



**An Equity Analysis on the Collegiate Name,
Image, and Likeness (NIL) Market**

by

Lauren MacKeigan

Thesis Advisor: Dr. Chris Rider

A thesis submitted in fulfillment of the requirements of the
Michigan Ross Senior Thesis Seminar (BA 480), April 20, 2023.

Abstract

Gender and racial disparity in sport has also long been a topic of discussion, and one worth revisiting with the reversal of the NCAA's Name, Image, and Likeness (NIL) mid-2021. With the newness of the NIL market, there is a need for analysis on how race and gender impact a student athlete's opportunity in the market, and this thesis is a novel attempt to do just that.

Student-athlete education is critical to ensuring equitable opportunities and outcomes for student athletes. I find that women's sport competitors expect, and will opt out of a deal, at half the compensation rate that men's sport competitors will. I also find a similar trend between white and BIPOC athletes: white athletes will expect 60% lower and opt-out at 54% lower compensation rates given identical, hypothetical deal terms. These findings remain consistent even when controlling for sport, number of social media followers (total following), division, degree type, academic standing, and previous NIL involvement. When looking at sub-samples, I find the total following that an athlete in women's sports has been significantly influential in their compensation estimations, while it is not influential for athletes in men's sports. Athletes with higher social media followings are more likely to be involved in at least one NIL deal, and so are BIPOC athletes. Despite the NIL participation rate being higher for BIPOC athletes than white athletes, BIPOC athletes may be less likely to be involved with more than one deal as opposed to white athletes. Ultimately, this thesis provides evidence that there is disparity conditional on race and gender within the NIL market.

Contents	
Introduction.....	5
<i>History & Politics of Collegiate/Amateur Sports</i>	<i>5</i>
Problem Statement & Justification	9
<i>Problem Statement</i>	<i>9</i>
<i>Problem Justification</i>	<i>9</i>
Literature Review	10
<i>Transaction Platforms.....</i>	<i>10</i>
<i>Pay Negotiation</i>	<i>10</i>
<i>Social Media</i>	<i>11</i>
Method	13
<i>Survey Distribution</i>	<i>13</i>
<i>Survey Structure & Data.....</i>	<i>15</i>
<i>Interviews.....</i>	<i>16</i>
<i>Statistical Analysis</i>	<i>16</i>
<i>Recoded/Added Controls & Variables</i>	<i>16</i>
<i>Methodology Notes on Deal Expectations Results.....</i>	<i>17</i>
<i>Methodology notes on Deal Involvement Results</i>	<i>18</i>
Results	19
<i>Sample Representation vs Population, Descriptive Statistics</i>	<i>19</i>
<i>Compensation Expectations and Opt-Out Thresholds</i>	<i>19</i>
<i>Deal Involvement</i>	<i>20</i>
Discussion.....	22
<i>Implications of Gaps in Deal Expectations.....</i>	<i>22</i>
<i>Implications of NIL Involvement and Level of NIL Involvement.....</i>	<i>23</i>
<i>Comparing Analyses of Deal Expectations & Deal Involvement</i>	<i>24</i>
Limitations.....	25
Future Research	26
Conclusion	28
Acknowledgements	29
Appendix	30
<i>Table 1: Involved Institutions.....</i>	<i>30</i>

<i>Table 2: Additional Institutions Represented in Survey</i>	32
<i>Exhibit 1: Survey Questions & Data Collected</i>	33
<i>Table 3: Gender & Race Sample Representation</i>	36
<i>Table 4: Sport Representation</i>	36
<i>Figure 1: Mean Compensation Expectations and Opt-Out Thresholds, Conditional on Sport Gender</i> .	37
<i>Figure 2: Mean Compensation Expectations and Opt-Out Thresholds, Conditional on Race</i>	38
<i>Exhibit 2: Within-Gender Models</i>	39
<i>Exhibit 3: Within-Race Models</i>	40
<i>Exhibit 4: Compensation & Opt-Out Threshold Models</i>	41
<i>Figure 3: Athletes with 1 or more NIL Deals</i>	42
<i>Figure 4: Deal Count by Race & Gender</i>	43
<i>Figure 5: NIL Involvement by Race, Split by Gender</i>	44
<i>Table 5: In-Group % of Athletes with at least 1 NIL Deal</i>	44
<i>Exhibit 5: Standardized Odds-Ratio of Significant Factors to “Yes” in NIL Involvement</i>	45
<i>Exhibit 6: Standardized Odds-Ratio of Variables to More than 1 NIL Deal</i>	46
References	47

Introduction

It is a rare occurrence for a near-billion-dollar market to open overnight. The National Collegiate Athletic Association (NCAA) introduced an interim Name, Image, and Likeness (NIL) policy in July 2021, allowing its athletes to be compensated through brand deals without jeopardizing eligibility, scholarships, and/or financial aid. This marked a massive reversal in the NCAA's policy; every college athlete now had a utilizable market value.

History & Politics of Collegiate/Amateur Sports

Collegiate sports weren't always a billion-dollar industry like they are today. *NCAA v. Board of Regents of the University of Oklahoma* (1984) catalyzed the transformation of the collegiate sports industry by striking down the NCAA's monopoly over television rights to college football and inadvertently opening a marketplace for network and TV rights deals, which brought an influx of revenue to the industry that did not previously exist. The first network contracts negotiated in the 1980s with ABC, CBS, and Turner Broadcasting created an average revenue of \$75 million per televised game (Brown, 2019, p.43). That number has only grown as access to television has increased and with the emergence of streaming platforms; today, the Power 5 conferences alone rack in an estimated \$1.4 billion in revenues from broadcasting deals (Brown, 2019, p. 22).

In the *NCAA v. Board of Regents* decision, the court also reinforced the concept of amateurism in college sports, closing the door on any opportunity for student-athletes, particularly student-athletes of revenue-generating sports like football and basketball, to receive any dollar amount of newly generated revenue from the broadcasting partnership market.

Athletes would be able to “make up” for any income they may have missed from this change in the broadcasting market if two assumptions were met:

- 1.) The value of the education, degree, and other aid/scholarships provided by the school to the athlete are equivalent to what the athlete’s “would’ve-been” share of the revenue from broadcasting deals, and
- 2.) The student-athlete graduates and fully realizes the value of the degree awarded to them by the school.

The viability of both assumptions fell short in analyses done by the National College Players Association (NCPA) and the University of Southern California’s Race and Equity Center. The NCPA’s study found the market value of a collegiate men’s basketball and football player (the two highest revenue-generating college sports) to be \$289,031 and \$137,357 respectively; while the average athletic aid awarded according to a 2016 survey of Division I schools was \$38,246 and \$36,070 respectively (Brown, 2019, p. 46-47). Suppose the assumptions and methodology of these numbers hold. In that case, this means that the market value of revenue-generating athletes is much higher than the amount being awarded to them by schools— 7.5x higher for basketball players and 3.8x higher for football players.

The second assumption is particularly important when analyzing the effect this had on Black athletes. Black athletes often make up more than 50% of college football and basketball rosters in Power 5 conferences, but Black students almost always make up less than 5% of student populations on the same campuses (Harper, 2018, p. 9). Further, Black athletes often have lower graduation rates than the rest of the student population or even the student-athlete

population, so they are less likely to realize the value of the college degree for which they were given a scholarship (Harper, 2018). Some may go on and play their sport professionally, but this is not the “typical” trajectory given less than 5% of eligible college football and basketball players are typically drafted each year (NCAA.org, 2019). With these two assumptions often unmet, particularly for Black men, there began a compelling argument that student-athletes of revenue-generating sports were being treated inequitably by their institutions, considering their work led to millions of dollars in income for their respective athletic departments and was not redistributed to constituencies with similar demographics.

This contributed to a growing sentiment that transformed into a wider discussion and movement to address the inequity resulting from institutions pocketing revenues generated from the work and talent of their athletes. In October 2019, the State of California passed a law, set to go into effect no later than January 2023, that would prohibit postsecondary educational institutions from restricting its athletes to profit off their NIL (Fair Pay to Play Act, 2019). The bill was supported by professional basketball player LeBron James and other advocates for student-athletes receiving fair compensation but was opposed by NCAA schools in California like Stanford and major state schools (McCullough, 2019). California schools participating in the NCAA were concerned about how and if the NCAA would penalize them for abiding by the state law and the NCAA expressed concern over added confusion from the state law contradicting its existing NIL policies; many state legislatures followed suit and passed similar legislation before the NCAA made any policy changes (Keller, 2022).

Then in March of 2021, several Division I men’s football, men’s basketball, and women’s basketball players sued the NCAA, arguing the restrictions placed on “the compensation they

may receive in exchange for their athletic services” violated the same antitrust law that was used as the basis of the decision in the earlier *NCAA v. Board of Regents (National Collegiate Athletic Association v. Alston et al)*. After being appealed, the Supreme Court upheld the original court’s ruling that the NCAA must provide access to additional non-cash academic benefits but still held that the NCAA may limit cash or cash-equivalent academic rewards (*NCAA v. Alston*). Days later, the NCAA adopted a new Name, Image, and Likeness policy that would allow student-athletes to be compensated by entities other than their school without the threat of academic or financial penalty on July 1st, 2021 (NCAA.org, 2021).

Problem Statement & Justification

Problem Statement

This thesis is a novel attempt at documenting and analyzing any disparity that may exist in the NIL market. This thesis will specifically focus on deal expectations and deal involvement, conditional on race and gender. I hypothesize there are differences in perceptions and involvement when comparing athletes of different races and genders and will discuss the implications of any observed differences, along with next steps.

Problem Justification

No previous academic research on collegiate NIL exists to the author's knowledge and there is a need for more to be documented about the industry as policy and regulations are reformed over the next several years. Previous research focused on disparities resulting from differential treatment of, and disparate impacts on, women and minorities in settings outside of sport that are influential in the NIL space suggests there may be disparities. And historically, as discussed in the introduction, collegiate sports have not been the most equitable environment for women and athletes of color. Research and documentation on NIL is important to promote equitable opportunities for all athletes to participate in the market.

Literature Review

Transaction Platforms

Literature regarding racism on Airbnb is relevant to this thesis. Transaction platforms, such as Opendorse and INFCLR, have emerged as key players in the NIL market. These platforms serve as deal brokers for student-athletes and brands, and compliance tools for institutions. A study done on Airbnb found that “applications from guests with distinctive African American names were 16% less likely to be accepted relative to identical guests with distinctively white names” (Edelman, 2017). Airbnb is a transaction platform, like INFCLR and Opendorse, that connects the demand and supply side of a market and allows them to make deals at their own discretion. Edelman’s study found the supply side– the renters– to exhibit differential treatment. There is potential that a similar pattern could be found on NIL deal platforms, with brands as the suppliers.

Pay Negotiation

Another category of relevant literature is the existing research regarding the gender pay gap, particularly the negotiation gap. The literature comes to the consensus that there is a pay gap, and some research has found evidence that differences in negotiation habits may be an explanation as to why. Previous research finds that women are less likely to negotiate and ask for higher pay in a professional setting than men and are more likely to be penalized for negotiating (Bowles, 2007; Rigdon, 2012). These findings may give us the intuition that women athletes may ask for less compensation, and then end up with less compensation, than men athletes given the same deal terms.

A somewhat similar trend has been observed between white and Black salary negotiators as well. While race does not influence the amount negotiated for, Black salary negotiators are more likely to be penalized for negotiating than white salary negotiators and seen as “too aggressive” when negotiating (Hernandez, 2018). Again, this may impact compensation outcomes conditional on the race of the athlete; Black athletes, regardless of how their expectations align with white athletes, may be differentially treated when approaching deal opportunities even if they approach the deal in the same manner a white athlete would.

Social Media

Social media is also a significant component of NIL: over 75% of NIL activity involves social media activations and is critical to a student-athlete’s NIL value (Smith, 2022; Wittry, 2022). There are well-documented disparities between men’s and women’s sport that may lead to gender-based inequity within NIL; metrics like participation, funding, TV/streaming revenue, and professional opportunity typically favor men’s sports over women’s despite progress made to close those gaps. Women’s sports typically receive less visibility and publicity than men’s: men may be more likely to receive higher amounts of deals and/or compensation than women because they play in sports that have more viewership, which may impact NIL opportunities if NIL was strictly based on viewership and visibility. Social media’s influence on the NIL market may help bolster participation opportunities for women. Athletes like LSU gymnast Olivia Dunne, Miami basketball players Haley and Hanna Cavinder, and Auburn gymnast Sunisa Lee are examples of women earning millions of dollars worth of NIL compensation through social media-based deals (Balasaygun, 2022). The net effect of social media as an “equalizer” in NIL is unclear and this thesis analyzes the role of social media and its influence across demographics.

Visibility and promotion on social media are also influenced by artificial intelligence (AI) and algorithms, and previous research has demonstrated instances where AI and algorithms have disparately impacted people of color. Research on risk-assessment algorithms used to forecast violent crime and determine bail and the level of freedom a defendant may obtain revealed a disparity between Black and white defendants (Angwin, 2016). AI and algorithms have also generated disparate impacts on political and job advertising (Li, 2021; Dastin, 2018). If a similar trend exists on social media, this could lead to a disparity between white athletes and athletes of color. For social media-based deals, a large factor of the estimated value is derived from the expected engagement a post will receive. If athletes of color are less likely to be promoted or visible on social media because of biased algorithms and AI, they may be disparately impacted and offered lower compensation for deal terms influenced by social media engagement.

Method

A mixed-methods approach was adopted to conduct the study to better understand athletes' and administrators' experiences in the market. The primary data collection tool was a Qualtrics survey, with supplementary athlete demographic data from the NCAA's Demographic Database. Interviews were used to contextualize and inform on insights found from the data.

Survey Distribution

A nationwide survey of collegiate athletes was conducted. Athletic department staff from 998 collegiate institutions were contacted to recruit their student-athletes: at larger institutions, staff with titles related to NIL, DEI, and/or student-athlete success or development were chosen to contact; at smaller institutions, Associate or Head Athletic Directors were contacted. Thirty-nine agreed to send or share directly with their student-athletes. In the email, individuals were given a number of options to assist:

- 1. Forward me to a SAAC representative from {institution} or ask a representative if they'd be willing to speak with me. I'd love to meet with them to discuss any opportunity for their committee to share this research participation opportunity with your institution's student-athlete population.*
- 2. Forward a separate email I share with you that contains the survey link and study information/consent sheet to your athletes.*
- 3. Provide me a list of student-athlete emails whom I could directly contact.*
- 4. Participate in a 15-minute informational interview about your experience working with NIL and Student-Athletes, or forward me to a colleague who would be a better fit for this.*

Student-Athlete Advisory Committees (SAACs) were the preferred approach to working with athletes and schools to complete the survey. Each NCAA institution has its own SAAC that consists of 1-2 representatives from each team the institution hosts. NAIA institutions have a similar structure and refer to them as Student-Athlete Leadership Teams (SALTs). These committees work with the institution's administration on different initiatives regarding student-athlete development and campus involvement and bridge communication between the student-athlete population and the administration. Ideally, the AD staff member contacted would share the research information with the SAAC Executive Board at their institution, and then I would work with them on the distribution of the survey. In general, student-athletes seemed very interested in the research, particularly given the DEI initiative. The difficulty was getting through the administration to the right student-athletes on campus to have the survey distributed—once a student-athlete was looped in, it was very likely they would promote the survey to the other student-athletes at their institution.

The University of Michigan's gymnast and SAAC President Sierra Brooks was also influential in the dissemination of the survey among University of Michigan student-athletes and her network of athletes in the Big10 Conference and beyond. She invited me to administer the survey in person at a SAAC meeting and helped persuade the NIL Coordinator at UM to share the survey with all student-athletes, on top of asking SAAC representatives to encourage their teams to participate. Brooks also leveraged her position as UM's Big10 SAAC representative to share the survey at that level. I also was able to administer the survey during the University of Denver's and the University of Minnesota - Duluth's SAAC meetings via zoom. All other athletes who completed the survey, outside the SAAC representatives at the 3 institutions where

the survey was administered during a SAAC meeting, took the survey at their own convenience after being communicated by a fellow student-athlete or someone from their athletic department. Survey participants were incentivized with a \$25 gift-card lottery and the opportunity to receive a condensed version of research findings on the conclusion of the research.

Survey Structure & Data

Overall, 330 responses representing 46 different NAIA and NCAA conferences were analyzed. 22 other conferences are represented in the survey sample that were not directly contacted (**Tables 1, 2**). These responses may have come from athletes sharing the survey with colleagues outside of their school or from a LinkedIn post broadcasting the survey that received just under 8,700 impressions and was reposted by student-athletes and others involved in collegiate athletics.

To take the survey, athletes were directed to a Google site where they would read a brief description of the research and the informed consent sheet before clicking a button to continue to a Qualtrics survey, which was estimated to take 10-15 minutes to complete for athletes with NIL deals, and as little as 5 for athletes without. Then, athletes had to select that they were 1.) over the age of 18 and 2.) an NCAA or NAIA athlete before continuing to the welcome page of the survey. The survey consisted of three main parts: athlete demographics, NIL deal data, and market perceptions (**Exhibit 1**). Athletes who had not been involved in NIL deals were still able to provide valuable data regarding their perceptions of the market and all responses were anonymous. IP addresses were recorded to manage concerns regarding duplicate responses—participants were instructed they were only allowed one response and were unable to retake the survey from the same device.

Interviews

Qualitative interviews were also conducted with several different types of individuals involved in the market: student-athletes, athletic department staff (commissioners, athletic directors, NIL coordinators, and student-athlete development managers), conference-level staff, and employees (founders, vice presidents) of NIL-focused service providers. These interviews helped to inform on observations from the data and situate the research in the broader context of NIL. 21 interviews were conducted, 14 being student-athletes and 7 being athletic administrators and/or NIL service providers.

Statistical Analysis

Difference-in-means testing was first used to identify any descriptive differences between groups. Multivariate linear regression or logistic regressions, depending on the comparison(s) being structured, were then used to control for several variables to determine the influence of the variable of interest.

Recoded/Added Controls & Variables

Athletes were asked to provide their major/degree program in the survey. To better use this information as a control, a new variable was created and responses were recoded into degree categories to achieve a reasonable sub-sample size to utilize as a control. These categories are Arts & English, Business, Math & Science, and Social Science. 35 responses were recoded to Arts & English, which consists of Communications, Graphic Design, Digital Media, Journalism, Film, and English degree types. 105 responses were recoded to Business, which consists of Finance, Accounting, Sport Management, Business Administration, MBAs, Supply Chain Management, Marketing, Real Estate, and other business-related degree types. 126 responses

were recoded to Math & Science, which consists of Engineering, Mathematics, Biology, Kinesiology, Nursing, Environmental, Chemistry and other science or math focused degree types. 60 responses were recoded to Social Science, which consists of Education, History, Economics, Political Science, Justice/Criminology, Social Work, Psychology, Sociology, and International Studies degree types. 3 responses were “undecided,” and 1 was blank; these responses were not assigned a value in the new “Degree Category” variable.

Methodology Notes on Deal Expectations Results

The first results that will be discussed in this thesis deal with athletes’ expectations given a set of deal terms. To analyze athletes’ deal expectations, survey respondents were asked to provide two hypothetical values in the survey: the dollar amount of compensation they would expect to receive from a deal (Compensation Expectations), and the lowest dollar amount of compensation they would accept to agree to the deal (Opt-Out Threshold) (**Exhibit 1, Block 4: NIL Perceptions**). Athletes also had the opportunity to leave comments about why they provided the values they did. The deal terms were social-media focused given most NIL deals feature social-media activations and to be able to compare how heavily correlated an athlete’s social media following would be with what they expected. Athletes provided their social media following but did so earlier in the survey to avoid biasing athletes to think about their social media following when answering those questions.

Only one extreme outlier was recoded in the analysis; this response was more than twenty-five times larger than the extreme outlier threshold ($3 \times \text{IQR}$) and five times larger than the next largest observation. This response did not exhibit any features that would align with such large expectations: it did not feature a large social media following compared to other

observations in the sample and did not participate in a traditionally revenue-generating collegiate sport (men's football, or men's or women's basketball), therefore it was replaced by the next highest observation within respondents who participate in a women's sport.

Methodology notes on Deal Involvement Results

A "Power 5" variable was added to identify athletes who compete in the Big Ten, Big 12, Pac-12, Atlantic Coast Conference (ACC), or Southeastern Conference (SEC). Responses with these conferences were coded as "1" in the new variable and all others were "0". This variable was created in lieu of using Division and NAIA as controls, given nearly all athletes who reported being involved with an NIL deal were Division I athletes. The Power 5 Conferences are the highest-earning conferences in the NCAA and where most NIL engagements are occurring. This also helped to address relatively correlations between some sports and divisions, which were less inefficient controls when used together. This variable provided another way to control for level of athletics.

A "2 or More deals" variable was added to identify athletes who reported more than one deal; responses with more than one deal listed were coded as "1" and athletes who only reported one deal were coded as "0." This variable was created to compare the demographics of athletes who were participating more heavily in the market.

Results

Sample Representation vs Population, Descriptive Statistics

Women made up 63.9% the sample and are overrepresented; white athletes are overrepresented, Black athletes are underrepresented, and IPOC athletes are evenly represented (**Table 3**). Track & Field (14%), Soccer (8.8%), and Lacrosse (8.5%) were the highest represented sports out of the 23 in the survey (**Table 4**). Cheerleading, Dance, Sailing, and Esports are unsanctioned by the NCAA but were included in the analyses since these athletes are also able to engage with NIL, albeit in an unregulated manner.

Compensation Expectations and Opt-Out Thresholds

Given the same deal terms, women's compensation expectations and opt-out threshold are half that of men's: \$400 lower. BIPOC athletes have 1.6x higher compensation expectations than white athletes and will opt-out at a 1.8x higher amount than white athletes. When controlling for SAAC involvement, total following, and sport, these results remain significant with slightly different margins (**Exhibit 3**). When looking at sub-samples of men's and women's sport competitors, total following is much more influential in women's estimations of compensation and opt-out thresholds (**Exhibit 1**).

Program/degree category, academic standing, and previous NIL involvement (if the athlete had reported engaging in an NIL deal before) had insignificant effect on compensation expectations and opt-out thresholds throughout models. SAAC involvement, total following, and some sports wavered in significance depending on the combination of controls in the regression model. Sports with $n < 10$ were not included in the regression analysis, but football ($n=7$) is an extremely influential variable when evaluating compensation expectations and opt-out

thresholds, accounting for ~20% of data variability when added as a control to models. When looking at sub-samples of men's sport and women's sport athletes, total following was a significant factor for athletes in women's sports, but not athletes in men's sports.

There were 30 respondents who did not respond to either question used in the analysis, but two of these 30 left comments when prompted with the open-text response question, which followed the questions asking for compensation expectation and opt-out threshold: "What factors did you consider when answering the last two questions?" Both responses were akin to "I don't know what to expect," and it is likely that the 30 respondents who completed the rest of the survey did not provide a compensation expectation or opt-out threshold. Interviews held with student-athletes confirmed this sentiment, when asked how they would go about analyzing the terms of a deal and if they would want to be involved, many were unsure.

Deal Involvement

Gender was not a significant indicator in predicting NIL involvement (meaning an athlete reported "Yes" to having at least one deal); when only looking at athletes involved in deals, there is some evidence that athletes in women's sports are more likely to have multiple deals than athletes in men's sports (**Exhibits 5, 6**). White athletes are less likely to be involved in NIL than BIPOC athletes; when only looking at athletes involved in deals, there is some evidence that white athletes are more likely to have multiple deals than BIPOC athletes (**Exhibits 5, 6**). Athletes involved in SAACs, in Power 5 Conferences, and with a higher social media following are more likely to be involved in NIL (**Exhibit 5**). BIPOC athletes reported "Yes" at a 1.7x higher rate than white athletes and there was no significant rate gap in "Yes" responses between athletes participating in a men's or women's sport (**Table 5**).

69 athletes responded “Yes” to having at least one NIL deal (20.9% of the sample). Of these 69 athletes, 56 provided further detail about their NIL deal(s). 32 athletes reported 1 deal, and 24 reported 2 or more (**Figure 3**). Sport, SAAC involvement, degree category, and academic standing were not significant in predicting the likelihood of an athlete having 2 or more deals. While no variables were significant at the 0.05 level when predicting the likelihood of having 1 or more deals, total following, Power 5, White, and Women hovered around the 0.1 significance level. These variables have standardized odds ratios above 2, with total following being the highest (**Exhibit 6**). Logistic regression was used to determine the likelihood of variables influencing “Yes” in NIL Involvement (n = 330) and “1 or more deals” in athletes with at least 1 reported deal (n=56).

Discussion

Implications of Gaps in Deal Expectations

While agents or other representatives may manage the negotiation and deal evaluations for larger-name athletes, many college athletes are their own primary managers of their NIL involvement—so their expectations and confidence are influential factors of an athlete’s participation. The role of transaction platforms is crucial to these findings: athletes with lower expectations can self-select into lower-compensating deals on these platforms, which may perpetuate a disparity between groups. Many of these platforms do not track race and gender data—these findings suggest there is a need for deal platforms to be auditing athlete involvement by demographic and for better athlete educational resources.

While many Power 5 schools have reasonably built-out NIL resources for their athletes, NIL and athlete education is not a focus of the majority of collegiate institutions. This sentiment became clear during some of the interviews I conducted, particularly in one with a Commissioner of an NAIA conference. The Commissioner had a strong interest in NIL and getting opportunities to athletes, but discussed how it ultimately is up to the Athletic Directors at the conference’s member institutions to decide how much of a focus their school will have on NIL, even if there is a push for it at the conference level. A similar sentiment was echoed during another interview with a Deputy Commissioner of a Division II conference: at the conference level, there is significant interest in providing athletes resources, but member schools either do not share the same interest and/or do not have enough resources to devote to promoting and building NIL education. A third interview with a Compliance Director from a Division II school

further confirmed this: at their school, there just are not enough resources to devote to providing athletes with adequate NIL education and resources.

My analysis is that a school's Athletic Director sets the tone for how NIL will be engaged with by student-athletes on their campus. These positions are influential in setting their department's objectives and if NIL education & opportunities are not a priority in their Athletic Departments (ADs), then they may be disparately impacting women athletes. If ADs do not offer adequate education and transparency about NIL involvement and expectation to their athletes, it may foster the feedback loop of women expecting less, seeking less, hence receiving less. I am hesitant that the same feedback loop would be as evident for white athletes: although they had lower expectations and opt-out thresholds than BIPOC athletes, it is more likely (referencing previous research on negotiation and penalties) that BIPOC athletes are penalized for having higher expectations than white athletes, as opposed to men athletes being penalized for higher expectations than women athletes. Regardless, transparency and education are vital to addressing any disparity that may result from these significant gaps in deal expectations.

Implications of NIL Involvement and Level of NIL Involvement

Although these findings are not consistently significant and a larger sample size is needed to really understand the dynamic between athletes who are involved in NIL on a binary level and athletes who are involved on a higher level (more deals and/or higher compensation), white athletes being less likely to be involved with NIL but more likely to have multiple deals than BIPOC athletes (descriptively) may indicate a disparity in the market. Again, this is another reason for better data collection across the industry, but particularly by platforms and institutions. Tracking who is using platforms isn't necessarily enough—it is also important to

understand who is finding more or less success on these platforms. Even though this study demonstrates BIPOC athletes are involved with NIL deals at higher rates than white athletes, it is unclear if that means they are having the same level of “success.”

Comparing Analyses of Deal Expectations & Deal Involvement

Regressing on deal expectations was significantly more difficult than regressing on NIL Involvement. While race and gender were consistently significant across models, other variables that had some influence varied much more greatly across models in significance (total following, SAAC involvement, division, sport) when controlling for compensation expectations and opt-out thresholds. It was much easier to regress on NIL Involvement: total following was clearly more influential, and sports were, in general, less significant. Football was extremely influential in expectation analyses, but not when analyzing NIL Involvement. The difficulty of regressing and parsing out significant factors when looking at deal expectations may be reflective of the uncertainty athletes face when navigating NIL, which was expressed in some of the open-text responses athletes provided when explaining their decisions. More than 20 responses used language referencing they were unsure or didn't know how to evaluate the deal and what they should expect. Again, this supports the idea that better education is needed for student-athletes to understand how to evaluate themselves if they are presented deal terms.

Limitations

Limitations of this research include 1.) sampling and non-response bias among survey respondents and 2.) lack of control over the data generation process. While extensive subject recruitment was undertaken, the researcher had little control over which, and how many, institutions opted-in to share the survey with athletes. Of the student-athletes who did receive the survey, higher-profile athletes with less time or interest in the research incentives and athletes who are uncomfortable with sharing their NIL deal information may have been less likely to complete the survey. There were limited instances where the researcher was present during the administration of the survey, therefore most respondents did not have the opportunity to ask questions if needed.

In general, there is a lack of academic research and uniformity across the industry.

Future Research

I would suggest the next and most impactful research would evolve from looking at a wider sample of deal data. This data exists—albeit in a challenging manner to collect across platforms, institutions, and athletes—and would give a better look into how athlete perceptions are playing out. Perceptions and expectations coupled with the reality would give researchers and policy makers a more comprehensive understanding of any disparity that exists in the market and better inform on what types of interventions would be most successful in addressing disparities. It would allow a better understanding of if any disparity is generated through disparate impact or differential treatment.

Evaluating expectations with predicted NIL market value could also provide more insight into how close athletes' perceptions are to reality, or at least what third-party evaluators deem to be reality for athletes. On3 NIL is an example of one of these third parties that provides market valuations on athletes; its data could be used to compare athletes' predictive and self-perceived values. Even looking at predictive values alone across demographics would be informative—the algorithms used to predict an athlete's market value likely do not explicitly consider race, so if there's inequity between groups' predictive values it may result from disparate impact.

To look further into the difference between binary NIL Involvement and the level of involvement, it would be useful to investigate if different types of deals are being allocated to different races and/or genders of athletes (low vs high compensation, repeating vs one-time, industries of partner brands, if the deal was found using a platform or not). If different types of deals are being allocated to different demographics of athletes, this could be indicative of differential treatment or disparate impact, depending on how these deals are being allocated.

Differential treatment and disparate impact could both exist. Disparate impact could result from athletes self-selecting into certain types of deals, and this could be further perpetuated by brands differentially selecting athletes to work with based on race and/or gender.

Conclusion

Education is empowering. As the NIL market grows and evolves over the next years, there is a need for continued research and advocacy for transparency, resources, and education devoted to empowering student-athletes. This thesis will be one of the first, likely of many to come, pieces to begin to provide insight on disparity in the market and where it could, in theory and practice, originate from. The push for NIL was in part because of a recognized disparity within collegiate athletics; it is vital that continued policy reformation and regulation recognizes the importance of data, equity analytics, and transparency to ensure all athletes have the resources and knowledge to utilize their NIL as they devote pivot years of their lives to their schools and institutions.

Acknowledgements

This is the final piece of work I will have submitted as an undergraduate and I couldn't think of a better way to wrap up my experience at the University of Michigan. Thank you to my thesis advisor, Chris Rider, for inspiring my thesis through his Equity Analytics class and being so willing and enthusiastic to guide me through my first experience with academic research.

Thank you to Sierra Brooks, University of Michigan gymnast and SAAC President, for being a key activator and ally to this research. Thank you to my parents for picking up random FaceTime calls and listening to me think aloud about the analyses I was working through. Thank you to my peers and friends for their support and promotion of this research. Thank you to Professor Tasoluk and Emir Murathanoglu for being fantastic resources throughout the two semesters of the thesis seminar. I am deeply grateful and appreciative for each person I interacted with because of this thesis; their interest in and excitement for this project was hugely motivating during the course of the research.

Appendix

Table 1: Involved Institutions

Institution	Title of Initial Contact	Distribution Method	Division	Conference
Bradley University	Assistant AD for Academics and Student Development	Email: Initial Contact	D1	Missouri Valley Conference
Eastern Michigan University	Director of Compliance	Email: SAAC Advisor	D1	Mid-American Conference
Houston Christian University	Director of Athletics	Email: Initial Contact	D1	Southland Conference
University of Michigan	SAAC President	Administered at SAAC Meeting	D1	Big Ten Conference
University of Detroit Mercy	Director of Student-Athlete Services	Email: Initial Contact	D1	Horizon League
Southeastern Louisiana University	Assistant to the AD/Life skills and Academic Liaison	Email: Director of Academic Support Services for Athletics	D1	Southland Conference
Illinois State University	Director of Name, Image and Likeness & Community Engagement	Email: Initial Contact	D1	Missouri Valley Conference
Oakland University	Assistant Athletic Director for Compliance	Email: SAAC President	D1	Horizon League
Southern Methodist University	Assistant Director Student-Athlete Success	Email: Director of Student-Athlete Success	D1	American Athletic Conference
Stetson University	Associate Athletics Director for Student Success & Academics	Email: Initial Contact	D1	ASUN Conference
Texas A&M University–Corpus Christi	Director Compliance & Student-Athlete Services	Email: SAAC President	D1	Southland Conference
University of California, Irvine	Assistant Athletic Director - Academic & Student Services	Email: Student-Athlete Development Counselor	D1	Big West Conference
University of Florida	Directory of NIL Strategy	Email: Initial Contact	D1	Southeastern Conference
University of Wisconsin - Milwaukee	Associate Director of Athletics - Academic Services	Email: Initial Contact	D1	Horizon League

Chadron State College	Faculty Athletic Representative	Email: Initial Contact	D2	Rocky Mountain Athletic Conference
Great Northwest Athletic Conference	Associate Commissioner/Senior Woman Administrator	Email: Initial Contact	D2	n/a
Pacific West Conference	Senior Associate Commissioner/Senior Woman Administrator	Email: Initial Contact	D2	n/a
Peach Belt Conference	Deputy Commissioner	Email: Initial Contact	D2	n/a
South Dakota Mines	Wellness Center Coordinator	Email: Associate Athletic Director of Internal Operations	D2	Rocky Mountain Athletic Conference
Saginaw Valley State	Associate Athletic Director for Compliance & Academic Services	Email: Initial Contact	D2	Great Lakes Intercollegiate Athletic Conference
Tusculum University	Assistant Athletic Director of Compliance and Student Athlete Development	Email: Initial Contact	D2	South Atlantic Conference
Westminster College	Associate Athletic Director/Senior Woman Administrator	Email: Initial Contact	D2	Rocky Mountain Athletic Conference
St. Cloud State University	Associate Director Multicultural Student Services	Email: Initial Contact	D2	Northern Sun Intercollegiate Conference
University of Minnesota Duluth	Assistant Athletic Director for Academic Support and Student-Athlete Development	Administered at SAAC Meeting	D2	Northern Sun Intercollegiate Conference
University of West Alabama	Assistant Athletic Director-Academics	Email: Initial Contact	D2	Gulf South Conference
University of Mount Olive	Director of Student-Athlete Development	Email: Initial Contact	D2	Conference Carolinas
Wayne State University	Assistant AD/Compliance & Student Athlete Support	Email: Initial Contact	D2	Great Lakes Intercollegiate Athletic Conference
Emmanuel College	Assistant Athletic Director for Academic Success	Email: SAAC President	D3	Great Northeast Athletic Conference
Finlandia	Associate Athletic Director	Email: SAAC President	D3	Coast to Coast Athletic Conference

University of Denver	Assistant Athletic Director for Compliance	Administered at SAAC Meeting	D1/D3	Summit League
Clarkson University	Faculty Athletic Representative	Email: SAAC Advisor	D3	Liberty League
Lasell College	SAAC Advisor	Email: SAAC Advisor	D3	Great Northeast Athletic Conference
St. Norbert College	SAAC President	Email: SAAC President	D3	Northern Athletics Collegiate Conference
Rensselaer Polytechnic Institute	Associate Vice President & Director of Athletics	Email: SAAC President	D3	Liberty League
Claremont McKenna College, Harvey Mudd College, and Scripps College	Assistant Athletic Director/Senior Woman Associate	Email: Initial Contact	D3	Southern California Intercollegiate Athletic Conference
Lawrence Tech	Athletic Director	Email: SALT	NAIA	Association of Independent Technological Universities
Kansas Collegiate Athletic Conference	Commissioner	Email: Initial Contact	NAIA	n/a
Cornerstone	Director of Athletics	Email: Assistant Professor of Business, Sport Management	NAIA	Wolverine-Hoosier Athletic Conference

Table 2: Additional Institutions Represented in Survey

American Midwest Conference	Golden State Athletic Conference	Northeast Water polo Conference
Big 12 Conference	Heart of America Athletic Conference	Northern Collegiate Hockey Association
Big East Conference	Ivy League	Pacific West Conference
Big Sky Conference	Metro Atlantic Athletic Conference	Patriot League
Centennial Conference	Middle Atlantic Conferences	Peach Belt Conference
Collegiate Water Polo Association	National Collegiate Hockey Conference	Sun Conference
Colonial Athletic Association	New England Women's and Men's Athletic Conference	United States Collegiate Ski and Snowboard Association
Dance UDA	North Atlantic Conference	United Volleyball Conference
Empire 8	Northeast Conference	

Exhibit 1: Survey Questions & Data Collected

Block 1: Target Population Confirmation

Are you 18 years of age or older?	Are you an NCAA or NAIA Student-Athlete?
-----------------------------------	--

Answering “no” to either of these questions exited the participant from the survey.

Block 2: Demographics

Question	Notes
Choose one or more races (or ethnicities) that you consider yourself to be	Multiple choice, allow multiple answers
Do you compete in a women's or men's sport/team?	Multiple choice, allow one answer; this was asked in lieu of asking for gender; responses answering anything other than “man” or “woman” would have been too small of a sample size to analyze
Are you a member/representative of your institution's SAAC?	Multiple choice, allow one answer; added control given the way the survey was distributed primarily through SAAC communication
What is your estimated following across Twitter, TikTok, and Instagram?	Write-in; separate textboxes for each platform
What sport(s) do you compete in at your institution/school?	Dropdown menu or write-in; only NCAA-sanctioned sports were populated in the autofill and some respondents wrote-in other sports
What NCAA division do you compete in?	Multiple choice, allow one answer; If an athlete selected they were an NAIA athlete at the beginning of the survey, they skipped this question.
What conference do you compete in?	Dropdown menu or write-in
Does your institution require you to report deals through a platform like Opendorse or INFCLR?	Multiple choice, allow multiple answers
What is your current academic standing?	Multiple choice, allow one answer
What is your major/degree?	Dropdown menu or write-in

Block 3: NIL Involvement

Question	Notes
Have you entered into any agreement(s) with a brand or business that exchanges your Name, Image, and Likeness (NIL) for compensation?	Multiple choice, allow one answer; athletes were instructed to ONLY consider deals that are directly related to THEIR OWN NIL, not team deals, as NIL deals. Athletes answering “no” were directed to the following question block.
Please list the name(s) of the business(es) that you have an NIL deal with.	Write-in; athletes could enter “placeholder” names if they didn’t wish to put in the business name
The following questions were asked per NIL deal	
What type of business is X?	Dropdown menu or write-in
Did you find this deal using a platform marketplace like INFLCR or Opendorse?	Multiple choice, allow one answer
What type of compensation have you received, or do you expect to receive from X?	Multiple choice, allow multiple answers; Cash or non-cash
If selected cash: what is the dollar value of CASH compensation that you have received or expect to receive from X?	Write-in, number validation
If selected non-cash: what is the estimated dollar value of NON-CASH compensation that you have received or expect to receive from X? <i>If you are unsure, you may write an item or a list of items.</i>	Write-in
If selected non-cash: Please list the item(s) you have received or expect to receive from X below:	Write-in
If there are any details about your deal with X that you think are important for the research team to know, please include them in the text box below.	Write-in
For each business, please identify to what extent you agree with the following statement: I am fairly compensated given the terms of the deal.	Likert, strongly disagree to strongly agree

Block 4: NIL Attitudes

Question	Notes
<p>Please identify to what extent you agree with the following statements:</p> <ol style="list-style-type: none"> 1. My institution offers useful resources related to NIL 2. My coach is supportive of athletes securing NIL deals 3. My institution is supportive of athletes securing NIL deals 4. I feel adequately educated on how to navigate NIL 5. I am concerned about the legal aspects of NIL deals (signing contracts, trademark infringement, etc.) 6. I am concerned about the financial aspects of NIL deals (unfair compensation, taxes, etc.) 	<p>Likert, strongly disagree to strongly agree</p>
<p>Hypothetical: <i>“Imagine you are approached by a local fitness & wellness company, Fitlete. Fitlete would like you to promote their brand and products in exchange for cash compensation. You would be expected to post two social media posts (one on Instagram, and one on TikTok) during the semester and be featured in their marketing materials. You have no conflicting agreements and believe Fitlete's brand aligns with your personal values and beliefs, and you are a fan of their products.”</i></p>	
<p>How much (in USD) would you expect from Fitlete as compensation for this deal?</p>	<p>Write-in, number validation</p>
<p>What is the <i>least</i> amount of compensation (in USD) you'd accept to enter into this deal?</p>	<p>Write-in, number validation</p>
<p>What factors did you consider when answering the last two questions?</p>	<p>Write-in</p>

Table 3: Gender & Race Sample Representation

	Men - Population	Men - Survey	Δ Pop-Sample	Women - Population	Women - Survey	Δ Pop-Sample	Total - Population	Total - Survey	Δ Pop-Sample
B	11.9%	5.2%	6.8%	5.1%	3.9%	1.2%	17.1%	9.1%	8.0%
IPOC	8.1%	4.2%	3.8%	6.7%	9.7%	-3.0%	14.8%	13.9%	0.9%
W	35.8%	26.7%	9.2%	32.3%	50.3%	-18.0%	68.1%	77.0%	-8.8%
All - Total	55.8%	36.1%	19.8%	44.2%	63.9%	-19.8%			
B	14.9%	6.9%	8.0%	7.4%	5.8%	1.7%	22.4%	12.7%	9.7%
IPOC	7.9%	2.9%	5.0%	7.7%	13.3%	-5.6%	15.6%	16.2%	-0.6%
W	30.4%	24.9%	5.6%	31.6%	46.2%	-14.6%	62.1%	71.1%	-9.0%
D1 - Total	53.2%	34.7%	18.5%	46.8%	65.3%	-18.5%			
B	15.3%	10.0%	5.3%	6.0%	2.5%	3.5%	21.3%	12.5%	8.8%
IPOC	8.6%	2.5%	6.1%	6.8%	5.0%	1.8%	15.5%	7.5%	8.0%
W	33.3%	20.0%	13.3%	29.9%	60.0%	-30.1%	63.3%	80.0%	-16.7%
D2 - Total	57.3%	32.5%	24.8%	42.7%	67.5%	-24.8%			
B	7.0%	0.0%	7.0%	2.4%	1.3%	1.2%	9.4%	1.3%	8.2%
IPOC	7.9%	6.3%	1.6%	5.8%	3.8%	2.0%	13.6%	10.0%	3.6%
W	42.5%	31.3%	11.3%	34.5%	57.5%	-23.0%	77.0%	88.8%	-11.8%
D3 - Total	57.4%	37.5%	19.9%	42.6%	62.5%	-19.9%			

Shades of blue represent underrepresentation and shades of red represent overrepresentation. The darker the hue, the more that group is over/underrepresented in the survey sample. This table only included population percentages for athletes in the NCAA and NAIA athletes were kept in the sample percentages.

Table 4: Sport Representation

Sport	n	% of sample	Sport	n	% of sample
Track & Field	47	14.2%	Rowing	14	4.2%
Soccer	29	8.8%	Skiing	12	3.6%
Lacrosse	28	8.5%	Tennis	11	3.3%
Softball	25	7.6%	Field Hockey	10	3.0%
Basketball	23	7.0%	Football	7	2.1%
Cross Country	22	6.7%	Triathlon	6	1.8%
Volleyball	22	6.7%	Water Polo	4	1.2%
Baseball	22	6.7%	Cheerleading	4	1.2%
Golf	20	6.1%	Dance	4	1.2%
Swim & Dive	17	5.2%	Wrestling	3	0.9%
Gymnastics	14	4.2%	Sailing	1	0.3%
			Esports	1	0.3%

Figure 1: Mean Compensation Expectations and Opt-Out Thresholds, Conditional on Sport

Gender

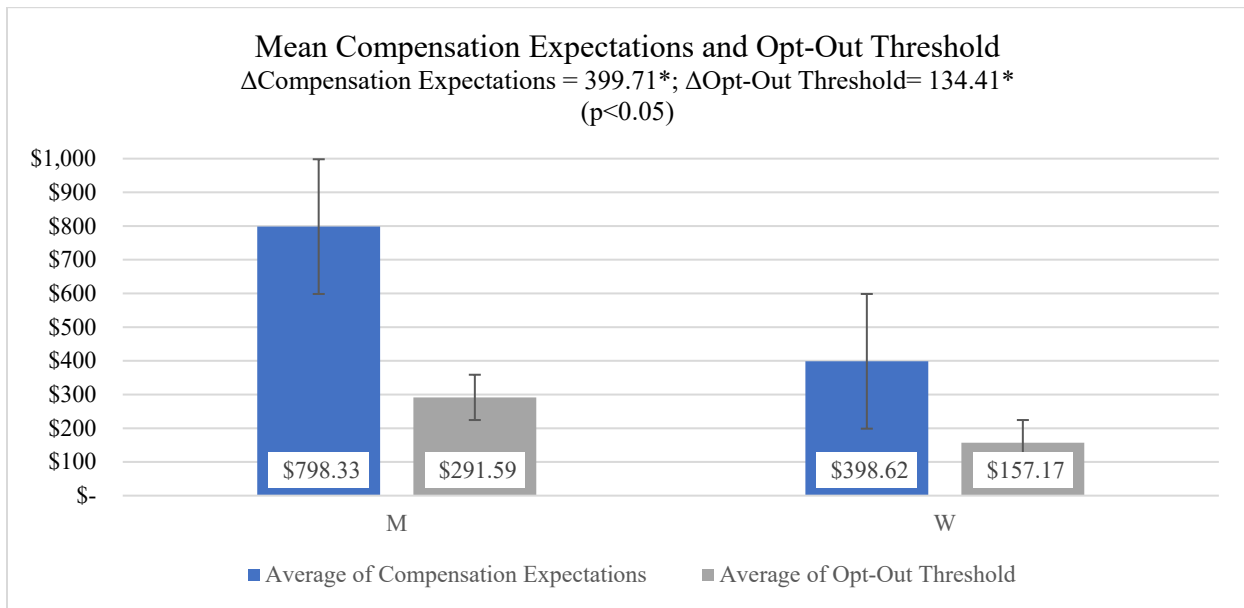


Figure shows the average compensation expectations and opt-out thresholds of Men's sport and Women's sport athletes given the same deal terms. Men's sport athletes have greater than twice the compensation expectations and opt-out thresholds than that of women's sport athletes.

Figure 2: Mean Compensation Expectations and Opt-Out Thresholds, Conditional on Race

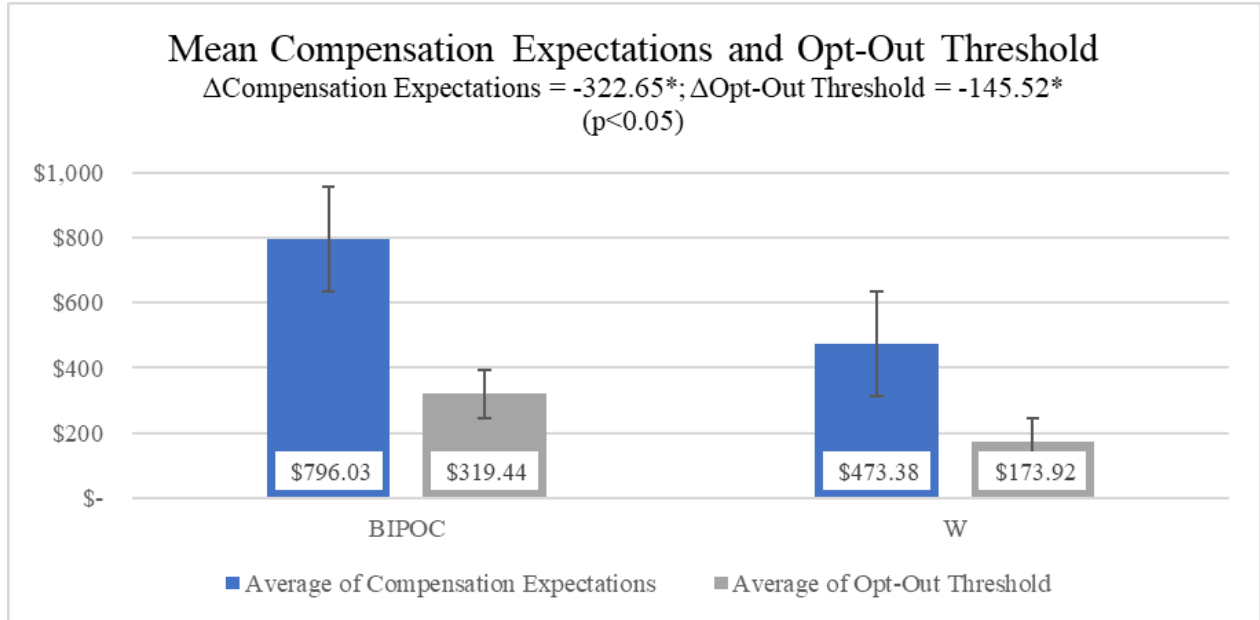


Figure shows the average compensation expectations and opt-out thresholds of BIPOC and White athletes given the same deal terms. BIPOC athletes have greater than twice the compensation expectations and opt-out thresholds than that of White athletes.

Exhibit 2: Within-Gender Models

Significant Variables in Within-Gender Models: Compensation Expectations

Variable	Standardized Coefficient: Women's Sport Competitors (n = 174)	p-value	Standardized Coefficient: Men's Sport Competitors (n = 104)	p-value
SAAC - yes	-0.108	0.161 (n.s.)	-0.110	0.200 (n.s.)
Total Following	0.153	0.047*	0.049	0.553 (n.s.)
Football	n/a	n/a	0.554	<0.001***

Significant Variables in Within-Gender Models: Opt-Out Thresholds

Variable	Standardized Coefficient: Women's Sport Competitors (n = 174)	p-value	Standardized Coefficient: Men's Sport Competitors	p-value
SAAC - yes	-0.087	0.260 (n.s.)	-0.089	0.325 (n.s.)
Total Following	0.181	0.019*	0.026	0.763 (n.s.)
Football	n/a	n/a	0.500	<0.001***

The two tables demonstrate that social media is more influential in women's sport competitors' evaluations of deal expectations than men's. They outline how the significance and relationship of the most influential variables changes when looking at men and women sport sub-samples.

Exhibit 3: Within-Race Models

Significant Variables in Within-Race Models: Compensation Expectations

Variable	Standardized Coefficient: BIPOC (n = 62)	p-value	Standardized Coefficient: White (n = 216)	p-value
SAAC - yes	-0.189	0.098 (n.s.)	-0.061	0.733 (n.s.)
Total Following	0.078	0.481 (n.s.)	0.109	0.094 (n.s.)
Football	1.146	<0.001***	2.525	<0.001***

Significant Variables in Within-Race Models: Opt-Out Thresholds

Variable	Standardized Coefficient: BIPOC (n = 62)	p-value	Standardized Coefficient: White (n=216)	p-value
SAAC - yes	-0.111	0.318 (n.s.)	-0.072	0.296 (n.s.)
Total Following	0.160	0.143 (n.s.)	0.069	0.310 (n.s.)
Football	1.2	<0.001***	1.282	0.011*

These tables outline how the significance and relationship of the most influential variables changes when looking at BIPOC and White sub-samples.

Exhibit 4: Compensation & Opt-Out Threshold Models

(Table A) Compensation Expectation Models: Gender

Controls	Coefficient on Women	p-value
None	-399.71	0.003**
SAAC Involvement, Sports (all), Total Following, Division, Academic Standing, Major/Degree Category, NIL Involvement	-241.18	0.081 (n.s.)
SAAC Involvement, Sports (n>10), Total Following, Division	-388.21	0.005**
SAAC Involvement, Total Following, Division	-361.61	0.004**
Football	-256.656	0.035*

(Table B) Opt-Out Threshold Models: Gender

Controls	Coefficient on Women	p-value
None	-134.41	0.008**
SAAC Involvement, Sports (all), Total Following, Division, Academic Standing, Major/Degree Category, NIL Involvement	-116.667	0.067 (n.s.)
SAAC Involvement, Sports (n>10), Total Following, Division	-175.83	0.004**
SAAC Involvement, Total Following, Division	-134.95	0.012*
Football	-75.22	0.101 (n.s.)

(Table C) Compensation Expectation Models: Race

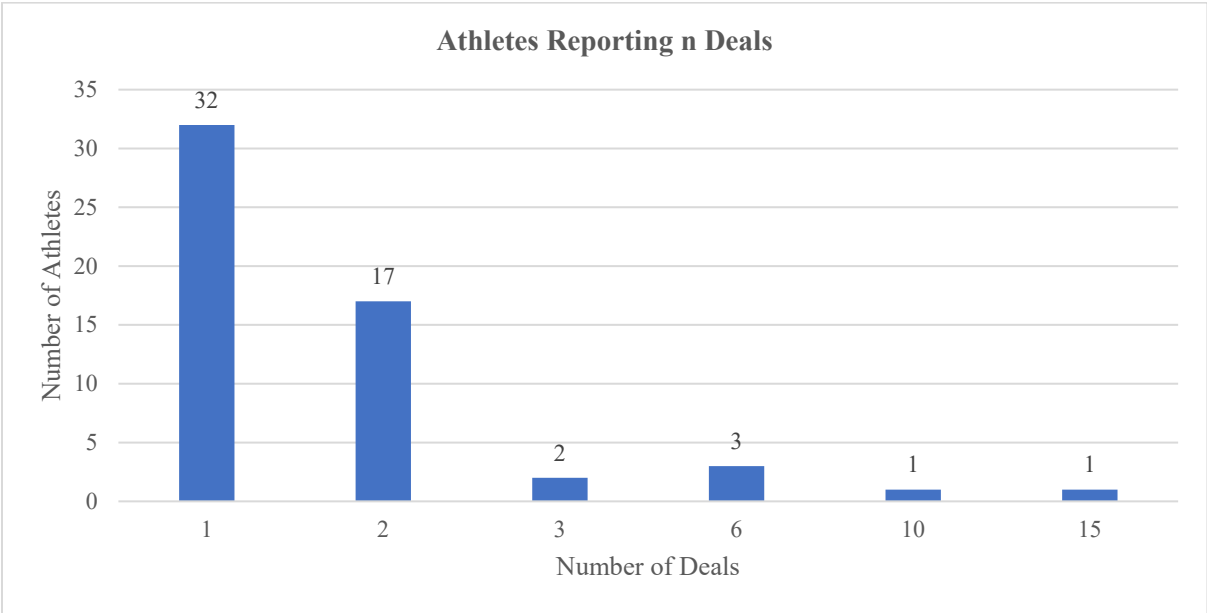
Controls	Coefficient on White	p-value
None	-343.19	0.014*
SAAC Involvement, Sports (all), Total Following, Division, Academic Standing, Major/Degree Category, NIL Involvement	-343.19	0.014*
SAAC Involvement, Sports (n>10), Total Following, Division	-320.73	0.027*
SAAC Involvement, Total Following, Division	-401.41	0.005**
Football	-161.51	0.252 (n.s.)

(Table D) Opt-Out Threshold Models: Race

Controls	Coefficient on Women	p-value
None	-134.41	0.008**
SAAC Involvement, Sports (all), Total Following, Division, Academic Standing, Major/Degree Category, NIL Involvement	-116.667	0.067 (n.s.)
SAAC Involvement, Sports (n>10), Total Following, Division	-175.83	0.004**
SAAC Involvement, Total Following, Division	-134.95	0.012*
Football	-75.22	0.101 (n.s.)

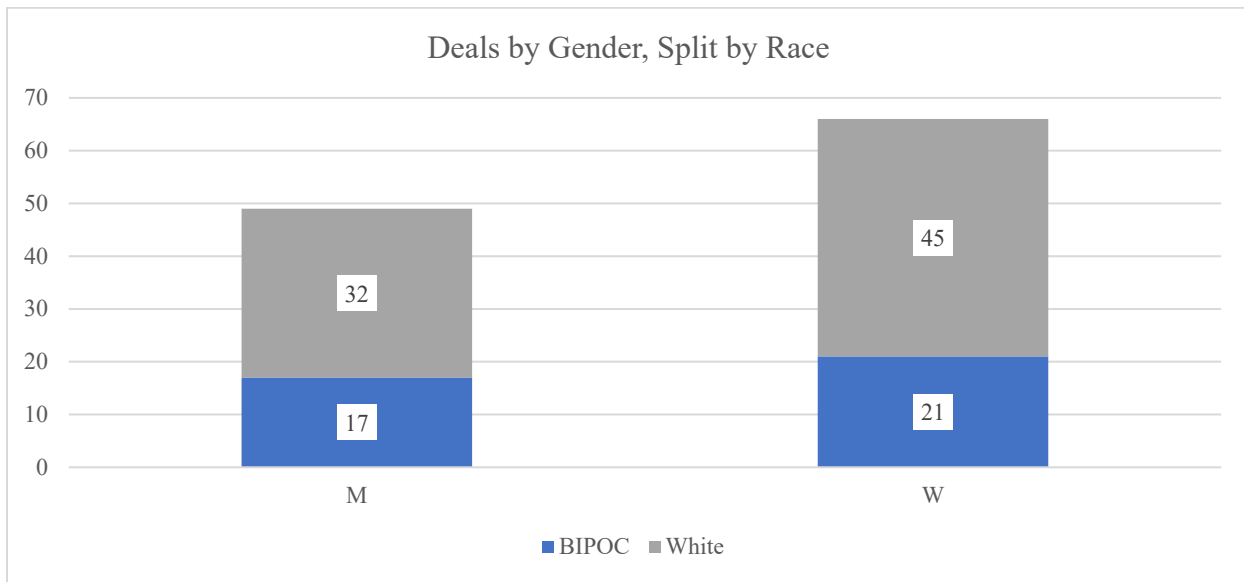
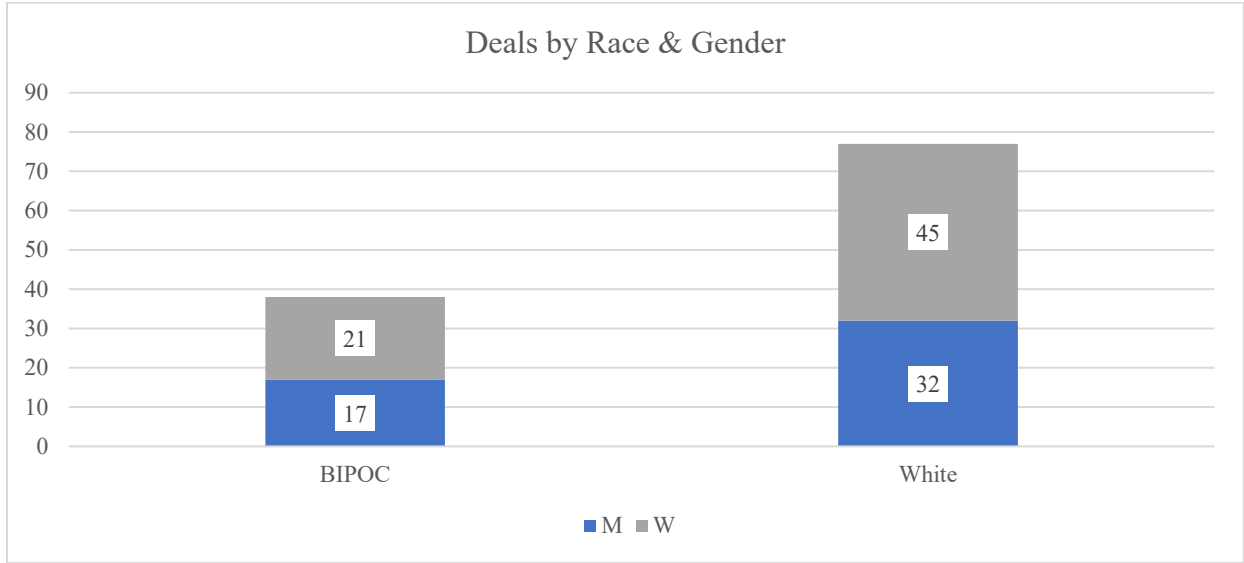
These tables demonstrate how the coefficient and significance changes across models with varying controls. The models with the most controls are not models I would deem to be “best” to use to determine compensation values and opt-out thresholds given some of those controls (academic standing, major/degree category, NIL involvement, some sports) are inefficient; they are included for transparency and reference.

Figure 3: Athletes with 1 or more NIL Deals



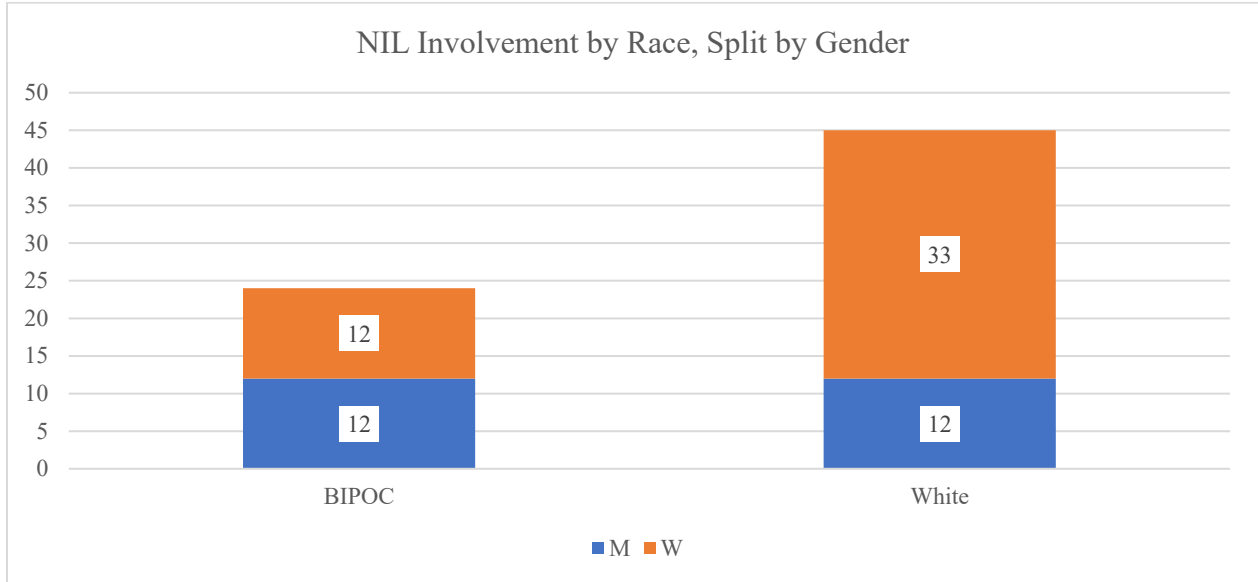
This table visualizes the number of athletes with 1, 2, 3, 6, 10, and 15 reported deals in the survey sample.

Figure 4: Deal Count by Race & Gender



The tables above show different splits of total deal counts by race and gender. White and women's sport athletes have more deals than BIPOC and men's sport athletes.

Figure 5: NIL Involvement by Race, Split by Gender



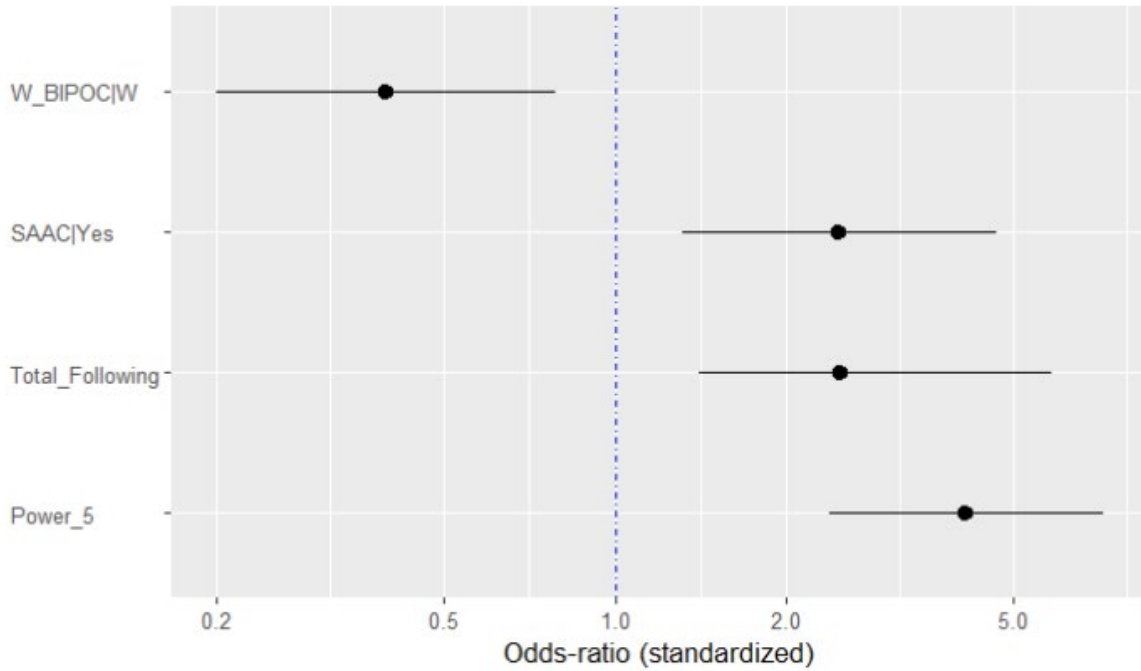
This figure breaks down the demographics of the 69 athletes who responded “Yes” to being involved with at least 1 NIL Deal.

Table 5: In-Group % of Athletes with at least 1 NIL Deal

	M	W	Total
BIPOC	39%	26%	31%
White	14%	20%	18%
Total	20%	21%	21%

The table above breaks down what percentage of each group has an NIL deal: for example, 39% of BIPOC men in the sample responded “Yes” to having at least one NIL deal and 31% of BIPOC athletes responded “yes” to having at least 1 NIL deal.

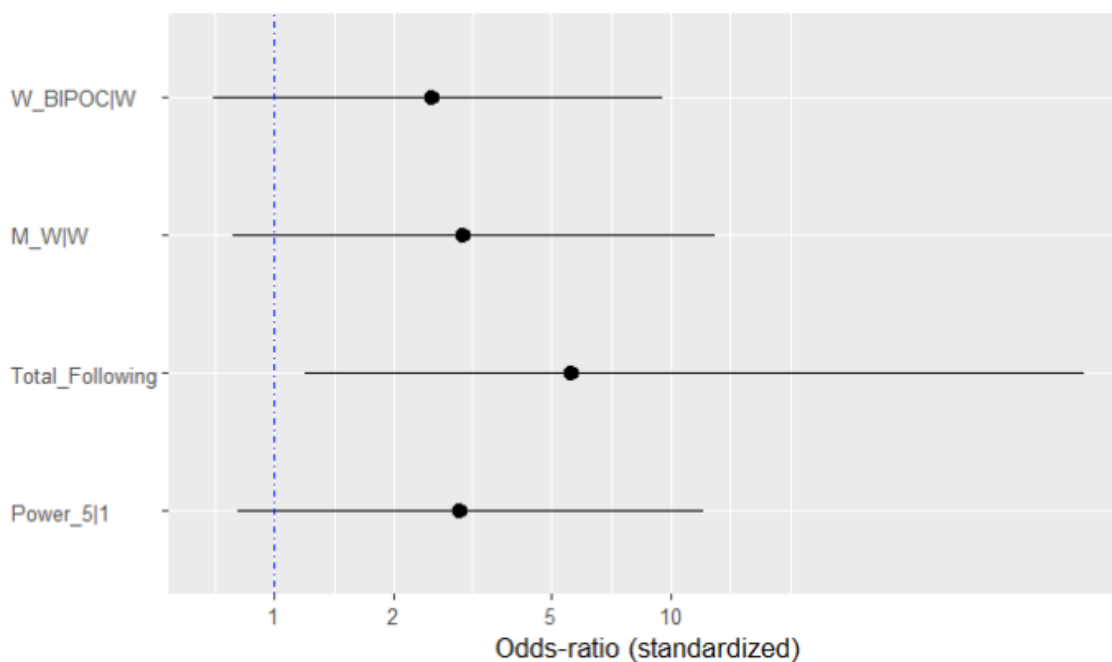
Exhibit 5: Standardized Odds-Ratio of Significant Factors to “Yes” in NIL Involvement



Variable	Standardized OR	Significance
White	0.39	0.008**
SAAC Involvement	2.456	0.005**
Total Following	2.489	0.009**
Power 5	4.085	<0.001***
Woman	1.094	0.791

The graph and table above outline the significant factors in predicting the likelihood of an athlete being involved in at least one NIL Deal. Variables with ORs greater than 1 are predictors with an increased odds of having “Yes” in NIL Involvement. Variables with ORs less than 1 are predictors with decreased odds of having “No” in NIL Involvement. Gender was not a significant indicator in this model. Athletes involved in SAAC, in Power 5 Conferences, and with a higher social media following are more likely to be involved in deals. White athletes are less likely to be involved in deals.

Exhibit 6: Standardized Odds-Ratio of Variables to More than 1 NIL Deal



Variable	Standardized OR	Significance
White	2.476	0.168
Woman	2.966	0.121
Total Following	5.589	0.115
Power 5	2.937	0.113

The graph and table above outline the significant factors in predicting the likelihood of an athlete being involved in more than one NIL Deal. These variables are all predictors with an increased odds of having multiple deals.

References

- Angwin, J., Larson, J., Mattu, S., & Kirchner, L. (2016). Machine bias: There's software used across the country to predict future criminals. And it's biased against blacks. ProPublica.
- Barocas, Solon, and Andrew D. Selbst. 2016. Big Data's Disparate Impact. California Law Review.
- Bowles, Hannah Riley, Linda Babcock, and Lei Lai. 2007. Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask. Organizational Behavior and Human Decision Processes 103.
- Brown, Kevin D. and Williams, Antonio. 2019. Out of Bounds: A Critical Race Theory Perspective on "Pay for Play". Articles by Mauerer Faculty.
- Cobbe, Jennifer. Algorithmic Censorship by Social Platforms: Power and Resistance.
- Cotter, Kelley. 2018. Playing the visibility game: How digital influencers and algorithms negotiate influence on Instagram. SAGE.
- Dastin, Jeffrey. 2018. Amazon scraps secret AI recruiting tool that showed bias against women. Reuters.
- Duffy, Brooke Erin and Emily Hund. 2019. Gendered Visibility on Social Media: Navigating Instagram's Authenticity Bind. Pooley (Ed.), Social Media & the Self: An Open Reader (1st ed.).

- Edelman, Benjamin G., Michael Luca, and Daniel Svirsky. 2017. Racial Discrimination in the Sharing Economy: Evidence from a Field Experiment. *American Economic Journal: Applied Economics* 9, no. 2.
- Eubanks, Virginia. 2018. *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*. University of Pennsylvania.
- Garthwate, Craig, Jordan Keener, Matthew J. Notowidigdo, and Nicole F. Ozminkowski. 2020. WHO PROFITS FROM AMATEURISM? RENT-SHARING IN MODERN COLLEGE SPORTS. National Bureau of Economic Research.
- Harper, Shaun R. 2018. *Black Male Student-Athletes and Racial Inequities in NCAA Division I College Sports*. USC Race and Equity Center.
- Hernandez, Morela, Derek Avery, Sabrina Volpone, and Cheryl Kalser. 2018. *Bargaining While Black: The Role of Race in Salary Negotiations*. American Psychological Association.
- Kettrey, Heather Hensman, and Whitney Nicole Iaster. 2014. Staking Territory in the “World White Web”: An Exploration of the Roles of Overt and Color-Blind Racism in Maintaining Racial Boundaries on a Popular Web Site. *Southern Sociological Society*.
- Li, Xinxun. 2021. *Analysis of Racial Discrimination in Artificial Intelligence from the Perspective of Social Media, Search Engines, and Future Crime Prediction Systems*. *Advances in Social Science, Education and Humanities Research*; Atlantis Press.

Matamoros-Fernandez, Ariadna. 2017. Platformed racism: the mediation and circulation of an Australian race-based controversy on Twitter, Facebook and YouTube. *Information, Communication & Society*.

Murty, Komanduri S., Julian B. Roebuck, and Jimmy D. McCamey, Jr. 2014. Race and Class Exploitation: A Study of Black Male Student Athletes (BSAs) on White Campuses. Jean Ait Belkhour, *Race, Gender & Class Journal*.

Rigdon, Mary. 2012. An Experimental Investigation of Gender Differences in Wage Negotiations. SSRN.

Tatos, Ted and Hal Singer. 2021. *Antitrust Anachronism: The Interracial Wealth Transfer in Collegiate Athletics Under the Consumer Welfare Standard*. SAGE.