

# Chasing Stars: Racial Tasking of Recruiting Responsibilities among Power-5 Football Coaches

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During the 2022 National Collegiate Athletic Association (NCAA) college football season, eight of the 65 Power-5 head coaches were Black. The racial composition of assistant coaches, however, was nearly 50% Black and 50% White. While the head coach of a Power-5 football team serves as the leader of the program, the 10 assistant coaches permitted by the NCAA oversee a variety of critical roles; the most valuable of which is recruiting. This study extends previous work by examining the racial composition of Power-5 football coaching staffs and recruiting responsibilities through the lens of racial tasking. An analysis of Power-5 football recruiting classes from 2019 and 2020 illustrates that assistant coaches are tasked with recruiting prospective athletes racially similar to themselves 58% of the time. Furthermore, Black assistant coaches are disproportionately tasked with recruiting Black recruits and higher rated recruits (i.e., five- and four-star) compared to their White counterparts. We contend such racialized responsibilities and expectations may affect opportunities for advancement among Black assistant coaches.

*Keywords:* NCAA, Power-5, recruiting, racial tasking

Among National Collegiate Athletic Association (NCAA) member institutions, the Power-5 subdivision represents the most established and financially lucrative level of athletics competition. Such establishment and financial viability in the Power-5 is largely attributed to the sport of football. Black athletes comprise the largest racial group among Power-5 football players (46%; NCAA, 2022). Perhaps correspondingly, the Power-5 conferences also feature the largest percentage of Black football coaches (i.e., head, coordinator, assistant) of any NCAA division or subdivision. In 2022, Black coaches comprised nearly 50% of Power-5 assistant coaches; yet only 9 of the 65 Power-5 head coaches were Black (NCAA, 2022). One reason for this disproportionate representation of Black head coaches in Power-5 football



has been attributed to differentiation in *tasks* performed by assistant coaches based on their race. Turick and Bopp (2016) found that recruiting-specific tasks might devalue a coaches' perceived *football intelligence* among athletic administrators. Given that Black football coaches already face impediments to head coaching opportunities (i.e., access discrimination; Cunningham & Sagas, 2005), tasking Black coaches with disproportionate recruiting responsibilities may serve to further inhibit Black coaches' head coaching opportunities.

The Power-5 conferences represent the highest level of competition in college athletics and are composed of the most financially influential NCAA members (Broughton, 2020; NCAA, 2019). Within this setting, Power-5 football is the most prominent facet to generating revenue. As a relationship exists between winning college football games and revenue generation (Caro, 2012), Power-5 institutions place a significant emphasis on football success (Southall et al., 2005). Accordingly, the importance of successful recruiting is indicative of the emphasis placed on *winning* within the Power-5 conferences. While the entirety of a football coaching staff is involved in the recruiting process, assistant coaches are primarily responsible for recruiting (Simmons, 2020; Turick, 2018; Weathersby, 2014). Given the relationship between successful recruiting and winning (Caro, 2012; Mankin et al., 2019), assistant coaches occupy an integral role in a football program's success or failure.

Guided by extant literature examining racial tasking of NCAA football coaches (Turick & Bopp, 2016), this study examined the role of Black coaches tasked as *recruiters* in the Power-5. Given the importance of successful recruiting in relation to winning football games and maintaining a successful program, researchers sought to examine the inherent benefit(s) to Black and White assistant coaches tasked with recruiting responsibilities. Accordingly, this study proposed the following research questions:

1. Is there a relationship between the race of the assistant coach and the players they are tasked with recruiting?
2. Is there a relationship between the race of the assistant coach and the positions (e.g., quarterback, running back, defensive line) of the players they are tasked with recruiting?
3. Is there a relationship between the race of the assistant coach and the rating (e.g., five- or four-star) of the players they are tasked with recruiting?

## Literature Review

### Racial Tasking and Race Matching

A key component of institutionalized racial discrimination is that it is not solely identified by the intentions of the institutional actors, but rather, the outcomes associated with their normalized policies and practices (Braddock, 1981). Likewise, racial tasking is not a postulate that rationalizes or detracts from the actions and behaviors of individuals but conceptualizes how stereotypical and institutionalized

thoughts and norms might influence said actions and behaviors toward the racially disparate assignment of tasks, responsibilities, and expectations (Bopp et al., 2020). The theory of assortative matching has been espoused by the field of economics promoting the consideration and quantification of factors and/or traits to determine the utility of a relationship (Becker, 1973; Hoppe et al., 2009; Mendes et al., 2010); the equilibrium of which, or match, refers to the extent that both parties complement one another and therefore, maximize their effectiveness from pairing themselves and their resources (Shimer & Smith, 2000). As they relate to this study, we are interested in the use of racial tasking and race matching to frame our examination of the potential influence of the racial homo- or heterogeneity of the assistant coach and football student-athlete as antecedents in the recruitment process, as well as the career development/hindrance of the assistant coaches.

It has been found that racially similar (re: matching) teachers can be of benefit to racially-minoritized students and “are uniquely positioned to improve [student] performance directly or indirectly, by serving as role models, mentors, advocates, or cultural translators” (Egalite et al., 2015, p. 44). Similarly, Zirkel (2002) concluded the academics and goal-orientation (and achievement) of youth were positively influenced by role-models of matching racial identity. While Blake-Beard et al.’s (2011) student participants did not experience an increase in academic outcomes when racially matched with a mentor, they did indicate it was important to them and that they received more help. The utility of applying assortative (e.g., race) matching in scholarly examinations of sport is not limited to athletic performance; it has also been employed to better understand and assess administrative decision-making and organizational relationships (Peeters et al. 2020; Yang & Goldfarb, 2015). Understanding collegiate coaches’ integral role in the interpersonal and life-skills development of their players (Banwell & Kerr, 2016; Weinberg et al., 2022), it stands to reason that race matching may prove beneficial to the resultant mentorships and performance outcomes of the coach-athlete relationship.

While racial tasking was first conceptualized to examine differentiations in *tasks* (i.e., run vs pass plays) performed by Black and White quarterbacks participating in NCAA Division I football (Bopp & Sagas, 2014), Bopp et al. (2020) defined four tenets to establish the presence of racial tasking within a given institutional field. Fundamentally, for racial tasking to exist racially dissimilar actors must occupy similar organizational positions (e.g., job titles) in which the pursuit of short-term goals is prioritized at the sake of long-term opportunities. Thereby, racial tasking is conceptually differentiated and a theoretical extension of positional segregation and racial stacking, both of which have been used to explain racial discrepancies in playing and coaching positions and career advancement in sport (Day, 2015; Hawkins, 2002; Loy & McElvogue, 1970; Siler, 2019).

In addition, the *interests* of racially dissimilar actors must be considered when individuals in similar positions are assigned differing tasks (Bopp et al., 2020). In the context of college football recruiting, the prioritization of recruiting serves a specific short-term benefit (i.e., winning football games; Caro, 2012; Mankin et al., 2021) while marginalizing long-term opportunities for coaches tabbed as recruiters (Turick

& Bopp, 2016). Such short-term emphasis on recruiting success and winning serves to the primary benefit of institutions and institutional leaders (e.g., administrators, head coaches), the vast majority of which are White men (NCAA, 2022).

### ***Coaching Staff Structure***

Within the context of a Power-5 college football coaching staff, coaches are stratified into specific roles based off coaching title. The NCAA permits Division I football coaching staffs to consist of eleven on-field coaches; one head coach and ten assistants (Johnson, 2017; NCAA, 2021). Typically, a college football coaching staff is comprised of one head coach, two coordinators, and eight position coaches. While head coaches and coordinators often serve as the figureheads of college football programs, position coaches are tasked with various recruiting responsibilities and required to be present during recruiting activities (NCAA, 2021). Position coaches' recruiting responsibilities are often determined by the position group they coach (e.g., quarterback, running back, defensive line; Kulha, 2013) and segmented into geographic regions they are assigned to recruit. While all position coaches are expected to coach their unique position group and recruit, specific *tasks* that position coaches perform related to recruiting responsibilities may illustrate the differences present intra-coaching staff among racially dissimilar coaches with similar titles.

While 53% of Power-5 football coaches are White, 73% of head coaches and coordinators (i.e., those who wield the greatest authority) are White (NCAA, 2022). While a head coach is responsible for overseeing all aspects of a football program, coordinators are tasked with directing the offense or defense (Barnett, 2019; Donovan, 2017). Fundamentally, a coordinator is the *head coach* of one of the three phases in football (e.g., offense, defense, special teams; Kilgore, 2019). Just as a head coach hires coordinators to execute their philosophy, coordinators are very involved in hiring position coaches to implement their offensive, defensive, or special teams' philosophy. In many ways, since coordinators supervise position coaches, a coordinator is an autonomous extension of a head coach (Donovan, 2017).

The job responsibilities of head coaches, coordinators, and position coaches vary, as does perceived pressure. Not surprisingly, pressure – as well as financial compensation – increases as a coach moves up the proverbial coaching ladder (Bender, 2020; Johnson, 2019). Whereas a coordinator is responsible for the entirety of an offense or defense, position coaches coach a select number of players (i.e., individual position group). Accordingly, position coaches hold less coaching responsibility and are deferential to both coordinators and the head coach concerning game-planning (Johnson, 2019). As position coaches have more limited game-planning and on-field coaching responsibilities, they assume an increased recruiting load (Simmons, 2020; Turick, 2018; Weathersby, 2014).

The NCAA states that “Recruiting is not only the lifeblood of any athletics department, but also a benefit to the entire campus” (n.d., para. 1). In this context, position coaches occupy a central *recruiting* role that has been contextualized as institutional work (Corr et al., 2020, 2022). Institutional work is characterized by institutional actors' efforts to maintain or disrupt the pervading logics of a given institutional setting (Nite & Washington, 2017). Inherently, institutional work is a

byproduct of an institutional logic(s) that dictate the operational components and behaviors within an individual setting (Jepperson, 1991). As NCAA bylaws stipulate the presence of position coaches during recruiting activities and place inordinate recruiting responsibilities on position coaches (NCAA, 2021), Power-5 football recruiting serves as a direct mechanism in which institutional work is delineated and performed by institutional actors (i.e., position coaches) (Lawrence et al., 2011). Not only is recruiting a primary responsibility of a position coach (Horne, 2013; Simmons, 2020; Weathersby, 2014), but position coaches are also expected to monitor players once enrolled (Turick, 2018). While the merits of the continued nurturement of the coach-recruit relationship upon enrollment is of note, tasking position coaches in the role of monitor may disproportionately affect their opportunities for advancement within the coaching profession as well (Turick & Bopp, 2016).

The framework of racial tasking has been utilized to explain the paucity of Black intercollegiate football head coaches and offensive coordinators (Turick & Bopp, 2016), as well as racialized discrepancies in the play (i.e., run vs. pass) of NCAA Football Bowl Subdivision (FBS) quarterbacks (Bopp & Sagas, 2014). Finding that Black quarterbacks run the ball significantly more than their White counterparts, who in turn, throw the ball at a significantly higher rate, Bopp and Sagas (2014) surmised that playing and learning the position in such a manner could lead to a racialized discrepancy in development outcomes, as well as future career playing and coaching opportunities. Accordingly, we purport that racially tasked recruiting responsibilities among Power-5 football coaches may result in similarly disparate development opportunities and outcomes for Black position coaches.

Within this context illustrating the value of position coaches as recruiters, this study sought to examine if racially dissimilar position coaches occupying similar titles were *tasked* with differing recruiting responsibilities.

## Methodology

### Data

#### *Recruiting Data*

Recruiting data for both coaches and recruits were based on rankings by 247Sports. 247Sports, a subsidiary of CBS Sports, is recognized as the industry leader among high school football scouting services, primarily due to their composite ranking system (247Sports, 2012). The 247Sports Composite Ranking considers rankings from multiple online scouting services (e.g., ESPN, Scout, On3) to rank recruits. Accordingly, the 247Sports Composite Ranking mitigates some of the inherent subjectivity of scouting and evaluation. While recruiting rankings are an imperfect measurement tool, the value of a recruit can be determined based on star-rating (e.g., five-star, four-star, three-star). A recruit's star-rating is often correlated to the number of athletic scholarship offers they have received (Next College Student Athlete [NCSA], n.d.; O'Brien, 2022), indicating the competition between football programs in recruiting higher rated recruits. As a positive correlation exists between signing five- and four-star recruits and winning a national championship (Elmasry,

2017; Kercheval, 2016), signing higher rated recruits is an effective measure in determining the value of a position coach with regards to recruiting.

Based on star-rating and recruit ranking, 247Sports calculates Recruiter of the Year rankings. The Recruiter of the Year represents the coach responsible for signing the most valuable recruiting class. To calculate this ranking, 247Sports assigns differing values to coaches based on their status as either a primary or secondary recruiter for specific signees. Accordingly, the primary recruiter represents the coach most responsible for a recruits' signing and enrollment to a particular institution. The primary recruiter designation was integral to determine the recruiting responsibilities and value of position coaches.

### ***Biographical Coach Data***

Coaches' biographical variables were gathered from Power-5 athletic department online directories and media guides. Coaches were classified into three distinct groups based on title: head coach, coordinator (offensive or defensive), or position coach. Position coaches were further classified based on the position group they were primarily responsible for coaching (e.g., quarterback, wide receiver, defensive line). Additional titles (e.g., recruiting coordinator, passing-game coordinator) were gathered for descriptive purposes. Institutional athletic department images were utilized to determine racial classification of coaches while individual 247Sport recruiting profile images were utilized to determine racial classification of recruits. Given the importance of skin color and facial physiognomy to determining racial classification (Stepanova & Strube, 2012), researchers analyzed web images to determine racial classification of coaches and recruits. The researchers individually coded each coach and recruit and compared notes to establish a consensus. All coaches with characteristics determined to be outside of this binary classification ( $n=13$  Other) were removed from the analysis. In corresponding fashion, recruits designated as non-White or Black were also removed ( $n = 90$ ).

### ***Data Analysis***

Data were analyzed using a mixture of descriptive and inferential statistics. Initial results produced  $n$  counts and percentages by race for recruiting coaches, recruited players, and player positions. Crosstabs were then used to examine the distribution of coach race and player race as well as the distribution of coach race and player position (e.g., quarterback, running back, linebacker). Crosstabs were followed up by Chi-square tests used to examine the relationship between the race of the coach and the race of the player as well as the race of the coach relative to player position. Lastly, a Welch Two Sample t-test was run to explore the relationship between the coach's race and the player's 247Sports star rating (e.g., five-star, four-star).

## **Findings**

To examine the impact of racial characteristics among coaches and recruits in Power-5 football the composition of coaches and recruits from the 2019 and 2020

recruiting classes were examined. Rather than purposefully sampling, researchers chose to examine the entirety of the population of Power-5 coaches and recruits during this two-year period. In total, more than 3,000 recruits were examined along the primary variables race, position, school, conference affiliation, recruiting coach, and recruiting ranking. The aggregate data covers the entirety of recruits from the high school graduating classes of 2019 and 2020 that signed an athletics grant-in-aid (GIA) with a Power-5 football program (see Table 1).

**Table 1**

*Characteristics of Recruiting Coaches and Recruited Players in the Power 5: 2019-2020*

Characteristics	<i>n</i>	%
Race of recruited player		
Black recruited player	2426	76.7
White recruited player	736	23.3
Race of recruiting coach		
Black recruiting coach	1403	44.4
White recruiting coach	1759	55.6
Position of recruited player		
Athlete	114	3.6
Defensive back	548	17.3
Defensive line	594	18.8
Linebacker	371	11.7
Offensive line	533	16.9
Quarterback	146	4.6
Running back	239	7.6
Special teams	64	2.0
Tight end	138	4.4
Wide receiver	415	13.1

### **Coach and Recruit Race**

To understand the relationship between the race of the recruiting coach and the race of the recruited player, a crosstabulation was performed. Results indicated that while Black and White recruiters across the entirety of Power-5 football are fairly evenly split when it comes to recruiting Black athletes, White recruiting coaches recruit more than 80% of White athletes (see Table 2). Further disparities are witnessed when considering that of the 1403 total athletes recruited by Black coaches, 89.7% ( $n = 1258$ ) were Black, compared to the 66.4% ( $n = 1168$ ) of the total athletes recruited by White coaches.

**Table 2**  
*Relationship of Recruiting Coach's Race and Recruited Player's Race*

Race of recruiting coach	Black recruited player		White recruited player	
	<i>n</i>	%	<i>n</i>	%
Black recruiting coach	1258	51.9	145	19.7
White recruiting coach	1168	48.1	591	80.3

Based on the differences in counts and percentages between the race of the recruiting coach and the race of the recruited player, a Chi-square test was performed. Results indicated a significant relationship between the race of the recruiting coach and the race of the recruited player  $\chi^2(1, N = 3,162) = 235.32, p < .001$ .

### Position-Specific Recruiting

To understand the relationship between the race of the recruiting coach and the position (e.g., quarterback, running back, defensive back, etc.) of the recruit, a crosstabulation was performed. Results indicated that Black recruiting coaches were primarily responsible for recruiting the running back ( $n = 161, 67.4\%$ ) and defensive back ( $n = 344, 62.8\%$ ) positions while White recruiting coaches were primarily responsible for recruiting quarterbacks ( $n = 119, 81.5\%$ ) and offensive linemen ( $n = 424, 79.5\%$ ). The full results of the crosstabulation are presented in Table 3.

Based on the differences in counts and percentages between the race of the recruiting coach and the position of the recruit, a Chi-square test was performed. Results indicated a significant relationship exists between the race of the recruiting coach and the position of the recruit  $\chi^2(9, N = 3,162) = 375.26, p < .001$ . Based on the results, post hoc tests were run to determine which relationships were significant. All positions were significantly related to the race of the recruiting coach, except for Athlete ( $p = .061$ ).

### Star-Rating

Prior to examining the relationship between the race of the recruiting coach and the recruiting ranking of recruits (i.e., 247Sports *Star* Rating), the dataset was prepared by removing players who had received no recruiting ranking ( $n = 88$ ). Data was then aggregated by race of recruiting coach in relation to the recruiting ranking of recruits (see Table 4).



**Table 3**  
*Relationship between Coach's Race and Recruit's Position*

Position	Black Recruiting Coach		White Recruiting Coach	
	<i>n</i>	%	<i>n</i>	%
Athlete	66	57.9	48	42.1
Defensive Back	344	62.8	204	37.2
Defensive Line	302	50.8	292	49.2
Linebacker	116	31.3	255	68.7
Offensive Line	109	20.5	424	79.5
Quarterback	27	18.5	119	81.5
Running Back	161	67.4	78	32.6
Special Teams	15	23.4	49	76.6
Tight End	39	28.3	99	71.7
Wide Receiver	224	54.0	191	46.0

**Table 4**  
*Comparison of Recruiting Rankings by Recruiting Coach's Race*

Race of Recruiting Coach	<i>n</i>	<i>M</i>	<i>SD</i>
Black Recruiting Coach	1,380	3.42	0.56
White Recruiting Coach	1,694	3.32	0.53

Based on differences in mean recruiting ranking of recruits among Black and White recruiting coaches, a Welch Two Sample t-test was run. The results were significant when examining the relationship between recruiting ranking of recruits and the race of the recruiting coach,  $t(3127) = 5.92, p < .001$ . It is important to note that the differentiation in the relationship between coach race and recruit star-rating is measured on a three-point scale (five-, four-, or three-star).

## Discussion

The findings of this study demonstrate the presence of race matching and racial tasking of recruiting responsibilities among position coaches in Power-5 football. Within the 2019 and 2020 Power-5 football recruiting classes, Black coaches were disproportionately responsible for recruiting Black recruits (52%) and White coaches for recruiting White recruits (80%). Given that Black football players comprise the largest racial group in Power-5 football (NCAA, 2022), the attention of Black position coaches appears to be focused (re: tasked) on securing predominantly Black recruits. Based on previous literature identifying coaches' social effectiveness as a key component to successful recruiting (Magnusen et al., 2011, 2014; Treadway et al., 2014), dispatching coaches to recruit similar raced recruits may indeed be of strategic value. However, such strategic action may be disproportionately detrimental to Black coaches as 77% of Power-5 recruits in the classes of 2019 and 2020 were Black. This increase of recruiting responsibility may serve to marginalize Black coaches seeking to advance in the coaching profession by tabbing them as recruiters, delegitimizing their on-field coaching acumen and leadership ability (Turick & Bopp, 2016).

Furthermore, Black coaches were disproportionately responsible for recruiting position groups (see Table 3) that have been historically populated (i.e., stacked) by Black players (e.g., running back, wide receiver, defensive back) (Hawkins, 2002; Pitts & Yost, 2013; Schneider & Eitzen, 1986; Siler, 2019). Conversely, White coaches were relied on to secure recruits at the historically White position of quarterback (82%). In accordance with previous literature (Cunningham & Bopp, 2010; Turick & Bopp, 2016), the disparate recruiting responsibilities of Black and White coaches related to position-specific recruiting may serve as a hindrance to Black coaches seeking advancement in the coaching profession. That is, the centrality of White players and coaches to the decision-making and key play-calling positions (Anderson, 1993; Edwards, 1973; Grusky, 1963) might afford them opportunities to develop and hone skills that ultimately prove more beneficial to their individual development and overall success of the team.

While this study did not find that Black coaches are tasked with a greater recruiting responsibility with regards to volume of recruited players, the findings exemplify the role that Black coaches hold in recruiting higher rated players. A significant relationship between coach race and recruit star rating indicates that Black coaches are more heavily burdened with securing five- and four-star recruits). As there is a correlation between signing five- and four-star recruits and winning a national cham-

pionship in college football (Caro, 2012; Elmasry, 2017; Kercheval, 2016; Mankin et al., 2019), the value of Black coaches in recruiting higher rated players cannot be understated in the context of Power-5 football. The prioritization of revenue generation – achieved through football programmatic success (i.e., winning football games) – permeated throughout the Power-5 conferences (Nite et al., 2019; Nite & Washington, 2017; Southall & Nagel, 2009) is reinforced within the recruiting process itself given the prioritization of higher rated recruits. Within an institutional setting that places a premium on winning football games, Black coaches responsible for securing these higher rated recruits do not experience the same tangible benefits and development opportunities as White coaches with regards to advancement to coordinator or head coach. The disproportionate opportunities awarded to Black and White position coaches is evidenced by the minimal number of Black coordinators and head coaches in the Power-5.

Given the *intercentricity* of race and racism within an institutional context (Bell, 1992, 1995; DeCuir & Dixson, 2004; Delgado & Stefancic, 2000; Ladson-Billings, 1998; Lawrence, 1995), college football recruiting at the Power-5 level appears to be *racialized* institutional work (Corr et al., 2020, 2022; Nite et al., 2019; Nite & Washington, 2017; Southall & Weiler, 2014) in which Black coaches are relied upon to secure top-recruits for the primary benefit of predominantly White head coaches at NCAA member institutions. In addition, Black coaches provide predominantly White head coaches access to Black recruits and are disproportionately tasked to recruit similarly raced recruits. The presence and prevalence of race matching and racial tasking within the findings of this study provide an addition measure to examine the roles of Black and White coaches and the maintenance of responsibilities within the Power-5 coaching profession. The current regulatory structure (i.e., NCAA) and coaching hierarchy places the bulk of recruiting responsibilities on position coaches. As Black position coaches are disproportionately responsible for securing higher rated recruits, and Black recruits in general, predominantly White head coaches and coordinators benefit from the maintenance of present and historical distributions of coaching responsibilities. As such, access discrimination (Cunningham & Sagas, 2005) in which White head coaches are more likely to hire and promote White coordinators and position coaches may also be explained by White head coaches seeking to maintain a distribution of recruiting responsibilities that places overt value on Black coaches in their roles as position coaches (i.e., recruiters). Given that institutional actors benefitting from institutional work seek to maintain their favorable positions (DiMaggio & Powell, 1983; Nite & Washington, 2017), such racialized hiring practices may be occurring consciously or subconsciously.

## Conclusion and Future Research

Within the context of current conference realignment, institutional actors must consider if Power-5 conference level *logics* align with that of their own. As illustrated by this study, Power-5 coaches perform institutional work that prioritizes – and places a premium on – recruiting top-rated recruits. Such work, performed dispropo-

portionately by Black position coaches, may be differentiated inter-conference. Accordingly, conference-specific examination of recruiting practices with regards to racial tasking and race matching would be valuable in determining if conference specific logics exist (e.g., SEC logic, Big Ten logic).

Furthermore, this study indicates that the racial tasking of Black position coaches as recruiters may be a function of the greater NCAA and Power-5 dominant institutional logics. Further research is needed to uncover the relationship between the prioritization of revenue generation and success in football with regards to the disproportionate opportunities for Black coaches to advance within the coaching profession. As indicated by previous scholars in the field of sport management (Frisby, 2005; Hylton, 2010; 2012; Singer, 2005; Singer et al., 2010), the authors call on the greater use of critical paradigms to uncover the role of institutional logics – and the corresponding institutional work designed to ensure maintenance of institutional logics – to examine racially disparate opportunities for advancement and outcomes in college football coaching hirings.

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# Tutor Perceptions of Division I College Athletes

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Research regarding athletics stakeholders' (e.g., faculty, non-athlete peers) perceptions of Division I college athletes is abundant and demonstrates that most stakeholders hold negative and stereotypical views of athletes. However, despite their time spent with athletes, little is known about the perceptions academic tutors have toward the athletes they are brought in to assist. Thus, through the lens of stereotype threat, this study explored graduate(d) and undergraduate tutors' ( $n = 67$ ) perceptions of athletes from three academically and athletically elite Division I institutions. Tutors' perceptions were examined and compared based on their responses to an adapted situational attitude scale survey using correlations, t-tests, and Fisher's Z tests. In general, results suggested tutors did not maintain stereotypical perceptions of the athletes they worked with, a key difference from previous scholarship in this area. Still, graduate(d) tutors generally held athletes to higher academic standards compared to undergraduate tutors. Implications for sport practitioners in academic support programs for athletes include hiring more graduate(d) tutors to work with athletes and fostering stronger relationships between tutors and athletes. Ultimately, this study expands upon the previous research on perceptions and stereotypes of athletes and the findings may demonstrate a shift toward more positive and strengths-based perceptions of Division I athletes.

*Key words:* intercollegiate athletics, stereotype threat, academic support

The integrity of academic support programs for athletes across the National Collegiate Athletic Association (NCAA) has been called into question due to a recent plethora of academic misconduct cases at Division I institutions. Perhaps the most egregious example of challenges to academic integrity occurred at the University of North Carolina at Chapel Hill where thousands of athletes were shuffled by academic support staff and enrolled in paper courses, or classes that did not meet and only required a paper submission at the end of the semester. Such courses were strategically designed to maintain athletes' sport eligibility, rather than offering a true educational experience (Smith & Willingham, 2019). Other examples of academic misconduct involving academic support staff include the University of Missouri and Mississippi



State University (James, 2019; Lederman, 2019). With these and other past academic scandals, Division I institutions are often seen as the most academically contentious area of college sports.

At the heart of these and other academic misconduct cases are tutors, brought in to assist athletes with coursework (James, 2019; Lederman, 2019; Smith & Willingham, 2019). However, these tutors over-assisted either by partially or fully completing assignments, enabling some athletes to cheat the system and together, committing academic fraud. Despite the potential tutors have to greatly influence the academic experiences of athletes, little is known about their perceptions toward the population they are hired to help. An enhanced understanding about the tutor-athlete relationship may be important in explaining more about athletes' academic experiences.

One common component in athlete academic experiences and performance is the "dumb jock" stereotype. This perception maintains that athletes are only enrolled in college to play their sport and they are intellectually inferior to their non-athlete peers (Simons et al., 2007). These incidents of academic misconduct further the dumb jock stereotype and may limit athletes' identity development through stereotype threat, or risk of confirming, by performance or behavior, negative stereotypes about oneself or one's group (Steele & Aronson, 1995). Negative perceptions of athletes by those outside of athletics can lead athletes to over identify as athletes, stunting their abilities to grow as students (Stone et al., 2012; Wininger & White, 2008). Athletes experiencing these negative perceptions are more vulnerable to stereotype threat. In fact, research by Stone and colleagues (2012) found that when athletes are primed with their athlete identity rather than their student identity, they perform at lower levels academically, thus confirming the dumb jock narrative.

Research on perceptions and stereotypes of Division I athletes has focused primarily on faculty and non-athlete attitudes, noting these groups tend to hold more negative and prejudicial attitudes toward athletes (Kuhn & Rubin, 2022). Despite the fact that many athletes spend a significant amount of time with tutors, there is minimal research exploring tutors' perceptions of athletes. While positive perceptions of athletes' capabilities may facilitate success (Yopyk & Prentice, 2005), negative attitudes will likely impede achievement (Comeaux & Harrison, 2011; Harry, 2021; Stone et al., 2012). Thus, it is important to examine how tutors view athletes as perceptions from others have shown to be impactful in athletes' identity development and academic success (Smith & Martiny, 2018; Wininger & White, 2015).

Tutors are in a unique position by being specifically hired for athletic academic support. It is assumed by many academic support staff and programs that tutors have positive attitudes toward the athletes they assist. However, cases of academic fraud contradict this notion and hint that tutors involved in academic misconduct may subscribe to the dumb jock narrative. Thus, they may not believe athletes are capable of completing the assigned work successfully (Smith & Willingham, 2019). Exploring the perceptions tutors have toward Division I athletes will enable academic support programs and athletic departments to make better decisions regarding tutor initiatives, therefore improving academic experience of athletes. It is important

to examine such perceptions at NCAA Division I institutions as academic-athletic misalignment is strongest at this level. Negative stereotypes of athletics and athletes emerge as academic values, like teaching, research, and service, conflict with athletic values, such as commercialization, revenue-generation, and winning (Clotfelter, 2019; Jayakumar & Comeaux, 2016). Critics and scholars of intercollegiate athletics have noted that athletic values tend to supersede academic objectives, resulting in issues of educational integrity in academic support areas (Gurney et al., 2017).

While this study does not look at causal relationships between perceptions and athlete outcomes, this research is significant because it provides the foundation for understanding tutors' perceptions of athletes and extends the literature regarding influencers on athletes' academic experience. As such, through the lens of stereotype threat, this study examined tutor perceptions of college athletes at three Division I institutions and the following research questions were addressed:

1. What perceptions do tutors have toward athletes in different contexts (i.e., academic, athletic, and social)?
2. Are tutors' perceptions of athletes in various situations related to one another?
3. Does tutor graduation status influence their perceptions of athletes?

## Theoretical Framework

### Stereotype Threat

Stereotypes are prevalent in athletics and academics, particularly at Division I institutions (Comeaux, 2011b, 2012; Smith & Martiny, 2018). Stereotypes are beliefs or assumptions that associate a group of people with particular characteristics or traits (Kassin et al., 2011) and their foundations are based on generalizations that link a group, such as athletes, to traits or outcomes, such as low grade point averages. Research on negative stereotypes toward athletes has shown that these attitudes hinder performance in achievement contexts (Smith & Martiny, 2018; Stone et al., 2012; Yopyk & Prentice, 2005). This negative influence of stereotypes on performance in achievement situations is stereotype threat (Steele & Aronson, 1995).

Stereotype threat is the perceived risk of confirming, through one's behaviors or outcomes, a negative stereotype about one's group or social identity (Steele & Aronson, 1995). The underpinning of this concept is that being viewed by others through a negative stereotype elicits anxiety and fear that disturbs one's performance, altering behavior and/or outcomes. Studies of stereotype threat began by focusing on African Americans and women in intellectual performance situations, such as cognitive evaluation (Steele & Aronson, 1995). This research demonstrated that when the negative stereotypes of these groups were made salient to the test-takers (i.e., being told that African Americans and women are not as intelligent as whites and males, respectively), they performed at significantly lower levels than control groups who did not experience the stereotype.

Additionally, other scholars have extended stereotype threat theory to explore how differentiating between the target and the source of a threat influence one's con-

firmation of a stereotype (Pennington et al., 2018; Shapiro & Neuberg, 2007). The target of a stereotype threat can be ascribed to an individual (e.g., an athlete as the target) or a social group (e.g., all athletes as the target). An athlete might perceive themselves as the target of stereotype threat when they see a task, such as an exam, as an indication of their personal ability. Alternatively, athletes may encounter social group stereotype threat when they see their collective performance as something that could reinforce a negative stereotype (Shapiro & Neuberg, 2007). Some student groups with higher levels of identity in certain categories (e.g., gender, race, sexual orientation) are more susceptible to social group stereotype threat. College athletes, who are known to generally have strong feelings of athlete identity (Lu et al., 2018), are likely susceptible to social group stereotype threat. Additionally, the source of a stereotype threat pertains to who is seen as evaluating one's performance and potentially ascribing the stereotype (Pennington et al., 2018). In previous studies, the source of stereotype threat has been faculty and non-athlete peers (Comeaux, 2011a, 2011b; Wininger & White, 2008, 2015). In this research the source is tutors.

More recently, stereotype threat theory has been applied to athletes' performances, particularly in academic environments (Dee, 2014; Riciputi & Erdal, 2017; Smith & Martiny, 2018; Stone et al., 2012; Yopyk & Prentice, 2005). Overall, this research has demonstrated that manipulating and increasing an athlete's athlete identity salience through stereotypical perceptions, heightened their vulnerability to experience stereotype threat, thus, negatively influencing academic performance. For example, Yopyk and Prentice (2005) provided athletes with pre-test questionnaires that primed either their athlete ("write about your last athletic performance"), student ("write about your last academic success"), or no identity ("write directions to get from your dorm to the library"), along with a self-esteem measure (p. 331). Following the questionnaires, participants had five minutes to complete a 10-question math exam. The authors found that athletes primed with their athlete identity had lower self-esteem ratings and performed at lower levels than those receiving the student priming (Yopyk & Prentice, 2005). Merely writing about their last athletic event prior to the exam was enough to succumb to stereotype threat and decrease performance. Those not primed with either identity had self-esteem ratings similar to the athlete-primed group, but scores matching those in the student-identity group. This aligns with the individual as the target of stereotype threat (Pennington et al., 2018).

Dee (2014) conducted a similar study using stereotype threat comparing athletes to a control group of non-athletes. Non-athletes answered a pre-test questionnaire pertaining to dining services on campus, while athletes were questioned about the sport they played and conflicts that arose from being an athlete. Post-questionnaire, the groups completed a 39-question exam in 30 minutes. Results of study indicated a negative and statistically significant difference between scores of the control group and athletes, with the latter group performing 8.1-9.4 points lower than the former.

Additionally, three other points of stereotype threat are important to understand when it comes to applying this theoretical framework to tutor perceptions of athletes. First, the more important the performance or situation is to the athlete, the more likely they are to succumb to stereotype threat (Riciputi & Erdal, 2017). For example, if an athlete experiences a negative stereotype from her tutor prior to a test that she

needs to pass to remain eligible, it is more likely that she will experience stereotype threat and perform poorly. Second, even subtle reminders of a negative stereotype are sufficient to weaken or sabotage outcomes (Yopyk & Prentice, 2005). A tutor's comment in passing, such as "you don't seem as motivated as my non-athlete students" is enough to derail an athlete's academic performance. Such commentary would likely prompt the athlete to perceive their athlete social group as the target (Pennington et al., 2018). Third, stereotype threat has both short and long-term effects on athletes' performance and identity development (Smith & Martiny, 2018). Thus, the influence of a negative stereotype from a tutor can be detrimental to the athlete immediately (i.e., poor grade on an assignment) or down the road (i.e., failure to cultivate interests outside of sports leading to confusion or sense of helplessness post-graduation).

As applied in this study, stereotype threat theory holds that tutor perceptions of athletes—as a source of stereotype threat—may influence academic outcomes. However, this study is strictly descriptive and could provide the groundwork for future studies examining more causal relationships between tutor perceptions and athlete outcomes. It is probable that if a tutor has positive perceptions of athletes, they are more likely to succeed academically, while negative attitudes toward athletes may lead them to succumb to the threat and not reach their full potential. In formulation of a theoretical perspective for studying tutor perceptions of athletes, stereotype threat theory offers an appropriate and beneficial lens through which to examine this phenomenon.

## Literature Review

The following literature review sheds light on three areas that aid in exploring the importance of tutor perceptions of athletes. The first section provides a concise review of the athlete identity literature to explain the importance of identity development in academic success or failure, and the influence perceptions have with this performance. Next, previous research on perceptions of athletes from faculty and non-athletes is discussed. The final section offers a brief history of academic support programs for athletes and the role of tutors in these programs.

### Athlete Identity Development

It is important to understand how athletes develop their intersecting and sometimes conflicting student and athlete identities because the ways in which these two identities develop and work in harmony/disharmony influence academic performance (Brewer & Petitpas, 2017; Lu et al., 2018). Student identity and athletic identity are comprised of the social, behavioral, and cognitive concomitants of identifying with the student role and/or athlete role (Brewer et al., 1993). Research shows that athletes experience moderately high friction between their two identities, often due to the disequilibrium between achieving success in the classroom and in their sport (Jayakumar & Comeaux, 2016; Lu et al., 2018). Despite being instructed by authority figures on the importance of balancing their student and athlete identities, Jayakumar and Comeaux (2016) found athletes perceived their environment, par-

ticularly athletics and institutional cultures, still emphasized athletic identity. Many scholars have noted that relationships with coaches and administrators, and the hyper-commercialization of Division I athletics, played a critical role in athletes' identity development and often result in an overemphasis of the athlete role (Clotfelter, 2019; Shropshire & Williams, 2017; Weight et al., 2020).

With this in mind, some athletes experience identity foreclosure, or the failure to engage in exploratory behavior regarding identity (Brewer & Petitpas, 2017). This foreclosure may be the result of institutional or athletic department culture. Negative perceptions of the culture—including racial exclusion, lack of respect from others, and stereotypes—hinder educational outcomes of athletes (Harry, 2021, 2023; Jayakumar & Comeaux, 2016; Rankin et al., 2016). Therefore, athletes experiencing a negative culture are more likely to foreclose their student identity and rely on their athletic identity (Beamon, 2012). Athletes who perceive climate as supportive are more likely to achieve positive educational outcomes (Gayles et al., 2018b; Rankin et al., 2016). Other important factors in student identity foreclosure include type of sport (i.e., revenue versus non-revenue generating), pressure from teammates and coaches, professional aspirations, and previous experiences with academic achievement (Lu et al., 2018; Rankin et al., 2016). Identity foreclosure is more prevalent for athletes in the revenue-generating sports of football and men's basketball, those with professional aspirations, and those with poor previous experiences with academic success (Shropshire & Williams, 2017).

Compared to those who are less focused on academics, athletes dedicated to academics tend to have higher academic identity salience (Beron & Piquero, 2016; Lu et al., 2018; Shropshire & Williams, 2017). Similarly, research shows that maintaining a high student identity is crucial for academic success (Lu et al., 2018; Simons & Van Rheenen, 2000). Thus, student identity development may be cyclical: student identity salience leads to academic success/focus and academic success/focus leads to heightened student identity salience.

The aforementioned research expands upon factors influencing the athlete experience and identity development, however, none of the studies examined the role that tutors might play in influencing culture or athletes' identity growth or foreclosure. Still, some of the most influential factors of identity conflict stem from institutional contexts, such as interactions with those outside of athletics (Comeaux & Harrison, 2011).

## **Previous Research on Perceptions of Athletes**

### ***Faculty Perceptions***

Many faculty believe that athletics are a distraction from the mission of higher education (Clotfelter, 2019; Gurney et al., 2017). As a result, this negative attitude toward athletics is frequently passed along to athletes and can foster the tenuous relationship between athletes and faculty (Comeaux, 2011a; Harry, 2021). Literature supports the notion that faculty are often a source of stereotype threat and hold more prejudicial views of athletes than their non-athlete counterparts (Comeaux, 2011a; Engstrom et al., 1995; Kuhn & Rubin, 2022). Using a modified version of

the situation attitude scale (SAS), Engstrom and colleagues (1995) explored faculty perceptions of non-athletes versus athletes given certain speculative situations (e.g., student or athlete receives an A in class). Faculty demonstrated feelings of suspicion, embarrassment, and disappointment when an athlete received an A in class, drove an expensive car, and received extra assistance through a tutorial program. Additionally, faculty showed higher levels of anger and disapproval when athletes were admitted with lower test scores and received a scholarship to attend college. Faculty held less negative perceptions across the same situations with non-athletes, indicating prejudice against athletes (Engstrom et al., 1995).

Comeaux (2011b) conducted a follow-up study to Engstrom et al.'s (1995) SAS research, but rather than focusing on athletes' characteristics, he focused on characteristics of faculty, such as gender, race, and field of study. Female faculty held more positive views of athletes in the SAS situations than their male counterparts (Comeaux, 2011b). Additionally, Black faculty members responded more positively to athletes who drove an expensive car, received an A in their class, had extra tutoring assistance, and were admitted with lower test scores. The attitudes from white and Asian/Pacific Islander faculty were less favorable toward athletes in these situations. Faculty in education were most positive toward athletes, while those in management, health sciences, and humanities held more negative perceptions (Comeaux, 2011b).

Athletes are aware of these negative perceptions and such awareness makes them susceptible to stereotype threat (Winger & White, 2008, 2015). For example, Stone and colleagues (2012) investigated stereotype threat and priming of male athletes using verbal assessment booklets. Participants were assigned booklets with covers designated for athletics participants, scholar-athletes, or general research participants (control group). When compared to the control group, athletes primed with their athlete identity and scholar-athlete identity generally performed worse on the assessment. Stereotype threat was particularly prominent and influential for Black athletes (Stone et al., 2012). Thus, the way faculty refer to athletes, such as "scholar-athletes" or just students, may influence their academic performance. Stone et al. (2012) also concluded that stereotype threat created a cognitive imbalance between student and athlete identities. Thus, the dumb jock stereotype threatened the academic potential of this sample of athletes by foreclosing their student identity (Stone et al., 2012). This study demonstrates the importance in further understanding stereotype threat, identity, and academic performance of college athletes.

When faculty hold high and positive standards for their students, they are more likely to succeed (Arum & Roksa, 2011; Kuhn & Rubin, 2022). However, when faculty hold lower standards for athletes' academic abilities, this population can struggle (Winger & White, 2015). In fact, Kuhn and Rubin (2022) found that their sample of faculty members perceived that athletes in football and men's basketball were more likely to cheat compared to other athletes. Additionally, the faculty noted that football players were more likely to rely on others—potentially non-athlete peers, teammates, advisors, or even tutors—to help them cheat (Kuhn & Rubin, 2022). Faculty perceptions of cheating likely contribute to athletes feeling they are a target of stereotype threat and may lead them to cheat and confirm the "dumb jock" stereotype



(Pennington et al., 2018; Steele & Aronson, 1995). So, while faculty are supposed to be positive agents for growth and academic achievement for all students (Comeaux & Harrison, 2011), some faculty interactions are detrimental to athletes' identity and educational outcomes. This study expands the literature on perceptions of athletes by applying the above research and principles to a new population: athletic tutors.

### ***Student Perceptions***

Just as faculty perceptions play a role in athletes' experiences, so too do interactions and perceptions from non-athlete students (Wininger & White, 2015). Thus, non-athlete peers are also a potential source for stereotype threat for college athletes. Using an adapted SAS, research by Engstrom and Sedlacek (1991) measured non-athlete students' attitudes toward athletes, and situations where prejudice was most likely to occur. Students held more negative views when athletes received A's in a class, were assigned to be their lab partners, and when athletes received tutoring and other academic services. Students held more positive views when other non-athletes received A's, were assigned to be their lab partners, or received additional academic support (Engstrom & Sedlacek, 1991).

Similarly, Wininger and White (2015) used surveys to explore how non-athletes perceived athletes' academic abilities and treatment from faculty. They also surveyed athletes to see how they understood faculty perceptions and treatment factors. Findings demonstrated that non-athletes held lower educational expectations of athlete peers and that they felt faculty also held athletes to lower expectations. However, athletes perceived that faculty held higher academic expectations of athletes, while non-athletes had lower academic expectations of them. Another study by Tucker and colleagues (2016) echoed similar findings: non-athletes concluded athletes do provide a certain public image for their school, but they also noted that athletes were undeservingly privileged and lacked academic motivation.

The aforementioned studies offer foundational evidence that prejudicial views of athletes may be prevalent amongst non-athlete students (Engstrom & Sedlacek, 1991; Knapp et al., 2001; Tucker et al., 2016; Wininger & White, 2015). However, more research is needed to further unpack the relationship between non-athlete perceptions and athletes. This study expands upon this as some tutors for athletes are also peers, an experience that may influence attitudes.

As the literature demonstrates, athletes encounter negative perceptions from their student peers and faculty. These perceptions influence their identity development, and many athletes suffer from stereotype threat and can succumb to the dumb jock narrative (Stone et al., 2012). When this occurs, athletes' academic self-actualization is limited, impacting academic outcomes. However, little is understood about the ways in which tutor perceptions of athletes may be influential in their collegiate experiences.

### **The Athlete-Tutor Relationship**

In 1991, to lessen the disconnect between academics and athletics and improve athletes' educational opportunities, the NCAA mandated that institutions competing

in Division I athletics establish academic support programs, including tutoring, for athletes (Meyer, 2005). The objective behind the mandate was to ensure athletes were given proper resources to succeed academically. With the adoption of athlete support services, institutions had to submit academic eligibility, retention, and graduation rates for their athletes to the NCAA (Banbel & Chen, 2014). Additionally, the NCAA initiated punitive actions for schools that did not meet minimum thresholds in the previous categories (Banbel & Chen, 2014). The potential for negative repercussions for athlete academic under-performance led to increased budgets for academic support. However, this also resulted in higher stakes and the need for athletes to remain eligible in the classroom in order to compete on the field. Some scholars believe this increased pressure has resulted in more cases of academic misconduct (Ridpath, 2010; Smith & Willingham, 2019). Indeed, recent cases of academic deviance have brought negative attention to these once positive programs, and have caused apprehensions, primarily regarding the education of athletes in revenue-generating sports (Kuhn & Rubin, 2022; Ridpath, 2010). Many researchers, media outlets, and former athletes are voicing concerns about the lack of education athletes receive in college (Gurney et al., 2017; Smith & Willingham, 2019).

In a survey completed by Division I athletes, participants expressed preferences of discussing academics with a faculty or academic advisor rather than their athletic advisor (Huml et al., 2014). Additionally, other athletes noted a lack of resources available to them through the academic support provided through their athletic department and the isolating effects of having athlete-only academic advising. On the other hand, research by Harry (2021) using departing athletes' exit interviews and surveys noted that 90% of athletes rated their academic advising and resources as "good" or "excellent."

Regardless of whether athletes express satisfaction/dissatisfaction with support programs, tutors play an important role in these systems and help this population succeed in the classroom. Some athletes receive special admittance to their universities, based on their athletic talent, despite having lower test scores or grade point averages (Huml et al., 2014; Ridpath, 2010). However, it is the responsibility of the institution to admit students who have a reasonable chance of academic success including graduating (Clotfelter, 2019). If athletes are struggling, it is also the responsibility of the institution to assist them in improving their academic success. This is where academic support services come in.

Athletes often require their own support services because the challenges they face are separate from those faced by their non-athlete peers (Harry, 2021, 2023; Jolly, 2008; Rubin & Moses, 2017). For example, while tutoring and support services are usually available to all students on campuses, the hours these services are available and location are often not conducive to athletes' practice, competition, and travel schedules. Thus, support systems that are available for them need to accommodate their hectic and unusual schedules (Rubin & Moses, 2017). An essential part of this support system are the tutorial services (Banbel & Chen, 2014; Ridpath, 2010; Rubin & Moses, 2017).

Tutors for athletes are trained by the academic support staff on best practices, the life of a college athlete, and institution and NCAA policies and compliance regulations (Banbel & Chen, 2014). Tutors usually meet certain requirements, dictated by the institution or department. Some institutions require tutors to be graduate students or out of college, while others take undergraduate peer tutors. Similarly, some institutions require tutors to maintain a certain grade in the subject they wish tutor or require a recommendation letter (Banbel & Chen, 2014). Usually an academic counselor or tutor coordinator oversees the tutor enterprise to ensure compliance with institutional and NCAA policies.

Tutoring for athletes tends to be limited to the academic support center or building where tutors have access to computers, white boards, and other resources to enhance athletes' learning. Tutor sessions are free for the athletes and are scheduled by the athlete's academic counselor or tutor coordinator. These sessions tend to last about one hour and can be one-on-one, group sessions, or lecture style. Tutoring has been demonstrated as an effective avenue to improve athletes' academic performance (Gill & Farrington, 2014).

While research demonstrates the importance and effectiveness of tutoring practices (Cooper, 2010; Laskey & Hetzel, 2011), little is known about the perceptions tutors have toward athletes. As previous studies have shown, negative perceptions from those outside of athletics influence athletes' identity development and academic outcomes. Thus, it may be increasingly important that tutors hold positive, strengths-based, or neutral perceptions of the athletes they are hired to help.

## Method

### Sites, Participants, and Collection

Scholars and critics note that much of the negative attention and academic issues stem from institutions with big-time athletics programs within Division I of the NCAA (Clotfelter, 2019; Gurney et al., 2017; Huml et al., 2014; Smith & Willingham, 2019). These schools and their sports programs are perceived to be the most athletically elite due to large budgets and revenue streams and overall media publicity and commercialization (Clotfelter, 2019). As a result of the above factors, sport and education on these campuses are often described as divided and academics are perceived to take a back seat to athletics (Hirko & Sweitzer, 2015). Thus, these institutions offer an important context to draw from to better understand tutors' perceptions of athletes.

With this in mind, this study used purposeful, non-random sampling to select the three institutions from which tutors were selected. These institutions, two private and one public, are considered academically and athletically elite institutions based on *U.S. News and World Report* and Learfield Directors' Cup rankings (Clotfelter, 2019). All three institutions were ranked in the top 50 of both the Best National University rankings from the *U.S. News and World Report* and the Learfield Directors' Cup standings. Because these institutions are considered both academically and athletically prestigious, further understanding the perceptions of athletes within these

environments is important given that much of the literature highlights the struggles of many athletes to find academic success (Gurney et al., 2017; Lu et al., 2018).

Tutor coordinator emails for the three schools were gathered from online athletics staff directories and coordinators received an email asking if their department would participate in this study. Two athletics tutor coordinators provided the email addresses for their tutors directly to the researchers, while the third opted to send the survey themselves to further maintain the privacy of the tutors in their support program. While only three athletic programs participated, the response rate for tutors was high: Of the 140 potential respondents, 67 participated, generating a 48% response rate. Demographic data revealed that most athletic tutors who participated identified as white women with less than three years of working with college athletes ( $n = 26, 39\%$ ), which limited our ability to compare groups based on race and/or gender. Additionally, the tutors were almost evenly split with those who were current undergraduate peer tutors at one of the three institutions ( $n = 33, 49\%$ ) and those who had completed undergraduate coursework either at one of the institutions or elsewhere ( $n = 34, 51\%$ ).

Tutors were split into the aforementioned two groups as some academic support programs require tutors for athletes to be graduate(d), while others do not. The thought process behind this delineation is often that graduate(d) tutors, compared to undergraduate peer tutors, are potentially better qualified in the subject matter, more mature, and able to distance themselves from the athletes because they are older (Banbel & Chen, 2014; Smith & Willingham, 2019). Thus, understanding if there is potential to further differentiate these two sets of tutors based on perceptions of athletes could offer valuable information for athletic departments and their academic support programs.

More demographic data is in Table 1.

Finally this sample of tutors worked with athletes across a host of NCAA sponsored sports and most respondents tutored athletes from multiple teams. Tutors worked with athletes from the following teams the most: football ( $n = 39, 58\%$ ), baseball ( $n = 22, 33\%$ ), men's basketball ( $n = 20, 30\%$ ), and men's cross country and track and field ( $n = 20, 30\%$ ). Tutors working more with athletes on men's teams than women's teams aligns with previous research noting athletes on women's teams may need less academic support due to stronger student identity salience (Lu et al., 2018). Additionally, the aforementioned men's teams tend to have athletes from historically disadvantaged communities in which educational resources are less available; thus, they may need enhanced academic support in college (Coakley, 2021; Gurney et al., 2017).

## **Instrument**

Sedlacek and Brooks (1967) created an original 10-item Situational Attitude Scale (SAS) to examine racial attitudes of whites toward African Americans. Later, Engstrom and colleagues (1995) modified this 10-item Situational Attitude Scale (SAS) to examine faculty prejudices toward athletes which was also later adjusted by Comeaux (2011). Given previous scholars' work in modifying the SAS, we did not

**Table 1**  
*Demographic Information*

Gender Identification	<i>n</i>	%
Female	47	70
Male	19	28
Prefer not to answer	1	2
Racial Identification		
White	41	61
Mixed Race	9	13.5
Black/African American	7	10.5
Asian	5	7.5
Hispanic/Latinx	5	7.5
Years of Experience		
0-1 years	44	65.5
2-3 years	16	24
4-5 years	5	7.5
6+ years	2	3

request permission to adjust the scale given its adaptability in previous studies. For the purpose of this study, the SAS for athletes was adapted to reflect tutor perceptions of athletes using a 10-item instrument. The situations offered hypothetical scenarios between a tutor and athlete (see Figure 1), and responses to these situations served as tutors' perception indicators. The new instrument employed six of Engstrom et al.'s (1995) original situations (items 1, 2, 3, 4, 5, and 6) and one situation from a modified SAS from Comeaux's (2011b) more recent research on faculty attitudes toward athletes (situation 9). The remaining three situations were created by the researchers to more specifically address tutors' perceptions of athletes (7, 8, and 10).

The 10 situations were followed by 10 semantic differential scales that measured the participants' perceptions of the athlete in that particular scenario. The word pairings on the semantic scales were the same pairings as those previously created by Engstrom et al. (1995) and used by Comeaux (2011b). Consistent with prior usage of the modified SAS for athletes, the differential scales will produce scores between 10 and 50, with 10 being the most negative and 50 the most positive.

Successful implementation of the SAS in previous studies indicates this is a reliable measure to examine perceptions of athletes (Comeaux, 2011a, 2011b; Engstrom & Sedlacek, 1991; Engstrom et al., 1995). Reliability analysis was conducted on each situation separately, using the 10 semantic scales used to respond to each question. Reliability coefficients (Cronbach's alpha) ranged from .73 to .95. The final questions contained demographic items, such as race, gender identification, and

years tutoring athletes. Demographic questions were placed last to limit priming participants prior to answering the situational or experiential questions. These survey items, in conjunction with the SAS scenarios, offer a unique avenue to examine if tutors may hold stereotypical views of athletes.

**Figure 1**

1	The university announces the creation of an expanded advising and tutoring program for athletes.
2	An athlete you tutor was admitted with College Board scores significantly lower than those of the general student population.
3	An athlete you tutor is featured in the school newspaper for an out-of-class achievement.
4	An athlete you tutor received a 2.2 GPA last semester.
5	An athlete you tutor decides to pursue their major at a slower pace.
6	An athlete you tutor is caught cheating.
7	An athlete receives an A in a class you are tutoring them in.
8	An athlete fails a course in which you are tutoring them in.
9	An athlete you tutor receives a full scholarship to attend this university.
10	An athlete you tutor is a member of a national championship team.

### Data Analyses

From a sample of tutors for athletes from three athletic academic support programs, inferences about tutors' perceptions of athletes can be made. Correlational analysis and independent t-tests were used to understand group differences based on tutor graduation status (peer/student tutors or graduate(d) tutors). Correlations were computed between the favorability scores for the 10 situations both for the overall sample and the groups individually. Correlation coefficients were tested using a Fisher's Z test to determine if there were significant group differences, which deviates from previous research done with similar data (Comeaux, 2011b). T-tests demonstrated differences (or lack thereof) between the groups regarding their perceptions of each situation. These analyses assist in answering RQ1 and RQ2. Such statistical analyses are appropriate as these tests were performed by researchers who conducted previous studies exploring faculty perceptions of athletes using similar SAS (Comeaux, 2011a, 2011b; Engstrom et al., 1995).

## Results

### Correlations

Table 2 provides the means, standard deviations, and the correlations of the favorability scores. The diagonal provides reliability coefficients for each situation, for both the peer and graduate(d) tutor groups. The lower triangle of the table and horizontal list of means and standard deviations represent the results for the peer tutor group. The upper triangle of the table and vertical list of means and standard

**Table 2**  
*Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
Situation 1	4.15	0.6	(.92, .94)	0.08	.46*	-0.31	-0.24	0.08	0.33	-0.14	0.34	0.14
Situation 2	2.94	0.45	.40*	(.83, .88)	0.27	0.33	0.03	-0.06	0.12	0.08	.38*	0.09
Situation 3	4.31	0.49	.43*	0.34	(.85, .88)	-0.04	0.35	-0.34	.65***	0.05	.60***	.60***
Situation 4	2.56	0.47	0.25	.46***	0.18	(.77, .82)	0.25	0.27	0.01	.52**	.40*	0.01
Situation 5	3.7	0.62	0.35	-0.01	0.21	0.18	(.88, .90)	-0.39	0.28	.42*	0.11	0.23
Situation 6	1.92	0.45	0.14	0.12	0.04	.47***	0.10	(.78, .83)	-0.32	0.27	-0.08	-0.31
Situation 7	4.58	0.41	0.33	0.12	.56***	0.08	0.22	-0.21	(.84, .81)	-0.03	.50***	.44*
Situation 8	2.68	0.34	.40*	0.26	0.30	.63***	0.22	.46*	0.22	(.76, .81)	0.08	-0.09
Situation 9	4.14	0.72	.66***	.61***	.56**	0.27	0.30	-0.09	.54**	0.23	(.94, .95)	0.43
Situation 10	3.93	0.41	0.30	0.22	.56**	0.04	0.30	-.45*	.52**	-0.05	.54**	(.91, .91)
<i>M</i>			4.22	3.1	4.4	2.53	3.6	1.91	4.65	2.89	4.14	4.08
<i>SD</i>			0.66	0.68	0.46	0.44	0.6	0.4	0.34	0.56	0.75	0.25

deviations represent the results for the graduate(d) tutor group.

There were various significant correlations for both the peer and graduate(d) tutors. For peer tutors, there were moderate positive correlations between situation one and situations two,  $r(29) = .40, p < .05$ , situation three,  $r(29) = .43, p < .05$ , and situation eight,  $r = .40, p < .05$ . There was a stronger positive correlation between situation one and situation nine,  $r = .66, p < .001$ . Situation two was moderately positively correlated to situation four,  $r(29) = .46, p < .01$ , though more strongly correlated to situation nine,  $r(29) = .61, p < .001$ . Situation three was moderately, positively correlated to situations seven, nine, and 10, all  $r(29) = .56, p < .01$ . Situation four was moderately correlated with situation six,  $r(29) = .47, p < .01$ , while more strongly related to situation eight,  $r(29) = .63, p < .001$ . Situation six is moderately, positively related to eight,  $r(29) = .46, p < .05$ , but moderately, negatively related to situation 10,  $r(29) = -.45, p < .05$ . Situation seven is positively related to both situations nine and 10,  $r(29) = .52$  and  $.54, p < .01$ , respectively. Finally, situations nine and 10 are significantly correlated,  $r(29) = .54, p < .01$ .

The relationships between situations were not as significant in the graduate(d) group. Situation one is moderately related to situation three,  $r(29) = .46, p < .05$ . Similarly, situation two is moderately, positively correlated with situation nine,  $r(29) = .38, p < .05$ . Situation three is more strongly related to situations seven,  $r(29) = .65, p < .001$ , and situations nine and 10, both  $r(29) = .60, p < .001$ . Situation four is related to both situations eight,  $r(29) = .52, p < .01$  and nine,  $r(29) = .40, p < .05$ . Situation five is significantly correlated with situation eight,  $r(29) = .42, p < .05$ . Finally, situation seven is significantly correlated to both situations nine,  $r(29) = .50, p < .01$  and 10,  $r(29) = .44, p < .05$ . All significant correlations were positive in nature. In other words, when tutors were more favorable about one situation they were also more favorable about the other situation. This could indicate that overall, tutors felt positively toward college athletes, for both their academic and out-of-classroom achievements.

### Group Comparisons

Results of a Fisher's Z test, comparing the correlations between groups is in Table 3 below.

There were significant differences in the correlations between situations one and four,  $z = -2.15, p < .05$ , five,  $z = -2.28, p < .05$ , and eight,  $z = -2.11, p < .05$ . Additionally, there was a significant difference in the correlations between situations five and six,  $z = -1.92, p < .05$ . In these cases, the relationship for peer tutors was positive, while the relationships for the graduate(d) tutors was negative.



**Table 3***Fisher's Z Tests*

Variable	1	2	3	4	5	6	7	8	9
Situation 1									
Situation 2	-1.28								
Situation 3	0.14	-0.29							
Situation 4	-2.15*	-0.58	-0.83						
Situation 5	-2.28*	0.15	0.57	0.28					
Situation 6	-0.23	-0.68	-1.48	-0.87	-1.92*				
Situation 7	0	0	0.53	-0.26	0.24	-0.44			
Situation 8	-2.11*	-0.70	-0.97	-0.62	0.84	-0.82	-0.95		
Situation 9	1.64	-1.16	0.23	0.55	-0.74	0.04	-0.20	-0.58	
Situation 10	0.63	-0.50	0.23	-0.11	-0.28	0.61	-0.39	-0.15	-0.54

Table 4 displays the results of the t-tests, along with the Cohen's d, for the mean comparisons of each situation between peer and graduate(d) tutors. There were no statistically significant differences in favorability of the situations between the two groups. Even so, there were two situations that showed an interesting effect size. Both situations eight and 10 ( $d = .45$ ) showed a rather large effect, with the peer tutors having higher favorability scores for both situations.

**Table 4***Mean Comparisons*

Variable	<i>t</i>	Cohen's d
Situation 1	0.46	0.12
Situation 2	1.10	0.28
Situation 3	0.77	0.20
Situation 4	-0.28	0.07
Situation 5	0.65	0.16
Situation 6	-0.06	0.02
Situation 7	0.81	0.20
Situation 8	1.76	0.45
Situation 9	-0.03	0.01
Situation 10	1.78	0.45

## Discussion and Recommendations for Practice

Results from this study indicate that tutors, particularly graduate(d) tutors, generally held the athletes they worked with to high academic standards. These results counter previous research on stakeholders' negative perceptions of college athletes (Comeaux, 2011; Wininger & White, 2008). Thus, it appears that tutors may not be as strong of a source of stereotype threat for the athletes compared to faculty and non-athlete peers (Shapiro & Neuberg, 2007). As such, continued positive interactions with tutors could work to further alleviate experiences with and implications of stereotype threat. We further hypothesize two key reasons for these findings that challenge longstanding negative academic stereotypes of college athletes.

First, the fields of higher education and sport management have experienced a shift away from deficit lenses of athletes toward perspectives that center athletes' strengths (Gayles et al., 2018a; Harry, 2023). At the time of the previous scholarship noting more biased and negative perceptions of athletes from faculty and non-athletes, deficit understandings of college athletes were arguably more prevalent (Comeaux, 2011a, 2011b; Engstrom & Sedlacek, 1991; Engstrom et al., 1995; Knapp et al., 2001; Wininger & White, 2008). More recently, scholars have come forward with expanded models and understandings of college athletes, their forms of capital, and how they find success despite various obstacles (Coakley, 2021; Gayles et al., 2018b; Harry, 2023). Second, such findings of more positive perceptions and standards toward athletes may be the result of the organizational culture from which this sample of tutors were drawn, as the three schools are seen as academically prestigious and rigorous. Thus, tutors may have felt athletes should also live up to those heightened educational and cultural expectations. Indeed, such feelings may have contributed to less stereotypes placed on athletes by this sample of tutors, furthering the notion that these tutors may not be a strong source of stereotype threat.

The tutors surveyed, in the context of Situation 1—expanding the tutoring program—were particularly averse to athletes underperforming. In other words, if athletes are receiving additional support from an expanded tutoring program, the tutors held more negative perceptions of athletes in hypothetical situations like having a 2.2 GPA, pursuing a major at a slower pace, being caught cheating, and failing a course. However, with the expansion of the tutoring program, tutors displayed more positive attitudes toward athletes when they were featured in the school newspaper, received an A in a course, and won a national championship. These are rational responses as tutors likely want to see that their tutoring supports athletes, rather than athletes not taking advantage of the support and/or underachieving in academics (Kuhn & Rubin, 2022).

Additionally, the correlational tests discovered relationships between the hypothetical situations and peer and graduate(d) tutors that are also worth unpacking more. For example, peer tutors who were favorable toward admitting athletes with lower test scores and disapproving of an athlete failing a course, were more likely to support the expansion of the tutoring program. Thus, tutors may have understood academic underperformance as an indicator or need for the tutoring expansion to

better support athletes' education, rather than an undeserved privilege as previous scholarship indicated (Tucker et al., 2016). Indeed, such perceptions are part of the reason why academic support programs for athletes are required by the NCAA for Division I programs and justified by athletics departments (Harry, 2021; Rubin & Moses, 2017). However, one of the strongest situational relationships emerged between situations one and nine: The more accepting peer tutors were of an athlete's receiving of a full scholarship, the more in favor they were toward expansion of the tutoring program. The institutions that participated in this research, were academically rigorous and also costly to attend; therefore, peer tutors might believe that if college athletes are getting a full scholarship to attend the institution, they should be committed to their academics as well as their athletic endeavors.

Additionally, the favorable hypothetical situations of athlete academic or athletic success were unsurprisingly related to one another for the peer and graduate(d) tutors (three, seven, nine, and 10). For example, when a tutored athlete was featured in the school newspaper, tutors noted this as positive. In this context, they were also likely to see them receiving a scholarship to the institution as a positive, too. Similarly, when an athlete earned an A in the class they were receiving tutoring for, peer and graduate(d) tutors were in favor of athletes having a full scholarship to the school and winning a national championship. Tutors spend a lot of time with athletes, so it is rational they might feel personally successful when the athletes with whom they work reach certain achievements. While this research was not a causal exploration, the athletes this sample of tutors worked with may have felt less like targets of stereotype threat—as individuals or a social group—based on the positive and high standards of the tutors (Pennington et al., 2018).

However, peer tutors and graduate(d) tutors were strongly against athletes' entering with lower standardized test scores (situation two) while receiving a full scholarship (situation nine). This is not unlike findings from previous research noting the skepticism of faculty when it comes to special admissions of athletes (Comeaux, 2011a, 2011b; Olson, 2019). There was also a moderately significant and negative relationship regarding peer tutors' attitudes toward athletes cheating and winning a national championship. This also appears rational as society generally prefers competitive equity in sports, and cheating, and winning as a result, counters those notions of fairness. Such negative perceptions, compared to the more positive ones described above, offer a context in which tutors could become more of a source of stereotype threat for athletes they support.

Statistical analyses demonstrated that the relationships between perceptions of the hypothetical situations were different for graduate(d) tutors than for peer tutors. This may be due to the fact that they are slightly more removed from the institution compared to the undergraduate peer tutors who are still enrolled and perhaps more immersed in athletics and athletics success of the institution. Generally, graduate(d) tutors were less favorable toward situations in which athletes had lower academic outcomes, such as receiving a 2.2 GPA and failing a course. In general, athlete peer tutors were not as averse to lower academic outcomes for athletes as graduate(d) tutors, but still held moderately high expectations for athletes they supported. Such

findings could emerge for a host of reasons. Peer tutors may be more willing, as they are currently in school and potentially care more about their athletics' teams success, to have athletes sacrifice classroom performance for on-the-field achievements (Knapp et al., 2001; Tucker et al., 2016). Similarly, the graduate(d) tutors may not necessarily be alums from the school in which the athletes they tutor are enrolled, thus, they may be more focused on athletes' academic rather than athletic goals.

Still, peer tutors held athletes to moderately strong expectations for success as a result of an expanded tutoring program, which likely decreased the stereotype threat of peer tutors toward athletes. This challenges some of the findings from previous scholarship noting that non-athlete peers perceive athletes to be "dumb jocks" and unmotivated academically (Knapp et al., 2001; Tucker et al., 2016; Wininger & White, 2015). One reason for this could be that as peer tutors engage with athletes in various settings across campus and in the more personal space of tutoring, they may be more lenient or understanding of the struggles of athletes as they balance their student, athlete, and social roles (Harry, 2023; Lu et al., 2018; Steele & Aronson, 1995). Indeed, Kuhn and Rubin (2022) contended the more access and familiarity faculty have with athletes, the less likely they are to maintain negative perceptions and lower standards for this population. It is likely that similar findings emerged here as peer tutors had more accessibility and familiarity with the athletes they worked with. Graduate(d) tutors would likely not have these experiences with athletes across campus, and so, may be less understanding or knowledgeable about the pressures on athletes' balancing acts between sport and education.

Regardless, it behooves athletics departments that have the resources to recruit and hire tutors who are graduate(d) or are not athletes' current peers. This separation in age, experience, and involvement in sports teams between graduate(d) tutors and athletes may provide part of the context for higher academic standards for athletes. Indeed, previous research demonstrated that high expectations of athletes from faculty often results in more academic success for students and athletes (Arum & Roksa, 2011; Kuhn & Rubin, 2022). Thus, it is likely that similarly high expectations from others, like tutors, will foster academic achievement and academic identity as well (Smith & Martiny, 2018). High standards may lead to upholding academic integrity and ethics as well (Smith & Willingham, 2019).

For institutions who do not have the resources for only graduate(d) tutors, educating peer tutors on ethics, accountability, and departmental and NCAA policies is especially critical to prevent lax standards and expectations for the athlete-tutor relationship and academic outcomes (Cooper, 2010). This is particularly important as stereotype threat research notes high standards and positive perceptions better supports short and long-term development and achievement (Smith & Martiny, 2018; Steele & Aronson, 1995). Still, it appears that a significant benefit of having peer tutors, at least for this sample from these three institutions, is a breakdown in negative perceptions and stereotypes toward athletes.

Overall, administrators working in academic support areas for athletes should continue to promote tutors' strengths-based and positive attitudes toward athletes. In promoting such perceptions, providing training on the influence of stereotype threat

on athletes and ways tutors can challenge this force, may be beneficial. Positive and more nuanced perspectives—such as those that can emerge from such trainings—may help establish a culture that works against negative stereotypes of athletes and decreases the potential for them to encounter stereotype threat and succumb to the “dumb jock” narrative (Harry, 2023; Stone et al., 2012). Additionally, tutors’ positive lenses may further encourage the development of athletes’ student identities and roles, even as they engage in difficult academic material. Indeed, when athletes encounter negative feedback, such as degrading comments from a faculty member or a tutor, they are more likely to feel they are the target of stereotype threat (Pennington et al., 2018). In this way, athletes will shy away from the student role and are in danger of student role foreclosure (Brewer & Petitpas, 2017; Dee, 2014; Yopyk & Prentice, 2005). However, when they receive realistic and positive feedback, they are more likely to engage with difficult material and aspire for understanding and success (Harry, 2023; Lu et al., 2018). Thus, it is likely that when athletes do not see tutors as a source of stereotype threat, as was indicated in this study, they likely also do not feel targeted for stereotype threat and can achieve greater academic success.

### **Limitations**

There are a few limitations associated with this research. This smaller sample only included tutors from three athletic departments in the Power Five conferences. Thus, generalizations about the entire population of tutors for athletes including those from other departments in the Power Five, Football Championship Subdivision, institutions without football, and Divisions II or III should be kept to a minimum. Similarly, this sample was likely smaller due to the history of tensions between academics and athletics at Division I schools. For example, practitioners in athletics are cautious because of previous athletic-academic scandals; thus, they may be skeptical of participation in research. Indeed, even the administrators we communicated with were somewhat reticent to participate and expressed a desire to full anonymity and protection for their tutors. A final limitation is that this was not a causal study. While previous literature shows that negative stereotypes adversely influence athletes’ and non-athletes’ outcomes (Steele, 1997), the results of this study do not suggest that tutor perceptions affect athlete academic outcomes. Future research should explore this connection in more depth.

### **Conclusion**

Regardless of the aforementioned limitations, this study expanded upon previous scholarship concerning perceptions and stereotypes of Division I college athletes by exploring tutors’ attitudes toward this student group (Comeaux, 2011a, 2011b; Engstrom & Sedlacek, 1991; Engstrom et al., 1995; Wininger & White, 2015). Results from the SAS survey indicated graduate(d) and undergraduate tutors held generally positive perceptions of the athletes they worked with, regardless of the academic, athletic, or social context. Still, compared to the undergraduate tutors, graduate(d) tutors in this sample demonstrated higher academic standards of athletes. Our analyses also demonstrated that the more positive perceptions tutors held in one situation,

the more likely they were to hold a positive perception in another SAS scenario. The results of this study are significant as they challenge much of the previous research noting negative attitudes toward college athletes from other interactive groups (i.e., faculty and non-athlete peers). Practitioners in academic support for athletes can use these findings when organizing their tutoring programs and educating tutors on how to not “threaten” athletes they work with. Rather, tutors can be seen as a source of empowerment as they assist athletes in taking on their academic duties. Finally, these findings are significant as they hopefully demonstrate higher education’s shift away from the “dumb jock” stereotype and toward a more uplifting and strengths-based understanding of athletes and their academic potential.

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# The Upward Mobility Potential in U.S. Intercollegiate Athletics: A Critical Examination of NCAA Division I College Baseball Players' Hometown Demographics

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American meritocratic ideology positions sports as level playing fields in which individuals, regardless of their background, can ascend with the right combination of ability and effort. Yet few studies challenge the sport-meritocracy ideology by empirically examining the socioeconomic backgrounds of college athletes (Allison et al., 2018). Studies of youth sport participation show that community-level income shapes athletic opportunities suggesting class is a strong barrier to physical activity (NWLC, 2015; Sabo & Veliz, 2008; Tompsett & Knoester, 2022). Class inequalities are exacerbated in sports with robust privatized youth systems like baseball (Klein et al., 2020; Post et al., 2022). Utilizing a unique quantitative dataset of NCAA Division I college baseball players ( $n = 19,987$ ), we consider the extent to which a community's socioeconomic levels and racial demographics shape the chances of someone becoming a college baseball player. We compare college baseball players' hometown income levels and racial demographics to their home state and to U.S. averages. We also consider differences across competitive divisions (i.e., Non-Power 5 vs. Power 5). Findings show that college baseball players—regardless of conference affiliation—commonly come from affluent, nonminority cities, with high education and income levels, indicating that socioeconomic status is a significant predictor of college athletic participation.

*Keywords:* College sports access; Youth sport opportunities; Meritocracy; Class reproduction; Baseball; Athlete demographics



## Introduction

American meritocracy espouses that society is hierarchically organized by earned achievement, not inherent social status. Meritocracy is substantiated by mobility institutions, or places for individuals to learn, develop, and test their abilities (Coakley, 2015). These institutions often have winnowing mechanisms and gatekeepers to identify and select which individuals transcend to subsequent levels (Larreau, 2011). Sports and education are prominent mobility institutions for people to gain the skills to better their economic standing (Coakley, 2015). Sports, in particular, are presented as free and accessible institutions that provide outsized chances for those from low-income backgrounds to better their life outcomes (Eitzen, 2016; Hawkins, 2013).

U.S. college sports are commonly believed to provide upward mobility opportunities (Hextrum, 2021). In part, the sport-meritocracy ideology resonates in intercollegiate athletics because higher education has different educational and admission standards for talented athletes (Hextrum, 2022; 2023). But whether these irregular admission processes offer upward mobility chances remains underexplored by sport researchers (see Allison et al., 2018; Hextrum, 2021; Macaulay et al., 2019). Critical scholars of sport and meritocracy most often examine the racially exploitative labor conditions undergirding men's football and basketball (e.g., Beamon, 2008; Eitzen, 2016; Hawkins, 2013; Sack & Staurowsky, 1998). Macaulay and colleagues (2019) argue this research does not connect the inequalities across the high school and college planes. Rather, researchers focus on youth and high school sport *or* college sport inequalities. Furthermore, Hextrum (2021) argues researchers underexplore class and race inequities in sports beyond men's football and basketball.

This research gap is striking as studies of youth sport participation show that family socioeconomic status (SES) and community-level income shape athletic opportunities suggesting class is a strong barrier to physical activity (NWLC, 2015; Sabo & Veliz, 2008; Tompsett & Knoester, 2022). Youth sport researchers have also tracked how higher-SES families and communities have contributed to the rise of privatized or *pay-to-play* youth systems offering superior, specialized, and year-round training (Project Play, 2022; Merkel, 2013; Zarrett & Veliz, 2020). Since 2010, the U.S. youth sport industry increased 55%, now comprising a \$15.3 billion industry (Gregory, 2017). This industry is supported by affluent families who invest in their children's athletic futures (Hextrum, 2021).

Baseball was one of the first sports to develop privatized, competitive youth leagues (Edgerton, 2009; Ogden & Warneke, 2010). Starting in the 1980s, cities began defunding their little league baseball teams under the premise that private baseball clubs could serve community needs (Ogden, 2000). This policy disproportionately impacted lower-income and racially minoritized areas that could not attract or fund private clubs (Ogden & Hilt, 2003). Surveying the impact of these policies, Ogden and Hilt (2003) found that private baseball teams are concentrated in majority-White suburbs and are more likely to place players on college teams (Ogden & Hilt, 2003). Private baseball clubs also offer a different athletic experience than

public teams. For instance, Ogden and Hilt (2003) found that White suburban areas play 50-150 games per year whereas public baseball teams in majority-racially diverse communities play 10-15 games per year (Ogden & Hilt, 2003). The availability and quality of sport opportunities impacts participation rates (Project Play, 2022). A survey of today's youth baseball players found that 62% came from families earning over \$100,000 a year, 67% were White, 72% had a least one parent with a bachelor's degree, and 33% played baseball year-round and had a private coach (Post et al., 2022). Such trends suggest that baseball players are more likely to come from whiter, more educated, and wealthier communities.

Despite baseball's status as a prominent club sport, researchers have yet to examine the backgrounds of college baseball players. Several quantitative researchers have examined the community characteristics of college and professional men's football and basketball players' hometowns identifying that athletes from higher socioeconomic status (SES) areas have greater opportunities to ascend (Allison et al., 2018; Dubrow & Adams, 2012; Macaulay et al., 2019). Tompsett and Knoester (2022) followed cohorts of high school athletes to college and determined that SES was the biggest predictor of intercollegiate athletic participation. These initial studies critiquing meritocracy in college sports have called for additional, more nuanced, and more expansive research into the extent to which SES shapes athletic opportunities (Allison et al., 2018; Dubrow & Adams, 2012; Hextrum, 2020a; Macaulay et al., 2019; Tompsett & Knoester, 2022).

Another reason for studying baseball is it remains one of the more popular sports in U.S. high schools and colleges. Today, baseball ( $n = 482,740$ ) is the fourth most played boys' high school sport behind football ( $n = 1,037,234$ ), track ( $n = 605,354$ ), and basketball ( $n = 540,769$ ) (NFHS, 2022). Becoming a high school athlete often requires years of specialized youth training, especially in popular sports (Macaulay et al., 2019; Tompsett & Knoester, 2022). Opportunities to play baseball in college significantly decline with just over 36,000 roster spots or about a 7% chance of ascending to the next level (NCAA, 2015). With entrenched youth-level class and race barriers in one of America's most popular sports, socially advantaged players may have outsized chances in earning a spot on a college baseball team.

The current demographics of college baseball players also suggest race and class barriers in the sport. Currently, college baseball is one of the whitest sports, with 76% White players and only 6% Black players (NCAA, 2022). While the NCAA does not provide SES information about athletes, a recent study into the number of first-generation college players—a well-vetted proxy for class (Pascarella et al., 2004; Stephens et al., 2014)—indicated baseball may draw from wealthier communities (Farrey & Schreiber, 2017). Baseball tied with golf (both 13%) for the third lowest rate of first-generation male athletes. Only two sports, swimming (9%) and tennis (6%), had lower rates. Compare these numbers to the sports with the highest first-generation student populations—still relatively low—football (23%), basketball (19%), and track (19%) (Farrey & Schreiber, 2017).

In response to calls for research into college athletes' class backgrounds, this study examines the extent to which baseball provides meritocratic opportunities.

Utilizing a unique quantitative dataset of college baseball players ( $n = 19,987$ ), we consider how a community's socioeconomic levels, educational levels, and racial demographics shape the chances of someone becoming a college baseball player. We compared college baseball players' hometown characteristics—income, education attainment, and demographics—to their home state and U.S. averages. We also considered differences in competitive divisions, comparing players across Non-Power 5 conferences and Power 5 conferences. Findings showed that college baseball players, regardless of their conference affiliation, were more likely to come from affluent, nonminority cities with high education and income levels suggesting that socioeconomic status is a significant predictor of college athletic participation.

## Literature Review

Upward mobility narratives are premised on individualism—the notion that an individual with the right combination of talent, disposition, and ability can socially ascend regardless of their background (Coakley, 2015). Individualism obscures the role of families, institutions, communities, and social structures in shaping access to society's most valued resources, including sports (Hextrum, 2021, 2023). The rise of privatized youth sports has increased the economic barriers to participation (Merkel, 2013; Sabo & Veliz, 2008). As a result, economic investments have become a pre-condition to play sports. In the early 2000s, researchers began tracking increases in parental monetary investments into their children's sport participation. One study found that parental spending on elite youth athletes—those who competed on private club teams and aspired to become college or Olympic athletes—spent 3-12% of gross (pre-tax) household annual income on youth sports (Baxter-Jones & Maffulli, 2003). A larger and more representative sample of youth participating in all sports levels (e.g., for low-stakes recreational teams) found parents spend closer to 3% of the pre-tax income on sports (Dunn et al., 2016). Spending on sports is also difficult to track because of the escalating “hidden costs” including travel, lodging, and meals for competitions, private coaching, and tournament fees (Hextrum, 2018, 2020a, 2021; Project Play, 2022). More recent studies find parents of elite, college-bound athletes spend tens of thousands of dollars per year on sports (Eckstein, 2017; Hextrum, 2018, 2020a, 2021; Project Play, 2022).

Parental income to pay the escalating sport fees is only one factor connecting sport and SES. Studies indicate that wealthier families use their income to fund superior neighborhood-level infrastructure such as sports facilities and schools (Karabel, 2005; Lareau, 2011; Messner, 2009; Weis et al., 2014). Messner (2009) identified how affluent families select where to purchase a home and send their children to school, in part, on the quality of athletic facilities. These trends have generated a youth sports “arms race” where towns increase taxes to build lavish facilities in the hopes of luring wealthy families, increasing property values, and improving the local economy (Gregory, 2017). Youth baseball exemplifies the youth sports arms race as suburban areas have added semi-professional stadiums. The parental and community investments in sports have attracted top coaches and program (Merkel,

2013). In turn, higher income communities have more sports, and more quality sport experiences than lower-income areas (Merkel, 2013; Sabo & Veliz, 2008). The net effect of parental and community investments in sports is an unequal distribution of opportunities to play across the U.S. with sport deserts in low-income, urban, and rural communities and sport oases in higher-income, White, suburban communities (Sabo & Veliz, 2008; USDHHS, 2019).

Unequal school funding for sports exacerbates athletic inequities across American communities (Hextrum, 2021; NWLC, 2015). American schools are largely funded by property taxes linking neighborhood wealth to education quality (Weis et al., 2014). Schools in White, affluent, suburbs host more sports than any other community as parents can fund athletics either through tax dollars or paying fees (Zdroik & Veliz, 2016). A study examining 25 years of school-based extracurricular data found that middle- and upper-class youth have increased their sport participation overtime, widening the gap with lower-income youth (Meier et al., 2018). Tompsett and Knoester's (2022) quantitative cohort study tracked 10<sup>th</sup> graders to college and found that athletes attending high schools with plentiful sports had greater odds of playing in college. Specifically, the researchers identified that a 10<sup>th</sup> grader's chances to play in college increased by 3% for each additional sport offered at their high school. Overall, they concluded that athletic advantages are cumulative—higher SES families often attend higher SES schools with more sports, better facilities, and expert coaches, all of which are favorable to college athletic participation (Tompsett & Knoester, 2022). Relatedly, highly educated parents are more likely to enroll their children in sports for positive socialization purposes and to build their future college resumes (Freidman, 2013; Hextrum, 2021; Messner, 2009). Thus, communities with higher education levels may have higher rates of youth sport participation.

Researchers have also found that affluent youth are more likely to combine athletic playing opportunities, competing for private clubs *and* school teams (Hextrum; 2018, 2019, 2021; McGovern, 2018; Sabo & Veliz, 2008; Tompsett & Knoester, 2022). One survey of college baseball players' athletic histories found that 90% played on private teams and 98% played on high school team (Ogden & Warneke, 2010). The researchers concluded that college players have greater access to opportunities to play and refine their skills—competing on multiple teams and in varied venues (Ogden & Warneke, 2010).

The long-standing impact of racial housing discrimination in the U.S. has intertwined community and school resource allocation with race and class (Rothstein, 2017; Weis et al., 2014). White and Youth of Color live in different race/class opportunity structures, of which sport is a prominent mechanism (Allison et al., 2018). White youth are more likely to live in and attend majority-White schools whereas Youth of Color are more likely to live in racially diverse communities (NWLC, 2015). Therefore, a community's demographics can indicate the availability and quality of athletic opportunities as White suburban communities are more likely than any other region to host club, travel, and high school teams in a wide range of sports (Sabo & Veliz 2008). Conversely, Hispanic and Black communities are seven to

nine times more likely than White communities to have no athletic facilities, forcing youth in these areas to travel long distances to play sports (Moore et al., 2008).

The demographics of a given sport also drive participation (Dubrow & Adams, 2012). Baseball, once a sport with significant Black representation, has become increasingly White (Klein et al., 2020). The race/class linked barriers to play youth baseball have led to a rapid decline in racial minorities ascending to college and professional leagues providing fewer diverse role models in the sport (Ogden & Hilt, 2003). Concurrently, prominent Black role models in football and basketball have drawn Black youth away from baseball and toward these sports (Ogden & Hilt, 2003). Conversely, White athletes are evenly represented across a range of sports, including those with significant racial diversity like basketball and football (NWLC, 2015; Zarrett & Veliz 2021). As a result, White youth are less likely to consider how their race shapes their athletic opportunity (Hextrum, 2020b).

Collectively, this research demonstrates how community demographics—SES basis, educational levels, and racial demographics—are strong indicators of athletic opportunities. To understand how communities impact the chances for upward mobility via baseball, we combined insights from the previously mentioned literature with three studies into elite athletes' hometown characteristics (Allison et al., 2018; Dubrow & Adams, 2012; Macaulay et al., 2019). Dubrow and Adams (2012) examined the social origins of 155 National Basketball Association (NBA) players and found that professional athletes came from higher SES communities than national averages. They also considered racial demographics and found that lower-income Black players have much lower odds of becoming an NBA athlete than higher income Black and White players. Allison et al. (2018) examined the hometowns of the ESPN top 100 drafted National Football League (NFL) athletes. They too found that hometowns mattered in athletic attainment, especially along racial lines. Their results indicated that drafted Black football players were more likely to come from hometowns that were denser, more socioeconomically disadvantaged, and more racially diverse than Black non-drafted athletes. In contrast, White drafted athletes were more likely to come from *less* socioeconomically disadvantaged hometowns than White non-drafted football players. Macaulay et al. (2019) conducted the only quantitative study to date examining how hometown characteristics shape college access. They compared the hometown characteristics of 7,670 high school football recruits and found that colleges recruit from racially and economically diverse communities. Yet high schools that produced the *most* overall football recruits were private and in wealthier communities.

Based on existing literature, we designed a quantitative study to explore how community-level factors shape opportunities to become a college baseball player. Our research design was guided by the following questions:

1) Do the socioeconomic and demographic characteristics of neighborhoods influence college baseball participation?

1a.) Are the hometowns of college baseball players demographically and socioeconomically representative of their state and na-

tional averages, respectively?

1b.) Are college baseball players evenly represented across income levels? Or are they clustered in certain income groups such as *below* or *above* their state average?

2.) Are the educational outcomes (represented through rates of earned high school diplomas and bachelor's degrees) within the hometowns of college baseball players representative of their state and national averages, respectively?

3.) Are there hometown-level socioeconomic, demographic, and educational (such as college attainment) differences between Power 5 and Non-Power 5 recruited baseball players?

## Methodology

### Data and Sampling

This observational study analyzed the extent to which community characteristics shape the chances of someone becoming a college baseball player at Power 5 versus Non-Power 5 NCAA Division I schools. We designed a quantitative study using descriptive statistics, linear regression, and *T*-tests to observe whether certain variables linked to community-level SES influenced college athletic ascendance. Our study design was based, in part, on Allison et al.'s (2018) examination of the community background characteristics of NFL players. Their study utilized descriptive statistics and *T*-tests to determine the statistical significance of neighborhood characteristics in shaping a sport-opportunity structure. Our study design expanded on Allison et al.'s by creating a larger data set, considering the linkages between youth and sport college access, and testing a community's education levels as a statistically significant variable. Furthermore, our study created more nuanced categories and analyses for SES by comparing community averages to their respective state averages. Doing so, avoided the distortions that can arise from regional median income variations.

As a novel study with limited access to individual-level data, we designed our methodology to identify broad patterns of residence and SES in Division I college baseball across competitive levels. We anticipated that college baseball players were more likely than not to come from communities with higher levels of median income than the state or national average. We also anticipated relationships between community income and racial demographics. We hypothesized that baseball players were more likely to come from majority-White and higher-income communities. Finally, we anticipated that Power 5 players would be more likely to come from higher income and majority-White communities than Non-Power 5 players.

To address our research questions, we created an original database utilizing NCAA rosters and U.S. Census Data. Through publicly available team rosters, we gathered individual-level data on all hitters and pitchers who played Division I baseball between 2014 and 2018. Researchers have used athletic rosters to study the



reproduction of power through cultural representations and patterns of institutional access (e.g., Hextrum, 2019; Musto & McGann, 2016). The rosters included players' baseball statistics and biographical details (i.e., college team, college conference, hometown, height, weight, years played). As our primary research interests concerned players' socioeconomic backgrounds—not their actual baseball performance—we collected data on each player's hometown and home state.

We then created a second dataset from the U.S. Census Bureau Quickfacts of the player's community-level characteristics. Before pairing the roster data with Census data, we removed all duplicates (i.e., players who competed for multiple years in the study's timeframe) and any players whose hometowns were missing or unlisted in the U.S. Census (i.e., international students). This left 19,987 players from 306 colleges. All 50 states and Washington DC were represented.

Since incomes and standards of living vary widely across the U.S., SES measures must account for regional differences (Allison et al., 2018; Eckstein, 2017). With this in mind, we collected hometown-level, state-level, and national-level data. We designed a macro in Excel to iterate through and scrape data from each city's entry, pair the entry to state and national data, and relocate the information into a new Excel file. Collecting state-level data allowed for subsequent comparisons between a city and its state average to attenuate to regional income variations.

Our comparisons utilized the following variables to understand the relationship between community characteristics and athletic opportunity structures:

1. *Median household income* – the median income of every household in a player's hometown
2. *Per capita income* – the mean income of every person in a player's hometown
3. *High school diploma rate* – Percentage of people over 25 years old who attained a high school diploma in a player's hometown
4. *Bachelor's degree rate* – Percentage of people over 25 years old who attained a bachelor's degree in a player's hometown
5. *Minority city* – A player's hometown is classified as a "minority city" if the percentage of People of Color living in a city is larger than the state average.
6. *Nonminority city* – A player's hometown is classified as a "nonminority city" if the percentage of People of Color living in a city is smaller than the state average.
7. *Power 5* – any school that is a member of the Southeastern (SEC), Atlantic Coast (ACC), Big Ten, Big 12, or Pacific-12 conferences
8. *Non-Power 5* – all Division I schools outside of the Power 5 conferences

We gathered variables 1-4 directly from the Census. Since the college rosters did not list players' racial identity, we created our own measure for race by comparing a player's hometown to their state average. In instances where the hometown had greater racial diversity than their state, we classified this community as a "minority city." If the city's percentage was lower than their state, then we classified that

community as a “nonminority city.” We selected this approach due to the limitations associated with researchers assigning a racial category based on photographs (see Musto & McGann, 2016) and because of our interest in how community-level factors shape athletic opportunities.

Finally, we theorized that differences may exist across Division I. To measure these differences, we compared two competitive levels: Power 5 and Non-Power 5 schools. We elevated Power 5 schools as these conferences are the most athletically competitive, have the largest budgets, and are more prestigious. Thus, “Power 5-ness” was the study’s independent variable and the SES factors—median household income, median per capita income, high school diploma rate, and bachelor’s degree or higher rate—were the dependent variables.

### Data Analysis

We conducted *T*-tests to determine the variables’ level of significance related to our research questions (Allison et al. 2018). Our *T*-tests analyzed the statistical significance of differences in the variables’ means compared to the national average. Next, we conducted a linear regression to examine the correlation between bachelor’s degree percentage and median household income. We selected these variables for the regression based on research presented in the literature review and our preliminary results (Table 2).

To answer the first two research questions, we compared hometown SES to state SES averages. We classified players’ hometowns as above or below the state median in each of the SES variables. Doing so revealed whether a community SES exceeded state-level SES averages. This analysis also attenuated for regional differences and fluctuations in income. For example, a median household income of \$75,000 is below California’s median (\$78,672) but well above Alabama’s median (\$52,035). Next, we created histograms of median household income and bachelor’s degree rate for more detailed insights into players’ SES. Finally, we addressed the third research question by comparing the results among subgroups, considering differences across conference affiliation in our results.

## Results

The analyses demonstrated a strong connection between socioeconomic status and college baseball participation. Due to limitations in publicly accessible individual-level data about college baseball players, and the observational nature of our study, we could not demonstrate that higher community-level SES *causes* increased chances of college baseball participation. Nevertheless, our methods show a positive, statistically significant relationship between SES and college baseball participation. Findings suggest that baseball is not an even playing field. Aspiring athletes living in cities with higher incomes and higher education levels have greater opportunities to become college baseball players.

Findings showed that the majority of DI college baseball players’ hometowns had median incomes higher than their state average (see Table 3). Their hometowns

exceeded the national income average by 20%. Furthermore, players' hometowns had higher educational attainment rates than their state averages. Simply noting that most players came from high SES areas understates the discrepancy. Players were concentrated in high income brackets and high education levels, indicating SES combined with educational attainment inform athletic access.

Table 1 displays the participant data. As expected, Non-Power 5 participants were overrepresented, as there are fewer Power 5 schools. Unexpectedly, minority cities were overrepresented—57% of players' hometowns were more racially diverse than their state. This finding was surprising because 70% of college baseball players are White (NCAA, 2022). Our discussion elaborates on possible factors for this discrepancy.

**Table 1**

*Background characteristics of players represented in the study*

	All Players	Power 5	Non-Power 5
Total Population	19,987	4,308	15,679
Minority City	11,435	2,584	8,851
Nonminority City	8,329	1,687	6,643

Table 2 addresses research questions 1 and 2 through the national-level comparisons. Players' hometowns had higher educational attainment and income levels than the general U.S. population. The gap was largest in college attainment. The U.S. national average (mean) for earned bachelor's degrees is 32.1%. Baseball players' hometowns had 39% college attainment (with a slightly higher percentage, 40.1% for Power 5 baseball players). *T*-tests revealed a statistically significant difference in bachelor's degrees, with a *T score* of 62.059 and *p value* less than 0.0001.

Across all comparison groups, players' hometowns also had higher incomes. Whereas the national per capita income is \$34,103, players came from communities with a per capita income of \$38,524. Again, this gap was statistically significant as *T*-tests generated a *T score* of 39.419 and a *p value* less than 0.0001. The gap was even larger for median household income. Baseball players' hometowns had a median household income of \$74,784 whereas the U.S. median income is \$62,483. Earnings in baseball players' hometowns were \$12,301 more per year—nearly a 20% increase—than the national average. This gap was statistically significant as the *T score* was 51.683 and the *p value* less than 0.0001.

The descriptive statistics listed in Table 2 did not yield relevant insights about competitive levels. The differences across Power 5 and Non-Power 5 were marginal. Power 5 players' hometowns earned only \$700 more in median income than Non-Power 5 players. Moreover, the community educational levels are nearly identical. These findings suggest no significant differences across conference type when compared to national averages.

**Table 2**

*Descriptive Statistics of hometown level variables for college baseball players*

	US		All Players		All Play-ers		Power 5		Non-Power 5	
	Mean	T score*	Mean	T score*	Mean	Median	Mean	Median	5 Mean	Non-Power 5 Median
High school diploma	88%	89.6%	35.814	90.6%	89.8%	90.7%	89.5%	90.5%		
Bachelor's degree	32.1%	39%	62.059	36.7%	40.1%	37.1%	38.7%	36.5%		
Per Capita Income	\$34,103	\$38,524	39.419	\$34,479	\$39,004	\$34,479	\$38,392	\$34,479		
Household Income	\$62,483	\$74,784	51.683	\$64,995	\$74,220	\$63,315	\$74,939	\$64,495		

\* T score compared mean of all players (column 2) to the national average (column 1)

**Table 3**

*Percentage of players whose hometown level variables are stronger than their state*

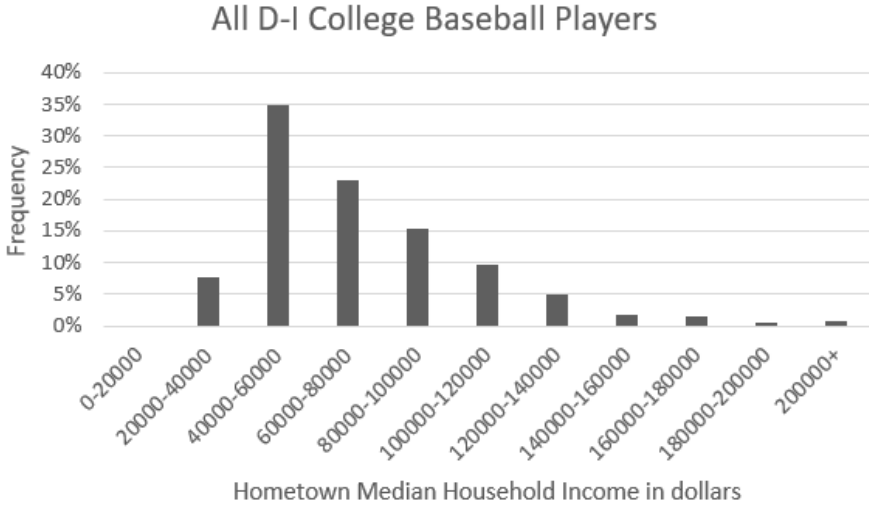
	All Players		Nonminority		Minority	
	High school diploma	College degree	Per Capita Income	Median Household Income	High school diploma	College degree
High school diploma	66.1%	82.7%	54.1%			
College degree	63.6%	68.3%	60.5%			
Per Capita Income	56.3%	68.8%	47.1%			
Median Household Income	52.3%	70%	39.3%			

Analyses presented in Table 3 addressed the state aspect of research questions 1 and 2. A community's educational levels were significant for sports participation. As predicted, most players' hometowns exceeded their state educational levels—66.1% for high school degrees and 63.6% for college. Racial differences were evident, as nonminority cities had much higher educational attainment (82.7%) than minority cities (54%).

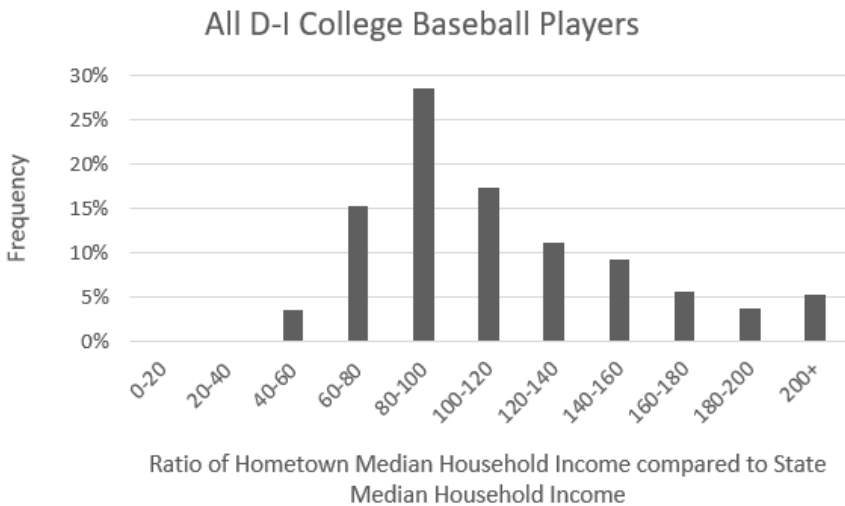
Our data showed that a city's education level is a key determinant for players in minority cities. The minority cities in our study had higher educational attainments—represented in high school diploma rate (54.1%) and bachelor's rate (60.5%)—than their state averages. These percentages surpassed national averages for the typical minority city. Higher educational attainment in racially diverse cities may reflect linkages between educational levels and SES as the minority cities in our study had higher incomes than the average minority city.

Yet minority cities were less likely to exceed their state-level incomes averages than nonminority cities. Fewer players lived in minority cities *above* their state per capita (39.3%) and median household income (47.1%). This finding suggests there may be different mobility pathways in minority versus nonminority cities. Again, data show that *most* players' hometowns outstrip their state's household (52.3%) and per capita income (56.3%). Therefore, we find that baseball players' hometowns are more likely to have higher incomes and education levels.

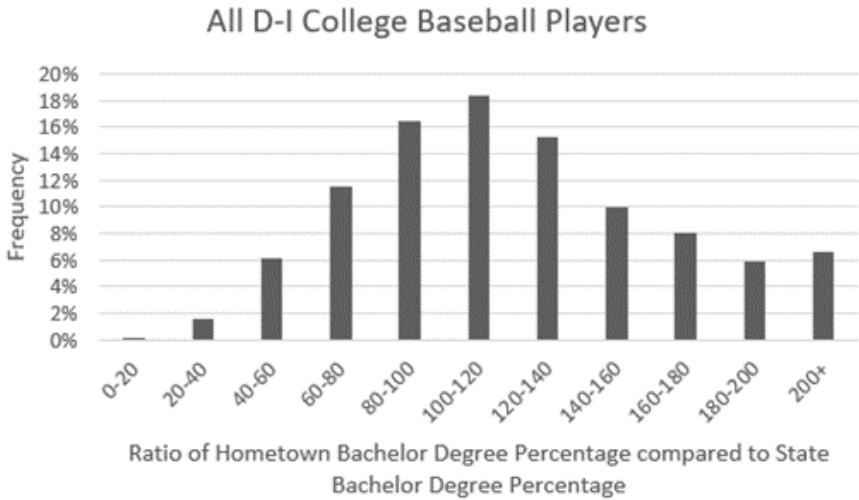
Table 3 demonstrated that 52.3% of players came from hometowns whose median household income is higher than its state. Yet this test did not reveal *how* much higher or whether players were concentrated in certain income brackets. To address this limitation, we created two distribution charts for income: Figure 1 depicts the distribution of players' hometown in buckets of absolute income and Figure 2 compares buckets of hometown income to state income. Figures 1 and 2 demonstrate the magnitude of these differences, namely that baseball players' hometowns are generally more well off than the average U.S. city. Figure 2 reveals that hometowns' below the state average were still within 80-100% of the median. Furthermore, few to no cities in the dataset reflect the poorest conditions in the U.S. Despite 31% of Americans being below the 0.6 ratio mark, only 3.71% of players' hometowns have a ratio below 0.6. Instead, a proportion of players came from some of the most affluent communities in the U.S. Findings indicated that baseball players are concentrated in the higher income brackets of their state. These trends extend to education (Figure 3). The majority of baseball hometowns have higher bachelor's degree rates than their state. Nearly 7% of hometowns have twice the bachelor's degree rate of their state.



**Figure 1**  
*Distribution of DI Baseball Players Across Community Income*



**Figure 2**  
*Distribution of DI Baseball Players Across Community Income Levels relative to State Income*



**Figure 3**  
*Distribution of DI College Baseball Players Across Community Education Levels*

Our final test applied a linear regression to understand the connection between educational attainment and income. To do so, we standardized bachelor’s degree percentages and median household incomes by converting them to z-scores. Next, we conducted a linear regression of those z-scores in R. The resulting regression was  $z \text{ score of bachelor's degree percentage} = 0.777 * z \text{ score of median household income}$  with a correlation coefficient of 0.826 and a coefficient of determination of 0.682. This suggests, as found in national studies, that income and education level are highly interconnected, leading to a compounding effect in the positive direction (more educational resources in higher-income communities) and the negative direction (less resources in lower-income communities). Taken together, these effects compound the difficulties for players in lower-income communities to ascend to college. They also multiply the advantages for players in higher-income communities to ascend to college.

**Table 4**  
*Percentage of players whose hometown variables are stronger than their state, by conference*

	Power 5	Non-Power 5
High school diploma	67.5%	65.8%
College degree	66.7%	62.7%
Per Capita Income	58.8%	55.6%
Household Income	51.9%	52.4%

The third research question examined whether differences exist across Power 5 and Non-Power 5 schools. To address this question, we compared the percentage of Power 5 players to Non-Power 5 players whose hometowns are stronger in each variable than their state. We observed slight differences across the athletic competitive levels. The largest gap was in educational attainment as 66.7% of Power 5 hometowns compared to 62.7% of Non-Power 5 hometowns had higher rates of bachelor's degrees than their state. We also found that Non-Power 5 had more players above their state household income leading to an inconclusive result for our third research Question.

## Limitations

The study's main limitation is available data. Our study created proxy values for players' SES based on their hometowns; individual-level data on family SES would generate more accurate insights. Individual-level data is especially important for players from larger metropolitan areas with large discrepancies in SES within their borders. The Census data provided other challenges. We were unable to match all players with Census data. These absences arose either through typos on the roster or if their hometown population was less than 5,000 (such hometowns are excluded from the Census QuickFacts). Players without hometown data were removed.

Our study was also limited by incomplete racial data. Without self-identified racial categories, we approximated a player's race through community demographics. We found the community-level demographics did not neatly align with college-level demographics. Similar to community income, the demographics of a city do not reflect the racial segregation that may exist *within* a city. This is especially true for large metropolitan areas like Dallas, TX; Los Angeles, CA; and Chicago, IL. These limitations do not subtract from the study's conclusions as we found consistent trends across players hometowns compared to state and national averages. But these limitations do provide compelling reasons for the NCAA to provide anonymized individual-level data on college athletes' backgrounds (including their racial identity, parental educational level, household income, among other important data points) so researchers can conduct more sophisticated and nuanced analyses of the inequalities in opportunity structures for youth to become college-level athletes.

## Discussion

Despite limitations, our findings offer key insights into how SES—represented through community-level resources—shape unequal opportunities to play college baseball. Though the study is observational, and causation cannot be concluded, it nonetheless provides strong evidence linking SES and college baseball participation. This study generated a unique, large dataset examining the background characteristics of DI baseball players. We merged individual-level data ( $n = 19,987$ ) pulled from DI rosters with U.S. Census data across four variables—high school attainment, college attainment, per capita income, and median household income—to question



American sporting meritocracy and whether all youth have equal chances to play baseball. We conducted several distinct comparisons to determine how community income influences baseball participation.

While interest, talent, and ability remain important drivers for sport access, our findings confirm a persistent class gap in athletic opportunities (Kanters et al., 2013; Meier et al., 2018; Tompsett & Knoester, 2022). We extended existing research by centering baseball—an understudied sport in sport-meritocracy inquiries. Our research is the first to use quantitative analyses to study the SES characteristics of the hometowns of elite college baseball players. Our research is also the first to consider conference-level differences or whether class became a *more* prominent mechanism as one ascends the competitive levels.

Research question 1 asked if baseball players came from similar backgrounds as their state and national averages. This question drove our inquiry into meritocracy. If baseball players resembled their state and national averages, we could assume that baseball offers relatively equal playing opportunities. Our findings indicated that baseball players came from significantly wealthier communities than the national average. To ensure this finding did not emerge from regional variations in income, we compared players to their state average. Again, we found baseball players came from higher income areas than their state averages. We also considered whether players were clustered in certain income categories and found players concentrated in higher income brackets. Conversely, we found relatively few players from lower income communities, suggesting fewer community resources erodes baseball participation. This finding suggests affluence shapes baseball participation.

Study insights confirm existing research linking class, community resources, and youth sport opportunities (e.g., Project Play, 2022; Sabo & Veliz, 2008; Tompsett & Knoester, 2022; Zarrett et al., 2020; Zdroik & Veliz, 2016). We extended these studies to examine whether these inequities “trickle up” into college-level participation (NWLC, 2015). Our findings indicate that persistent youth inequalities influence college playing opportunities. As discussed in the limitations section, we lacked self-reported data on players’ SES. As other researchers have called for, we recommend institutions release such data so researchers can conduct more accurate analyses (Allison et al., 2018; Hextrum, 2021).

Our second research question examined whether baseball players come from hometowns with educational outcomes similar to or different from state and national averages. Again, we found most baseball players’ communities were at or above state and national educational levels. We also examined whether a community’s educational level surpassed income in predicting college baseball participation. As reflected in *T*-test results, we found a statistically significant relationship between a community’s educational level and college baseball participation. This finding may reflect the strong link between educational level and class. It may also mirror a pattern noticed in qualitative studies. Qualitative researchers have tracked affluent families turning to sport to reproduce their class standing (e.g., Eckstein, 2017; Friedman, 2013; Hextrum, 2018, 2019, 2021; Messner, 2009). The belief is

that competitive, elite sports cultivate the dispositions and characteristics needed to ascend society's education and employment winnowing mechanisms (Friedman, 2013; Messner, 2009). Some studies have also pointed to well-educated families explicitly investing in sports for special admission advantages, as parents with college degrees are better positioned to game a competitive college selection process (Eckstein, 2017; Hextrum, 2018, 2019, 2021). Without more refined measures and analyses, we cannot address parental motivations. But the data suggest college baseball players were immersed in highly educated communities. Subsequent studies could analyze how parental education shapes the college-sport opportunity structure.

We also considered how race informed the college-sport opportunity structure. Dubrow and Adams (2012) contend studies of sport access often examine race *or* class, thereby minimizing the interactive effects of raced-classed discrimination. In response, we examined whether there were significant differences in the racial makeup of baseball players' hometowns. Based on the literature—stating that White people are more likely to live in White majority cities—we anticipated around 70% of players coming from majority-White cities (Rothstein, 2017). Yet, baseball players in our sample were more likely to come from minority cities than nonminority cities. The Census data collection approach may contribute these discrepancies. The Census tracks the demographics of an entire city and does not adequately capture patterns of neighborhood residential racial segregation that track with income (Rothstein, 2017). The Census also folds smaller, suburban areas or outlying residences into large urban centers. Doing so, distorts the half-century pattern of White flight and residential segregation in which White people used their racial and class advantages to create racial enclaves, concentrate tax dollars in their borders, and subsequently defund larger, urban centers (Rothstein, 2017; Weis et al., 2014). We believe this discrepancy in our finding provides further support for why individual-level class *and* race data should be available to researchers.

Even with this limitation, our study did find some possible interactive race/class trends in the minority cities in our dataset. The minority cities in our sample had higher income and higher education levels than the typical minority-majority city. This suggests that only certain Players of Color frequently reach DI baseball, and that SES barriers block many others. In other words, racial diversity in the study correlates with economic advantages, making it highly unlikely that someone would be *both* low-income and a Player of Color. This finding extends qualitative research purporting that baseball has greater racial and SES barriers compared to other popular sports (football and basketball) (Brown & Bennett, 2015).

Finally, we considered links between conference affiliation and SES. We predicted that Power 5 players would come from higher-SES hometowns than Non-Power 5 players. Here, we found no significant differences across the conference types. One possible explanation could be the path to becoming a baseball player is so barrier ridden that *which* college matters little. We recommend future researchers' study whether these effects resonate across other competitive measures, for instance, comparing DI overall to DII and DIII players.

## Conclusion & Implications

The sport-meritocracy ideology minimizes how entrenched economic and racial inequalities limit access to a range of social goods including neighborhoods, schools, athletic fields, and employment. Our findings extend research into the background characteristics of elite football and basketball players by identifying how community-level SES shapes baseball participation. Contributing to research showing that individual and family investments are vital for sport success, (Hextrum, 2021; Kanters et al., 2013; Meier et al., 2018; Tompsett & Knoester, 2022) we demonstrated the importance of community characteristics for athletic attainment.

Inequality in athletic opportunity has a range of consequences. Sport participation generates better academic, health, and social outcomes (Kanters et al., 2013; Merkel, 2013; Meier et al., 2018; Zarrett et al., 2020). When playing opportunities are concentrated in higher income communities, athletic benefits go to socially advantaged youth, exacerbating broader social inequities (Meier et al., 2018). Expanding athletic opportunities for lower-income youth could minimize these effects and improve educational, physical and mental health, employment, and social outcomes.

Our study centered one benefit of youth sports—college participation—and found SES restricts intercollegiate baseball opportunities. College is a preeminent social good, in and of itself. But DI institutions offer additional, valued benefits including special admission, superior athletic resources, status, and prestige (Eckstein, 2017; Eitzen, 2016; Hextrum, 2021; Karabel, 2005). These findings suggest that already-privileged youth may receive a disproportionate amount of athletic resources throughout their lifespan, including college. In this sense, the college athletic admission system is not likely to provide upward mobility opportunities.

The athletic barriers at the youth and college level may also drive talent loss. As exposure ignites participation, fewer opportunities to play results in fewer potential college athletes (Project Play, 2022). Elite athletic programs probably do not recruit from the deepest possible talent pool. Instead, class barriers prevent many lower-income American youth from ever playing sports, or, if they do, persisting through the economic barriers at subsequent competitive levels. Having fewer potential athletes—due to SES, not interest, aptitude, or ability—erodes the talent base.

Professional baseball leagues have recognized a dwindling talent pool and have taken steps to equalize playing opportunities. One study found that 25 of 30 Major League Baseball teams now host “local, low-cost programming for baseball in low-income areas” run by the league office (p.17). In 2019, 155,000 youth signed up for these teams (Project Play, 2022). These actions by professional baseball to extend playing opportunities, won’t eradicate class inequalities in athletic participation. Widespread, public reinvestment in sports is needed, across neighborhoods, to ensure all youth, regardless of background, have opportunities to play.

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# Factors that Influence the Academic Success of College Athletes Participating in the National Association of Intercollegiate Athletics

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The purpose of this research is to conduct an exploratory study examining factors that influence the academic success of college athletes participating in the National Association of Intercollegiate Athletics (NAIA), a subject that has not been empirically studied. For this study, academic success defined as retention and graduation, represents the dependent variables of interest. Additionally, this study examines actors influencing academic success including institutional financial aid, background characteristics (race, gender), college experience (GPA, residential housing), athletic characteristics (sport, athletic expenses), organizational structure, and participation as a varsity or non-varsity athlete. This study uses institutional data from 2019-2020 NAIA's Return on Athletics (ROA) initiative, and data from the Integrated Postsecondary Education Data System (IPEDS). Logistic regression is used to answer two research questions exploring the factors that influence NAIA college athlete success. Findings indicate athletes are retained at a high rate in comparison to available NAIA data, but certain sub-groups may be at risk for attrition. Specifically, non-varsity athletes, athletes with a grade point average below 3.0, or those who have been enrolled less than two years.

## Introduction

Higher education institutions compete for decreasing pools of incoming students to meet enrollment targets. According to Hussar et al. 2020, between 2010-2018, full-time undergraduate enrollments at four-year institutions decreased by 8%. Many four-year universities are dependent on enrollment and the tuition generated to maintain institutional viability (Anderson, 2019). Institutional success is often defined by retention and graduation rates (Kuh et al., 2006). Several factors influence retention and degree completion, including engagement, specifically enrollment in-





tensity or using early data on persistence (Kamer & Ishitani, 2021), and access to financial assistance (Millea et al., 2018).

College athletic programs are utilized to attract students to campus and have them engage in the campus environment. For many small colleges, like the National Association of Intercollegiate Athletics (NAIA), varsity athletics can serve as a primary driver of enrollment (Denhart et al., 2010). However, given the current environment of fiscal strain, many campus stakeholders question the role of intercollegiate athletics, the excessive spending to maintain athletic programs, and the overall influence on enrollment (Denhart et al., 2010; Zvosec & Baer, 2022). Spending on athletics is often controversial, as universities grapple with budget shortfalls from the COVID-19 pandemic and lower enrollment numbers, leading some institutions to close entire athletic programs (e.g., Swanson & Smith, 2020). Arguments concerning college athletics and its place in higher education are the ever-rising costs associated with the chase for winning and championships, coupled with issues of academic misconduct (Gayles et al., 2018). As athletic expenses increase, so do calls for accountability from institutional stakeholders (Denhart et al., 2010; Ridpath, 2008).

While a large body of research exists concerning athlete experience and the role of athletics in revenue-generating National Collegiate Athletic Association (NCAA) Division I programs (i.e., Brewer & Petitpas, 2017; Johnson et al., 2013), less is known about the influence of athletic participation on success outcomes at four-year institutions within the NAIA. The NAIA governs athletic programs at 250-member institutions across 21 regional conferences and awards approximately \$800 million in athletic scholarships to 77,000 athletes (NAIA, n.d.d). Recently, the NAIA undertook an initiative titled, Return on Athletics (ROA), to assist member institutions with aligning collegiate athletics with institutional priorities (NAIA, n.d.d). Specifically, the three priorities of the ROA initiative are providing information on managing enrollment, promoting academic success, and supporting financial stability through intercollegiate athletics.

According to the 2022-2023 NAIA Official and Policy Handbook, its purpose is to “promote the education and development of students through intercollegiate athletic participation” (p. 5). NAIA institutions report an average undergraduate enrollment of approximately 1,250 students. Institutions in the NAIA spend 40% less than their NCAA counterparts in all NCAA divisions on athletics and average a net return of \$10,100 per athlete based on enrollment projections (NAIA, 2022). Additionally, the NAIA has experienced a 24% increase in athlete participation rates over the last five years association-wide (NAIA, 2022). While these data seemingly support the ROA goals of financial stability and increasing enrollment via athletics, NAIA athletic academic success is less clear. As member institutions continue to invest scarce resources into athletic programs to achieve enrollment targets and improve institutional viability, ensuring the academic success of the athletes is imperative. Utilizing Return on Athletics data this study aims to examine variables contributing to the academic success of athletes participating in the NAIA to detect potential trends, identify areas of effectiveness, and discover opportunities for improvement in athlete success.

The purpose of this exploratory study is to analyze factors that influence athlete markers of success, specifically retention, and graduation. In addition, this study addresses voids in the literature regarding NAIA athletes along with assessing methods for validity in future research. This information can inform institutional decision-making, improve institutional practices, and enhance understanding of how NAIA athletes can be better served by institutions to increase academic success. By gaining a better understanding of the effects of student characteristics, financial factors, and athletic participation on retention and graduation utilizing the NAIA's Return on Athletics initiative, along with additional research, member institutions can gain a holistic understanding of how intercollegiate athletics can promote improved outcomes for both the athlete and the institution. The specialized nature of the Return on Athletics data set provides for a detailed analysis specific to NAIA athletes that is currently missing in higher education literature.

## Literature Review

### Chen's Conceptual Model

This study relies on Chen's (2008) framework to guide the variable selection. Chen's framework was developed to provide a more inclusive model for assessing the relationship between financial aid and dropout risk among student sub-group populations, including across socioeconomic status and racial/ethnic groups. Chen developed the framework after an extensive literature review gleaned from financial aid research across five theories used for studying student departure including psychological, sociological, organizational, interactionalist, and economics. The model highlights the interaction between student background characteristics and financial aid. The framework identifies "eight clusters of variables known to affect dropout rates including background characteristics, educational aspirations, pre-college preparation, college experience, organizational effects, financial factors, time, and interaction effects" (Chen, 2008, p. 224). The independent variables include background characteristics such as gender, age, race/ethnicity, family income, and parental education (Chen, 2012). Chen defined education aspiration as the expected degree attainment of students. Pre-college preparation is described as high school GPA, ACT or SAT scores are also incorporated (Chen, 2012). The fourth variable, college experience, including both academic and social integration (Chen, 2008, 2012). The fifth variable focuses on organizational characteristics, such as institutional size and control (Chen, 2012). Financial factors like institutional price and financial aid are included in the sixth variable (Chen, 2008, 2012). The final two variables include time in college described as academic years enrolled, time to degree completion, and interaction effects like financial aid across student background characteristics.

### Factors Influencing Retention and Graduation

Previous literature points to the complex nature of retaining students and examines multiple variables that work to influence retention or drop-out decisions among college students (Chen, 2008, 2012; Kuh et al., 2006; Millea et al., 2018) and college

athletes (Horton, 2015; Melendez, 2006; Mendez et al., 2009). The main factors used in this study influencing retention and graduation of NAIA athletes (See Figure 1) are: (a) student background characteristics, (b) pre-college preparation, (c) college experience, (d) organizational factors, (e) financial aid type, and (f) time in college.

### ***Student Background Characteristics***

Female college athletes often experience higher retention (Cocco et al., 2023a, 2023b; LeCrom et al., 2009) and graduation rates (Staurowsky et al., 2020). In addition to gender, race, and ethnicity are important variables to consider when examining academic outcomes due to student disparities that exist across racial and ethnic groups (Hussar et al., 2020). Examination of the relationship between race and intercollegiate sport, noted low GPA, persistence, and graduation rates among Black male college athletes particularly in revenue-generating sports in NCAA Division I (Baker & Hawkins, 2016; Comeaux & Harrison, 2007; Harper, 2016; Johnson et al., 2013). Lastly, first-generation college students are found to have lower retention and graduation rates (Pratt et al., 2019), engage less with the campus environment, are found to be less likely to participate in extracurricular activities and athletics, are less likely to live on campus, and are more likely to be employed (Pascarella et al., 2004). According to Cocco et al. (2023c) within the NAIA, football (19%), baseball (15%), and men's soccer (10%) had the greatest percentage of first-generation athletes, and first-generation athletes were retained at a rate of 63%, slightly higher than the total athlete population (62%).

### ***Pre-College Preparation***

Pre-college preparation criteria including GPA and ACT/SAT scores are benchmarks for assessing college readiness (Reason, 2003). High school GPA is considered a better predictor of academic performance and retention in the first year of college (Cabrera et al., 2013) in comparison to standardized tests (St. John et al., 2001). Furthermore, gaps exist in all pre-college preparation indicators for low-income, minority, and first-generation students (DeAngelo & Frank, 2016; St. John et al., 2001). In addition to predicting college readiness, pre-college preparation determines initial eligibility for intercollegiate athletics participation. The minimum eligibility requirements for prospective athletes are intended to ensure that upon entering higher education and intercollegiate athletics, athletes can manage the demands of college-level coursework and a rigorous athletic schedule. Similar to the non-athlete population, lower academic preparation is often cited as a contributor to lower retention and graduation rates among sub-groups of athletes (Horton, 2015; Kulics et al., 2015; Melendez, 2006). Furthermore, the NAIA incentivizes coaches and athletic departments to recruit academically high-performing athletes through the academic exemption rules, based on GPA, ACT/SAT scores, and/or class rank. For athletes who meet the requirements for academic exemptions, any institutional financial aid is subtracted from the countable aid a team reports at the end of the year (NAIA, 2022).

### ***College Experience***

College experience includes constructs for both academic and social integration. Academic integration includes college GPA. The higher the GPA, particularly in the first year of attendance, the greater the influence on retention and degree completion (Chen, 2012; Dowd, 2004; Millea et al., 2018). In addition, faculty interaction is found to have a significant impact on student success (Kuh et al., 2006; Tinto, 2006). Social integration such as participation in extracurricular offerings, contact with peers, and living on campus also positively influence retention rates (Boatman & Long, 2016; Chen, 2012). For eligibility requirements, athletes must maintain minimum GPAs, as well as progress towards a degree to remain eligible. While these standards are often criticized for being too low (Eckard, 2010; Ridpath, 2008; Staurowsky et al., 2020), the NAIA does incentivize athletic departments for recruiting high achieving athletes and maintaining high academic standards as students' progress through degree programs.

### ***Organizational Factors***

Organizational attributes of institutions include variables such as control, size, selectivity, faculty-student ratios, and institutional resources (Chen, 2012). Among four-year public institutions retention rates range from 97% at the most selective institutions to 63% at the least selective. Similar trends in student retention are seen among four-year private institutions ranging from 65% to 97% at institutions from low to high selectivity. Graduation rates follow similar patterns, ranging from 34% at open-admission four-year institutions up to 90% at the most selective schools (Hussar et al., 2020). However, according to findings from Chen (2012), institutional variables such as selectivity and control do not significantly influence student success, but rather how institutions allocate resources may have a more powerful contribution to retention and graduation outcomes. For college athletes, of the limited research available that includes institutional variables Mendez et al. (2009) discovered that college athletes attending regional institutions had lower persistence rates than those attending research institutions likely due to lower pre-college preparation of athletes and a lack of resources for academic support (Mendez et al., 2009).

### ***Financial Factors***

Research points to differences in various forms of financial aid and their influence on student success outcomes; however, there is no consensus on which type of aid is most significant (Chen, 2008). The influence of federal student loans on student retention and graduation is mixed (Robb et al., 2012). Grant-based aid is a source of financial aid often allocated on need and includes federal Pell grants, state grants, and/or institutional need-based grants. Many studies examining the influence of grant aid demonstrated a positive effect on encouraging enrollment (Bettinger, 2015) and retention (Boatman & Long, 2016). Studies examining the role of merit/scholarship aid in retention support a positive influence (DesJardins et al., 2002; Kuh et al., 2008), and this aid type is commonly distributed to students at private

non-profit institutions (Hussar et al., 2020). Awarding scholarship dollars based on merit rather than financial need has been shown to disproportionately benefit higher-income students (Chen, 2008; Dowd, 2004). Despite this criticism, the use of merit aid in financial aid packages plays an integral role in institutional enrollment management and student retention. The Federal Work Study program improves college access and promotes student success through campus-based employment opportunities for students with financial needs (Scott-Clayton & Zhou, 2017). Work-study funding is allocated to institutions to distribute to qualifying students in exchange for approximately 10-15 hours of work. While the wages for work-study are often low, the benefits include alleviating transportation barriers, performing work that can enhance learning, and future employment opportunities post-graduation (Nora et al., 2006).

Many athletes are motivated to pursue athletic scholarships to lower college costs. Athletic scholarships may influence initial enrollment decisions, improve college affordability (Mendez et al., 2009), signal an institution's commitment to a student, and improve the retention of college athletes (Millea et al., 2018). While these are positive aspects connected to athletic scholarships, potential negative effects may result from financially rewarding students solely for athletic ability, reinforcing athletic identity which may diminish academic performance (Ridpath, 2008). Mendez et al. (2009) examined the "effectiveness of financial aid packages in predicting persistence among intercollegiate athletes at postsecondary institutions in Oklahoma, with special attention to minority groups" (p.3). Utilizing Chen's (2008) framework for the study of financial aid outcomes, student information was from multiple institutional types including, "30% from NCAA Division I, 53% Division from II, about 7% from the NAIA, and 10% of students are in one school that belongs to both NAIA and NCAA Division II for football only" (Mendez et al., 2009, p. 8). Students were identified as athletes if they received an athletic scholarship. Results from this study indicated White college athletes benefit the most from financial aid packages and that minority, low-income college athletes improved retention when the aid was in the form of grants (Mendez et al., 2009).

### *Time in College*

Although the first academic year is critical to long-term academic success, accounting for the time-varying effects on student departure is important. While upperclassmen are more likely to persist than freshmen, the risk of dropping out continues even after achieving initial success in college (Nora et al., 2005). Studies have found sense of belonging, financial aid types, and amounts change over time and consequently influence behavior differently as students persist (DesJardins et al., 2002; Kamer & Ishitani, 2021; Means & Pyne, 2017). Additionally, college athletes are allocated a limited amount of time for athletic participation. According to the NAIA Policy Handbook, an athlete's eligibility ends upon completing 10 semesters in which the student is identified. Additionally, the policy handbook states, "no student shall be permitted to participate in intercollegiate athletics for more than four seasons in any sport" (2022, p. 75). NAIA Athletes have 10 semesters of full-time

enrollment to compete in athletics for eight semesters. Along with a limited amount of time to participate in athletics, college athletes must enroll full-time and complete 24 credit hours over two semesters while making progress toward a degree to remain eligible (NAIA, 2022).

The research questions that guide this study are:

1. How are institutional financial aid packages, background characteristics, college experience factors, athletic characteristics, organizational structure, and time in college associated with athlete retention at four-year member institutions in the NAIA?
2. How are institutional financial aid packages, background characteristics, college experience factors, athletic characteristics, organizational structure, and time in college associated with athlete graduation at four-year member institutions in the NAIA?

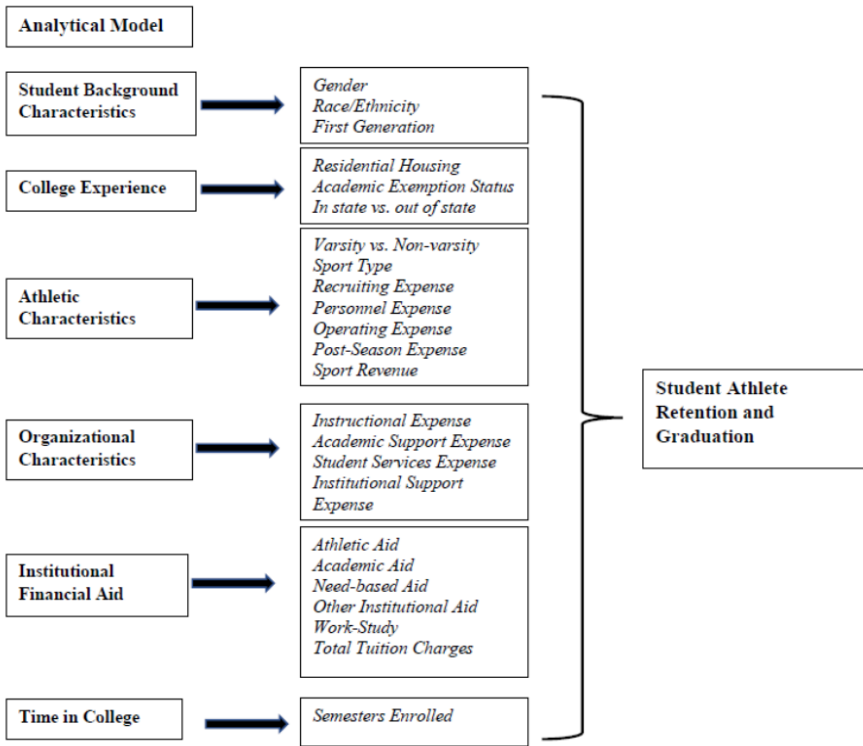
## Method

Guided by Chen's (2008) conceptual framework, a quantitative method was employed to answer the theorized research questions. The framework utilized variables drawn from five different theoretical areas including psychological, sociological, organizational, interactionist, and economic theories (Chen, 2008). College athletes participating within the NAIA are largely unstudied; therefore, the relationship between athlete characteristics and student success outcomes can be examined by building on the existing college athlete literature and by utilizing Chen's conceptual framework. This study utilizes logistic regression to analyze data collected from six institutions for the NAIA's ROA initiative to explore the relationship between characteristics of athletes, retention, and degree completion.

### Data Source and Sample

The research relied on institutions from one athletic conference to voluntarily share ROA data. The conference utilized consists of 12 regionally accredited not-for-profit Midwestern institutions located across five states. While nine institutions submitted ROA data, three of the datasets were missing some variables resulting in six total institutions analyzed. The NAIA provides a ROA template for campus administrators to complete as a part of end-of-year reporting. The final data set for this study contains institutional and athlete information for a sample size of 1,142 athletes from the academic year 2019-2020. In addition to the ROA data, institutional data was gathered utilizing the National Center for Educational Statistics, Integrated Postsecondary Education Data System (IPEDS).

Figure 1. Self-Created Analytical Model



**Dependent Variables**

The dependent variables are retention and graduation. Retention is defined as a first-time, full-time degree-seeking student who reenrolls at the same institution fall-to-fall (McFarland et al., 2019). Retention was assessed for groups of athletes who are not identified as Graduated or identified in the Final Academic Term Enrolled, indicating athletes who have left the institution but did not graduate (NAIA, n.d.c). The second dependent variable is graduation, defined as the completion of a bachelor’s degree within six years for first-time, full-time degree-seeking students (McFarland et al., 2019). For this study, graduation is assessed for groups of student-athletes who are identified as Graduated in the data set (NAIA, n.d.c).

**Independent Variables**

The independent variables utilized in this study are depicted in Figure 1 and defined in Table 1. Independent variables include student background characteristics such as race & gender; college experience which includes on/off campus and in/out of state along with academic exemption status based on GPA and class rank; athletic experience such as varsity/non-varsity and sport played; organizational factors such

as expenses for instruction, academic support, and student services; institutional financial aid including athletic, need-based, and other scholarships/work-study; and the final category of time in college uses the measurement of semesters enrolled in school.

## Data Analysis

Logistic regression models were employed to analyze data using STATA statistical software. The logistic regression model predicts the logit or natural logarithm (ln) of odds of the dependent or outcome variable (for example, retention); where odds are ratios of probabilities ( $\pi$ ) of the outcome variable happening (athlete being retained) to probabilities ( $1 - \pi$ ) of the outcome variable not happening (athletes not being retained). Additionally, logistic regression utilizes the maximum likelihood approach to estimate the parameters (Yang & Webber, 2015).

To address the research questions, two logistic models were utilized. Models 1-2 use all athletes in the sample to assess how various factors influence retention (model 1) and graduation (model 2) and assess the two research questions. The models are represented by the following formula for logistic regression:

$\text{Log} [\pi_i / (1 - \pi_i)] = \beta_0 + \beta_1 \text{ background characteristics} + \beta_2 \text{ college experience} + \beta_3 \text{ athletic characteristics} + \beta_4 \text{ organizational characteristics} + \beta_5 \text{ financial factors} + \beta_6 \text{ time in college} + \epsilon$ . In the equation,  $\pi_i$  indicates the probability that  $y_i = 1$  (in Model 1: athlete being retained during college = 1 and 0 = not retained, Model 2: did athlete graduate from college = 1 and 0 = not graduated. The reference group represented by  $\beta_0$  is constituted by those students representing the reference level of each variable and  $\beta$  represents a set of coefficients for each variable. The results of the logistic regression are summarized and interpreted as odds ratios where an odds ratio equal to one indicates no relationship, greater than one indicates a positive relationship and less than one indicates a negative relationship (DesJardins, 2001).

Similar sets of independent variables were created for all models. The independent variables were organized into six blocks and added into the models following in proximity to the conceptual framework. The analysis was completed in multiple steps. The first step consisted of examining the raw data submitted by each institution to review the available variables and confirm variables align with the conceptual framework. Step two consisted of recoding and finalizing each institutional data set individually via Excel files consisting of institutional, athletics, and athlete data. Identification was categorized via a generic identifier of a letter representing the institution and a number representing the athlete. The variables from the institutional data and athletics data were added to the athlete-level information resulting in one Excel file per institution. In the ROA data template athletic financial variables are reported as total dollar amounts for each sport. To account for differences in the number of athletes per sport the athletic financial variables (recruiting expense, personnel expense, operating expense, post-season expense, and revenue) were recalculated as expenses and revenue per athlete for each sport. Additionally, institutional data from IPEDS was added to each Excel file. To generate the gender variable the researcher utilized the gender assigned to each sport category (i.e., men's basketball, women's



basketball etc.). Categorical variables were re-coded. Continuous variables were not re-coded. Step three consisted of merging the data of the six institutions into one comprehensive data set. After the six individual institutions were merged, the large comprehensive data set was imported into STATA for data analysis.

*Table 1: Independent Variable Definitions*

Variable	Definition of Variable
Gender	Gender is a categorical variable dummy coded where the reference group female = 0 and 1 = male.
Race/Ethnicity	Race/Ethnicity is a categorical variable dummy coded where 0 = White, 1 = Black, 2 = All Other Minority, and 3 = Preferred not to answer.
First Generation	First Generation is a categorical variable coded 0 = No, 1 = Yes, 2 = Unknown where No (not first generation) is the reference group.
Residential Housing	Residential housing is represented by a categorical variable where 1 = Off-campus and 0 = on-campus representing the reference group.
Academic Exemption	The NAIA awards academic exemptions to athletes based on grade point average and class rank. In the dataset, academic exemptions are coded as 0 = Zero Exemption, 1 = ½ GPA Exemption, 2 = Full GPA Exemption, 3 = ½ Freshman Exemption, and 4 = Full Freshman Exemption. The reference group for this independent variable is the Zero Exemption group. This group has the greatest number of observations and would represent lower academically performing students.
In-State vs. Out-of-State	A categorical dummy variable derived from the tuition classification reported in the ROA dataset where the reference group 0 = in-state, 1 = out-of-state, 2 = regional, and 4 = graduate/other tuition rate.
Varsity vs. Non-Varsity	A varsity athlete is any “athlete who participates as a designated varsity participant; who participates in a contest that is included in varsity’s win/loss record; who participates in a contest that can be used for postseason qualification; or who participates in a contest that can be counted towards the varsity’s team scoring” (NAIA, October, 2020, p. 85). A non-varsity athlete is any “students that competed at the junior varsity level or who is a non-participating member of the team” (NAIA, 2020-2021 ROA Glossary, p. 3). This is a categorical variable where the reference group is non-varsity = 0 and varsity = 1.
Sport Type	This is a categorical dummy variable where 0 = individual sports and 1 = team sports.

Recruiting Expense	A continuous variable defined as “any expense incurred by a specific sport or athletic department during the recruitment of an athlete” (NAIA, n.d.b, p. 4).
Personnel Expense	A continuous variable “indicates standard salary packages for athletic department personnel” (NAIA, n.d.b, p. 4).
Operating Expense	A continuous variable defined as any “expenses incurred by a specific sport or athletic department attributed to the participation in any regular season and conference post-season athletic competitions” (NAIA, n.d.b, p. 3).
Post Season Expense	A continuous variable defined as “expenses incurred by a specific sport or athletic department attributed to participation in a NAIA national championship opening round and final site events” (NAIA, n.d.b, p. 4).
Revenue	A continuous variable defined as the “revenues attributed to a specific sport or general athletic department fund excluding revenue from tuition, room, and board. Revenue would include fundraising, ticket sales, sponsorships etc.” (NAIA, n.d.b, p. 5).
Instruction expense as a percent of total core expenses:	A continuous variable, defined as a “functional expense category that includes expenses of all instructional divisions of the institution and expenses for departmental research and public service that are not separately budgeted, including general academic instruction, occupational and vocational instruction, community education, preparatory and adult basic education, and regular, special, and extension sessions” (NCES, 2021, p. 22)
Academic support service expenses as a percent of total core expenses	A continuous variable, defined as “a functional expense category that includes expenses of activities and services that support the institution's primary missions of instruction, research, and public service” (NCES, 2021, p. 2).
Student service expenses as a percent of total core expenses	A continuous variable, defined as an “expense category that includes expenses for admissions, registrar activities, and activities whose primary purpose is to contribute to student’s emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instructional program” (NCES, 2021, p. 38)
Institutional support as a percent of total core expenses	A continuous variable, defined as “a functional expense category that includes expenses for the day-to-day operational support of the institution” (NCES, 2021, p.22).
Athletic Aid	A continuous variable, defined as any athletics-specific scholarship, grant, or other form of financial assistance funded or managed by the institution (NAIA, n.d.b).
Academic Aid	A continuous variable, defined as any academic-specific scholarship, grant, or financial assistance funded or managed by the institution (NAIA, n.d.b).

Need-Based Aid	A continuous variable, defined as any scholarship, grant, or financial assistance awarded according to need and is funded or managed by the institution (NAIA, n.d.b).
Other Institutional Aid	A continuous variable, defined as any scholarship, grant, or financial assistance that is funded and managed by the institution that does not fit into any of the other aid categories (NAIA, n.d.b).
Work-Study	A continuous variable, defined as any financial aid applied against a student's costs of attendance that requires a student to work part-time on campus in exchange for the financial award (NAIA, n.d.b).
Tuition Charge	A continuous variable, representing the total tuition charged according to the tuition classification in the dataset.
Time in College	Semesters enrolled is a categorical dummy variable created to represent the time the athlete has been enrolled at the current institution. Four categories were created where 0 = enrolled for one or two semesters, 1 = enrolled for three or four semesters, 2 = enrolled for five or six semesters, and 3 = enrolled for seven or more semesters.

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## Results

Table 2 provides descriptive statistics including the mean and standard deviation for all variables. Of the 1,142 athletes represented males accounted for more than half of all athletes (54.81%). The largest group for Race/Ethnicity was Preferred not to answer (47.99%) with White (36.89%) athletes being the second largest group. Of White athletes, females accounted for 52.14%. For all remaining Race/Ethnicity categories, males accounted for the majority where 63.44% of Black athletes, 66.25% of All Other Minority, and 57.01% Preferred not to answer are male. Additionally, over 31% of the athletes were not first-generation students; however, similar to the variable for Race/Ethnicity, 59% reported as unknown, with 8% indicating first-generation status. 19.06% of continuing athletes and 4.55% of freshman athletes received a full academic exemption indicating athletes who performed the highest academically whereas 58% of all athletes in this data set received zero exemptions for academic performance. Most athletes participated in varsity athletics and team sports (68%). The highest expense category consisted of operating expenses with an average of \$1,846.70 spent per athlete. Personnel expense per athlete is the second highest athletic expense category with an average of \$1,716.40 spent per athlete. The average amount of sport revenue generated per athlete is \$996.67. Of the four variables representing organizational effects the greatest portion of institutional expenses was directed toward instructional expenses with academic support services receiving the smallest portion.

The average institutional cost, including tuition, room, and board charged was approximately \$24,884 with an average tuition charge of \$20,346. The average total amount of financial aid awarded was \$12,095.59. Of the financial aid categories,

athletic aid was awarded in the greatest amount with an average of \$5,385.48 and academic aid was second highest with a \$4,911.52 average. Lastly, 39% of the athletes have been enrolled for two or fewer semesters, 26% for four semesters, 19% for six semesters, and approximately 14% have been enrolled for 8 or more semesters. Lastly, for the academic year 2019-2020 approximately 84% of all athletes were retained and 12% completed their degrees.

Table 2: Descriptive Statistics for Selected Variables (n = 1,142)

	Mean	SD
<i>Student Background Characteristics</i>		
Gender: Male (%)	54.81	-
Race/Ethnicity: White (%)	36.89	-
Black (%)	8.13	-
All Other Minority (%)	6.99	-
Preferred not to answer (%)	47.99	-
First Generation: No (%)	31.91	-
Yes (%)	8.48	-
Unknown (%)	59.62	-
<i>College Experience</i>		
Off-Campus Housing (%)	53.24	-
Academic Exemption: Zero (%)	58.67	-
½ Continue Exemption (%)	13.20	-
Full Continue Exemption (%)	19.06	-
½ Freshman Exemption (%)	4.55	-
Full Freshman Exemption (%)	4.55	-
In-state (%)	93.01	-
Out-of-State (%)	2.01	-
Regional (%)	1.92	-
Graduate (%)	3.06	-
<i>Athletic Characteristics</i>		
Varsity	85.75	-
Sport Type: Team Sports (%)	68.53	-
Recruiting Expense (\$)	99.89	210.19
Personnel Expense (\$)	1,716.40	1,540.10
Operating Expense (\$)	1,846.70	1,263.33
Post-Season Expense (\$)	45.84	367.87
Sport Revenue (\$)	996.67	3,244.31
<i>Organizational Characteristics (%)</i>		
Instructional Expense	45.44	8.25
Academic Support Expense	8.67	4.79
Student Services Expense	10.84	5.82
Institutional Support Expense	22.10	8.20

*Institutional Financial Aid (\$)*

Athletic Aid	5,385.48	5,546.10
Academic Aid	4,911.52	5,699.17
Need-based Aid	460.37	1,580.16
Work-Study	153.82	575.11
Other Institutional Aid	1,184.38	2,594.29
Total Financial Aid	12,095.59	8,353.83
Total Tuition Charge	20,346.31	10,441.23
Total Charges	24,884.88	11,801.32
<i>Time in College</i>		
1-2 semesters	39.77	0.49
3-4 semesters	26.14	0.44
5-6 semesters	19.76	0.39
7 or more semesters	14.34	0.35
Retention (%)	84.44	0.36
Graduated (%)	12.93	0.33

**Research Question #1**

Table 3 shows the logistic regression results for Model 1, factors that predict athlete retention for all athletes enrolled ( $n = 1,142$ ). Included in the model are independent variables that are detailed in Table 1. Results indicated athletes retained were less likely to have an Unknown first-generation status ( $OR = 0.041, p < .001$ ), were 8 times more likely to receive a one-half continuing academic exemption ( $p < .001$ ), and 4.2 times more likely to receive a full continuing academic exemption ( $p < .001$ ). Moreover, varsity athletes were 2.3 times more likely to be retained than non-varsity athletes ( $p < .01$ ). The organizational characteristics of instructional expense ( $OR = 1.179, p < .01$ ), student service expense ( $OR = 1.447, p < .001$ ), and institutional support expenses ( $OR = 1.476, p < .001$ ) had a positive influence on retention; whereas academic support expenses were less likely to influence retention ( $OR = 0.598, p < .001$ ). Although all the categorical variables indicating semesters enrolled had a positive influence on retention, only the final two categories reached a level of significance where athletes who were enrolled for 5-6 semesters ( $OR = 2.977, p < .01$ ) and 7 or more semesters ( $OR = 2.695, p < .01$ ) were more likely to be retained than those athletes who had only been enrolled 1-2 semesters. None of the institutional financial aid variables were found to be significant in this model.

Table 3: Logistic Regression Analysis for Variables Predicting Retention for All Student Athletes Enrolled in AY 2019-2020 (n=1,142)

	Model 1		
	OR	SE	
<i>Student Background Characteristics</i>			
Male	0.915	0.192	
Black	1.073	0.411	
All Other Minority	2.746	1.502	
Preferred not to answer	0.717	0.276	
First Generation: Yes	1.122	0.485	
Unknown	0.041	0.020	***
<i>College Experience</i>			
Off Campus housing	0.945	0.212	
½ Continue Exemption	8.092	4.206	***
Full Continue Exemption	4.241	1.630	***
½ Freshman Exemption	1.061	0.424	
Full Freshman Exemption	2.604	1.399	
Out-of-state	1.895	1.734	
Regional	0.630	0.458	
Graduate/Other	0.723	0.401	
<i>Athletic Characteristics</i>			
Varsity	2.341	0.596	**
Sport Type: Team Sports	1.539	0.388	
Recruiting Expense	0.934	0.082	
Personnel Expense	1.019	0.159	
Operating Expense	1.004	0.207	
Post-Season Expense	1.133	0.116	
Sport Revenue	1.026	0.057	
<i>Organizational Characteristics</i>			
Instructional Expense	1.179	0.058	**
Academic Support Expense	0.598	0.076	***
Student Services Expense	1.447	0.094	***
Institutional Support Expense	1.476	0.122	***
<i>Institutional Financial Aid</i>			
Athletic Aid	1.043	0.032	
Academic Aid	1.038	0.034	
Need-based Aid	1.024	0.042	
Work-Study	1.115	0.069	
Other Institutional Aid	1.027	0.039	
Total Tuition Charge	0.685	0.208	
<i>Time in College</i>			
3-4 semesters	1.127	0.275	
5-6 semesters	2.977	0.971	**
7 or more semesters	2.695	0.982	**

Note: Reference group for Gender is female, for Race/Ethnicity is White, for First Generation is No, for Academic Exemption is Zero. \*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$

## Research Question #2

This sample includes athletes who graduated from member institutions in the academic year 2019-2020 and includes the same variables as Model I used in RQ1. Table 4 reports the results from Model 2, which includes factors that predict graduation for athletes enrolled in the academic year 2019-2020. Results indicated Black athletes are 2.7 ( $p < .05$ ) times more likely to graduate than White athletes. In addition to Race/Ethnicity, the other background characteristic that positively influenced graduation is an Unknown first-generation status (OR = 21.138,  $p < .001$ ). Overall athletes with a full continuing academic exemption were more likely to graduate than those who receive no exemptions for academic performance (OR = 2.726,  $p < .01$ ) and more likely to live off campus (OR = 2.102,  $p < .05$ ). Also, as the post-season expenses increased, the odds of athletes graduating decreased (OR = 0.711,  $p < .05$ ) and as the number of semesters enrolled increased from 2-3 semesters up to 7 or more, so too did the odds of degree completion (OR = 10.794,  $p < .01$ ; OR = 27.945,  $p < .001$ ; OR = 269.164,  $p < .001$ ). Although none of the institutional financial aid variables influenced retention, athletes who receive work-study were more likely to graduate (OR = 1.109,  $p < .05$ ). Although athletes are motivated to participate in intercollegiate athletics for many reasons, earning an athletic scholarship to reduce the cost of attendance is reported to be a primary goal (Mendez et al., 2009). None of the financial aid variables were found to significantly influence overall retention and only work-study influenced graduation for athletes. These findings counter previous research where earning an athletic scholarship has been shown to be associated with retention (LeCrom et al., 2009; Millea et al., 2018).

Table 4: Logistic Regression Analysis for Variables Predicting Graduation for All Student Athletes Enrolled in AY 2019-2020 (n=1,039)

	Model 2		
	OR	SE	
<i>Student Background Characteristics</i>			
Male	1.127	0.309	
Black	2.764	1.425	*
All Other Minority	1.070	0.558	
Preferred not to answer	1.553	0.745	
<i>First Generation: Yes</i>	1.066	0.530	
Unknown	21.138	12.618	***
<i>College Experience</i>			
Off Campus Housing	2.102	0.664	*
½ Continue Exemption	1.585	0.573	
Full Continue Exemption	2.726	0.897	**
Out-of-state	1.168	0.958	
Regional	1.919	1.519	
Graduate	1.595	0.959	
<i>Athletic Characteristics</i>			
Varsity	0.672	0.275	
Sport Type: Team Sports	1.108	0.351	
Recruiting Expense	0.913	0.104	
Personnel Expense	1.161	0.289	
Operating Expense	1.058	0.287	
Post-Season Expense	0.711	0.099	*
Sport Revenue	0.994	0.063	
<i>Organizational Characteristics</i>			
Instructional Expense	2.039	72.677	
Academic Support Expense	0.327	22.322	
Student Services Expense	0.979	11.496	
Institutional Support Expense	1.241	30.705	
<i>Institutional Financial Aid</i>			
Athletic Aid	1.037	0.045	
Academic Aid	1.002	0.044	
Need-based Aid	0.894	0.066	
Work-Study	1.109	0.057	*
Other Institutional Aid	1.015	0.046	
Total Tuition Charge	1.195	0.452	
<i>Time in College</i>			
3-4 semesters	10.794	8.259	**
5-6 semesters	27.945	21.231	***
7 or more semesters	269.164	206.840	***

Note: Reference group for Gender is female, for Race/Ethnicity is White, for First Generation is No, for Academic Exemption is Zero.

\*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$



## Discussion

The purpose of the NAIA's ROA initiative is to assist member institutions with aligning collegiate athletics with institutional priorities (NAIA, n.d.). Approximately, 84% of athletes represented and enrolled for the academic year 2019-2020 were retained; a higher value than reported for this same academic year across the NAIA (66%) (Cocco et al., 2023a). Retention rates vary among four-year public and private institutions ranging from 65% to 97% at institutions from low to high selectivity (Hussar et al., 2020). Provided that several of the institutions represented are classified as inclusive or low selectivity, the overall retention rate found is promising. Previous research demonstrates higher retention rates for athletes in comparison to the student body (Johnson et al., 2013; Melendez, 2006); however, making comparisons between non-athletes and athletes is difficult due to differences in how athletes interact with the campus environment, variations across sport played, and distinctions in how retention and graduation rates are calculated (College Sport Research Institute, 2020-2021.).

Minority students and/or first-generation students are at risk groups for retention (Baker & Hawkins, 2016; Comeaux & Harrison, 2007; Pratt et al., 2019). Results indicate a positive odds ratio for both groups, although not at a significant level. A large percentage with an unknown first-generation status created a gap in understanding how athletes' background characteristics influence retention. It is possible that the athlete did not know the education level of their parents and/or guardians, or the institution simply does not collect this information, or errors occurred in reporting the data. Chen's framework includes variables representing a student's college experience, such as GPA, to assess retention (Chen, 2012). Results denote athletes with higher GPAs are more likely to be retained. This finding is not surprising but is important when working to identify athletes who may be at risk for retention. Although data do not include exact GPAs, the academic exemption variables do allow athletes to be grouped according to academic performance. The findings indicate that athletes who had a one-half academic exemption ( $GPA \geq 3.0 \leq 3.59$ ) were 8 times more likely to be retained than those who had zero academic exemptions ( $GPA < 3.0$ ). Athletes with a full academic exemption ( $GPA \geq 3.6$ ) were 4 times more likely to be retained. These academic exemptions may be useful tools in identifying athletes at risk of dropping out or who could benefit from additional academic support.

Although the cut-off point for the one-half academic exemption is a 3.0 GPA, the minimum GPA for athletic eligibility is 2.0, a requirement that does not appear until the junior year (NAIA, 2022). This zone of GPAs between 2.0 and 3.0 has been coined "the murky middle" in the higher education literature (Tyson, 2014). It represents a group of students who may largely not trigger high risk concerns within the institution (Tyson, 2014). However, this middle GPA group of students is less likely to seek academic support on their own and is at an increased risk for dropping out after completing the first year of college (Schreiner, 2018; Tyson, 2014). Previous research examining the relationship between athlete academic success and GPA found variations across sport type and season of competition (Dilley-Knoles et al.,

2010). Female athletes were found to have higher grade point averages (LeCrom et al., 2009; Staurowsky et al., 2020), and a coach, athletic department, and institution emphasizing high academic importance influences college athlete academic success (Ridpath, 2002; Tudor & Ridpath, 2018). While the 2.0 standard is the minimum for athletic eligibility, communicating a higher target of 3.0 and connecting students to support services may facilitate more athlete academic success and increase retention. Institutions should work to identify athletes with a grade point average below 3.0 and provide early academic support rather than intervening when athletic eligibility is jeopardized at a lower grade point average.

In addition to providing early intervention based on academic performance, the results of this study indicate a need to support athletes through the four semesters of enrollment. Most research identifies the freshman year as high-risk for dropout, therefore institutions focus resources on freshman success initiatives (Millea et al., 2018; Nora et al., 2005; Tinto, 2006). Time in college did not have a positive effect until the five-semester mark when athletes were 2.9 times more likely to be retained. Investing in freshman success initiatives may help students initially create momentum toward degree completion, but institutions should also examine what types of programming are available to maintain later student engagement to maintain momentum towards degree completion.

Varsity athletes were found to be 2.3 times more likely to be retained in comparison to their non-varsity peers. Although non-varsity athletes do not participate in competitions that are included in varsity win/loss records or those that qualify for post-season competitions, non-varsity athletes must meet all academic eligibility requirements (NAIA, August 2022). Only 33% of NAIA institutions offer non-varsity programs (Cocco et al., 2023d); however, the NAIA reports benefits to the institution's ROA in enrollment and tuition revenue generated. Specifically, when examining the impact of junior varsity (JV) programs on net return findings indicated 33% of institutions offered JV programs and averaged a higher net return (\$3.5 million) in comparison to institutions that did not offer JV programs (\$1.8 million). Although the total number of non-varsity athletes may be smaller than varsity athletes, the tuition revenue generated is often higher per non-varsity athlete than per varsity athlete. This increased revenue per non-varsity athlete can substantially add to the overall tuition revenue generated via intercollegiate athletics (Cocco et al., 2023d).

According to a recent research brief, when comparing retention rates for institutions that offer JV programs with a minimum of 100 junior varsity athletes to those without JV programs the total retention rate was slightly higher with JV programs, and 16 of 22 sports had higher total retention rates with JV programs (Cocco et al., 2023d); however, it is unclear if those who are not retained are varsity or non-varsity athletes. The results of this study indicate that retaining non-varsity athletes may be problematic. Administering non-varsity athletic programs may improve an institution's financial stability but more research is needed to understand and ensure the academic success of non-varsity athletes.

The final variables influencing the retention of athletes include organizational characteristics. Although academic support expenses had a negative influence on

retention, the remaining three expense categories had a positive effect. Interestingly, none of the organizational characteristic variables were shown to influence graduation. How institutions allocate spending may work to support retaining students, particularly those expense categories that most directly influence the student experience (Chen, 2012), but according to the findings of this study may lose importance as students move toward graduation.

While none of the Race/Ethnicity categories significantly influenced retention, Black athletes are 2.7 times more likely to graduate in comparison to White athletes. This finding contradicts previous research where Black males specifically were often reported to demonstrate lower graduation rates (Baker & Hawkins, 2016; Harper, 2016; Horton, 2015); however, Black female athletes are often reported to have higher graduation rates in comparison to their non-athlete peers (Staurowsky et al., 2020). Results show a positive odds ratio for males; however, gender was not significant. Overall, Black athletes account for a small portion (8%) of the total sample for this study and therefore, this finding has limited implications and may not be generalizable to athletes outside of those represented in this dataset. Nonetheless, this finding is positive and indicates that the small college athletic and academic environment at these institutions fosters academic success for a potentially at-risk population of athletes. Indeed, athletic participation connects students to financial resources and support networks of teammates and coaching staff, and the model of athletics found within the NAIA is far removed from the negative issues found particularly in the upper divisions of the revenue-generating NCAA. This model of athletics coupled with the small student-to-faculty ratio present at the institutions represented in this study allows for a more personalized academic experience which has been found to be important for athletes (Comeaux & Harrison, 2007) may help explain this finding.

While the unknown first-generation group was found to be an at-risk group for retention, for those who are retained, this group of athletes are more likely to graduate. Similar to the difficulty in interpreting this group for the retention model, without more information it is difficult to speculate why this group may experience success in completing degrees.

The only financial aid variable shown to influence degree completion is work-study. It is possible that on-campus jobs are likely to be more athlete-friendly, allowing NAIA athletes flexibility to balance work with academic schedules and athletic time requirements. Previous research found positive associations between work-study and retention and time to degree completion within the general body (Letkiewicz et al., 2014). Beron and Piquero (2016) found having a job significantly influenced athletes' academic success specifically for male, Division III athletes. Furthermore, Weiss and Robinson (2013) found a lack of time to get a job and earn spending money to purchase necessities and pay bills added to financial stress as a significant cause for athletes to leave athletics.

## **Limitations & Recommendations**

This study has a few limitations. The first limitation is the inclusion of data from member institutions within a single NAIA conference; therefore, results may not be

generalizable to other institutions outside of the conference. A second limitation is ROA data was self-reported by the institutions. Self-reported data can lead to inconsistencies in interpretation, reporting of variables, and self-reporting bias. Additionally, the data include secondary data limiting the researcher to only the variables that were available. The data contain information for only one year, limiting the ability to analyze the temporal effects of the variables for financial aid, retention, and graduation. Also, the data reporting period is over the academic year 2019-2020, coinciding with the Covid-19 pandemic. Like the NCAA, the NAIA extended eligibility for groups of athletes because of the pandemic (NAIA, n.d.a); therefore, it is possible that some athletes chose not to graduate thus influencing the results. Large percentages of background characteristic data are reported as Unknown, for first-generation status or Preferred Not to Answer for Race Ethnicity variable. Provided these are options for reporting this data in the template provided by the NAIA and to maintain the sample size of the present study; as well as consistency of variables included in the model for future analysis the cases and variables were included while recognizing the limitation in the interpretation of the results.

Based on the findings, a few areas for future inquiry are noted. First, continued data collection for additional ROA research is recommended as this is an exploratory study intended to drive future research. While the findings of this research are promising, this research includes only one year of data and should be interpreted as preliminary results. Future research should investigate any methods and results from this study. Additionally, when subsequent years of data become available a longitudinal analysis could be completed with a more complete and robust data set. Also, investigating findings related to varsity and non-varsity athlete retention with the addition of variables such as GPA and credit accumulation. The current ROA dataset does not include these two variables; therefore, the academic standing of athletes could not be directly assessed. Since the results indicate non-varsity athletes share many characteristics of known at-risk populations of such as male, minority, and first-generation, it is imperative to further investigate and understand the experience of non-varsity athletes, considering institutions can garner higher amounts of tuition revenue from this population (NAIA, April 13<sup>th</sup>, 2019). It is possible that this non-varsity population of athletes enters the institution to pursue intercollegiate athletics and ultimately transfers out academically intact with completed credits and a GPA in good standing. If this is the case, then the short time spent at the institution as a non-varsity athlete would have some benefit. However, if a non-varsity athlete left in poor academic standing and dropped out of higher education completely, it's a disservice to the athlete. Institutions that administer non-varsity athletic programs have a responsibility to further investigate the retention and academic success of non-varsity athletes.

Other areas for future research include an examination of roster sizes as enrollment drivers versus actual playing time, the influence of work-study, examining the influence of athletic success on graduation rates, and a comparison of athletes and non-athletes. Also, using other empirically tested analytical models can also add to the breadth and depth of future study. Given the importance of work-study, addition-

al research investigating this athlete-work-study relationship may provide a better understanding of how it influences academic success for this group. Lastly, provided the specialized nature of the ROA dataset focusing on athletes, comparisons could not be made to non-athletes. As NAIA institutions continue to invest institutional dollars in athletic programs to drive enrollment and generate revenue, ensuring the academic success of athletes is imperative. The findings of this research highlight several areas of success for athletes and showcase NAIA athletes, a group largely unrepresented in the literature. In addition to areas of effectiveness, several areas were identified for improvement where institutions can work to progress the athlete's academic experience. This research explores how intercollegiate athletics may work to promote improved outcomes for both the athlete and the institution. With further research, NAIA institutions can work to enhance the athlete experience and improve retention and graduation rates.

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