

Invisible Achievement: A Quantitative Analysis of Scholarship and Non-Scholarship
Academic Outcomes in NCAA Division I Revenue-Generating Sports

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DEDICATION

In full disclosure, nothing about this PhD journey has excited me more than writing this dedication. In fact, everything about this section is exactly why I did this – dedication.

Dedication to the people, places, and things that add value and bring joy to my life.

I have dedicated my life to doing the things that scare me the most, as I believe the greatest things are on the other side of our fears. I scored a 20 on the ACT and had no business leaving my small cornfield town to try my hand at Division I football. I also had no business pursuing a career in major college athletics and becoming a senior administrator at what I believe to be one of the greatest universities and athletics departments in America. Yet here I sit, putting the finishing touches on a dissertation that will give me a prefix that will seemingly tell others something about me. My hope is that this phase of life will show my friends and family that I have been, and always will be, insanely committed to being the best version of myself as a husband, father, friend, and colleague.

To Kramer, Kyron, Kaylor, Hazel, and Mira – I want you to know exactly what I’m going to say when I walk into the room to tell you goodnight. I want you to know I’m about to tell you how proud I am of you, and I’m so glad God chose me to be your husband and dad. And I want you to know I’m about to tell you I love you more than anything in the world. Because one day I may not be able to tell you those things, and I still want you to hear them. My dad has been gone for almost 13 years, and I can still feel his hand on my hand. I can still see his eyes and smile when I’ve done something that makes him proud. And I can still hear him tell me he loves me like he did every single day. This journey has undoubtedly been harder on you than me.

I love you and cannot wait to give you back the time, with interest, in the days, months, and years ahead.

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Kunta – No matter what I do, where I go, or who I become, I will always look up to my big brother. You understand me better than anyone in the world, and you are hands-down the most influential person in my life. I love you so much.

Sincerely,

Marshall M. Steward III, ~~ABD, Ph.D.~~, DaD

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ABSTRACT

The academic performance of NCAA Division I student-athletes, particularly those in revenue-generating sports such as football and men's basketball, remains a critical area of scholarly inquiry. However, existing research primarily focuses on scholarship recipients, leaving the academic experiences of non-scholarship student-athletes relatively unexplored. With over 200,000 student-athletes participating in NCAA Division I sports annually—and only 59% receiving athletic scholarships—understanding the academic performance and persistence of the remaining 41% is essential. Current NCAA metrics, including the Academic Progress Rate (APR) and Graduation Success Rate (GSR), reflect only scholarship student-athletes' outcomes, underscoring the need for a more comprehensive examination.

This study analyzed 10 cohort years of institutional data from a single NCAA Division I institution, employing a quantitative approach to compare the final cumulative GPA, time-to-degree or departure, and demographic profiles of scholarship and non-scholarship football and men's basketball student-athletes. Using ANOVA and ANCOVA, the study examined how these variables influenced academic outcomes, with Social Identity Theory (SIT) as the theoretical framework to explore the intersection of multiple identities—such as scholarship status, sport, and race/ethnicity—in shaping student achievement.

Findings illuminate an often-invisible population whose academic journeys are frequently homogenized or overlooked in existing literature. The results revealed that non-scholarship student-athletes, predominantly White/Non-Hispanic, achieved higher GPAs, while scholarship student-athletes, predominantly Black/African American, graduated in fewer semesters. In

football, both Black/African American and White/Non-Hispanic scholarship student-athletes outperformed their non-scholarship counterparts in GPA and time-to-degree.

By advancing understanding of the academic outcomes of all student-athletes, especially those participating in the most visible and revenue-producing sports, this research can inform institutional and national policies and practices. The findings offer valuable insights that can assist decision-makers in optimizing resource allocation and improving support structures in the increasingly complex, commercialized, and politicized landscape of college athletics.

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CHAPTER I

INTRODUCTION

American colleges and universities are often distinguished by their athletics traditions, which reflect a cultural phenomenon deeply embedded in our nation's history and identity. The academic and athletic experiences of student-athletes often provide pathways to higher education that may have otherwise remained inaccessible, contributing to greater social mobility (Bowen & Levin, 2003). The academic impact of participation in college athletics has undergone extensive examination for decades (Purdy, et al., 1982; Rubin & Rosser, 2014). While the relationship between athletic commitment and academic achievement is complex, it is particularly pronounced in the National Collegiate Athletic Association's (NCAA) Division I revenue-producing sports, notably football and men's basketball. Scholars have consistently illuminated the academic challenges faced by student-athletes, particularly Black men, in these high-profile sports (Adelman, 1990; Kiger & Lorentzen, 1986; Upthegrove et al., 1999).

However, much of the existing research on the academic performance of NCAA Division I student-athletes has primarily focused on a subset of this population – those who are recipients of athletic scholarships. Research designs with scholarship status as the major discriminating factor remain scarce (Rubin & Rosser, 2014). This gap in the literature is, in part, a consequence of NCAA rules and regulations designed to thoroughly track and assess the academic progress of scholarship student-athletes only. Thus, scholarship student-athletes have remained the focal point of nationally recognized and publicly available academic performance metrics such as the Academic Progress

Rate (APR) and Graduation Success Rate (GSR), established as part of the NCAA's Academic Performance Program (APP) in 2003 (NCAA, 2022).

A critical and underrepresented segment of NCAA Division I student-athletes exists beyond the scope of these prominent academic metrics, as approximately 41% of the NCAA Division I student-athlete population do not receive athletic scholarships (LaForge & Hodge, 2011; NCAA, 2022). With non-scholarship student-athletes, often referred to as walk-ons, largely invisible in the context of nationally recognized academic performance metrics, little is known beyond the institutional level about their academic experiences and challenges within the unique context of collegiate athletics (Rubin & Rosser, 2014). Specifically, there is limited understanding of how non-scholarship student-athletes perform (defined as cumulative GPA) and persist (defined time-to-degree or departure and graduation status) relative to their athletic scholarship-carrying peers in America's most visible and profitable college sports – football and men's basketball.

Context

The NCAA's Academic Performance Program (APP), introduced in 2003, marked a significant step forward in recognizing the importance of academic success for student-athletes. Designed to hold institutions accountable for the academic progress and graduation of their student-athletes, particularly those receiving athletic scholarships, the APP still represents a positive initiative. However, its limited scope (i.e., only scholarship student-athletes) continues to raise questions about the need for modernization after 20 years of evolution in college athletics (Rubin & Rosser, 2014). At no point in the history of college athletics has a firm understanding of how non-scholarship student-athletes

perform in the classroom and graduate relative to their athletic scholarship-carrying counterparts been established. Also missing is an examination of *only* revenue-producing sports within the context of scholarship and race/ethnicity. Heralded as one of the sturdiest predictors of university academic performance, race/ethnicity, coupled with scholarship status, should be explored further (Kiger & Lorentzen, 1986; Purdy, et al., 1982; Rubin & Rosser, 2014).

At the NCAA Division I Football Bowl Subdivision (FBS) level, the average team size is 127.5 in football and 16 in men's basketball (NCAA, 2022). NCAA institutional athletic scholarship limits are 85 and 13, respectively, which means the average football team carries 85 scholarship student-athletes and 42 non-scholarship student-athletes, and men's basketball teams carry 13 scholarship student-athletes and 3 non-scholarship student-athletes. Regarding race, 44.7% of football student-athletes and 52.4% of men's basketball student-athletes are Black (College Sport Racial and Gender Report Card, 2022). Over the past 20 years, graduation rates for Black FBS football student-athletes have increased 27 percentage points from 54% to 81%, while Black men's basketball student-athletes have increased 35 percentage points from 46% to 81% (NCAA, 2022). The NCAA's APP has had a positive impact on student-athlete success. However, NCAA-reported graduation rates and other APP data do not recognize non-scholarship student-athletes, resulting in the invisible achievement of a significant population of student-athletes.

To establish a firm understanding of the distinction between sports and the uniqueness of this study, a brief overview of revenue sports and athletic scholarships is

warranted. Revenue sports historically generate revenue for the university. At the NCAA Division I FBS level, amongst men's sports, only football and men's basketball fit this description. All other men's sports are considered non-revenue sports. A two-tiered scholarship system exists for revenue and non-revenue sports. Revenue sports for men are considered "head count" or full scholarship sports, meaning student-athletes who participate in these sports either receive a full or no athletic scholarship. Non-revenue sports for men are considered "equivalency" or partial scholarship sports, meaning a single scholarship can be distributed in percentages across multiple student-athletes. Each sport is assigned a scholarship limit and every member institution within the NCAA Division I FBS must adhere to these limits.

Statement of the Problem

Approximately 200,000 student-athletes participate in NCAA Division I sports annually, and 59% receive some level of athletics scholarship (NCAA, 2024). In accordance with NCAA legislation, member institutions are required to track, monitor, and support the academic progress of their scholarship student-athletes only. However, little is known beyond the institutional level about the academic performance and persistence of non-scholarship student-athletes – 41% of all NCAA Division I student-athletes.

Most researchers have merely examined the academic performance of student-athletes relative to their non-student-athlete counterparts. Seminal research in this area has either become outdated, inconclusive or failed to focus on scholarship status as a major discriminating factor within the context of revenue-producing sports only (Garcia

et al., 2023; Rubin & Rosser, 2014). Also, prior empirical research examined several non-revenue sports and scholarship systems in addition to football and men's basketball (Rubin & Rosser, 2014). Football and men's basketball utilize the same scholarship system (i.e., head count/full scholarship or no scholarship) and have the highest Black student-athlete populations – a student group extensively studied within and outside the context of sport (Blackman, 2008). Additionally, only a single cohort year of student-athletes is captured in the studies of most significance (Rubin & Rosser, 2014).

Purpose of the Study

The purpose of this quantitative study was to examine the academic performance (defined by final cumulative GPA), time-to-degree or departure (defined by semesters), and graduation status (defined by graduated or not graduated) of football and men's basketball student-athletes entering NCAA Division I FBS institutions between 2008 and 2017, comparing scholarship and non-scholarship student-athletes across race/ethnicity. Capturing data from the 2017 student cohort allowed the researcher to examine the most recent publicly available data for scholarship student-athletes alongside the same data for non-scholarship student-athletes over 10 cohorts years at a single institution. Using the past 10 years of institutional data, this study sought to advance the understanding of academic performance and persistence amongst non-scholarship student-athletes by examining data not captured in NCAA Division I APP reporting.

Research Questions

This study aims to answer four research questions.

1. What are the differences in demographic and profile characteristics between scholarship and non-scholarship student-athletes in football and men's basketball?
2. What are the differences in final cumulative GPA between scholarship and non-scholarship student-athletes in football and men's basketball?
3. What are the differences in time-to-degree or departure between scholarship and non-scholarship student-athletes in football and men's basketball?
4. What are the differences in graduation status between scholarship and non-scholarship student-athletes in football and men's basketball?

Theoretical Framework

This study employed Social Identity Theory (SIT), coined by Tajfel and Turner in 1979, to critically examine the academic performance and persistence of NCAA Division I FBS scholarship and non-scholarship student-athletes in revenue-producing sports (i.e., football and men's basketball). Within the context of Division I competition, high-profile, high-revenue sports, specifically football and men's basketball, are regarded as the peak of intercollegiate athletics in the United States. Student-athletes who compete at this level find themselves in a complex and sophisticated system, negotiating social identities and social capital. These nuances frequently intersect and influence how they interpret, interact with, and integrate into the academic enterprises that exist on their campuses (Ellemers & Haslam, 2012). Recognizing that multiple social identities and group memberships (i.e., scholarship status, sport, and race/ethnicity) intersect and influence the student experience, it is compelling to examine the impact of this reality in a space that often homogenizes scholarship and non-scholarship student-athlete experiences in

research. The intersection of athletic scholarship status and race/ethnicity has not been extensively studied.

Ellemers and Haslam (2012) provide the following definition for SIT:

Social identity theory is a “grand” theory. Its core premise is that in many social situations people think of themselves and others as group members, rather than as unique individuals. The theory argues that social identity underpins intergroup behavior and sees this as qualitatively distinct from interpersonal behavior. It delineates the circumstances under which social identities are likely to become important, so that they become the primary determinant of social perceptions and social behaviors. The theory also specifies different strategies people employ to cope with a devalued social identity. Social identity theory is a truly social psychological theory, in that it focuses on social context as the key determinant of self-definition and behavior. People’s responses are thus understood in terms of subjective beliefs about different groups and the relations between them, rather than material interdependencies and instrumental concerns, objective individual and group characteristics, or individual difference variables.

Examining student-athlete data regarding academic performance (defined by final cumulative GPA), academic persistence (defined by time-to-degree or departure), and demographic and profile characteristics (defined by scholarship status, sport, and race/ethnicity) through a lens shaped by SIT will shed additional light on how these multiple, fragmented, and sometimes contradictory identities influence academic outcomes.

In 2014, Dr. Lisa Rubin published findings from her dissertation, which concluded that scholarship status significantly differentiates student-athletes based on demographic and profile characteristics, academic performance, and time-to-degree. Rubin employed work motivation as the theoretical framework for her study, examining athletic scholarships as extrinsic rewards (Rubin & Rosser, 2014). While not exclusive to revenue-generating sports, Rubin's findings exacerbate the widely accepted notion that scholarship student-athletes in these sports are generally Black, non-scholarship student-athletes are generally White, and White student-athletes perform better academically (i.e., have higher GPAs) and graduate in fewer semesters than Black student-athletes.

The utilization of a SIT approach in quantitative research, recognizing the potential interplay of the multiple identities of student-athletes, may challenge the prevailing narrative in marquee college sports like football and men's basketball. This study aims to contribute to the existing body of literature that utilizes student-athlete scholarship status as a major discriminating factor. The incorporation of race/ethnicity, a demographic variable of most significance in previous research, provides an opportunity for compelling discovery. The degree to which these student-athlete identities intersect may expand what previous research has told us about the academic acumen of scholarship and non-scholarship student-athletes at the highest level of collegiate sport. By analyzing institutional data, this study will contribute to the understanding of the role scholarship status and race/ethnicity play in the academic performance and persistence of NCAA Division I scholarship and non-scholarship student-athletes in football and men's basketball. Additionally, the utilization of SIT will contribute to the growing body of

literature regarding the versatility and value of considering how self-identification and group membership impact measurable outcomes.

Significance

This study will significantly contribute to the existing body of research surrounding the academic performance of college student-athletes. Of most importance, this study addresses a clear gap in the literature specific to non-scholarship student-athletes in NCAA Division I football and men's basketball. While prior investigations have explored the academic performance of student-athletes across sports and demographic variables, these studies were often broad and did not utilize scholarship status as a major discriminating factor (Rubin & Rosser, 2014). Such approaches have limited the depth of analysis within specific, high-profile sports and do not illuminate the non-scholarship student-athlete experience in any meaningful way.

In addressing this critical gap in the literature, this study will provide a more focused examination of the academic performance and graduation outcomes of non-scholarship student-athletes alongside their widely researched scholarship student-athlete peers. This thoughtful analysis aims to closely examine the prevailing narrative, supported by limited research, regarding these student-athlete populations. Further, the study will contribute to a larger body of existing and emerging literature designed to encourage the modernization of NCAA legislation and institutional practices.

Terminology

The majority of the following terms are defined by the 2024-2025 NCAA Division I Manual. Exceptions are noted with specific terms.

Academic Progress Rate (APR): A metric established by the NCAA's Academic Performance Program (APP) to measure the academic success and progress of student-athletes. It is calculated based on factors such as retention and eligibility.

Athletic Scholarship: Financial aid provided to student-athletes to support their participation in collegiate sports. Athletic scholarships can cover various expenses, including tuition, fees, and living costs.

Cumulative Grade Point Average (GPA): A numerical representation of a student-athlete's overall academic performance.

Division I Football Bowl Subdivision (FBS): The highest level of competition in the NCAA, comprising the largest universities and colleges with premier football programs.

Equivalency: Non-revenue sports for men are considered “equivalency” or partial scholarship sports, meaning a single scholarship can be distributed in percentages across multiple student-athletes.

Graduation Success Rate (GSR): A metric established by the NCAA's Academic Performance Program (APP) to measure the percentage of student-athletes who graduate within a specified time frame, considering transfers and other factors.

Head Count: Revenue sports for men are considered “head count” or full scholarship sports, meaning student-athletes who participate in these sports either receive a full athletic scholarship or no athletic scholarship.

National Collegiate Athletic Association (NCAA): The governing body for college sports in the United States, responsible for establishing rules and regulations for student-athlete eligibility and competition.

Non-Scholarship Student-Athlete: A student-athlete who does not receive an athletic scholarship to support their participation in collegiate sports. Also referred to as a “walk-on.”

Revenue-Producing Sports: In the context of this study, it refers to high-profile collegiate sports such as football and men's basketball that generate substantial revenue for universities through ticket sales, broadcasting rights, and sponsorships.

Scholarship Student-Athlete: A student-athlete who receives an athletic scholarship to support their participation in collegiate sports.

Social Identity Theory (SIT): A psychological theory that explains how an individual's self-concept and behavior are shaped by their identification with and membership in various social groups (Tajfel & Turner, 1979).

Time-to-Degree: The amount of time it takes a student-athlete to complete their academic program and earn a degree, measured in semesters.

Time-to-Departure: The amount of time a student-athlete spent at the institution without earning a degree, measured in semesters.

Limitations

The findings of this study reflect a singular focus on a large, public, four-year institution that participated in NCAA Division I athletics. Only scholarship and non-scholarship student-athletes that participated in football and men's basketball were used in the analysis. As such, results may not be generalizable nor reflect trends across multiple universities or different divisions of collegiate athletics, although the study could be replicated for the same population at similarly situated institutions. Similarly, the

focus on scholarship and non-scholarship student-athletes in football and men's basketball (i.e., male, revenue-generating, head count sports) did not account for female student-athletes or those who participated in equivalency or non-revenue-generating sports.

All data collected was provided through secondary data sources, therefore the researcher did not have access to additional variables that maybe affect analyses such as additional grants, non-athletics aid, or pre-enrollment data. The impact of institution-specific academic requirements or academic resources made available to scholarship versus non-scholarship student-athletes is unknown. Additionally, student-athletes were assigned permanent scholarship or non-scholarship status based on their first semester of college enrollment, so any changes in scholarship status beyond initial enrollment were not reflected in the study.

Organization of the Study

This study is organized into five chapters. The first chapter established the problem, purpose, and guiding research questions with sufficient context thoughtful examination. It also emphasized the significance of the study alongside the limitations. The following chapter, the literature review, provides a summary of relevant scholarly works surrounding the academic performance and persistence of student-athletes and further describes the theoretical framework used to support the study. The third chapter will detail the data sources, research variables, and statistical analysis utilized in the study. The fourth chapter describes the findings of the study relative to the research

questions. The fifth and final chapter is comprised of a discussion of the findings, implications, and recommendations for the field and future inquiry.

CHAPTER II

LITERATURE REVIEW

While an extensive body of literature exists surrounding the academic performance of college student-athletes, much more remains unknown than known. This oft studied, yet widely misunderstood, population of college students has evaded researchers for decades, primarily because nearly half of the population, non-scholarship student-athletes (i.e., those who do *not* receive athletics aid), are invisible in both research and nationally recognized academic performance and persistence metrics (LaForge & Hodge, 2011; Rubin & Rosser, 2014). National Collegiate Athletics Association (NCAA) academic performance metrics, namely those within the Academic Performance Program (APP), designed to monitor and enhance the academic performance and progress of student-athletes through a system of institutional rewards and penalties, only account for *scholarship* student-athletes. Recent NCAA data reveals that approximately 41% of the NCAA Division I student-athletes do not receive any level of athletic scholarship (NCAA, 2024). As such, little is known beyond the institutional level about the academic journey of nearly half of the student-athletes who compete at the highest level of college sport at NCAA member institutions (Rubin & Rosser, 2014).

To better understand this phenomenon, a review of the literature was conducted on the academic performance, persistence, race/ethnicity, sport type, and scholarship status of college student-athletes. Additionally, a historical review of the NCAA academic reform policy was executed to provide the appropriate context for this

comparative study. Beginning with a brief chronological legislative framework, the following section outlines the relevant literature that will inform and guide this study.

NCAA Academic Regulation and Reformation

Sanity Code (1948)

Some of the earliest efforts by the NCAA to regulate financial aid and scholarships for college student-athletes can be traced to the post-World War II era in 1949 (Chudacoff, 2015). Recognized as one of the more structured efforts of the NCAA to preserve amateurism, the Sanity Code of 1948 represented the start of the NCAA's long and ongoing road to regulate and enforce limitations on the compensation and benefits student-athletes could receive, unrelated to their status as a student-athlete. More importantly, it attempted to tether only academic standards and financial need to student compensation – effectively banning athletic scholarships – or so they hoped. Limited to free tuition and one free meal per day, the Sanity Code was challenged regularly, followed loosely, and ultimately repealed roughly two years after implementation due to growing non-compliance and the NCAA's lack of an enforcement arm (Blackman, 2008; Oriard, 2012; Waller, 2003). Although short-lived, the Sanity Code was a well-intended, but out-of-touch, attempt to level the playing field in an era of open disobedience, scandal, and deeply rooted pay-for-play practices. But not all was lost, remnants of the Sanity Code's principles still exist in today's Ivy League where, in 1945, eight schools signed an agreement to ban football scholarship at their schools before extending it to all sports in 1954 (Chudacoff, 2015).

12-Point Code (1952)

A battle lost but war far from over, the NCAA resurfaced in a powerful way in 1952. Lee (2022) explained, “as an alternative to the Sanity Code, the NCAA approved a 12-point code designed, in part, to address “the academic aspect of athletes such as (1) Confine practice sessions to the recognized season of the sport (that is, no spring football), and limit or closely supervise out-of-season practices; (2) Limit the number of games in each sport, particularly football and basketball; (3) Reconsider postseason games in light of pressure they create (i.e., a potential ban on bowl games); (4) Require normal academic progress toward a degree for purposes of eligibility; (5) Admit athletes only under the institution’s published requirements; (6) Give close attention to the curriculum of the athlete, to assure that he is not diverted from his educational objective” (Lee, 2022; Oriard, 2012, p. 10). These standards continued to evolve over the next decade, better defining term-over-term academic progress and establishing a stronger foundation for regulatory oversight and what would become predicted academic success in 1965.

1.6 & 2.0 Rules (1965 & 1973)

Taking a step back to move forward, the NCAA, in 1965, instituted its first true academic eligibility standard when it rolled out the 1.6 Rule (Blackman, 2008). Touted as a pre-screening predictive tool to measure the propensity for college success, the instrument combined high school GPA ranking and test scores to project a 1.6 college GPA for financial aid (Oriard, 2012, p. 11). Similarly, the increasingly unpopular 1.6 GPA measure was utilized as an eligibility requirement for continuing students until it

was replaced by a 2.0 Rule in 1973. The 2.0 Rule, as the name suggests, created a more straightforward standard of a 2.0 high school GPA for initial eligibility (Falla, 1981; Oriard, 2012). The establishment of a 2.0 floor for high school GPAs and moving away from a predictive measure, while perceived by some as progress, was just the beginning of an iterative process that would not stabilize for another 20 years.

Proposition 48 (1986)

Approved at the NCAA convention in 1983 and finally implemented in 1986, “Prop 48” created a loose framework for the modern-day “sliding scale” still being utilized nearly 40 years later. The first of its kind, Prop 48 established test score, GPA, and high school core course minimums for initial eligibility. More specifically, high school student-athletes were required to earn a cumulative minimum of 700 on the SAT or 15 on the ACT, plus a 2.0 GPA in 11 core courses to be eligible to compete in their sport during their freshman year of college (Blackman, 2008; Oriard, 2012; Staurowsky & Ridpath, 2005). Blackman (2008) highlighted that, “educators and advocates raised concerns when Prop. 48 resulted in denying a disproportionate number of African-American student-athletes athletic eligibility at NCAA member institutions.”

Proposition 42 (1989)

To dissuade the enrollment of student-athletes deemed unprepared for college, the NCAA passed Proposition 42 at the NCAA Convention in 1989. Financial aid was denied to partial qualifiers (i.e., those with the requisite GPA or SAT but not both), meaning those with academic deficiencies would be responsible for the entirety of their tuition and

fees upon admission. Proposition 42 was met with fierce opposition and rescinded the following year (Oriard, 2012).

Proposition ~~48-42~~ 16 (1996)

Almost indistinguishable from Prop 48, Proposition 16, fully implemented in 1996, upgraded legislation to account for a sliding scale of test scores and GPA and raising the number of required core courses utilized to calculate GPA from 11 to 13 (Rosen, 2000). The sliding scale approach, meaning as one goes up the other comes down, disproportionately impacted certain populations of students and resulted in a significant number of African-American student-athletes being declared ineligible for both participation in athletics and financial aid (Blackman, 2008). A lower GPA required a higher test score and vice versa. Facing swift resistance and unwavering litigation over many years, beginning in 1999, the NCAA ultimately modified Prop 16 in 2003 “to reduce reliance on standardized test scores, the amended requirements extend the existing GPA/SAT scale to assist students with superior grades but poor test scores” (Waller, 2003, p. 194). Informed by the shortcomings of Prop 16 and ongoing pressure from the Knight Commission, an independent organization at the forefront of promoting the improvement of NCAA academic standards, the NCAA launched a new suite of academic reform measures in 2003. Notably, the use of a single cut-score, or pass/fail line, in standardized tests was consistently determined to be a poor approach in high-stakes decision-making and was ultimately removed from NCAA initial eligibility legislation (Petr & McArdle, 2012).

Academic Performance Program (2003)

Developed in 2003 and adopted in 2005, the NCAA's Academic Performance Program (APP) is widely considered a landmark academic reform package that still governs the academic performance and persistence of college student-athletes today (Blackman, 2008). The two key metrics under the APP umbrella focus on academic progress and graduation and consist of the Academic Progress Rate (APR) and Graduation Success Rate (GSR). The APR "holds institutions accountable for the academic progress of their student-athletes through a team-based metric that accounts for the eligibility and retention of each student-athlete for each academic term" (NCAA, 2023, p. 1). The GSR utilizes a modern methodology to calculate the student-athlete graduation rate, taking into account student-athletes who transfer in and out, at each institution.

The APR and GSR are unique in that they apply only to student-athletes who receive athletics financial aid (LaForge & Hodge, 2011). Additionally, the GSR, while still a lag time measure, differs greatly from the Federal Graduation Rate (FGR), a more commonly discussed graduation metric for general students in higher education, in that the GSR does not penalize institutions for student-athletes who transfer out of the institution prior to graduation if they are in good academic standing (LaForge & Hodge, 2011). The GSR also includes transfers into the university. The FGR considers transfers out as forever non-graduates and transfers in as non-existent.

The APR, considered a more modern and real-time measure of team and institutional academic success, tracks the eligibility and retention of scholarship student-

athletes semester-over-semester. The NCAA (2023) outlines the following calculation for APR: each student-athlete earns one point for staying in school and one point for being academically eligible; a team's total points are divided by points possible and then multiplied by 1,000 to equal the team's APR; both current-year APR and a rolling four-year APR are used to determine accountability. Teams are required to maintain at least a four-year average APR of 930 to compete in championships (NCAA, 2023).

2.3 or Take a Knee (2012)

Introduced by the NCAA in 2012 with a 2016 effective date to provide a runway the length of a high school career, the “2.3 or Take a Knee” initiative put college athletics on notice that a new wave of initial eligibility standards were on the horizon. The NCAA shifted its focus from graduation rates and post-enrollment metrics to elevating and tightening minimum high school core GPA, core course, and test score standards, with pathways to college, but not immediate athletic eligibility, for students who did not meet the new standards (Nwadike et al., 2016). The new standards elevated the minimum core GPA to 2.3 and core course to 16, better defined what constituted a core course, and established a cadence for when core courses must be completed throughout a student's high school career. Students meeting the earlier 2.0 GPA requirement, but not the new 2.3 GPA requirement were now considered an “Academic Redshirt” and able to enroll, practice, and receive an athletic scholarship, but not compete for a full academic year. Those students were also subject to elevated continuing eligibility requirements during the “Academic Redshirt” year.

COVID Killed the Test Score (2020)

In response to the known and unknown challenges faced by high school athletes during the COVID-19 pandemic, including access to testing centers, the NCAA waived standardized test requirements throughout and post-pandemic. Simultaneously, NCAA member institutions began temporarily removing test score requirements from their admissions process. Even after post-pandemic normalcy restored, many institutions remained test-optional, requiring only students seeking merit-based academic aid to submit standardized test scores. In response to this phenomenon and continued criticism surrounding the effectiveness of standardized tests in predicting academic success, the NCAA permanently eliminated test scores for incoming student-athletes in January 2023. Although no longer required by the NCAA for eligibility purposes, institutions may still require test scores for admission. The latest numbers from the National Center for Fair & Open Testing report that 83% of four-year institutions in the U.S. are considered test-optional, test-blind, or score-free.

Student-Athlete Academic Performance and Persistence

A historical overview of NCAA academic regulation and reformation is critical in understanding the various frameworks utilized over the past 75 years to enhance the academic viability of college student-athletes. With the foundation laid, the next section examines the research variables at the core of this study: academic performance, time-to-degree or departure, demographic and profile characteristics, and scholarship status.

Academic Performance

One of the earliest studies on the academic performance of college student-athletes to bring scholarship status into the conversation asked a very simple, yet increasingly complex, question: are athletes also students? Purdy et al. (1982) examined, over a 10-year period at Colorado State University, the relationship between participation in college athletics and educational attainment (i.e., GPA and graduation rates) and found that student-athletes were less prepared and performed worse in the classroom than their non-athlete peers. Further, researchers found that Black scholarship-carrying student-athletes in revenue-generating sports “had the poorest academic potential and performance” (Purdy et al., 1982, p. 439).

Several studies have been conducted pre- and post-Purdy to better understand the factors contributing to or limiting the educational attainment of college student-athletes. However, researchers are eager to dive into the reasons behind the widely accepted notion that student-athletes are, at varying levels, less prepared, less engaged, less motivated, less capable, and less likely to perform and persist in college, without questioning the accuracy or immutability of this forgone conclusion. Researchers Lang, Dunham, and Alpert (1988), citing earlier research by Lang (1987), believed that the standard criteria for university admission (i.e., GPA and test scores) overlooked more important predictors of academic success, such as demographic characteristics, educational motivation, educational profile, school misbehavior, peer influences, involvement in academic support programs, and athletic background. Furthermore, Lang, Dunham, and Alpert (1988) tested 20 “significant variables” in their study and

determined that only six variables – high school GPA, repeating a year of K-12 schooling, academic motivation/purpose, times disciplined by the head coach, mother's education, and graduating from a private school – were key drivers in determining the academic success or failure of college student-athletes. Correspondingly, Sellers (1992) examined Division I student-athlete academic success alongside parental educational attainment and estimated household income.

Referencing similar works by Bowen and Levin (2003), Kingston et al. (2006), and Medic et al. (2007), Rubin and Rosser (2014) studied the differences in academic performance amongst Division I scholarship and non-scholarship student-athletes. Rubin and Rosser's (2014) chosen theoretical framework, which viewed athletic scholarships as extrinsic rewards within work motivation, aligned well within this smaller body of research. Bowen and Levin (2003) compared recruited and walk-on student-athletes at institutions that do not provide athletic scholarships, while Kingston et al. (2006), and Medic et al. (2007) determined that scholarship status tends to control student-athlete focus and behavior and can elicit feelings of pressure and guilt (Rubin & Rosser, 2014). Viewing scholarship student-athletes as extrinsically motivated and non-scholarship student-athletes as intrinsically motivated allowed Rubin and Rosser (2014) to employ a similar research design to the one used in this study to examine group differences in the academic performance and persistence amongst Division I student-athletes.

College Success Factors and Student-Athletes

The Academic Performance Program (APP) is a mechanism developed to ensure Division I student-athletes honor academic and athletic responsibilities at their respective

institutions. The APP facilitates student-athlete graduation through a team-based reward and penalty system. The Academic Progress Rate (APR) and Graduation Success Rate (GSR) are the core metrics within the APP construct (NCAA, 2023). As the principal metrics through which the NCAA evaluates an institution's ability to foster and maintain a commitment to academic excellence, the APR and GSR are anchored to the semester-by-semester retention of student-athletes through graduation. Provided that football and men's basketball are head count sports (i.e., full scholarship or no scholarship), comparing persistence and graduation, with semesters as a unit of measurement, is highly effective.

Tinto (1975), Bean (1980), and Astin (1984) examined the impact of student engagement and various social and psychological factors on retention. Tinto emphasized that most research failed to distinguish between the different forms of leaving behavior that led to dropout. Bean (1980) agreed but aligned his study more closely with those who examined turnover in the workplace. Astin's (1984) contribution was the articulation of the student involvement theory which views student time and energy as institutional resources. Resources that, if supported by institutional policy and practice, can increase student involvement and strengthen retention. But, in the examination of student retention, time and energy are not the only resources that must be carefully considered. Financial resources are a key factor in the persistence of college students (Mendez et al., 2009).

Britt et al. (2017) explored the financial implications on degree completion if students take out too much or too little in student loans, resulting in either insurmountable

debt or an inability to persist due to the need to work more to finance their degree. In 2015, CollegeAtlas reported that 60% of students who drop out of college were responsible for paying their tuition, and the inability to balance employment through college was a top contributor to the decision to drop out (CollegeAtlas, 2015). For Division I student-athletes, participation in athletics often serves as a means to finance their education. Some of these student-athletes are compensated through full athletic scholarships, while others are not, creating disparities in their financial support.

The impact scholarship status may have on academic performance, retention, and graduation has not been studied extensively, but the existing literature is rich. Kiger and Lorentzen (1986) determined that student-athletes in revenue-producing sports received disproportionate amounts of financial assistance, due to larger scholarship budgets, than any of their peers, but achieved lower levels of academic success. More specifically, they noted that minority student-athletes, predominantly Black men, comprised 85% of revenue-producing sport rosters. They concluded that Black males in revenue producing-sports were the least academically prepared and worst performing student-athletes in their study. But academic performance and academic progress are not the same. As LeCrom et al. (2009) pointed out in their study, scholarship support is a significant predictor of retention, and students who worry less about paying for tuition tend to stay enrolled and persist toward graduation (Rubin & Rosser, 2014). Correspondingly, Gaston-Gayles and Hu (2009), LeCrom et al. (2009), and Rubin and Rosser (2014) tied non-scholarship student-athlete status, and the desire to get what they are paying for, to the intrinsic motivation driving the persistence of that population.

Mendez et al. (2009), focusing primarily on the assessment of financial aid combinations of the top two federal aid programs, captured the progressive exploration of the intersection of college athletics and racial identity in higher education:

Collegiate athletics remain a venue in which underrepresented minority students have a higher representation than the general student population in higher education. Thus, a critical mass of scholarship has examined potential concerns regarding student athletes and its racial dynamics as it relates to academic achievement, eligibility concerns as well as factors influencing retention and graduation rates (e.g., Backer, 2008; Brown, Jackson, Brown, Sellers, Keiper, & Manuel, 2003; Carodine, Almond, & Gratto, 2001; Edwards, 1984; Hamilton, 2005; Harper, 2006; Harrison, Harrison, & Moore, 2002; Jameson, Diehl, & Danso, 2007; Melendez, 2008; Rishe, 2003; Sellers, 1992; Sellers & Damas, 1996; Smallman, Sowa, & Young, 1991; Young & Sowa, 1992).

Importantly, Mendez et al. (2009) concluded that the likelihood of increased retention for low-income minority student-athletes increases with financial aid in the form of grants. If true, this study will contribute to the existing body of literature on the differences in persistence that may exist between scholarship and non-scholarship student-athletes when controlling for race/ethnicity and scholarship status.

Demographic and Profile Characteristics

With few exceptions, scholarship status and race/ethnicity have emerged as robust and consistent predictors of university academic performance (Kiger & Lorentzen, 1986; Purdy, et al., 1982; Rubin & Rosser, 2014). Seminal studies that have examined the

academic performance and persistence of college student-athletes at the highest level of sport have taken different routes yet arrived at the same conclusion – more needs to be known about the academic experiences of Black student-athletes in revenue-producing sports (i.e., football and men’s basketball). This section will outline some of the relevant literature that has focused on race/ethnicity and revenue within the context of academic performance and persistence in college athletics.

Race/ethnicity and sport. Within the context of higher education, race/ethnicity is one of the most studied background characteristics of college students and student-athletes. A closer look at studies conducted regarding the student-athlete population revealed that one specific racial identity stands out as statistically significant in virtually every study – Black student-athletes. In one of the earliest studies most frequently referenced in this space, Purdy et al. (1982) found that among Black student-athletes—particularly those on scholarships in revenue-generating sports like football and men’s basketball—higher athletic profiles were associated with lower academic achievement. In a context where 44.7% of football student-athletes and 52.4% of men’s basketball student-athletes at the highest level of amateur sports are Black, this phenomenon, if still true over 40 years later, is one of the concerning issues in college athletics.

Kiger and Lorentzen (1986) echoed similar findings when they positioned White female non-revenue-producing and Black male revenue-producing student-athletes on opposite ends of the academic achievement spectrum. According to Upthegrove et al. (1999), the same realities that existed in 1982 remained some 13 years later. The researchers determined that participation in college athletics and institutional pressures,

particularly in revenue-producing sports, may exacerbate under-preparedness and perpetuate lower academic achievement.

The same year Upthegrove et al. (1999) released their findings, (Zimbalist, 1999) was painting a bigger, grimmer picture regarding the commercialism of college sports and diluted academic standards, particularly in revenue sports. In his plea for systemic change, Zimbalist (1999) likened the NCAA to a “labor cartel,” calling the majority of its member institutions imposters for attempting to emulate the handful of top-tier programs *actually* operating in the black and suggested allowing universities to field professional teams to remove academically unprepared athletes from classrooms so they could stop pretending to be students. Also, during this time, Hartmann (2000) introduced a theoretical framework to challenge conventional wisdom related to the relationships between sport and race/ethnicity in American culture. Hartmann (2000), citing French sociologist Pierre Bourdieu, shared a parable about Black athletes at prestigious American universities—both celebrated as heroes and marginalized as outcasts in “golden ghettos.” He highlighted the enduring duality of sport, which serves both as a pathway for advancement and a symbol of injustice.

In the 21st century, researchers began to focus on race/ethnicity through a different lens. Blackman (2008), in the post-NCAA academic reform era, dissected the “potentially intentionally discriminatory” methodology of the NCAA’s APR and GSR metrics to better understand what exactly about college athletics was undergoing reformation – the people or the process. Offering an alternate narrative to that which had prevailed for decades, an anonymous author in the *Journal of Blacks in Higher Education*

(2004-2005) argued scholarship status, not skin color, played a significant role in determining whether Black students persisted in college. Shining a light on scholarship status, untethered from race/ethnicity, as a major factor and key contributor in the academic performance and persistence conversation, was a unique and compelling approach. By separating race/ethnicity and scholarship status, the researchers established a strong foundation upon which important studies would soon be built.

In the 2012 dissertation turned co-authored article, Rubin and Rosser (2014) launched one of the most important studies to utilize scholarship status as the major discriminating factor in better understanding the academic performance and persistence of student-athletes at the highest level of college sport. Utilizing the concept of motivation in work as the theoretical framework, the researchers applied descriptive discriminant analysis (DDA) utilizing secondary data to compare scholarship and non-scholarship student-athletes across several variables (Rubin & Rosser, 2014). Institutional secondary data was drawn from eight NCAA Division I institutions and 10 distinct sports, which were a combination of revenue and non-revenue, head count and equivalency, and men's and women's. Data collected comprised all student-athletes in the 2004 cohort from all 10 sports. In total, 593 student-athletes were studied with 372 (62.7%) from revenue sports and 221 (37.3%) from non-revenue sports.

Collecting and analyzing GPA information, graduation progression (in semesters), scholarship status, and demographic and profile characteristics, the researchers were able to apply their theoretical framework (i.e., viewing athletic scholarships as extrinsic motivators) to examine the effect of scholarship status on academic performance and

persistence (Rubin & Rosser, 2014). The researchers found that non-scholarship student-athletes had higher GPAs, while scholarship student-athletes graduated in fewer semesters. It was also revealed that Pacific Islander and Black student-athletes carried the lowest GPAs, while female student-athletes, regardless of scholarship status, have the highest GPAs and graduate in the fewest semesters.

Summary

This chapter examined the origins of the NCAA academic governance structure for student-athletes and the role of athletic scholarships in NCAA academic policies, procedures, and student retention. A review of the literature revealed three key areas to inform the study: academic performance, time-to-degree or departure, and race/ethnicity. Studies show that financial assistance increases student retention therefore scholarship status will be used to compare scholarship and non-scholarship student-athletes. Scholarship student-athletes are tracked, monitored, and reflected in publicly available NCAA academic metrics, while non-scholarship student-athletes are not. Studies also indicate that Black male student-athletes are some of the least academically prepared, lowest performing, and non-graduated populations in college athletics. Using the SIT approach, this study will examine the multiple social identities student-athletes carry and how those identities intersect and influence student outcomes. The next chapter details the research methodology and approach.

CHAPTER III

RESEARCH METHODS

The academic performance of college student-athletes has been studied extensively (Purdy, et al., 1982; Rubin & Rosser, 2014). However, much of the existing literature focuses on student-athletes relative to their non-student-athlete peers. Very little research has utilized student-athlete scholarship status as a grouping variable, meaning a large subset of student-athletes, those without athletic scholarships, often referred to as walk-ons, have gone undetected for decades (Rubin & Rosser, 2014).

In the few studies conducted over the past 40 years where scholarship status was considered, the methods have either been undisclosed or applied to the study of an array of sports and background characteristics and failed to effectively distinguish between the NCAA's two scholarship systems (i.e., head count or full scholarship and equivalency or partial scholarship) (Bowen & Levin, 2003, Kingston et al., 2006, Medic et al., 2007; Rubin & Rosser, 2014). The results across nearly all studies have yielded similar discussions and implications for future research with most having found sport type, particularly revenue-producing team sports (i.e., football and men's basketball) and background characteristics, primarily race/ethnicity (i.e., African American, or Black), yielding statistically significant differences with regard to academic outcomes (Purdy et al., 1982; Rubin & Rosser, 2014).

This chapter outlines the methods and procedures employed to compare the academic performance and persistence of scholarship and non-scholarship college

student-athletes. The chapter details the research design, data sources, sampling, research variables, and statistical analysis used to address the research questions.

Research Design

This quantitative study utilizes 10 cohort years of institutional secondary data from a single NCAA Division I FBS institution to compare the academic performance (defined by final cumulative GPA), graduation status (defined by graduated or not), time-to-degree or departure (defined by semesters), and race/ethnicity of scholarship and non-scholarship football and men's basketball student-athletes entering college between 2008 and 2017. Descriptive statistics and significance tests were determined to be the most appropriate statistical methods to compare the two distinct student-athlete populations – scholarship and non-scholarship. Building on Rubin and Rosser's (2014) study with a more concentrated focus on revenue-generating sports, scholarship and non-scholarship student-athletes were compared across academic performance (defined by final cumulative GPA), persistence (defined by time-to-degree or departure and graduation status), and demographic variables (defined by race/ethnicity) through Analysis of Variance (ANOVA) and Analysis of Covariance (ANCOVA). Finally, Social Identity Theory (SIT) was applied to consider group dynamics and intergroup behaviors (Tajfel & Turner, 1979). This study was guided by four research questions:

1. What are the differences in demographic and profile characteristics between scholarship and non-scholarship student-athletes in football and men's basketball?
2. What are the differences in final cumulative GPA between scholarship and non-scholarship student-athletes in football and men's basketball?

3. What are the differences in time-to-degree or departure between scholarship and non-scholarship student-athletes in football and men's basketball?
4. What are the differences in graduation status between scholarship and non-scholarship student-athletes in football and men's basketball?

Data Sources

This study utilized 10 years of secondary data from a single NCAA Division I FBS institution for football and men's basketball student-athletes entering college between 2008 and 2017. There are 134 NCAA Division I FBS institutions (NCAA, 2024). These cohort years reflect the 10 most recent years of publicly available NCAA student-athlete data. The study results provide a longitudinal analysis of a population of student-athletes who were required to adhere to the same NCAA academic reform metrics introduced in 2003 throughout their collegiate careers. To ensure mutually exclusive groups and align with a study that helped to frame this investigation (Rubin & Rosser, 2014), student-athlete scholarship status upon initial enrollment is maintained throughout, regardless of changes in scholarship status in subsequent years.

Sampling

By capturing 10 cohort years of secondary institutional data from a single institution, a comprehensive dataset was utilized for analysis. Data were drawn from a large, public NCAA Division I FBS institution. The institution sponsored 20 varsity sports throughout cohort years 2008-2017 with each cohort generally consisting of between 100 and 150 student-athletes. The total student-athlete population ranged between 450 and 550 each year. Only student-athletes in football and men's basketball

were included in this study. Average roster sizes were approximately 120 in football and 15 in men's basketball. Average cohort sizes in this study were approximately 41 in football and 6 in men's basketball. Transfer students were placed into cohorts that corresponded with their first year of full-time enrollment at any institution. This is consistent with the methodology applied to NCAA academic performance metrics.

A letter of request and description of the study was sent to the athletic department's designated compliance official. The dataset requested included all scholarship and non-scholarship football and men's basketball student-athletes in the 10 cohorts that spanned from 2008 to 2017. Sport, scholarship status, academic performance (defined by final cumulative GPA), time-to-degree or departure (defined by semesters), graduation status (defined by graduated or not), and race/ethnicity was requested for all student-athletes across the 10 cohorts.

The timeframe associated with the NCAA's Graduation Success Rate (GSR) was loosely followed. GSR tracks graduation over a six-year (12 semester) period from initial enrollment. In this study, graduation was tracked in semesters only, with 12 semesters set as the maximum for graduation. Students who did not graduate within 12 semesters were considered non-graduates. The semester-based approach allowed the researcher to capture the most accurate picture of graduation status and time-to-degree or departure without considering the multitude of exceptions that may penalize or exempt student-athletes in the GSR methodology.

Amongst NCAA Division I FBS schools, the average team size is 127.5 student-athletes in football and 16 student-athletes in men's basketball (NCAA, 2024).

Comparatively, the NCAA institutional athletic scholarship limits are 85 and 13, respectively. As such, the average NCAA Division I FBS football team carries 85 scholarship student-athletes and 42 non-scholarship student-athletes, while men's basketball teams carry 13 scholarship student-athletes and 3 non-scholarship student-athletes. With strict NCAA scholarship limits, none of the sports included in this study exceeded 85 (football) or 13 (men's basketball). However, non-scholarship rosters fluctuated from cohort to cohort.

Data Collection

With a single institution involved in the study, the researcher identified an institutional official who agreed to grant access to the data upon IRB approval. Given the nature of the data, the researcher completed the Human Subjects Research Determination Worksheet through the University of Tennessee, Knoxville Office of Research, Innovation, & Economic Development (ORIED) to explore an IRB exemption. The exemption was granted and no further IRB approvals were required.

With an approved IRB exemption, the researcher sent a letter to an institutional official at the Division I institution under study for verification and to share data collection procedures and paperwork. In accordance with the stated research questions, the data requested was student information in the sports of football and men's basketball for cohort years 2008-2017. Specifically, the researcher requested information regarding each student-athlete's cohort year, scholarship status upon initial college enrollment, final cumulative GPA, graduation status, time-to-degree (in semesters), and race/ethnicity.

On behalf of the researcher, a data steward was utilized to assist with the routing of documents to all appropriate parties. The data steward was responsible for organizing the data and scrubbing all personally identifiable information prior to releasing the data to the researcher who was required to attest that the proper procedures were followed.

Variables

This study was guided by four research questions intended to identify differences between scholarship and non-scholarship student-athletes at Division I FBS institutions, followed trends in the literature (Rubin & Rosser, 2014). Significance testing was employed to compare scholarship and non-scholarship student-athletes across variables in three key areas: academic performance (defined by final cumulative GPA), time-to-degree or departure (defined by semesters), and demographic and profile characteristics (defined by sport and race/ethnicity).

Grouping Variable

Scholarship status was the primary independent variable in this study. The core function of ANOVA and ANCOVA is to evaluate statistical mean differences between groups and determine the extent to which group membership explains variance in the dependent variables. For this study, two groups were examined: scholarship and non-scholarship student-athletes at the NCAA Division I FBS level. Academic and athletic conditions were the same for both groups of student-athletes. In this study, both groups represented team sports where institutional, conference, and national academic and athletic standards are consistent across groups. With only two groups of student-athletes, scholarship student-athletes were coded as “1,” and non-scholarship student-athletes were

coded as “0” for analysis. ANCOVA was further employed to account for covariates, allowing for a more nuanced examination of differences in academic outcomes between the two groups.

Response Variables

The two groups examined in this study—scholarship and non-scholarship student-athletes at the Division I FBS level—were evaluated using two response variables: academic performance (defined by final cumulative GPA) and time-to-degree or departure (defined by semesters). Within the ANOVA and ANCOVA frameworks, these variables were used to assess whether statistically significant mean differences existed between the groups and to determine the extent to which group membership accounted for variance in the dependent variables.

Academic performance. The relationship between academic achievement and college athletics has been an area of interest for researchers for decades (Purdy, 1982; Sellers, 1992). However, scholarship status has been sparsely considered, leaving a considerable gap in the literature, especially amongst the most visible, profitable, and widely critiqued college sports in the United States, such as football and men’s basketball. In the few studies where scholarship status was considered, it is believed that non-scholarship student-athletes perform better academically than scholarship student-athletes (Bowen & Levin, 2003; Purdy et al., 1982; Rubin & Rosser, 2014). Rubin and Rosser (2014) provided contextual elements of NCAA policy and introduced scholarship status as a major discriminating factor. Further, their study contributed to the larger body of literature in demonstrating that scholarship student-athletes perform worse

academically, in terms of GPA, but graduate in fewer semesters than their non-scholarship counterparts. Cumulative GPA, as a continuous variable, was defined by the student-athlete's final cumulative GPA at the conclusion of their last term of enrollment.

Time-to-degree. Regular academic semesters (not a summer or special session) enrolled and graduation status comprised the two time-to-degree variables for this study. To loosely follow NCAA GSR methodology, which tracks scholarship student-athlete degree progression over a six-year (12-semester) period from initial enrollment, the researcher applied a 12-semester boundary for each cohort of student-athletes. Previous research focused on athletic scholarships as motivating or demotivating factors in student-athlete persistence and graduation (Kiger & Lorentzen, 1986; Kingston, Horrocks, & Hanton, 2006; Medic, Mack, Wilson, & Starkes, 2007; Rubin & Rosser, 2014). Purdy et al. (1982) conducted a foundational study in this space, over 40 years ago, finding that scholarship student-athletes were less-prepared for college, had lower GPAs, and graduated at a lower rate than non-scholarship student-athletes. Dummy coding was utilized to include categorical (i.e., non-numerical) data in the analysis. Coding for student-athletes who graduated within 12 semesters and those who did not are "1" and "0," respectively.

Time-to-departure. As Hildenbrand et al. (2009) examined, many student-athletes arrive on campuses, complete coursework toward their degrees, compete in their respective sports, and depart prior to graduation for a variety of reasons (e.g., transfer, exhaust athletic eligibility, etc. Regardless of the reason for departure, this variable is intended to identify student-athletes who enrolled at the institution for at least one regular

semester (not a summer or special session) and left without completing an undergraduate degree. This is an important variable because the NCAA transfer student-athlete landscape has a complex relationship with the NCAA's Graduation Success Rate (GSR), which tracks graduation over a six-year period and accounts for transfers in and out. The semester-based approach applied in this study allowed the researcher to capture the most accurate picture of graduation status and time-to-degree or departure without considering the multitude of exceptions that may penalize or exempt student-athletes in the GSR methodology.

Given the rigidity and scrutiny surrounding GSR, the semester-based approach also provided the researcher with a consistent and valid structure for analysis. Student-athletes who graduated within 12 semesters were coded as "1." Student-athletes who did not graduate within 12 semesters or any student-athlete who left for any reason without graduating were coded as "0." Importantly, the researcher calculated total terms, not consecutive terms, therefore the 12 terms was inclusive of those students who had breaks in enrollment. This measure provided a more accurate interpretation of degree attainment across the sample.

Independent Variables

Demographic and profile characteristics. At the intersection of nearly every study regarding the academic performance and persistence of student-athletes are Black men in revenue-producing sports. As such, race/ethnicity was the only demographic variable evaluated for student-athletes in this study. The incorporation of scholarship status into these studies is sparse, at best, and the existing body of literature is

inconclusive. Moreover, the theoretical frameworks often applied when scholarship status is present examine athletic scholarships as extrinsic or intrinsic motivation (Kingston et al., 2006; Medic et al., 2007; Rubin & Rosser, 2014).

Race/ethnicity. At the NCAA Division I Football Bowl Subdivision (FBS) level, 44.7% of football student-athletes and 52.4% of men's basketball student-athletes identify as Black or African American (College Sport Racial and Gender Report Card, 2022). Black male student-athletes are believed to be the least academically prepared, lowest performing, and non-graduated population in college athletics (Kiger & Lorentzen, 1986; Prudy et al., 1982; Upthegrove et al., 1999). Few studies have challenged this position, but the majority confirm this assertion except when compared to one other student population: Black non-student-athletes (*The Journal of Blacks in Higher Education*, 2004/2005; College Sport Racial and Gender Report Card, 2022).

Four different racial/ethnic categories were identified within the sample, with Black/African American and White/non accounting for over 90% of the data set. Other racial/ethnic categories included Two or More Races and Other. Each race/ethnic category was coded as “1” with others as “0” for analysis.

Sport. Whether related to academic preparation, motivation, time constraints, or pressures to prioritize athletic performance, revenue-producing sports—and the student-athletes who populate their rosters—occupy a central position within a complex system that merits continued scholarly examination. The present research provides more recent data to advance the dialogue on the academic experience of student-athletes participating

in the NCAA's highest-profile sports. Since only the two revenue-producing sports are under examination, football was coded as "1" and men's basketball was coded as "0."

All variables were carefully and thoroughly checked to ensure accuracy.

Descriptive statistics were utilized to compare the groups identified in this study.

Data Analysis

This study followed a similar data analysis process utilized in Rubin and Rosser's (2014) pivotal study on the academic performance and persistence of college student-athletes with scholarship status as a major factor. Descriptive statistics were generated for continuous and categorical variables. Continuous variables included final cumulative GPA and semesters enrolled, while categorical variables included scholarship status, sport, and race/ethnicity. GPA and semesters enrolled were represented as means and standard deviations, while numbers and percentages represented scholarship status, sport, and race/ethnicity. With a normal distribution in the data set, the mean was the best measure of central tendency and therefore utilized in t-tests, ANOVA, and ANCOVA. Similarly, calculating standard deviations allowed the researcher to assess variability in the data. Chi square tests were used for categorical data.

Data analyses were administered through SPSS software (Version 29; IBM Corp., 2023). For each research question, scholarship status was a grouping variable, while final cumulative GPA and time-to-degree or departure were evaluated as response variables. Sport and race/ethnicity were independent variables. Descriptive statistics were analyzed throughout.

Summary

This chapter conveyed the research design, data sources, and statistical method utilized to analyze the data. It also presented the institutional profile, population, sampling technique, data collection, variables, and analysis procedures of the study. The researcher used 10 years of secondary data from one institution to answer the stated research questions. Significance tests were employed to compare the academic performance and persistence of scholarship and non-scholarship student-athletes across key variables. The next chapter details the results of the study.

CHAPTER IV

RESULTS

The purpose of this quantitative study was to develop a better understanding of the academic performance (defined by final cumulative GPA), time-to-degree or departure (defined by semesters), and graduation status (defined by graduated or not graduated) of football and men's basketball student-athletes entering NCAA Division I FBS institutions. Comparing scholarship and non-scholarship student-athletes across demographic variables, the goal of this study was to begin to fill in a gap in our understanding of the academic journeys of a widely researched population alongside those who are relatively unknown beyond the institutional level.

Social Identity Theory (SIT) was utilized to explain how student-athlete academic performance may be influenced by the identities associated with groups they belong to (defined as racial/ethnic groups, sport, scholarship status). The researcher utilized a data steward to obtain 10 years of secondary data from a single NCAA Division I FBS institution for football and men's basketball student-athletes entering college between 2008 and 2017. These cohort years align with the 10 most recent years of publicly available NCAA student-athlete cohort data. All identifiable information was removed from the dataset before analysis.

Significance testing was administered to address each research question, utilizing SPSS software (Version 29; IBM Corp., 2023). Scholarship status was the only grouping variable, while final cumulative GPA and time-to-degree or departure were evaluated as

response variables. Sport and race/ethnicity were utilized as independent variables. This study aimed to answer four research questions.

1. What are the differences in demographic and profile characteristics between scholarship and non-scholarship student-athletes in football and men's basketball?
2. What are the differences in final cumulative GPA between scholarship and non-scholarship student-athletes in football and men's basketball?
3. What are the differences in time-to-degree or departure between scholarship and non-scholarship student-athletes in football and men's basketball?
4. What are the differences in graduation status between scholarship and non-scholarship student-athletes in football and men's basketball?

To answer the research questions, this study used 10 years of secondary data for 468 NCAA Division I FBS football and men's basketball student-athletes entering college between 2008 and 2017. This chapter is divided into four sections. The first section outlines the variables utilized and addresses the first research question. The second section addresses the second research question and reports the results of the final cumulative GPA analysis. The third section reports the time-to-degree or departure analysis and addresses the third research question. The fourth section reports the results of the graduation status analysis and addresses the fourth research question.

Research Question 1: Demographic and Profile Characteristics

The first research question asked, "What are the differences in demographic and profile characteristics between scholarship and non-scholarship student-athletes in football and men's basketball? Demographic and profile characteristics were analyzed for

a total of 468 scholarship and non-scholarship football and men’s basketball student-athletes. Sport and race/ethnicity were the demographic variables utilized. Descriptive statistics are presented to depict the sample, and significance testing results show independence in the key demographic variables. **Table 4.1** is a summary of the demographic and profile characteristics of the sample.

Descriptive Statistics

The total sample size for this study included 468 NCAA Division I football and men’s basketball student-athletes across 10 consecutive freshman cohorts that entered college between 2008 and 2017 at a single institution. Of the 468 student-athletes, 285 (60.9%) were scholarship student-athletes, and 183 (39.1%) were non-scholarship student-athletes. Coincidentally, the sample aligns closely with current NCAA scholarship statistics, where of the approximately 200,000 student-athletes participating in NCAA Division I sports annually, 59% receive athletic scholarships and 41% do not (NCAA, 2024).

Table 4.1
Summary of Demographic and Profile Characteristics

Characteristic	Scholarship		Non-Scholarship	
	<i>n</i>	%	<i>n</i>	%
Sport				
Football	241	85	169	92
Men’s Basketball	44	15	14	8
Race/Ethnicity				
Black/African American	206	72	42	23
White/Non-Hispanic	49	17	126	69
Two or More Races	15	5	8	4
Other	15	5	7	4

Note. N = 468 (n = 285 for scholarship; n = 183 for non-scholarship).

This study focused entirely on revenue-producing sports. At the NCAA Division I level, only football and men's basketball are considered revenue-producing. As such, these were the only two sports under examination. Across all 10 cohorts and 468 student-athletes in this study, 410 (87.6%) participated in football, and 58 (12.4%) participated in men's basketball. Football was coded as "1" and men's basketball was coded as "0" for analysis. To assess the relationship between sport and scholarship status, a chi-square test was administered. The chi-square test results showed a test statistic of $\chi^2 = 5.53$, with a p-value of .0187. The significant chi-square test indicates that sport and scholarship status are not independent, meaning that scholarship receipt differed between football and men's basketball. Specifically, men's basketball players were more likely to receive scholarships compared to football players in the sample.

Student race/ethnicity was obtained from self-reported institutional and NCAA records. Information on race/ethnicity was available for all student-athletes. The sample included 53% (248) Black/African American, 37.4% (175) White/Non-Hispanic, 4.9% (23) Two or More Races, and 4.7% (22) All Other Races/Ethnicities. Dummy coding was utilized to analyze each variable against the others, using a "1" and "0" for each analysis. The chi-square test results showed a test statistic of $\chi^2 = 131.38$, with a p-value of .000. The significant chi-square test indicates that race and scholarship status are not independent, meaning that scholarship receipt varied by racial/ethnic group. Specifically, Black/African American student-athletes were more likely to receive scholarships compared to other groups.

Research Question 2: Final Cumulative GPA

The second research question asked, “What are the differences in final cumulative GPA between scholarship and non-scholarship student-athletes in football and men’s basketball?” This study examined academic performance using final cumulative GPA data for the sample. Analyses showed how final cumulative GPA differentiated scholarship and non-scholarship student-athletes in football and men’s basketball. Results of the Analysis of Covariance (ANCOVA) for academic performance are shown in **Table 4.2**.

ANCOVA results included effect sizes, adjusted mean GPAs, and statistical significance. The results allowed for direct hypothesis testing regarding group differences and provided adjusted means while controlling for a covariate (sport). The results showed scholarship status affected academic performance (described as final cumulative GPA), after controlling for sport. This result indicated that the relationship between final cumulative and scholarship status was not influenced by sport. The next section discusses the alignment between the ANCOVA results and the significance tests for differences in mean GPAs.

Table 4.2

ANCOVA Results for Final Cumulative GPA

Source	SS	df	MS	F	p-value	Partial η^2
Between-Groups (Scholarship Status)	6.380	2	3.190	10.002	<.001	.041
Covariate (Sport)	.102	1	.102	.321	.571	.001
Error	148.308	465				
Total	154.688	467				

Note. ANCOVA controlled for sport (football, men’s basketball). Significant effects ($p < .05$) are in bold. Partial eta squared (η^2) represents effect size.

All student-athletes were enrolled in at least one regular academic semester (not a summer or special session), during the term they earned grades that contributed to their final cumulative GPA. In other words, their GPA was based on grades for at least one full semester of coursework. The mean GPA for all student-athletes in the data set was 2.58 (SD=.576). Mean GPAs for football and men's basketball student-athletes are shown in

Table 4.3.

Despite the dataset containing nearly eight times as many football student-athletes, the mean GPA for football ($M = 2.57$) was almost identical to men's basketball ($M = 2.58$). A one-way Analysis of Variance (ANOVA) was conducted to examine final cumulative GPAs for football and men's basketball, with sport as the independent variable and GPA as the dependent variable. The analysis revealed no significant difference in GPA between football and men's basketball players, $F(1, 466) = .002$, $MSe = .001$, $p > .05$, indicating that GPA did not differ by sport.

Table 4.3

Final GPA by Sport and Race/Ethnicity

Characteristic	Scholarship			Non-Scholarship			Total		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Sport									
Football	241	2.49	.543	169	2.70	.647	410	2.57	.597
Men's Basketball	44	2.46	.298	14	2.94	.464	58	2.58	.398
Combined	285	2.48	.513	183	2.72	.637	468	2.58	.576
Race/Ethnicity									
Black/African American	206	2.36	.454	42	2.36	.589	248	2.36	.478
White/Non-Hispanic	49	2.97	.463	126	2.86	.608	175	2.89	.572
Two or More Races	15	2.67	.564	8	2.77	.681	23	2.70	.593
Other	15	2.37	.409	7	2.30	.439	22	2.35	.410

Note. $N = 468$ ($n = 285$ for scholarship; $n = 183$ for non-scholarship).

GPA by race/ethnicity was also analyzed. Four different racial/ethnic categories were identified within the group, with Black/African American and White/Non-Hispanic accounting for over 90% of the data set. Two or more races accounted for nearly 5% of the data set. All other racial/ethnic categories combined for just under 5% and were therefore aggregated in the study. Mean GPA by race/ethnicity included Black/African American (2.36, SD=.478), White/Non-Hispanic (2.89, SD=.572), Two or More Races (2.70, SD=.593), and Other (2.35, SD=.410). A one-way ANOVA was conducted to examine final cumulative GPAs for football and men's basketball, with race/ethnicity as the independent variable and GPA as the dependent variable. The analysis revealed a significant effect, $F(3, 464) = 37.352$, $MSe = 10.039$, $p < .05$, indicating that GPA varied by race/ethnicity. Post hoc comparisons showed a statistically significant difference in final cumulative GPA between White/Non-Hispanic and Black/African American, White/Non-Hispanic and Other groups.

A Tukey's HSD post-hoc analysis was conducted to determine which groups had significant differences in GPA. The results showed that the final cumulative GPA for White/Non-Hispanic students were significantly higher than that of students identifying as Other ($MD = .54$) and Black/African American ($MD=.53$).

Lastly, final cumulative GPA was examined by scholarship status. The mean GPA for scholarship student-athletes was 2.48 (SD=.513) and 2.72 (SD=.637) for non-scholarship student-athletes. A *t*-test was conducted to analyze the differences between the two groups. Results revealed that non-scholarship student-athletes had significantly

higher GPAs than those with scholarships ($MD=.24$). These results suggest scholarship status is associated with differences in academic performance.

Research Question 3: Time-to-Degree or Departure

The third research question asked, “What are the differences in time-to-degree or departure between scholarship and non-scholarship student-athletes in football and men’s basketball?” Time-to-degree (among graduates), or departure (among non-graduates), were analyzed using the number of semesters enrolled. This section reports the results of overall analyses as well as comparisons by scholarship status, sport, and race/ethnicity.

In comparing time-to-degree or departure between scholarship and non-scholarship student-athletes in only two sports, ANCOVA allowed for direct hypothesis testing regarding group differences and provided adjusted means while controlling for a covariate (sport). The results for time-to-degree and time-to-departure are shown in **Table 4.4** and **Table 4.5**, respectively.

ANCOVA results included effect sizes, adjusted means, and statistical significance. The results allowed for direct hypothesis testing regarding group differences and provided adjusted means while controlling for covariates. In both analyses, scholarship status affected persistence (described as time-to-degree or departure), even after controlling for sport. As a covariate, sport was only determined to significantly impact time-to-departure, not degree, meaning the relationship between time-to-departure and scholarship status is influenced by sport. These results provided context for the next section, where time-to-degree or departure for scholarship and non-scholarship football and men’s basketball are analyzed further.

Table 4.4*ANCOVA Results for Time-to-Degree*

Source	SS	df	MS	F	p-value	Partial η^2
Between-Groups (Scholarship Status)	7.035	2	3.517	2.911	.056	.021
Covariate (Sport)	1.349	1	1.349	1.116	.292	.004
Error	329.932	243				
Total	336.967	275				

Note. ANCOVA controlled for sport (football, men's basketball). Significant effects ($p < .05$) are in bold. Partial eta squared (η^2) represents effect size.

Table 4.5*ANCOVA Results for Time-to-Departure*

Source	SS	df	MS	F	p-value	Partial η^2
Between-Groups (Scholarship Status)	66.708	2	33.354	6.063	.003	.060
Covariate (Sport)	11.721	1	11.721	2.131	.146	.011
Error	1039.662	189				
Total	1106.370	191				

Note. ANCOVA controlled for sport (football, men's basketball). Significant effects ($p < .05$) are in bold. Partial eta squared (η^2) represents effect size.

Time-to-Degree

Time-to-degree, or the total number of semesters to graduate, was based on regular academic semesters (not summer or special sessions). The overall mean number of semesters to graduate was 8.01 (SD=1.106). **Table 4.6** lists the mean semesters to graduate and standard deviations by sport and race/ethnicity. Football student-athletes comprised over 88% of the graduated student-athlete data set. A one-way ANOVA was utilized to examine time-to-degree for football and men's basketball with sport as the independent variable and semesters to graduate as the dependent variable. Results showed no statistical significance $F(1,274)=1.561$ [$MS_e=1.223$], $p > .05$.

Time-to-degree by race/ethnicity was also analyzed. Four different racial categories were identified within the group, with Black/African American and White/non accounting for over 90% of the data set. Mean semesters to graduate by race were Two or More Races (7.56, SD=.814), White/Non-Hispanic (7.94, SD=1.056), Black/African American (8.08, SD=1.121), and Other (8.70, SD=1.636). A one-way ANOVA was

Table 4.6

Time-to-Degree (Graduates) by Sport and Race/Ethnicity

Characteristic	Scholarship			Non-Scholarship			Total		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Sport									
Football	132	7.90	1.025	112	8.21	1.217	244	8.04	1.125
Men's Basketball	22	7.77	.922	10	7.80	1.033	32	7.78	.941
Combined	154	7.88	1.009	122	8.17	1.204	276	8.01	1.107
Race/Ethnicity									
Black/African American	101	7.99	.985	22	8.50	1.566	123	8.08	1.121
White/Non-Hispanic	36	7.67	1.014	91	8.05	1.058	127	7.94	1.056
Two or More Races	12	7.50	.905	4	7.75	.500	16	7.56	.814
Other	5	8.20	1.483	5	9.20	1.789	10	8.70	1.636

Note. $N = 276$ ($n = 154$ for scholarship graduates; $n = 122$ for non-scholarship graduates).

utilized to examine time-to-degree for each race/ethnicity with race/ethnicity as the independent variable and semesters to graduate as the dependent variable. Results showed no statistical significance $F(3,272)=2.525$ [$MS_e=1.205$], $p > .05$.

Lastly, time-to-degree was examined by scholarship status. The mean semesters to graduate for scholarship student-athletes was 7.88 ($SD=1.009$) and 8.17 ($SD=1.204$) for non-scholarship student-athletes. A one-way ANOVA was conducted to examine mean time-to-degree for scholarship and non-scholarship student-athletes with scholarship status as the independent variable and semesters to graduate as the dependent variable. The result was significant $F(1,466)=6.278$ [$MS_e=.318$], $p < .05$. With only two groups, scholarship and non-scholarship, a post-hoc analysis was not performed.

Time-to-Departure

Time-to-departure, or the total number of semesters without graduating, was based on traditional semesters (e.g., fall/spring), excluding summer or special sessions. The mean semesters of coursework taken without graduating was 4.28 ($SD=2.407$).

Table 4.7 lists the mean semesters without graduating and standard deviations by sport and race/ethnicity.

Football student-athletes comprised most of the student-athletes studied, representing over 86% of the non-graduated student-athlete data set. A one-way ANOVA was conducted to examine time-to-departure for football and men's basketball with sport as the independent variable and semesters without graduating as the dependent variable. Results showed no statistical significance $F(1,190)=.959$ [$MS_e=5.794$], $p > .05$.

Table 4.7*Time-to-Departure (Non-graduates) by Sport and Race/Ethnicity*

Characteristic	Scholarship			Non-Scholarship			Total		
	<i>n</i>	M	SD	<i>n</i>	M	SD	<i>n</i>	M	SD
Sport									
Football	109	4.76	2.384	57	3.54	2.443	166	4.34	2.466
Men's Basketball	22	4.05	2.058	4	2.75	.957	26	3.85	1.974
Combined	131	4.64	2.341	61	3.49	2.378	192	4.28	2.407
Race/Ethnicity									
Black/African American	105	4.70	2.377	20	3.15	1.954	125	4.46	2.378
White/Non-Hispanic	13	4.54	1.941	35	3.77	2.723	48	3.98	2.539
Two or More Races	3	4.00	4.359	4	3.50	1.291	7	3.71	2.690
Other	10	4.30	2.058	2	2.00	0	12	3.92	2.065

Note. $N = 192$ ($n = 166$ for scholarship non-graduates; $n = 26$ for non-scholarship non-graduates).

Time-to-departure by race/ethnicity was also analyzed. Four different racial categories were identified within the group, with Black/African American and White/non accounting for over 90% of the data set. Mean semesters without graduating by race/ethnicity were Black/African American (4.46, SD=2.378), Two or More Races (3.71, SD=2.690), White/Non-Hispanic (3.98, SD=2.539), and Other (3.92, SD=2.065). A one-way ANOVA was conducted to examine time-to-departure for each race/ethnicity with race/ethnicity as the independent variable and semesters without graduating as the dependent variable. Results showed no statistical significance $F(1,190)=.689$ [$MS_e=5.821$], $p > .05$.

Lastly, time-to-departure was examined by scholarship status. The mean semesters without graduating for scholarship student-athletes was 4.64 (SD=2.341) and 3.49 (SD=2.378) for non-scholarship student-athletes. A one-way ANOVA was conducted to examine mean time-to-departure for scholarship and non-scholarship

student-athletes with scholarship status as the independent variable and semesters without graduating as the dependent variable. The result was significant $F(3,188)=9.937$ [$MS_e=5.534$], $p < .05$. Similar to the time-to-degree test, a post-hoc analysis was not performed for time-to-departure as there were only two groups in the analysis.

Research Question 4: Graduation Status

The fourth research question asked, “What are the differences in graduation status between scholarship and non-scholarship student-athletes in football and men’s basketball?” All student-athletes in the data set completed at least one regular academic semester (not a summer or special session). Overall, 276 (59%) student-athletes graduated, and 192 (41%) did not graduate. Of the graduated students, 154/276 (56%) were scholarship student-athletes, and 122/276 (44%) were non-scholarship student-athletes. Of the 192 non-graduates, 131/192 (68%) were scholarship student-athletes and 61/192 (32%) were non-scholarship student-athletes.

A chi-square test was conducted to examine whether graduation status and scholarship status were associated. For the analysis, graduates were coded as “1” and non-graduates as “0.” The test yielded a chi-square statistic of $\chi^2 = 6.84$ with a p-value of .0089. Since the p-value is below the significance level of $\alpha = .05$, the results indicate a statistically significant association between graduation status and scholarship status, meaning the two variables were related.

Summary

This chapter provided key insights into the academic performance and persistence of scholarship and non-scholarship student-athletes in football and men’s basketball.

Differences in GPA and time-to-degree were observed, with statistical analyses indicating that covariates play a significant role in shaping outcomes for both student-athlete populations. The results highlight the complexity of factors influencing academic performance and the disparities between these groups, reinforcing the need for future research and a more comprehensive examination of non-scholarship student-athletes alongside their scholarship-carrying peers. The next chapter will provide a discussion of these findings.

CHAPTER V

DISCUSSION AND CONCLUSION

Approximately 200,000 student-athletes participate in NCAA Division I sports annually, and 59% receive some level of athletics scholarship (NCAA, 2024). In accordance with NCAA legislation, member institutions are required to track, monitor, and support the academic progress of their scholarship student-athletes only. However, little is known beyond the institutional level about the academic performance and persistence of the remaining 41% of non-scholarship student-athletes.

Most researchers merely have examined the academic performance of student-athletes relative to their non-student-athlete counterparts. Seminal research in this area has either become outdated, inconclusive, or failed to focus on scholarship status as a major discriminating factor within the context of revenue-producing sports (Garcia et al., 2023; Rubin & Rosser, 2014). Prior researchers also have examined multiple non-revenue sports and scholarship systems alongside football and men's basketball (Rubin & Rosser, 2014). Football and men's basketball utilize the same scholarship system (i.e., head count/full scholarship or no scholarship) and have the highest Black student-athlete populations – a student group extensively studied within and outside the context of sport (Blackman, 2008). Additionally, only a single cohort year of student-athletes is captured in the studies of most significance (Rubin & Rosser, 2014).

The present study examined the academic performance and persistence of NCAA Division I football and men's basketball student-athletes who enrolled at a public university from 2008 to 2017. The research included student outcome data from 468

student-athletes to better understand academic outcomes in these two revenue-generating sports. By incorporating data for non-scholarship participants, who remain unrepresented in NCAA metrics and publicly available data, this study provided a more comprehensive examination of academic achievement at the institutional level. Analyses allowed for comparison of the final cumulative GPA, time-to-degree or departure, and demographic profiles of these student-athlete populations.

Tajfel and Turner's (1979) Social Identity Theory (SIT) was used to explore how the results may be influenced by the identities associated with groups they belong to (defined as racial/ethnic groups, sport, scholarship status). Overall findings from the study provided a broader understanding of the academic journeys of non-scholarship student-athletes and the critical distinctions that exist within and across groups.

Specifically, the research focused on these four research questions:

1. What are the differences in demographic and profile characteristics between scholarship and non-scholarship student-athletes in football and men's basketball?
2. What are the differences in final cumulative GPA between scholarship and non-scholarship student-athletes in football and men's basketball?
3. What are the differences in time-to-degree or departure between scholarship and non-scholarship student-athletes in football and men's basketball?
4. What are the differences in graduation status between scholarship and non-scholarship student-athletes in football and men's basketball?

Secondary institutional data were analyzed from 10 freshman cohorts from 2008 to 2017. Cohorts were defined by first-year, full-time enrollment. Transfer students were

categorized into cohorts corresponding with their first year of full-time enrollment. Transfers out were categorized as non-graduates. After data cleaning, the sample included 468 football and men's basketball student-athletes. Descriptive statistics and significance tests were employed to analyze the data, examining both mean differences and associations between variables.

This chapter provides a summary and discussion of the findings presented in the previous chapter. It addresses each research question and offers a comprehensive interpretation of the results within the context of SIT and relevant literature. The findings advance understanding of academic outcomes of student-athletes participating in the most visible and revenue-producing sports. Implications and recommendations for decision-makers in optimizing resources, improving support structures, and informing policy in the increasingly complex, commercialized, and politicized landscape of college athletics are also explored. Limitations of the study, directions for future research, and concluding thoughts finalize the chapter.

Overview of Findings

This study illuminated critical disparities between scholarship and non-scholarship student-athletes that both challenge and support previous research. The results outlined in the previous chapter underscore the importance of a comprehensive examination of academic performance and persistence of both scholarship and non-scholarship student-athletes, supported by existing literature and recommendations for future exploration. Findings revealed non-scholarship student-athletes, predominantly White/Non-Hispanic, achieved higher GPAs, while scholarship student-athletes,

predominantly Black/African American, graduated in fewer semesters. Rubin and Rosser (2014) identified similar findings in the subset of their data that focused on football and men's basketball. Conversely, these results directly contradict the findings of Purdy et al. (1982), one of the earliest studies to examine Black scholarship student-athletes in revenue-generating sports, which concluded that these athletes "had the poorest academic potential and performance" (p. 439).

Further, results of this study revealed that in football, both Black/African American and White/Non-Hispanic scholarship student-athletes outperformed their non-scholarship counterparts in terms of cumulative GPA and time-to-degree. These findings provide a nuanced understanding of the academic outcomes of student-athletes, challenging homogenized narratives that overlook the unique experiences of non-scholarship participants. By advancing understanding of the academic outcomes of all student-athletes—especially those participating in the most visible and revenue-producing sports, this research can inform institutional and national practices and policies. The findings offer valuable insights that can assist decision-makers in optimizing resource allocation and improving support structures in the increasingly complex, commercialized, and politicized landscape of college athletics.

Theory Alignment

This study employed Social Identity Theory (SIT) to explore the academic performance and persistence of NCAA Division I student-athletes in football and men's basketball. Student-athletes who compete at this level, particularly in these revenue-generating sports, find themselves in a complex and sophisticated system, negotiating

social identities and group membership (Tajfel & Turner, 1979). These nuances frequently intersect and influence how they interpret, interact with, and integrate into the academic SITenterprises that exist on their campuses (Ellemers & Haslam, 2012). This study aimed to better understand how the multiple social identities and group memberships that exist within the student-athlete population (i.e., scholarship status, sport, and race/ethnicity) intersect and influence academic outcomes. The intersection of scholarship status and race/ethnicity has not been extensively studied. SIT application within the context of academic performance and college student-athletes is exceptionally rare.

Hartmann (2000) ascertained that, “sport itself, or, more precisely, the assumptions, stereotypes, and presuppositions surrounding sport in American and Western culture” is one of the greatest challenges in understanding the relationships between race and sport (p. 231). Comeaux and Harrison (2011) developed a conceptual model of academic success for Division I student-athletes “to explain the longitudinal process of interactions that lead to varying forms of student–athlete academic success, broadly defined as student–athlete matriculation and graduation from a program of study” (p. 236). James (2020) focused on student-athlete academic and athletic identities and student-athlete’s desires to be known for more than their athletic prowess. Intersectionality (Archer, 2020) and Stereotype Threat (Steele & Aronson, 1995; English & Kruger, 2020) have also been employed to explore the socialization and academic engagement of NCAA Division I student-athletes.

The findings of this study address many of the explicit and implicit focuses in the literature surrounding the academic journeys of college student-athletes. Specifically, the findings reveal that although non-scholarship student-athletes do, in fact, perform better in the classroom, scholarship status alone tells an incomplete story. Sport, scholarship status, and race/ethnicity intersect meaningfully with SIT, as Black/African American student-athletes, especially those on scholarship in revenue-generating sports, are often socially categorized in ways that can both elevate and marginalize their identities, reinforcing a dual status as athletically-focused and academically-adverse. Similarly, the categorization of non-scholarship student-athletes as more academically inclined athletic participants may reinforce behaviors and expectations consistent with academic success (Kiger & Lorentzen Kiger, 1986; Hartman, 2000, Rubin & Rosser, 2014; English & Kruger, 2020). This social positioning, shaped by institutional practices and cultural stereotypes, can influence group dynamics, self-concept, and academic performance, highlighting the powerful role of group membership in shaping individual outcomes within college athletics (Tajfel & Turner, 1979; Ellemers & Haslam, 2012).

Confirmatory Findings

Research Question 1

The first research question asked, “What are the differences in demographic and profile characteristics between scholarship and non-scholarship student-athletes in football and men’s basketball?” Very little research on college student-athletes differentiates between revenue-generating sports or utilizes scholarship status as a variable for analysis. Rubin and Rosser (2014) addressed this in their study but chose to

include non-revenue-generating and individual sports in their analyses. As such, student-athletes on equivalency scholarships, ranging from funding that merely covered textbooks to a full scholarship, were all considered “scholarship” student-athletes in their dataset.

One of the earliest studies to examine race within the context of student-athlete academic achievement determined that student-athletes in revenue-producing sports were predominantly Black, comprising 85% of revenue-producing sport rosters, and achieved lower levels of academic success than their peers (Kiger & Lorentzen, 1986). Nearly 40 years later, this study found that of the 285 scholarship football and men’s basketball student-athletes in the sample spanning 10 cohort years, 206 (72%) were Black/African American. Conversely, of the 183 non-scholarship football and men’s basketball student-athletes, 126 (69%) were White/Non-Hispanic. Consistent with the findings in Rubin and Rosser’s (2014) study, Black/African American football student-athletes were found more likely to receive scholarships.

Research Question 2

The second research question asked, “What are the differences in final cumulative GPA between scholarship and non-scholarship student-athletes in football and men’s basketball?” The study found that non-scholarship, predominantly White/Non-Hispanic student-athletes consistently attained higher GPAs than their scholarship peers, supporting previous research that showed non-scholarship student-athletes performed better academically and suggested they may be more intrinsically motivated (Rubin & Rosser, 2014). According to SIT (Tajfel & Turner, 1979), non-scholarship student-

athletes may develop a stronger connection to their academic identity by excelling in the classroom, distinguishing themselves from scholarship athletes whose primary source of validation may stem from a more salient athletic identity. Prior studies suggest scholarship student-athletes in revenue-generating sports often experience increased academic pressure and time constraints, which may detract from their academic performance (Purdy et al., 1982).

Contrary to most research comparing student-athlete academic achievement by race, The Journal of Blacks in Higher Education (2004/2005) suggested scholarship-Black/African American student-athletes perform better academically than their non-student-athlete and non-scholarship student-athlete peers. Similarly, Rubin and Rosser (2014) found no statistically significant difference between mean GPAs of scholarship and non-scholarship student-athletes. Those findings were consistent in this study, where Black/African American scholarship and non-scholarship student-athletes shared identical mean GPAs across the entire sample. Moreover, Black/African American scholarship football student-athletes performed slightly better ($MD = .01$) than their Black/African American non-scholarship student-athlete counterparts. Similarly, White/Non-Hispanic scholarship football student-athletes achieved higher GPAs than their non-scholarship peers ($MD = .16$).

Research Question 3

The third research question asked, “What are the differences in time-to-degree or departure between scholarship and non-scholarship student-athletes in football and men’s basketball?” In this study, 59% (54% scholarship, 67% non-scholarship) student-athletes

graduated. Scholarship student-athletes completed their degrees, on average, in 7.88 semesters. Non-scholarship student-athletes averaged 8.17 semesters. Scholarship student-athletes in both football and men's basketball and all racial/ethnic categories graduated in fewer semesters than their non-scholarship student-athlete peers. Of the non-graduates, scholarship student-athletes persisted for an average of 4.64 semesters, while non-scholarship student-athletes averaged 3.64 semesters. These findings are consistent with Le Crom et al. (2009), Rubin and Rosser (2014), and several other researchers who found scholarship support to be a significant predictor of retention.

Research Question 4

The fourth research question asked, "What are the differences in graduation status between scholarship and non-scholarship student-athletes in football and men's basketball?" At a broader level, the study's findings related to graduation status are not unexpected, with the exception of the well-established disparity in graduation rates between Black/African American and White/Non-Hispanic student-athletes. However, when controlled for race/ethnicity and scholarship status, it was revealed that, although non-scholarship student-athletes did graduate at a slightly higher rate than scholarship student-athletes of the same race/ethnicity, the differences were not statistically significant.

These findings underscore the importance of differentiating between academic performance, time-to-degree, and graduation status as academic outcomes. For example, while Black/African American scholarship student-athletes in football performed better in the classroom and graduated in few terms than their non-scholarship counterparts, they

graduated at a significantly lower rate. The lower graduation rates among scholarship athletes—despite faster progression towards graduation—may also be linked to early departures from college for professional opportunities and transferring to other institutions for athletic purposes.

Gaston-Gayles and Hu (2009), LeCrom et al. (2009), and Rubin and Rosser (2014) tied non-scholarship student-athlete status, and the desire to earn the degree athletes were personally paying for, to the intrinsic motivation driving their persistence. Further, non-scholarship student-athletes are generally less likely to leave an institution to pursue athletic opportunities elsewhere. These realities may help explain why non-scholarship student-athletes tended to graduate at a higher rate, over a longer period. Additionally, the presence of a scholarship may help explain why scholarship student-athletes who did not graduate stayed enrolled slightly longer than those paying their own tuition.

Divergent Findings

Research Question 1

Scholarship status and race/ethnicity consistently have emerged as significant predictors of academic performance in higher education (Kiger & Lorentzen, 1986; Purdy et al., 1982; Rubin & Rosser, 2014). However, studies examining student-athletes in revenue-generating sports (i.e., football and men's basketball), have produced mixed findings. While most research highlights disparities in academic outcomes across race/ethnicity and sport, a few studies, like this one, suggested scholarship status may

influence performance and persistence more, or, at a minimum, confound other variables and relationships.

Early studies found that Black/African American scholarship student-athletes in revenue-generating sports tended to have lower academic achievement (Purdy et al., 1982; Kiger & Lorentzen, 1986; Upthegrove et al., 1999). These findings reinforced concerns about the academic aptitudes and attitudes of student-athletes in America's more profitable and visible college sports. Zimbalist (1999) extended this critique to the commercialization of college athletics, contending that academic standards were being compromised, particularly for student-athletes in football and men's basketball.

Hartmann (2000) highlighted the paradox of Black/African American student-athletes being both celebrated and marginalized within elite academic institutions, while some scholars have questioned whether race/ethnicity alone accounts for disparities in academic success. A 2004-2005 analysis in the *Journal of Blacks in Higher Education* suggested that scholarship status, rather than race, was the key determinant of persistence in college. Rubin and Rosser (2014) advanced this perspective by examining scholarship status as a distinguishing factor in academic outcomes. They analyzed data from eight NCAA Division I institutions across both revenue and non-revenue sports, finding that non-scholarship student-athletes had higher GPAs, while scholarship recipients graduated in fewer semesters. Additionally, their research highlighted variations in academic performance by demographic group, with Black/African student-athletes recording some of the lowest GPAs and female student-athletes performing at the highest levels.

The findings of the present study highlight the nuanced nature of academic success and persistence among student-athletes. Rather than conflating or correlating these two academic metrics, this study examined them independently across shared demographic and profile characteristics. With a longitudinal focus on ten cohort years of revenue-generating sports, it establishes a critical foundation for future research, particularly as the NCAA undergoes unprecedented transformation. The results indicate that in the two sports that drive both revenue and decision-making at the highest level of college athletics, neither sport, scholarship status, nor race/ethnicity alone can sufficiently predict academic success. Additionally, the findings underscore the importance of including non-scholarship student-athletes in research and recognizing scholarship status as a key differentiating factor. Failing to do so may unintentionally exclude a significant segment of the student-athlete population.

Research Question 2

While numerous studies have investigated factors influencing the academic outcomes of student-athletes, much of the existing literature operated on the premise that student-athletes, to varying degrees, are less academically prepared, engaged, or motivated. However, these assumptions are often accepted without critical examination.

Prior research, including work by Bowen and Levin (2003), Kingston et al. (2006), and Medic et al. (2007), examined the role of scholarships in shaping student-athlete academic experiences. Rubin and Rosser (2014) specifically analyzed differences in academic performance between Division I scholarship and non-scholarship athletes, employing a theoretical framework that positioned scholarships as extrinsic rewards

within a work motivation model. The studies listed suggested that scholarship status influences student-athlete behavior (Rubin & Rosser, 2014). However, by framing scholarship recipients as extrinsically motivated and non-scholarship athletes as intrinsically motivated, this body of research may oversimplify the complex factors influencing student-athlete success. Given this limitation, the present study sought to provide a more nuanced understanding of academic outcomes among Division I athletes by moving beyond the traditional scholarship-based motivation dichotomy to consider the role of group membership and social identity in shaping behavior and outcomes.

Social Identity Theory (SIT) offers a useful framework for understanding the disparities that may exist among student-athletes. According to Ellemers and Haslam (2012) the “core premise is that in many social situations people think of themselves and others as group members, rather than as unique individuals” (p. 379). Applying SIT, it is critical to consider how student-athletes’ academic expectations and outcomes are influenced both by the groups they identify with and the groups to which they are externally assigned. For example, internally a student-athlete may identify as a walk-on football player, while a professor, noticing a team-issued backpack, may perceive them simply as a White student-athlete—highlighting a contrast between self-perceived scholarship status and sport affiliation versus externally assigned identities based on race/ethnicity and general athletic association.

This study found non-scholarship student-athletes performed significantly better in the classroom than their scholarship student-athlete peers. However, Black/African American and White/Non-Hispanic scholarship student-athletes, over 60% of the sample,

performed better than their non-scholarship counterparts. Race/ethnicity is more visibly apparent than scholarship status, creating space for vastly different interpretations, and subsequent behaviors, that may influence the perceived academic performance of student-athletes. These aspects of dual identity warrant further study.

Research Question 3

In this study, scholarship student-athletes remained enrolled for an average of 4.64 semesters before departing (non-graduates), compared to 3.49 semesters for non-scholarship student-athletes. Similarly, scholarship student-athletes who graduated did so in an average of 7.88 semesters, compared to 8.17 for non-scholarship student-athletes. This trend was consistent across football, men's basketball, and all racial/ethnic categories, with scholarship student-athletes persisting longer and graduating faster than their non-scholarship peers.

These findings align with broader research on student persistence and financial aid. Mendez et al. (2009), in their assessment of financial aid combinations of the top two federal aid programs, found low-income minority student-athletes were more likely to be retained when they received grant-based aid. They also found that while the effects of financial aid on persistence have been studied extensively, little to no research existed on the impact of Pell grants and Stafford loans, the two most popular federal financial aid programs, in increasing retention rates among college student-athletes. Further, they concluded "low-income African Americans remain in the worst position than all other ethnic groups in terms of persistence" (p. 19). Multiple researchers investigating the topic of minority student retention have reached a similar conclusion (Baker, 2008; Carter,

2006; Hyatt, 2003; Person & LeNoir, 1997; St. John, Chung & Musoba, 2004; Wells, 2008). Specifically, Kiger and Lorentzen (1986) found White female non-revenue athletes and Black male revenue athletes occupied opposite ends of the academic achievement spectrum. Over a decade later, Upthegrove et al. (1999) noted little change, suggesting that participation in revenue sports and institutional pressures may worsen under-preparedness and sustain lower academic performance.

Research Question 4

Overall, 59% of student-athletes in sample graduated, with a statistically significant difference in graduation rates – 54% for scholarship student-athletes and 67% for non-scholarship student-athletes. In their study, Rubin and Rosser (2014) reported a slightly higher overall graduation rate of 65% but found no statistically significant difference in graduation rates after controlling for scholarship status. These differences could be explained by the substantial distinction in sample composition and scope (i.e., revenue vs non-revenue, sport type, gender, longitudinal vs cross-sectional).

The study found a statistically significant difference in mean semesters to graduate (scholarship = 7.88; non-scholarship = 8.17), and revealed that scholarship student-athletes, even when controlling for race/ethnicity, graduate faster than non-scholarship student-athletes. This finding contradicts much of the research that has existed over the past 40 years regarding the persistence of student-athletes in revenue-generating sports. However, this may be partly attributable to a broader focus on graduation rates, not pace, and the limited research distinguishing between scholarship and non-scholarship student-athletes, both of which could obscure important patterns.

Implications

This study illuminated an often-invisible population whose academic journeys are frequently homogenized or overlooked in existing literature. Social Identity Theory (SIT) served as the theoretical framework to explore the intersection of multiple identities—such as scholarship status, sport, and race/ethnicity—in shaping student achievement. Implications for theory and practice follow.

Implications for Theory

Tajfel and Turner's (1979) Social Identity Theory (SIT) offers a valuable framework for exploring the inequities that exist between Division I scholarship and non-scholarship student-athletes, particularly within football and men's basketball. Applied to this study, SIT posits student-athletes and those observing them often perceive themselves and others primarily through the lens of group membership, rather than as distinct individuals (Ellemers & Haslam, 2012). Applying this theory within the context of college athletics invites a deeper understanding of how academic expectations and outcomes are shaped not only by how student-athletes define themselves, but also by the social identities imposed on them by others.

This study revealed that, overall, non-scholarship student-athletes outperformed their scholarship peers academically. However, within football specifically, Black/African American and White/Non-Hispanic scholarship student-athletes demonstrated stronger academic performance than their non-scholarship counterparts. Because race and ethnicity are more outwardly visible than scholarship status, they often shape perceptions and responses in ways that may influence how student-athletes'

academic abilities are interpreted and evaluated. Preconceived notions and stereotypes often surround the academic engagement and performance of student-athletes who compete in the most visible and profitable sports. To better understand their experiences, it is important to examine academic outcomes within the broader social context of group membership (Purdy et al, 1982; Upthegrove et al., 1999, Rubin & Rosser, 2014). Moreover, the utilization of theory to frame quantitative research to highlight how group identification—whether by choice or external attribution—may shape academic experiences and expectations is critical.

Implications for Practice

Nationally, only 59% of all Division I student-athletes receive some level of athletic scholarship (NCAA, 2024). In this study that focused on 10 cohort years of secondary institutional data for football and men’s basketball student-athletes only, 85 (60.9%) received athletic scholarships, while 183 (39.1%) did not. NCAA metrics designed to hold institutions and coaches accountable for the academic performance and persistence of their student-athletes, including the Academic Progress Rate (APR) and Graduation Success Rate (GSR), reflect only scholarship student-athletes’ outcomes.

A scholarship student-athlete’s inability to meet NCAA progress-towards-degree and graduation requirements can lead to the institution’s forfeiture of academic-based revenue distribution from the NCAA, team scholarship reductions, recruiting restrictions, bans from postseason competition, and missed bonuses for head coaches, in addition to the potential loss of athletic eligibility for individual student-athletes who fail to meet minimum standards. However, for the 41% of student-athletes who do *not* have an

athletic scholarship, the potential loss of athletic eligibility is the only penalty for failing to meet the minimum standards. In summary, only the non-scholarship student-athletes themselves, not institutions or teams or coaches, are penalized for insufficient academic performance or progress.

Institutions and athletic departments truly committed to supporting the academic needs and educational experiences of these student-athletes do so because they want to, not because they must. Non-scholarship student-athletes experience the same time and academic demands as their scholarship-carrying teammates and must meet the same NCAA academic eligibility requirements in terms of full-time enrollment and progress-towards-degree and GPA standards. However, a non-scholarship student-athlete's failure to meet these standards is not reflected in NCAA APP metrics and only adversely affects the student. As such, some institutions provide these student-athletes with the same or similar level of academic resources to support their individual academic needs, while others choose not to. That choice exists because there is no system of accountability in place to create a reciprocal benefit in the equitable investment in *all* student-athletes.

The NCAA APP and related metrics need to be modernized to reflect the current landscape of college athletics. The overhauled or revised system and standards should be inclusive of all student-athletes, regardless of scholarship status. As chronicled in this study, disparities exist within the context of college athletics and student-athlete academic achievement, and national policy and practice should see the same thing a college professor does when they scan their classroom – a student-athlete.

Limitations

The findings of this study reflect a singular focus on a large, public, four-year institution that participated in NCAA Division I athletics. Only scholarship and non-scholarship student-athletes that participated in football and men's basketball were used in the analysis. As such, results may not be generalizable nor reflect trends across multiple universities or different divisions of collegiate athletics, although the study could be replicated for the same population at similarly situated institutions. Similarly, the focus on scholarship and non-scholarship student-athletes in football and men's basketball (i.e., male, revenue-generating, head count sports) did not account for female student-athletes or those who participated in equivalency or non-revenue-generating sports.

All data collected was provided through secondary data sources, therefore the researcher did not have access to additional variables that maybe affect analyses such as additional grants, non-athletics aid, or pre-enrollment data. The impact of institution-specific academic requirements or academic resources made available to scholarship versus non-scholarship student-athletes is unknown. Additionally, student-athletes were assigned permanent scholarship or non-scholarship status based on their first semester of college enrollment, so any changes in scholarship status beyond initial enrollment were not reflected in the study.

Future Research

The purpose of this study was to develop a better understanding of the academic performance, time-to-degree or departure, and graduation status of football and men's

basketball student-athletes at an NCAA Division I FBS institution. Sport, scholarship status, and race/ethnicity were utilized as variables to critically examine the nuances of academic achievement. The study was framed by Social Identity Theory (SIT) to explore social context as the key determinant of self-definition, behavior, and external perception (Ellemers & Haslam, 2012). Opportunities for future research are abundant, and the scalability of this study was intentional.

Additional research could expand the scope of analysis to include multiple NCAA Division I institutions to assess the generalizability of the findings. Access to the data would present a challenge; however, a practitioner with strong industry relationships would be able to navigate that successfully, as evidenced by Rubin and Rosser (2014). A broadened scope to include longitudinal and comprehensive student-athlete data from multiple institutions would represent a significant expansion of existing research. The incorporation of pre-enrollment information (e.g., high school GPA, standardized test scores, socioeconomic status, first-generation college student status, etc.) also would enrich the analysis and uncover important patterns.

Future research also could explore qualitative designs to learn more about the lived experiences of non-scholarship student-athletes, their academic journeys, and perspectives on the investment and support of their institutions and the greater NCAA ecosystem. To contextualize the results, researchers could apply Social Identity Theory (SIT) or a related framework, considering both researcher and student perspectives.

Lastly, given the rapidly evolving landscape of college athletics, particularly with the implementation of Name, Image, and Likeness (NIL) policies and the increased

utilization of the NCAA transfer portal, there is a critical need for future research to examine their impact on student-athlete academic outcomes. While these developments have expanded opportunities for student-athletes to leverage their personal brands and athletic talents, the potential academic consequences remain largely unexplored. Future research could explore how NIL activities and the transfer landscape influence student-athlete academic performance, persistence, graduation, and utilization of academic support services. Additionally, longitudinal studies could offer valuable insights into whether these structural changes exacerbate or alleviate existing academic disparities across sports, divisions, and demographic groups. Such inquiry would provide essential evidence to inform institutional policies, NCAA governance, and student-athlete support systems, ensuring that the pursuit of athletic and financial opportunities does not come at the expense of educational attainment.

Conclusion

This study contributes to an evolving body of research surrounding the academic performance and persistence of NCAA Division I student-athletes in revenue-generating sports. Further, it illuminates an invisible population, non-scholarship student-athletes, whose academic journeys are overlooked in existing literature yet offer meaningful insights on the academic experiences of *all* student-athletes. Prioritizing scholarship status as a discriminating factor, the findings revealed significant differences between scholarship and non-scholarship student-athletes, particularly in GPA and time-to-degree. While non-scholarship student-athletes, on average, earned higher GPAs than their scholarship-carrying peers, their time-to-degree suggested time, resource, and/or financial

challenges may be contributing factors. Conversely, scholarship student-athletes, despite lower GPAs, graduated faster than non-scholarship student-athletes.

Race/ethnicity, when combined with scholarship status, yielded the most compelling discovery in the study. Findings revealed that non-scholarship student-athletes, predominantly White/Non-Hispanic, achieved higher GPAs, while scholarship student-athletes, predominantly Black/African American, graduated in fewer semesters. Yet, in football, both Black/African American and White/Non-Hispanic scholarship student-athletes outperformed their non-scholarship counterparts in GPA and time-to-degree. Additionally, Black/African American and White/Non-Hispanic scholarship student-athletes graduated at similar rates to their non-scholarship peers.

These results underscore the need for a more nuanced understanding of how all student-athletes matriculate and progress through their academic careers. It is essential to recognize that not all student-athletes enter higher education with equal access to resources, networks, or prior academic preparation. Supporting those who face structural or situational barriers and challenges is critical to fostering equitable opportunities for success within collegiate athletics and the broader educational environment. The disparities identified in this study suggest that national policies and institutional practices may fall short of their intent and most certainly exist largely undetected and unexplained in academic research. By advancing understanding of the academic outcomes of all student-athletes—especially those participating in the most visible and revenue-producing sports, these findings, and subsequent research, can assist policymakers and leaders as they stand on the precipice of a new era of college athletics. We are entering an

era that will challenge the academic mission and priorities of the university and require leaders to understand the unique needs of their student-athletes—all of them.

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VITA

Marshall Matthew Steward III was born and spent his entire childhood in Mt. Vernon, Indiana. Upon graduating from Mt. Vernon Senior High School, Marshall enrolled at Indiana University to play football before transferring to Indiana State University where he earned his Bachelor of Science and Master of Arts in Sport Management. As a graduate student at Indiana State, Marshall served as a graduate assistant in the Student Academic Services Center. Upon graduation, he completed an internship in public relations at Fleishman Hillard International Communications in St. Louis, Missouri. Marshall worked in the Metropolitan School District (MSD) of Mt. Vernon as a K-12 substitute teacher and volunteer high school football coach until beginning full-time employment as an Athletic Academic Advisor at Western Michigan University in Kalamazoo, MI in 2009. In 2012, Marshall left WMU as the Director of Athletic Academic Services to become an Educational Coordinator in the Thornton Athletics Student Life Center at the University of Tennessee, Knoxville. Since arriving in Knoxville, he has served in eight different positions at UT, currently holding the dual title of Deputy Athletics Director/Chief Competitive Officer & Associate Provost, where he oversees a variety of critical, student-facing areas including academic services, student-athlete development, sports nutrition, sports performance, sports science and sports medicine. Additionally, he has oversight of athletics camps, equipment, parking and housing along with student conduct and Title IX. In fall 2017, he was admitted to the Higher Education Administration PhD program. At the time of completing this doctorate,

Marshall, and his wife, Kramer, have four incredible children – Kyron (9), Kaylor (8), Hazel (7), and Mira (3).