%)
Education	14 (18.7%)	4 (28.6%)	6 (50%)	24 (23.8%)
Engineering	1 (1.3%)	0 (0%)	0 (0%)	1 (1%)
Fulbright	46 (61.3%)	6 (42.9%)	4 (33.3%)	56 (55.4%)
Column Total	75	14	12	101

Note: Chi-square = 9.192, df = 8, $p > .05$

Numbers in parentheses are column percentages (frequency divided by its column total).

Before the majors were recoded and the teams were combined into a single data set, several interesting results were also noted regarding race within members of the football team. For instance, all forty-six black football players were enrolled into only nine majors (including the Fulbright “placeholder” listing found in the media guides for thirteen black players), while the twenty-nine white players were spread across eighteen different majors. Furthermore, about three-quarters (76.1%) of black student-athletes on the football team were enrolled into Fulbright college, compared to about one-third (37.9%) of the white student-athletes on the football team. That rate of enrollment for black football players (76.1%) more than doubles the proportion of the general student population (35.3%) enrolled into majors within Fulbright College.

Next, this study examines the differences of major choice between transfer and non-transfer student-athletes. Table 5 illustrates the results of the cross-tabulation performed for the

major and transfer status variables. On face value, it would appear that there are significant differences. However, Table 5 shows that no statistically significant difference between the groups exists, as chi-square fails to reach significant levels (chi-square = 4.381, df = 4, $p > .05$). Once again, the results of this cross-tabulation are insignificant, but interesting differences persist when examining individual categories. For example, the proportions of student athletes enrolled in Fulbright majors are substantively different for transfer (80%) and non-transfer student athletes (52.7%).

Table 5. Cross-Tabulation of Major by College and Transfer Status

Major by College	Transfer Status		Total
	Non-Transfer	Transfer	
Agriculture	5 (5.5%)	1 (10%)	6 (5.9%)
Business	13 (14.3%)	1 (10%)	14 (13.9%)
Education	24 (26.4%)	0 (0%)	24 (23.8%)
Engineering	1 (1.1%)	0 (0%)	1 (1.0%)
Fulbright	48 (52.7%)	8 (80%)	56 (55.4%)
Column Total	91	10	N = 101

Note: Chi-square = 4.381, df = 4, $p > .05$

Numbers in parentheses are column percentages (frequency divided by its column total).

The final cross-tabulation was conducted in order to examine differences in the student athletes' class standing and their respective major choices. Table 6 shows that there is a significant difference in major choice based on student athletes class status (chi-square = 47.147, df = 28, $p < .05$). The results of this cross-tabulation presented in Table 6 illustrate a very odd pattern. Looking at the percentages presented in the table, huge differences are present for certain years. For example, almost three-fourths of freshman are enrolled in education majors (n = 5, 71.4%) and almost all seniors are enrolled in Fulbright majors (n = 16, 88.9%). In addition,

the entirety of the sophomore class (n = 18) is enrolled in only two colleges, Fulbright (72.2%) and education (27.8%), while the sophomore redshirt class (n = 16) has at least one person enrolled in a major in every college.

Table 6. Cross-Tabulation of Major by College and Class by Year

Major by College	Class by Year								
	Fresh man	Fresh man (RS)	Sophom ore	Sophom ore (RS)	Junior	Junior (RS)	Senior	Senior (RS)	Total
Agriculture	1 (14.3%)	0 (0%)	0 (0%)	1 (6.2%)	1 (11.1%)	2 (20.0%)	0 (0%)	1 (16.7%)	6 (5.9%)
Business	1 (14.3%)	4 (23.5%)	0 (0%)	1 (6.2%)	3 (33.3%)	3 (30%)	1 (5.6%)	1 (16.7%)	14 (13.9%)
Education	5 (71.4%)	5 (29.4%)	5 (27.8%)	6 (37.5%)	0 (0%)	1 (10.0%)	1 (5.6%)	1 (16.7%)	24 (23.8%)
Engineering	0 (0%)	0 (0%)	0 (0%)	1 (6.2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (1.0%)
Fulbright	0 (0%)	8 (47.1%)	13 (72.2%)	7 (43.8%)	5 (55.6%)	4 (40.0%)	16 (88.9%)	3 (50.0%)	56 (55.4%)
Column Total	7	17	18	16	9	10	18	6	101

Note: Chi-square = 47.147, df = 28, p < .05

Numbers in parentheses are column percentages (frequency divided by its column total).

Logistic Regression

After recoding the major variable into a dichotomous variable (concentrated majors = 1; all others = 0), a logistic regression was conducted to find out which predictor variables have the most impact on selecting a major in one of the concentrated colleges. The results of this

regression can be found in Table 7. As shown in Table 7, the study found only one of the independent variables to be statistically significant. While controlling for the other variables, the race variable was found to significantly increase the odds of selecting a concentrated major ($B = 1.504, p = .01$). This finding indicates that black student-athletes are over three times more likely ($\exp(1.504) = 4.499 - 1 = 3.499$) to select a concentrated major than white student-athletes. All other variables in the regression model fail to reach significance, meaning the effects of transfer status, classification, sport, and gender do not make a student-athlete significantly more likely to select one of the concentrated majors. Finally, the pseudo r-squared value of .120 indicates that the model put forth is fairly weak at predicting enrollment in concentrated majors, with the independent variables explaining only 12% of the variation observed in the dependent variable.

Table 7. Unstandardized Coefficients of Logistic Regression: “Major Selection” (Concentrated Majors = 1; All Others = 0)

	B	Standard Error
Race	1.504**	.585
Transfer Status	.029	.954
Class by Year	.042	.141
Football	1.093	.749
Women’s Basketball	1.457	1.105
Men’s Basketball	_____	_____
Constant	-.668	1.093
Model Chi-square (df)	8.07 (5)	
Pseudo R-square	.120 (12%)	
N	101	
Reference Category: Men’s Basketball		
**p = .01 (two-tailed test).		

Given the results of these statistical analyses, hypotheses 1, 3, and 4 are supported.

Instances of true academic clustering (25% or more of a team enrolled in a single major) are

occurring in only sport – women’s basketball. The results of the logistic regression showed that black student-athletes are more likely to enroll in “easy majors” than white student-athletes. The Z-test of proportions showed that student-athletes are disproportionately enrolled into majors when compared to the general student population. The results did not support the second hypothesis. The statistical analyses found no significant difference in the clustering of males and females.

Qualitative Findings

The second phase of this research project set out to examine the ways in which student-athletes become clustered into particular majors by interviewing student-athletes and academic advisors in the athletic department. While conducting, transcribing, and coding the interviews, a few unexpected themes began to emerge and they guided the research. The themes to be explored and discussed in this section have been termed Social Construction of Easy Majors, Navigating Eligibility, and Education as a Means to an End. These were chosen because they turned out to be the most salient topics, as they appear frequently throughout all of the interviews. These themes also seem to intertwine in a way that paints an excellent picture of academic clustering. As it becomes clear that both advisors and student-athletes have shared views of what easy majors are, student-athletes seem to choose, or get placed into, easy majors as a result of trying to remain eligible to compete in athletics and an indifferent attitude towards academics.

Furthermore, these themes turned out to be very interesting topics, even with many socially acceptable answers given regarding the process of choosing a major, and the issue of student-athletes enrolling in easy majors. For example, when asked if the public perception of

student-athletes enrolling in easy majors bothered her as an adviser, Anna replied adamantly that there are no easy majors:

“Yeah, because sometimes people are looking from the outside in. They don’t know the whole story. . . So, umm, and I feel like it’s my job to protect. I’m going to encourage him or her to do their very best. I am going to stick by them and I’m gonna tell them, ‘don’t worry about what other people will say.’ Ya know, because there’s not an easy major. There’s not an easy major. Uhh, there’s not an easy major. There’s not an easy major here, because you’ve still got to do your work...” (p. 5)

Social Construction of Easy Majors

When this project was first formulated, the researcher was warned about asking academic advisors questions about student-athletes being enrolled in easy majors. One professor warned of what she called “cookie-cutter” answers being given to tough questions about the academic side of a major college athletic department. Though these types of answers were thrown around from time to time, it was surprising to find a certain degree of candor and frankness present in these interviews.

During interviews with both the advisors and the student-athletes, there were ideas conveyed about what makes one degree program harder than another one. For instance, ideas of an “easy major” ranged from one student-athlete comparing the relative “ease” of sociology to that of biochemistry, to another student-athlete suggesting that the only way a major could be easy is if there was a degree offered in walking. Furthermore, Justin suggests that a major would only be easy “if you can just take like two classes each semester.” These examples are meant to highlight the fact that the idea of an “easy major” is not as cut and dry as some clustering researchers would have us believe. Many factors seem to contribute to everyone’s idea of what constitutes an “easy major.” These factors range from personal disposition to the course load

and time demands to having “cool” professors. For instance, when asked if he thought his major in sociology was an easy major, Jackson replies:

“Umm maybe for a genius [laughs]. If you’re a genius then you can make anything an easy major, but it ain’t that easy. If I was getting straight A’s I would call it an easy major, but you know I get A’s, B’s, C’s, and sometimes some D’s, so no I don’t think it’s an easy major.” (p. 5)

Furthermore, Jeremy alludes to the fact that the idea of “easy majors” may be completely subjective. When asked if he thought there was such a thing as an easy major, he responded:

“I don’t know if it’s too much easy but... I just feel like some have more work than others. So if you have more work, athletes we’ll think that’s harder. Which in our minds it’s harder but really it’s not. And then some other courses have not too much work, turn maybe a paper in every two weeks or one paper a week, and so in our mind that’s easy. I mean, it all just depends on what you call easy.” (p. 2)

An easy major for Jason also meant several different things, from having teammates in the class with him to courses sharing similar curriculum. When asked if getting a criminal justice degree was easy he answered:

“I think it was an easy experience for me. Maybe because a lot of boys were in it with me, a lot of resources. I took classes from each professor and they all knew each other, it’s kinda like they all work in the same department and knew each other and we learned about similar things. I feel like it was an easy degree just because it was more of like a learning experience, I guess. Just continuing to learn not the same things, but similar things to my major, criminal justice. So uhh yeah it was. Yeah I think it’s an easy degree to get I guess.” (p. 3)

John suggests the idea of a major being viewed as easier because it is less time consuming, given all of the demands placed on student-athletes’ time. When asked if he thought student-athletes picked things they enjoy or picked something because they believe it will be easy, he replied:

“I feel, yeah I do feel some players do. They feel like their major is too hard and hear about another one that is easier, so sometimes I do feel like some players will switch just because they feel like it’s easier and not as much of a hassle because of football and the

hours we have to do it might be something to take. Or maybe you'll have less time to study, because it's less homework in that major, so some people do do that." (p. 3)

Navigating Eligibility

Throughout each interview, both the advisors and the student-athletes made reference to the advisors being a sort of guide or expert in helping to navigate the tricky system of eligibility, given the many demands placed on them by the NCAA and the university. The issues surrounding NCAA eligibility grow more complicated by the year and it is the advisors' job to stay up-to-date on rules and requirements and, ultimately, communicate that specialized knowledge to the student-athletes that they advise. One participant mentions that, often times, student-athletes do not even know what degree options are available, or how many hours they have to be enrolled in to ensure that they remain eligible by making adequate progress towards a degree. So, it is not surprising that this is where the advisers see a large part of their job taking place. They are there to inform and encourage the student-athletes, and to make sure that they are doing what needs to be done in the classroom. They view themselves as a valuable resource available for helping their student-athletes succeed off the field, so that they can succeed on the field. Furthermore, an example from Anna shows just how serious she is about seeing student-athletes succeed:

"Kids know right off the bat if you're fake or phony. They know who cares and who doesn't. They're not going to like everything I have to say. I don't want to be their buddy. I'm not there to be their buddy. I'm here, but you're gonna respect me, ya know, I'm here to help guide you to be the best that you can be. I'm not just going to settle for average for you." (p. 4)

Rather than simply suggesting an easy major for an undecided student-athlete, both advisors seemed to emphasize letting the players decide what they want to do. So, not only do they focus on the importance of keeping student-athletes eligible, but they also focus on the

importance of taking into account the student-athletes' skill sets and personal preferences when trying to assist them in selecting their major. For instance, they both discussed how they try to get to know their student-athletes and build a good working relationship, so that they are able to find out what the student-athletes want to do, what they are interested in, what they might be good at, and whether or not they can realistically accomplish those goals. An example from both advisers highlights this point:

“Building relationships is, it’s important... these student-athletes are passionate about the same things I am...so it’s easy to have a link with them because we share something.” – Aaron, (p. 5)

“And we have those conversations with them and those discussions with them and say, 'Ok, so, what are you strong in? What subjects are you strong in? Do you like the math’s or do you like the sciences or do you like to write? Umm what piques your interest? What doesn’t pique your interest? How do you like to take exams?’”- Anna, (p. 1)

Many of the student-athletes echoed this sentiment in their interviews. Most expressed feelings that the academic advisors do everything in their power to get to know them and help them choose a major that they might enjoy. However, it seems that sometimes players must sacrifice majoring in a topic that they enjoy in exchange for eligibility. For example, Justin admits wanting to major in “business administration, but when I transferred in a lot of my credits were leading towards sociology, so that’s what they said” (p. 1). Athletes also reported feelings of being stuck once they declare a major due to losing time and credit hours. Anna points to the difficulty in switching majors by saying that once an athlete is enrolled, “if they try to change from one college to the next and it’s their junior season, that might not happen because of the eligibility issues” (p. 2).

In addition to advising student-athletes of their options in major choices, advisers also have to meet regularly with upperclassmen to discuss their progress towards the degree that they have chosen to pursue. As both advisers mention, many are unaware of the NCAA rules and

guidelines that must be followed in order for a student-athlete to remain eligible to compete, so it is their job to be up-to-date on both the NCAA rules, and on the progress being made by each student-athlete. This process can become even more difficult as student-athletes transfer in from other schools or attempt to change majors in the middle of their degree. Anna provided an example when talking about how some of these meetings go:

“...what I had to do was show her, 'Ok, based on what you have already taken and the courses that you have already transferred in, this is where you will be in this major, this is where you will be in this major, and this is where you will be in this major. Now, with that being said, this is how many hours you are gonna have to make up by the..before the fall semester in order to have the NCAA requirements that you need.” (p. 4)

Finally, Jim provides a great example of how eligibility can overcome personal preference in describing how he ended up enrolled in his current major. He details a conversation with his academic advisor when he arrived on campus:

“Well first we sat down and he looked at my transcript and he knew that me coming in I was a general studies major at my juco, but when I got here I told him I wanted to be a business major possibly. And he said well in order for me to be eligible to play football I was going to have to go a different route. And he sat down and told me, like I had taken some criminal justice classes and some psych classes and some sociology classes and he asked me how did I feel about that and I was like I feel pretty good about it, that's why I took the classes because I actually like the field. So he said this is possibly the route you're going to have to take to be eligible play football and that's basically how it came about” (p. 2).

Education as a means to an end

Some of the findings were consistent with assertions made by Kelley (1997), Beamon and Ball (2002), and Simiyu (2012). Several of the interview responses touched on the fact that college student-athletes view the college education they are receiving or the degree they are pursuing as a means to a professional end. In other words, it's viewed by some as a necessary evil; something that has to be taken care of to ensure they can do what they came to college to do

in the first place – play the sport that they love. Evidence of this attitude was uncovered in every interview. For instance, when asked if she believed that most student-athletes share her enthusiasm for the educational aspect of college, Anna bluntly replied, “No, there are some that just do not like school, I’m just gonna be real with you. Some of them know that this is what they have to do in order to do what they want to do, and that is to play, to compete” (p. 8). In response to a similar question, Aaron expressed similar views, “there’s probably five of them that are just like, ‘sign me up for whatever, ya know, as long as I’m eligible, sign me up’” (p. 9). A similar message was conveyed when he was asked about NCAA requirements regarding sufficient progress toward a degree, “I think it’s a good rule, ‘cus you should be progressing towards something. Umm even if it’s a degree that students don’t necessarily know the value of now, like some of them just, ‘aww put me in whatever, put me in Sociology’” (p. 7).

The view that athletics are the most important aspect of a student-athlete's college career can also be seen in the way that the advisers report handling their student-athletes in regard to remaining eligible, and the views about getting degrees that they express to those student-athletes. Though very few college athletes make it professionally, the advisers seem to do all they can to keep from discouraging them from chasing their dreams. Advisors and athletes seemed to share the idea that any degree was valuable and that since they are here in school, they should try to attain one, regardless of the field of study. Participants continually expressed the idea that the degree was an afterthought to athletic participation and the goal of making it professionally. Even after discussing how the advisors explain to the student-athletes that very few college athletes make it professionally, the phrases “get your degree,” “back-up plan,” and “something to fall back on” popped up repeatedly throughout both the advisor and student-

athlete interviews. As you can see from the quote below, even the advisors sometimes view the educational aspect of college as taking a back seat to athletics:

“And we always encourage them to have a backup plan. *[emphasis]* You must have a backup plan. No matter what. And I am the type of person to always encourage them and say, 'look, ok, I'm a hundred percent behind you if that's what you want to pursue, but while you're here, you need to get your degree, as well. Don't have..have other options when you leave here. When it's time for you to go and it's your senior year and umm there's a possibility for you to get drafted, great! But along with that, you're getting your degree and you're gonna graduate from here. And if it doesn't work out with the sport, whatever happens, at least you have your degree...” - Anna, (p. 2)

The student-athletes echoed the sentiments of just getting a degree to have something to fall back on *if* a career in professional sports doesn't pan out. Even when student-athletes acknowledge the near-impossible chances of having a professional sports career, they still recite these phrases as though they are scripted. Instances of this can be seen in every student-athlete interview. For instance, Jeremy says, “I know even if you do make it, you're not going to play basketball your whole life and you still need something to fall back on” (p. 8). Next, Jason explains, “some of us kind of just want to get the degree and just kind of see where we end up, I guess. If the next level, the NFL, doesn't work out, just see where we fit in” (p. 2). John also says, if professional sports are your goal, “that's great, have that for plan A, but if that don't work out you'll have your degree and you can fall back on that” (p. 2). Jackson expresses a similar view by saying, “if you follow pretty much what they tell you to do, you get a degree and a chance to go play in the NFL” (p. 1). Next, Jim jokes, “football is not forever, I'm pretty sure everybody knows that that plays football, so if you don't have a back-up plan you better get one quick! [laughs]” (p. 6). Finally, Justin states that a degree is “a fall back, you know. We all have that dream to continue to play professional whether it's football, baseball, basketball, we all have that dream, that's our main goal” (p. 4).

DISCUSSION

The statistically significant finding that student-athletes are disproportionately enrolled in some majors compared to the general student population adds a significant finding to the existing research on academic clustering. This finding is extremely important to the topic of academic clustering, since it is the only study that tests the differences between student-athletes and the general student population using statistical analysis (such studies may exist, but this researcher is unaware of any at this time). If the clustering of student-athletes had aligned with the clustering of the general student population, it could be said that there would be no real basis for research on clustering to continue. However, this finding suggests that this topic should continue to be investigated at other colleges and universities.

Not all of the results found in the quantitative analysis align with past research on academic clustering. For example, the finding of clustering within women's basketball, but not in football or men's basketball was completely unexpected. This finding adds new, important information to the body of existing research as this study is the only one that found clustering among a women's team at a university, but not a men's team. It is also interesting that the clustered major was kinesiology, not a social science or humanities major like most male student-athletes are clustered into. This suggests interesting differences between the ways male student-athletes and female student-athletes are advised within the athletic department that could be investigated.

The most important finding is that black student-athletes are found to be more likely to enroll in concentrated majors such as social sciences and humanities than whites. Alternatively, the enrollment figures of white student-athletes seem to correspond very closely with those of the

general student population. Given evidence in the qualitative findings, this could be the result of a number of things. The researcher suggests that the athlete's networks play a key role. While some blame has to fall on the student-athletes for concentrating in certain majors, since it is ultimately their decision what they choose to major in, it appears as though the advisors are the driving force of academic clustering.

As expressed by many of the student-athletes and academic advisors in this study, many black student-athletes are recruited only for their athletic prowess, and would not be here if it were not for their athletic scholarships. Advisors and student-athletes also talked about being first generation college students and coming from situations where they lack a support system from families that value academics or provide a high level of support when it comes to academics. Thus, once they are on campus and faced with a decision regarding which major to enroll in, they are completely dependent upon their new social networks. All of these comments seemed to be implicitly directed towards the situations of the black student-athletes. These conditions could cause blacks to be more trusting of the opinions of the advisors about what majors they should choose, possibly helping to explain the disparity between whites and blacks observed in the quantitative analysis. As seen in the qualitative findings, the student-athletes tend to talk about majors and classes almost exclusively with the academic staff, rather than their teammates. While there were a couple of instances of student-athletes discussing their majors and classes amongst each other, the advisors play the most pivotal role.

The advisors serve as the student-athletes' primary point of contact when it comes to academic-related issues. For instance, five of the six student-athletes said that the first person they met with to discuss academics was an advisor in the athletic department, not an advisor in one of the university's colleges. Furthermore, all academic decisions made by student-athletes

must go through the academic advisors. For instance, if a student-athlete wants to change his or her major, the advisor must approve of the change. Short of attending their classes for them, the academic advisors seem to handle every aspect of the student-athletes' academic career. They build their schedules and enroll them into classes, they assign them tutors when they are struggling, they contact professors on behalf of the student-athletes, and they call or text any time an athlete misses a class. In addition to being knowledgeable about NCAA rules and requirements, they also seem to have knowledge of what makes one major easier than another – whether it is the faculty or the course load. For instance, in the interviews with advisors, both brought up social science majors and Fulbright College as examples of easy majors without any prompting.

Advisors and student-athletes seem to share the view that just getting a degree, no matter what kind of degree, is an afterthought to competing in athletics. The attitude that is expressed by both advisors and student-athletes toward simply getting a degree seems to also be a major contributor to student-athletes clustering into a small number of degree programs. The results of the qualitative analysis also line up pretty well with much of the literature presented earlier that suggests student-athletes' primary goal once they are on campus is to make it as professional athletes. Obviously, the advisors never want to discourage a student-athlete from trying to pursue athletics, or beat them down by telling them have no chance of making it professionally. However, it seems more attention should be paid to assessing the needs and wants of the student-athlete. If they are going to be advised to major in certain degree fields, advisors should attempt to ensure that student-athletes are aware of what the degree entails, as well as future career options within the field.

The initial focus of the qualitative portion of the project was placed solely on understanding where the ideas of “easy majors” come from and the processes of how student-athletes become clustered into particular majors. It became obvious that students, as well as the student-athletes share in the views of what is easier. They all discuss factors like course load, faculty, and the general idea that social sciences and humanities are much easier than the natural sciences.

Examining the evidence from the qualitative analysis, it seems as though there are two primary reasons for why academic clustering tends to happen. First, clustering is a way to ensure that student-athletes remain eligible and are able to pursue their passions of athletic participation. Second, the view of getting a degree as “plan B,” or a back-up plan to athletic participation and a chance at a professional sports career is shared between the student-athletes and academic staff. Thus, student-athletes do not really care what their major is, so they will opt for what they believe to be the easiest route for staying eligible – social sciences, humanities, and other less rigorous degrees that may be specific to institutions. For example, this university’s degree in sports and recreation management was mentioned in Jeremy’s interview as being one of the easy “sporting” degrees.

Finally, it seems that academic clustering results in a pretty serious consequence for student-athletes. Throughout the course of the interviews, many instances of student-athletes experiencing feelings of isolation and alienation in regards to academic life are clearly evident. This conclusion is also supported by Beamon’s (2008) research that showed student-athletes feel exploited due to having very little attention paid to them in regards to academics and choosing majors.

Thus, the forms of alienation that Marx discusses are applicable to academic life as student-athletes show evidence of being alienated in the corresponding ways: 1) alienation from their species-being/human nature. It could be argued that foregoing the degrees they want to pursue and enrolling in easier programs in order to remain eligible separates them from their true nature. Evidence of this occurrence was discussed in the previous section. 2) Alienation from their work. If we are to view student-athletes as employees, then their work falls under two categories, the work they do on the field and the work they do in the classroom. They are most definitely alienated from the work in the classroom, as they talk about it being a distant second to the work they do on the field. Several instances also highlight the ways in which they try to pass classes; not excel in them, but simply pass. 3) Alienation from the product. Again, if we view student-athletes as workers or employees, then there are two products they are producing – the product of athletic entertainment and their degrees. Evidence is shown in the literature, as well as in this study that players are not only alienated from the product they produce on the field, but they are also alienated from the degrees they receive, which is the end product of their work in class. In addition to not taking the classes serious, it seems they enroll in degrees they don't really care about or value so that they can remain eligible for athletic completion. 4) Alienation from others. While they are not alienated from other student-athletes, they are very much alienated from the general student population. According to Jim, athletes are “around each other 20 hours a day” (p.8). This is a result of spending the majority of their time in the academic center for student-athletes, and not in department buildings. Furthermore, a lot of them referred to “regular” students and the differences between them and student-athletes without the topic being brought up beforehand. They even talk about how the challenges they face and the challenges other students face are different because they aren't regular students.

According to Marx, a person does not have to feel the subjective effects of alienation to experience alienation, as it is an objective condition that he argues affects all workers in a capitalist system (Allan 2013). However, one quote from the interviews provides evidence that some student-athletes are completely aware of their own alienation. Jackson's quote about how removed student-athletes are from regular college life provides a keen insight into just how different the college experience is for student-athletes versus regular students:

“As a student-athlete I think you learn real fast you have to be more responsible. You know, you can't tweet what you want, you can't go out on Dickson [Street] when you want and things like that. You got a lot of other obligations, and I think people don't really respect that. You know, and you think freshmen are freshmen, but freshmen that play football or freshmen that play sports are not the same. Like, they can't decide I don't want to go to class for the next two days you know, and just sleep in and play Call of Duty. It don't work like that. I think they are held more accountable than other freshmen. And like when regular freshman does something bad, it's not blown up in the papers and things like that, so I think you're more accountable as a student-athlete.” (p. 10)

CONCLUSION

The purpose of this study was to examine the phenomenon of academic clustering within a single university through a mixed methods design. After analyzing both quantitative and qualitative data, several key findings are reported. The study found that academic clustering is occurring within the university's women's basketball team. Statistical analysis shows that student-athletes are enrolled in certain colleges in disproportionate numbers compared to the general student population. Also, the results of a logistic regression show that black student-athletes are significantly more likely to be enrolled in concentrated major colleges than white student-athletes.

The qualitative analysis also presents some interesting findings on the topic of academic clustering. While it would be almost impossible to say with complete certainty who is responsible for the construction of a major as “easy,” evidence seems to suggest that the advisors play the biggest role in academic clustering. Interviews also reveal what could be the most influential factors in the clustering of athletes into certain majors. For instance, the data gathered in these interviews seem to suggest that clustering is a product of the need to remain eligible and an indifferent attitude toward academics on the part of student-athletes. Evidence from the interviews also suggests that academic clustering may result in alienating and isolating student-athletes.

Limitations and Future Research

Some limitations of this study have been addressed in the Methods section. These included limitations in the methodology, as well as limitations in the sample. The choice to include the athletes that had the “placeholder major” listed (those enrolled into a college, not a specific degree program), as well as the decision to recode the major variable into colleges could be argued by some as being too reductionist and possibly destroying or devaluing the original data.

The researcher also acknowledged shortcomings in the sample. First, the sample of student-athletes used in the quantitative analysis is not representative of the overall population demographics of student-athletes at the university, or the demographics of all NCAA student-athletes in general. This portion of the analysis would greatly benefit from including more diversity, such as including more sports or all sports, as this would increase the scope and generalizability of the findings. Second, the sample of student-athletes used in the qualitative

analysis consists of participants that are too similar. All six participants were black males enrolled into either sociology or criminal justice majors. Also, five of the six student-athlete participants were members of the football team, while the sixth participant was a member of the men's basketball team. This sample would have benefited from the input of different viewpoints such as student-athletes not majoring in sociology or criminal justice, female student-athletes, and white student-athletes.

There are also issues with the implementation of the interviews. Since this project was the researcher's first attempt at qualitative research, there is a glaring limitation that must be addressed. The lack of skill in the actual interviewing process may have left much to be desired. Interviewing participants is something that takes time and practice to master. Thus, many opportunities for probing and digging into particular areas may have been overlooked on the part of the researcher.

While this study found some interesting, as well as statistically significant results, there are a number of ways future research could be directed. One of the most obvious ways to further the current study would be to analyze each team at this university. Another, more ambitious approach would be to apply the quantitative method of this study to analyze the student-athlete majors of all six BCS conferences' (SEC, ACC, Big XII, Big Ten, Pac 12, Big East) football programs. An even more ambitious study would be examining the majors of all 120 BCS football programs. Finally, it would also be interesting to select a random sample of teams from Division I, II, and III and analyze the major choice for differences based on divisions. Regardless of the direction future research may take, given the existing literature and the results of this study, it seems important that this subject continue to receive empirical study.

REFERENCES

- Allan, K. (2013). *Explorations in Classical Sociological Theory: Seeing the social world (3 ed.)* Los Angeles, CA: Sage Publishing.
- Beamon, K. K. (2008). Used goods: Former African American college student-athletes' perception of exploitation by Division I universities. *Journal of Negro Education, 77*(4), pp. 352-364.
- Beamon, K. K. (2010). Are sports overemphasized in the socialization process of African American males? A qualitative analysis of former collegiate athletes' perception of sport socialization. *Journal of Black Studies, 41*(2), pp. 281-300.
- Becker, H. S. (1996). "The Epistemology of Qualitative Research." Pp. 317 – 330 in: *Ethnography and Human Development*, edited by R. Jessor, A. Colby, and R.A. Shweder. University of Chicago Press.
- Benson, K. F. (2000). Constructing academic inadequacy: African American athletes' stories of schooling. *Journal of Higher Education, 71*(2), pp. 223-246.
- Berkowitz, S. (2014, March 20). NCAA net assets of \$627 million, says record. *USA Today*. Retrieved from: <http://www.usatoday.com/story/sports/college/2014/03/20/ncaa-expenses-revenue-money-mark-emmert/6651133/>.
- Brady, E. (2008, November 20). Athletes' academic choices put advisers in tough balancing act. *USA Today*. Retrieved from: http://www.usatoday.com/sports/college/2008-11-20-athletes-advisers-cover_N.htm.
- Case, B., Greer, S., & Brown, J. (1987). Academic clustering in athletes: Myth or reality? *Arena Review, 11*(2), pp. 48-56.
- Charmaz, K. (2006). *Constructing Grounded Theory: A practical guide through qualitative analysis*. Los Angeles, CA: Sage Publishing.
- DeBrock, L., Hendricks, W., & Koenker, R. (1996). The economics of persistence: Graduation rates of athletes as labor market choice. *Journal of Human Resources, 31*(3), pp. 513-539.
- Donnor, J. K. (2005). Towards an interest-convergence in the education of African-American football student athletes in major college sports. *Race, Ethnicity, and Education, 8*(1), 45-67.
- Dowling, W. C. (2000). Sports, race, and resentment. *Society, 37*(3), pp. 29-34
- Eitzen, D. S. & Sage, G. S. (1982). *Sociology of American Sport (2nd ed.)*. DuBuque, Iowa: William C. Brown

- Eitzen, D. S. (2001). Big time college sports: Contradictions, crises, and consequences. In: S. Eitzen (6 eds.). *Sport in contemporary society: An anthology*. New York City, NY: Worth Publishers.
- Finley, P. S. & Fountain, J. J. (2007, March). *Academic stacking of athletes on low performing Division I football teams*. Paper presented at The Drake Group Annual Conference, Cleveland, OH.
- Finley, P. S. & Fountain, J. J. (2010). An investigation of successful Football Bowl Subdivision coaches and the disproportional academic achievement of their white and African-American football players. *Academic Leadership Online Journal*, 8(3). Retrieved from: http://www.academicleadership.org/article/print/An_investigation_of_successful_Football_Bowl_Subdivision_coaches_and_the_disproportional_academic_achievement_of_their_White_and_African-American_football_players
- Fountain, J. J. & Finley, P. S. (2009a). Academic majors of upperclassmen football players in the Atlantic Coast Conference: An analysis of academic clustering comparing white and minority players. *Journal of Issues in Intercollegiate Athletics*, 2, pp. 1-13.
- Fountain, J. J., & Finley, P. S. (2009b) *A Longitudinal Study of Academic Clustering at a BCS Football Program*. Paper presented at the Scholarly Conference on College Sport, Chapel Hill, NC.
- Fountain, J. J., & Finley, P. S. (2010, April). *An investigation of academic clustering of athletes in BCS athletic departments*. Paper presented at the Scholarly Conference on College Sport, Chapel Hill, NC.
- Fountain, J. J. & Finley, P. S. (2011). Academic clustering: A longitudinal analysis of a Division I football program. *Journal of Issues in Intercollegiate Athletics*, 4, pp. 24-41.
- Hawkins, B. (2013). *The New Plantation: Black athletes, college sports, and predominantly white NCAA institutions*. New York City, NY: Palgrave Macmillan.
- Hennink, M., Hutter, I. & Bailey, A. (2011). *Qualitative Research Methods*. Los Angeles, CA: Sage.
- Kelley, R. D. G. (1997). Looking to get paid: How some black youth put culture to work. In *Yo mama's disfunkcional: Fighting the culture wars in urban America* (pp. 43-77). Boston: Beacon Press.
- Maloney, M. T. & McCormick, R. E. (1993). An examination of the role that intercollegiate athletic participation plays in academic achievement: Athletes' feats in the classroom. *Journal of Human Resources*, 28(3), pp. 555-570.
- Mason, J. (2002). *Qualitative Researching*. Thousand Oaks, CA: Sage.
- Massey, D. S. (2007). *Categorically Unequal: The American stratification system*. New York City, NY: Russell Sage Foundation.

- McCormick, K. K. (2010). Academic clustering in intercollegiate athletics. *K-State Research Exchange*. Retrieved from: <http://krex.k-state.edu/dspace/handle/2097/4129>.
- Meggyesy, D. (2000). Athletes in big-time college sport. *Society*, 37(3), pp. 24-28.
- United States Department of Education, National Center for Education Statistics. (2012). *Digest of Education Statistics, 2012*. Retrieved from: http://nces.ed.gov/programs/digest/d12/tables/dt12_376.asp
- National Collegiate Athletic Association. (2013). *NCAA Division I Manual 2013-14*. Retrieved from: <http://www.ncaapublications.com/productdownloads/D114APR.pdf>.
- National Collegiate Athletic Association. (2011). *History of Academic Reform*. Retrieved from: <http://www.ncaa.org/wps/wcm/connect/public/ncaa/academics/academics+history>
- National Collegiate Athletic Association. Education and Research Data. (2010). *Aggregate Federal Graduation Rate Data Reports - Division I*. Retrieved from: <http://fs.ncaa.org/Docs/newmedia/public/rates/index.html>.
- National Collegiate Athletic Association. Education and Research Data. (2010). *Trends in Graduation Success Rates and Federal Graduation Rates at NCAA Division I Institutions*. Retrieved from: <http://fs.ncaa.org/Docs/newmedia/public/rates/index.html>.
- Patterson, M. M., Carron, A. V., & Loughead, T. M. (2005). The influence of team norms on the cohesion-self-reported performance relationship: a multi-level analysis. *Psychology of Sport and Exercise*, 6(4), pp. 479-493.
- Patton, M. (2002). *How to Use Qualitative Methods in Evaluation*. Thousand Oaks, CA: Sage.
- Paule, A. (2010). Gaining equity in all the wrong areas: An analysis of academic clustering in women's Division I basketball. Paper presented at the Scholarly Conference on College Sport, Chapel Hill, NC. Retrieved from: http://www.csriconference.org/docs/2010%20Presentations/Thursday%20PM/Paule_2010_ThuPM.pdf.
- Purdy, D. A., Eitzen, D. S., & Hufnagel, R. (1982). Are athletes also students? The educational attainment of college athletes. *Social Problems*, 29(4), pp. 439-448.
- Rhoden, W. C. (2006). *Forty Million Dollar Slaves: The rise, fall, and redemption of the black athlete*. New York City, NY: Three Rivers Press.
- Rosenfeld, L. B., Richman, J. M., & Hardy, C. J. (1989). Examining social support networks among athletes: Description and relationship to stress. *The Sport Psychologist*, 3(1), pp. 23-33.
- Sanders, J. P. & Hildenbrand, K. (2010). Major concerns? A longitudinal analysis of student-athletes' academic majors in comparative perspective. *Journal of Intercollegiate Sport*, 3(2), pp. 213-233.

- Schneider, R. G., Ross, S. R., & Fisher, M. (2010). Academic clustering and major selection of intercollegiate student-athletes. *College Student Journal*, 44(1), pp. 64-71.
- Steeg, J. L, Upton, J., Bohn, P. & Berkowitz, S. (2008, November 19). College athletes studies guided toward 'major in eligibility.' USA Today. Retrieved from:
http://www.usatoday.com/sports/college/2008-11-18-majors-cover_N.htm
- Suggs, W. (2003). Jock majors: Many colleges allow football players to take the easy way out. *The Chronicle of Higher Education*, 49(19).
- United States Census Bureau. (2012). Section 13: Income, expenditures, poverty and wealth. In: *U.S. Census Bureau, Statistical Abstract of the United States: 2012*. Retrieved from:
<http://www.census.gov/prod/2011pubs/12statab/income.pdf>.
- University of Arkansas Catalog of Studies. (2012). *2012-2013 University of Arkansas Catalog of Undergraduate Fields of Study*. Retrieved from:
<http://catalogofstudies.uark.edu/2873.php>.
- Zweigenhaft, R. L. and Domhoff, G. W. (2006). *Diversity in the Power Elite: How it happened, why it matters*. Lanham, MD: Rowman & Littlefield.

APPENDIX

Sample Interview Questions

- What does the process of academic advising consist of in the athletic department?
- How does that process translate into choosing a major?
- What do you like/dislike about academic advising?
- Do you believe the advising process is adequate?
- How would you change the advising process?
- How much influence do advisors have in the selection of a major?
- Do student-athletes typically enter with a major in mind?
- If not, how do advisors assist in choosing a major?
- What about players who transfer in from other colleges/junior colleges?
- What characteristics of student athletes determine their major?
- How do you handle student-athletes who wish to major in tough majors but have poor GPAs/test scores?
- How do you convey to student-athletes that very few make it professionally?
- Is career counseling part of the advising process?
- How do you handle student-athletes who want to leave college early for the pros?
- Why/how often do student-athletes change their major?
- What do you consider the university's best undergrad program?
- Worst undergrad program?
- Do you feel NCAA rules make it harder or easier for advisors/student-athletes?
- How much input do coaches have in the major selection/advising process?
- Do you feel you have more influence than the student-athletes' peers?

- How well do you feel the university prepares student-athletes for life after football?
- Do you think student-athletes come to college prepared to do well academically?
- How many times do you meet with each student-athlete?
- How much time do you spend with each student-athlete in a semester?
- What is the biggest academic-related concern student-athletes express?
- Do you prefer student-athletes' majors remain undeclared until they are sophomores or declare early?
- How do you feel about NCAA reports of record graduation rates for student athletes?
- Are you aware of a phenomenon called academic clustering?
- Do you believe it is a problem here?
- Do you believe it is a good/bad thing?
- How might this be a good/bad thing for student-athletes?
- Do you believe student-athletes value their degrees?



November 13, 2012

MEMORANDUM

TO: M. Brett Rowland
Song Yang

FROM: Ro Windwalker
IRB Coordinator

RE: New Protocol Approval

IRB Protocol #: 12-10-201

Protocol Title: *Self-Perceptions of Academic Advisors: A Qualitative Analysis*

Review Type: EXEMPT EXPEDITED FULL IRB

Approved Project Period: Start Date: 11/13/2012 Expiration Date: 11/12/2013

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (<http://vpred.uark.edu/210.php>). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 15 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.