

Behind the Commitment: Socioeconomic Disparities in Collegiate Football Enrollment*

Max Mitchell**

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Abstract

This study examines the link between high school characteristics, hometown demographics, and socioeconomic factors with an athlete's enrollment after receiving a collegiate football scholarship. Using a large data set of highly-rated college football recruits (N=34,395) matched with public high school and hometown data, I perform significance tests to evaluate differences in factors between enrolling (n=34,082) and non-enrolling athletes (n=313). Results show athletes from less affluent backgrounds and lower quality schools are more likely to be deemed academically ineligible and lose their scholarship. These disparities enrich our understanding of the dynamics between socioeconomic status, familial influences, and committed collegiate football players. Notably, this study is the first to conduct sports economic analysis on the characteristics of high schools and zip codes related to scholarship enrollment.

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** Department of Economics, Clemson University; mmitch29@g.clemson.edu

I. Introduction

The landscape of collegiate football is not only defined by the players who grace the field but also by those who never get to showcase their talents at the university level. Various factors, ranging from academic challenges to personal circumstances, can intervene, leading some players to fall short of their collegiate aspirations despite their talent and dedication (Mirabile & Witte, 2012; Tompsett & Knoester, 2021; McGovern, 2018). Star running back Derrick Griffin from Terry High School in Rosenberg, Texas, is a prime example. Despite being the 22nd-ranked high school football player in 2013, Griffin never played a down for the Miami Hurricanes and at the collegiate level due to being an academic non-qualifier (Perez, 2016). This discrepancy highlights the need for a deeper examination of the paths taken by these athletes and the barriers they encounter along the way. Hence, my objective is to uncover these reasons and shed light on the experiences of athletes who never make it to campus despite committing to play college football while comparing their socioeconomic characteristics to those who committed and enrolled.

This study's results reveal that non-enrolling players tend to come from lower-performing high schools, have lower median incomes, higher rates of free lunch participation, and reside in areas with higher black populations and single-parent households than those who committed and enrolled. In summary, this study sheds light on the socioeconomic and academic factors affecting enrollment outcomes of highly rated high school football players, emphasizing the role of academic performance and socioeconomic background, contributing to the broader understanding of student-athletes challenges.

II. Background

The journey of highly talented recruits, intricately outlined in Figure 1's flow chart, outlines the paths players take after they decide to accept one of their various scholarship offers. Once these recruits accept an offer, they attempt to enroll at their committed university to kickstart their involvement in off-season team workouts and practices. However, to participate, they must first gain admission to the school and be deemed eligible by the National Collegiate Athletic Association (NCAA).

To be academically eligible, a player must meet standardized test scores or core course GPA requirements set by the NCAA for Division 1(2,3) eligibility status (NCSA Sports, 2024). In addition, the NCAA requires athletes to graduate from high school and complete 16 core courses (NCSA Sports, 2024). These three factors alone create academic ineligibility. The NCAA relaxed initial eligibility requirements by removing standardized testing starting in the 2023-2024 academic year due to COVID-19 but for my sample spanning 2005-2022, all three criteria must be met.

For the majority of players deemed academically eligible, they enroll at school and participate in football-related activities. During their tenure at their university, they must maintain academic eligibility, adhere to team conduct standards, and make positive contributions on the field to retain their athletic scholarship and place on the team. Players who struggle to balance these responsibilities often voluntarily leave or are dismissed from the program. Players also leave their collegiate football programs due to limited playing opportunities. They can then choose to remain enrolled as a student, withdraw from their academic pursuits entirely and enter the workforce, or transfer. Due to the introduction of the NCAA transfer portal in 2018, players now have the opportunity to explore and transfer to new schools, granting them a second chance

of success (Carlay, 2024). Athletes use the transfer portal to seek a better fit for their athletic and academic goals, improved coaching staff or program culture, or personal reasons such as family circumstances or homesickness (Carlay, 2024).

On the contrary, there is a small minority of players who accept their scholarship but face denial of enrollment due to academic ineligibility. One option entail staying at their current institution and striving to enhance their grades to meet eligibility standards. Alternatively, they may opt to de-commit and pursue employment. The third option, and a more common route, involves enrolling in a junior college or post-graduate program, where they can continue playing football while working to improve their GPA. Suppose they succeed in meeting NCAA regulations by raising their GPA. In that case, players regain Division 1 status, granting them the choice to either enroll at their originally committed university or transfer to another school. However, if they cannot raise their GPA, their collegiate journey may end, or they might opt to attend a different junior college to pursue the same objective all over again.

III. LITERATURE REVIEW

The intersection of academic success and athletic prowess among high school and college football players, particularly concerning race, socioeconomic status, and familial influence, is complex. While existing literature provides insights into the challenges these players face balancing academics and athletics, there's a gap in understanding highly-rated high school players who didn't use their athletic scholarships. Research on those facing setbacks is limited, as most studies focus on successful individuals or identifying differences in strengths, overlooking learning opportunities gained from explicitly considering failure (Taylor & Collins, 2019).

Hence, this study aims to bridge this gap by investigating socioeconomic factors contributing to top athletes who succeeded or failed to play at the collegiate level after committing.

Although highly rated recruits have the talent to compete at the collegiate level, academic qualifications often hold them back. Despite their families' and teacher's emphasis on academic growth, many feel pressure to prioritize their athletic pursuits, (Webb, 2014). Institutional demands further exacerbate this pressure, as evidenced by the promotion of lowered academic standards by coaches more focused on their players' athletic eligibility than academic growth (Webb, 2014). For student-athletes and aspiring college football players, education often becomes a means to an end rather than an end in itself. Coaches encourage immersion in athletics, frequently emphasizing academics as a pathway to eligibility and further success in football rather than as a pathway to success in life and as a student.

The influence of familial and socioeconomic background also compounds conflicting academic and athletic achievement pressures. The literature underscores a notable disparity in academic achievement among student-athletes, particularly between low-income and non-low-income backgrounds. A 2012 study suggests athletes from hometowns with a more educated population are more likely to complete eligibility and graduate (Mirabile & Witte). Consistent with this, family socioeconomic status is linked to collegiate sports participation levels due to developmental factors such as academic support (Tompsett & Knoester, 2021). This underscores the influence of local educational environments on student athletes' academic success, indicating athletes from wealthier and more educated programs are more likely to retain their athletic scholarships. While local educational environments contribute to the cycle of academic underachievement among high-profile athletes, the allure of athletic stardom, coupled with societal and institutional expectations, perpetuates this trend, especially among Black male

athletes aspiring to professional sports careers (Horton, 2015). Beaman and Bell (2002) found similar conclusions, stating that African-American men with strong professional sports aspirations and beliefs in economic success through sports are more likely to face academic probation, suspension, arrest, and police questioning for criminal involvement. Hence, these men exacerbate the cycle of academic underachievement and perpetuate disparities in educational outcomes.

The existing research in the field of sports psychology predominantly focuses on how socioeconomic backgrounds, along with familial and environmental influences, shape the outcomes of committed collegiate athletes and how socioeconomic status can enhance the likelihood that individuals become college athletes (Tompsett & Knoester, 2021; Mirable & Witte, 2012; McGovern, 2018). Family and hometown socioeconomic status is associated with high school aspirations and enrollment rates, with evidence suggesting that socioeconomic factors increase the likelihood of participating in collegiate sports (Tompsett & Knoester, 2021; McGovern, 2018). Hence, it's critical to examine the obstacles hindering talented athletes from participating in collegiate-level sports delve deeper into how socioeconomic inequalities can influence individuals in education and athletics.

Connecting this to broader economic literature reveals the need to address the influence of socioeconomic status and familial influence on various aspects of college education, employment, career paths, and compensation. Chetty et al.'s findings in the *Quarterly Journal of Economics* echo the significance of socioeconomic status, showing that children from lower-income families face more significant challenges in moving up the economic ladder (2014). Furthermore, Chetty, Nathaniel Hendren, and Lawrence F. Katz suggest that children who move to better neighborhoods are more likely to attend college, have higher earnings, and have a lower

chance of becoming single parents than children who stay in poorer neighborhoods (2016). This underlines the importance of neighborhood environments in shaping the positive life trajectories of youths. Regarding college education, Martha Bailey and Susan Dynarski highlight that individuals from higher-income families are increasingly more likely to enroll in and complete college than those from lower-income families (2011). This disparity in college attainment perpetuates socioeconomic inequality by limiting access to higher-paying jobs and opportunities for advancement. In conclusion, socioeconomic status is a critical determinant of individuals' opportunities and outcomes in college education, employment, career paths, and compensation.

IV. Larger Data Set

a. Compilation and Refinement

Hansen and Mitchell (work in progress) compile an immense dataset from 247 Sports and CFBstats platforms, focusing on identifying high school football athletes who commit and play at their listed colleges. 247 Sports, a sports news and recruiting website, publishes rankings of high school football players, their hometowns, last high schools attended, scholarship offers from college teams, commitments to college teams, and often, player images. In cases where images are unavailable, they conduct Google searches to generate player images. Additionally, 247Sports provides a star rating system as follows: 5-star (top 30-40 players in the United States), 4-star (top 400-500 players), 3-star (2,000 – 2,300 players), and 2-star and 1-star. It's worth noting that most NCAA football players don't have star rankings from 247Sports, as these ratings encompass only the top prospects in each recruiting class, which the study focuses on. The other primary data source, CFBstats from SportsSource Analytics, provides data at multiple levels, from national statistics down to the player level from 2005 to the present for all NCAA

football players. CFBstats data from SportSource Analytics offers information and statistics about all NCAA football players over their college careers, whereas 247Sports Composite data offers details about highly-rated recruits transitioning from high school to college.

Utilizing CFBstats and 247Sports data, Hansen and Mitchell (work in progress) create a master spreadsheet of all 3-star or better high school players. Using various linking algorithms, they identify each Division I player from CFBstats and link them to the same player in the 247Sports Composite. To merge the two datasets, they match players based on their first name, last name, hometown, first year of college, first college team, height, weight, and position. Matching is straightforward for most players, but in many cases, they manually match players due to incorrect spelling of names and nicknames. This process yields 68,290 committed player profiles for those ranked in high school on 247Sports who later played for their enrolled college on CFBstats between 2005 and 2022.

Starting with the original dataset of 62,890 'matched players, I exclude 28,808 observations for two reasons. First, I exclude athletes with a 1- or 2-star recruiting ranking on 247 Sports, as the inclusion criteria mandated players to be rated as 3, 4, or 5-star recruits, aligning with the study's focus on higher-rated recruits. I omit athletes who signed between 1999 and 2004, as the range of CFBstats data is from 2005 to the present day. Furthermore, I exclude players from the year 2023 since information on these athletes is incomplete due to their recent enrollment and of the transfer portal. Overall, this process results in a sample of 34,082 matched athletes who committed and enrolled in their intended football program.

Following the exhaustive process of merging data, two distinct subsets of players emerge as 'unmatched.' Players defined as 'unmatched' are 3-, 4-, and 5-star recruits from the 247 Sports website who sign enrollment papers but never participate for their committed school or don't

commit to a school in general. Notably, no 5-star recruits are defined as ‘unmatched’, as every single one since 2005 has participated at the Division 1 level. Within the scope of this study, I focus on players who committed to a school but didn’t enroll to play football, forming the groundwork for further analysis.

My inclusion and exclusion criteria remain the same. I added a third exclusion criterion by removing observations that didn’t fit the typical 'unmatched player’s profile. This includes individuals with unmatched nicknames or those classified as 'unmatched' despite playing for their intended schools. Next, I remove the outliers to ensure the dataset's integrity and maintain accuracy in subsequent analyses. Through this process, I exclude 723 out of the original 1036 observations, resulting in a sample of 313 players who commit to a school and don’t enroll. These 313 observations are only a subset of my main ‘committed players’ dataset (N=34,395), including the committed and enrolled dataset (N=34,082).

b. Variable Sources

The next step in the dataset compilation process is to add associated demographic, economic, and educational data to each player in the committed dataset. Initially, (Hanssen and Mitchell) gather educational insights regarding the high schools attended by the players. Their educational data source is the U.S. News Best High School rankings, which encompasses information on nearly 25,000 public high schools nationwide. To retrieve pertinent data such as the percentage of students by race, the percentage of students using the free lunch program, and the overall score linked to each player's high school, Hansen and Mitchell execute automated searches through Google, employing the high school's name followed by "U.S. News high school ranking". This process enables them to procure educational metrics for each player’s academic institution. I then rectify any discrepancies if needed. I calculate the midpoint for public schools

ranked 13,621-17,680 (N=3,431) and relabel observations as ranked 15,471, with a corresponding overall score of 25. Since specific rankings within this range aren't provided, the midpoint of 15,471 provides my best estimate for the national ranking of these high schools. Additionally, there are no overall scores associated with schools ranked in the range 13,621-17,680. I assign all high schools in this range a corresponding overall score a value of 25, as that is the minimum score for all schools with specified rankings (0-13,620). Another discrepancy is the lack of information for private schools. Since there are players from both datasets from private schools, I compare high school statistics solely across public schools, and zip code statistics by both public and private schools.

For demographic and income statistics, I use data from the U.S. Census Bureau, specifically at the zip code level corresponding to the players' respective high schools. This zip code data includes median income, percentage of residents by race, and percentage of family households with single parents. Definitions and sources for the zip code and hometown variables used in the analysis for this study are presented in Table 1, while descriptive statistics for all five variables are in Table 2.

c. Descriptive Statistics

Table 2 presents basic summary statistics for all committed players, those who committed and enrolled, and those who committed and didn't enroll across five independent variables related to socioeconomic and high school characteristics. The summary statistics for all committed players and those who committed and enrolled are nearly identical, as over 99% of committed players also enrolled in college. Hence, I compare the differences in variables across the two committed subsets.

The mean percentage of black residents per zip code for players who enrolled is 26.74%, with a similar value for those who didn't enroll (28.57%). This consistency suggests that the racial makeup of the players' communities is relatively stable regardless of enrollment status. Additionally, players who enrolled have a mean high school overall score of 62.93, while those who didn't have a mean overall score of 57.14, indicating that the latter attended lower-performing high schools. This aligns with the idea that lower-performing high schools offer fewer resources, support, and opportunities for successful college transitions.

More notable differences emerge in variables such as the percentage of students on the free lunch program and median income. Those who eventually enrolled have lower mean values for free lunch participation (44.64) than who didn't enroll (48.81), suggesting a potential relationship between socioeconomic status and enrollment decisions. Additionally, the mean median income for those who enrolled after committing is higher (\$80,255) than those who didn't enroll (\$66,444), indicating that players from more affluent areas may be more likely to enroll. This is consistent with previous findings (Tompsett & Knoester, 2021; McGovern, 2018).

Furthermore, the percentage of single-parent households shows a similar pattern. The mean for players who enrolled after committing (0.15) is lower than those who didn't enroll (0.17), suggesting a possible association between family structure and college attendance. This aligns with previous findings that students who grew up in single-parent homes complete fewer years of education (Ziol-Guest, 2022; Sun & Li, 2011). In sum, players who didn't enroll tend to come from lower-performing high schools, lower median incomes, have higher rates of free lunch participation, and are associated with a slightly higher percentage of single-parent households, suggesting socioeconomic factors play a significant role in enrollment decisions.

V. Case Study of Players Who Committed and Didn't Enroll

a. Data Set Compilation

The second part of my study conducts a case study on why the 313 players didn't show up to campus after committing. This process entails extensive independent research to trace each athlete's post-high school trajectory. I use search terms such as the athlete's name, high school, hometown, and intended college to find relevant articles, social media mentions, and newspaper clippings that shed light on the athlete's inability to enroll at their intended college. Through this research, my primary objective is to pinpoint the chief reasons behind each athlete's non-enrollment at their intended university while documenting their endeavors to re-enter the football scene. After documenting each player's journey in bullet-point format, detailing aspects elucidating why a highly qualified high school football player falter to compete and qualify at the collegiate level, I sort and categorize their outcomes into nine independent dummy variables.

These nine variables encompass issues that signed and didn't attend players encounter, including academic ineligibility, career-ending injuries, going to junior college/post-graduate school, NCAA transfers, changes in collegiate sports, legal or behavioral challenges, voluntary decisions to quit football, and successful transitions to professional football careers. These variables are coded with a value of 1, indicating the presence of the respective factor, and a value of 0 indicating its absence. The race variable follows a specified dummy variable coding scheme, categorizing athletes as Pacific Islander (coded as 2), Black (coded as 1), or White (coded as 0). Overall, Table 3 presents summary statistics for my categorical dummy variables.

b. Academic-Behavioral Emphasis

Three of nine variables stand out, and I combine them to conduct difference in means test against the committed and enrolled group to pinpoint socioeconomic disparities, as presented in

Table 4. I group the three variables together because they represent significant economic barriers that impact a player's ability to enroll in collegiate football programs. The three variables that I combine to create the Academic-behavioral variable are:

- Academic performance-related issues hindering Division 1 eligibility status
- Pursuing the junior college (JUCO) route
- Experiencing arrest or behavioral issues

Academic issues arise when an athlete is unable to meet eligibility requirements mandated by the NCAA. If a player declares academically ineligibility, either the player or their collegiate team announce that the player is attending a JUCO for their freshman season. To identify JUCO transfers, I review player profile websites of each NCAA Division 1 program and junior college that the players attend. Players enroll in a JUCO or post-graduate program to rectify academic deficiencies and regain eligibility for Division 1 enrollment. I assume that a majority of high school football stars attend a junior college rather than a postgraduate school, as it is cheaper and promotes a higher standard of athletics, allowing them to better adjust back to the Division 1 standard. My study supports this as only 7 of 137 athletes attend a postgraduate school. As many players with academic issues take the JUCO route to re-establish their collegiate career on the gridiron and in the classroom, I presume an extremely strong correlation between players with academic issues and taking the JUCO route. Notably, 10% of players in my study didn't pursue the JUCO route after they are deemed academically ineligible.

The last key variable of arrest/behavioral issues is when a player was kicked off their collegiate team for getting arrested or violating team conduct before football preseason camp commences. Extreme examples include murder, child molestation, and breaking and entering,

whereas less severe instances comprise possession, DUIs, and failure to live up to program responsibilities.

c. Descriptive Statistics

This study employs a quantitative case study approach to investigate why highly recruited players signed but didn't enroll. The case study sample includes all the 3-, 4-, and 5-star recruits who signed enrollment papers but never played for their committed school between 2005 and 2022. Points of comparison amongst players are the categorical variable of race and the categorical variables of academic eligibility issues, career-threatening injuries, opting for the JUCO or postgraduate route, transferring between schools, changing sports at the collegiate level, facing legal or behavioral problems, voluntarily leaving football due to a variety of factors, and transitioning to a professional football career after college. The primary categorical variable is academic-behavioral (n=171). Table 3 displays selected characteristics of the sample.

Among the 313 players analyzed, 75.1% are Black/African American, 21.1% are White/Caucasian, and 3.8% are Pacific Islander. Academic issues affect 48.9% of the entire sample, with Pacific Islanders experiencing the highest proportion at 66.7%. Despite this, Pacific Islanders represent only 5.2% of all athletes facing academic challenges. Whites also represent a small proportion of all athletes experiencing academic ineligibility at 5.3%, contrasting sharply with 89.5% amongst Black players. After calculating odds ratios, I find that Black players are 10.135 times more likely to experience academic issues than White players.

The junior college (JUCO) path is chosen by 43.8% of players, with Pacific Islanders again having the highest proportion at 66.7%. However, they comprised only 5.8% of all unmatched athletes opting for the JUCO route, contrasting sharply with the 89.1% represented by Black players. Notably, over half of Black players (51.9%) pursue the JUCO route, in contrast to the

10.6% of White athletes. Only 31.4% (N=43) of these players return to play collegiate football, indicating the difficulty in regaining academic eligibility while playing football.

Arrests or behavioral issues affected 6.7% of players, with 90.5% of those being Black players. One White and Pacific Islander player experience behavioral issues, accounting for 4.7% of the sample each. Overall, Black athletes are disproportionately represented among those experiencing academic issues, pursuing the JUCO route, and encountering behavioral issues. The combined variable Academic-behavioral reflects this disparity where Black athletes make up 90% (N=154), Whites 5.3% (N=9), and Pacific Islanders 4.7% (N=8).

Medical issues impact 8.9% of players, with a relatively balanced distribution across racial groups. Transfer portal involvement is notable, with 27.2% of players opting for this route, primarily led by Black players at 83.5%. Switching collegiate sports affects 7.3% of players, with a reasonably balanced distribution among racial groups. A small percentage (4.2%) of players transition to professional football careers, while voluntarily quitting football is observed among 18.2%, with a relatively even distribution across racial groups.

VI. Difference in Means Tests

Table 4 presents the mean scores, the difference in means, and t-stats across five independent variables regarding the quality of an athlete's high school and hometown. The mean score for the committed and didn't enroll players' high school overall score is 54.79, while the committed and did enroll mean is notably higher at 62.93. This difference in means (-8.14) suggests that players who lose their scholarship due to academic or behavioral issues tend to come from high schools with lower overall scores, indicating a correlation between an athlete's high school quality and the ability to maintain collegiate athletic scholarships. The t-statistic for

this difference in means is -3.89, implying statistical significance at the 0.01 level. Similarly, the unmatched sample shows a lower median income per zip code (\$66,444.51 vs. \$80,225.53). Median income is the variable with the largest numerical mean difference, given its calculation in thousands of dollars rather than a percentage. The t-statistic for this difference in means is -6.23, indicating significance at the 0.0001 level.

Conversely, the committed and didn't enroll sample shows higher percentages of Black residents in the zip code (30.07% vs. 26.74%). The difference in means (3.33) suggests that players who don't enroll tend to come from towns with higher percentages of Black residents. The t-statistic for this difference in means is 1.59, which is not statistically significant from zero. The committed and didn't enroll sample also shows higher percentages of students on the free lunch program (53.71% vs. 44.64%) compared to the committed and enrolled sample. The difference in means (9.07) indicates that players who don't enroll are associated with higher rates of students on the free lunch program. The t-statistic for this difference in means is 3.56, implying significance at the 0.01 level. Additionally, the committed and didn't enroll sample has a higher percentage of single-parent households (0.17 vs. 0.15) than the signed and enrolled sample. The difference in means (0.02) suggests that players who don't enroll tend to come from areas with a higher percentage of single-parent households. The t-statistic for this difference in means is 2.99, implying significance at the 0.01 level.

The t-test for median income demonstrates the most substantial evidence of a significant difference between population means, indicating that the affluence of an athlete's zip code plays a significant role in their enrollment and retention of their football scholarship. Overall score has the second-highest t-stat, suggesting that the quality of the athlete's high school also significantly influences their scholarship retention. Conversely, the percentage of Black residents per zip code

demonstrates the least substantial evidence of a significant difference between the sample means, compared to the other four differences in means, which are significant at the 0.01 level.

VII. Discussion

The study first investigates how socioeconomic and high school characteristics influence the enrollment outcomes of highly ranked high school football recruits. I consider factors such as income, single-parent households, overall score, free lunch participation, and the percentage of black residents. Descriptive statistics indicate that players who didn't enroll tended to come from lower-performing high schools, had lower median incomes, higher rates of free lunch participation, and resided in areas with higher black populations and slightly higher percentages of single-parent households than those who did enroll. Hence, highly-recruited collegiate football players' backgrounds closely tie to their enrollment outcomes.

Next, the results of the difference-in-means and presumed variable correlations offer insights into the underlying mechanisms driving enrollment outcomes among highly rated recruits. The positive difference in means for high school quality and median income among enrolled players is supported by a positive correlation, indicating that players from higher-performing high schools and more affluent backgrounds are more likely to enroll in collegiate football programs. Lower-performing high schools may lack resources or face systemic issues, hindering academic preparation, while lower median incomes likely reflect financial barriers to higher education. Accordingly, findings that the college enrollment rate of those from higher-income backgrounds is substantially higher than those from lower-income backgrounds (Stratton, 2013). Thus, access to collegiate sports, which serve as a pathway to higher education and potential future earnings, is not evenly distributed across socioeconomic groups.

The significantly higher percentage of single-parent households among non-enrolling players adds another layer of complexity. Single-parent households often face greater financial strain and may lack the support systems available in two-parent households, which could impact a student's ability to navigate the college application process and overcome obstacles. This is supported by previous findings suggesting that individuals who lived with both of their biological parents were more likely to attend and complete college than those who did not (Koh et al., 2017). Furthermore, research also suggests that lower educational achievement of children in single-parent households is mainly due to the family's lower socioeconomic status, which includes lower household income (Koh et al., 2017; Ploeg, 2002). Overall, these findings suggest that players from disadvantaged backgrounds are less likely to enroll in collegiate football programs, primarily due to attending lower-quality high schools and facing socioeconomic challenges.

Furthermore, this study's findings underscore a poignant reality: heavily recruited high school football players can attend college for free and potentially earn prominent incomes from playing football professionally, yet cannot capitalize on their collegiate scholarship opportunities. Notably, it's incredibly uncommon for highly rated players (3-, 4-, 5-star) to sign a university's scholarship offer and then not enroll, as supported by the 0.9% of committed players in my research who signed and didn't attend. This rarity is even more pronounced among the top athletes of each class, as evidenced by the absence of any 5-star recruits and only a few 4 stars in the subset of committed but non-attending players.

This observation suggests a couple of possibilities. First, the opportunity cost for highest-rated high school football players is substantial, as 4 and 5-stars are less likely not to take advantage of their scholarship opportunities, as they are more likely to miss out on a lucrative

career in the NFL than lower-rated players. Furthermore, the opportunity cost for 4-and 5-star players accepting their collegiate scholarship offer includes the potential income and NFL career, a free education, and the time and resources devoted to football development during their collegiate years. Another reason for the absence of 5-stars and the lack of 4-stars who signed and didn't enroll is that universities invest more resources in better athletes to ensure they attend. Universities heavily invest in top athletes because they can significantly impact the success of the football program and the university, enhancing national visibility and attracting more fans, media attention, and revenue. Therefore, universities are motivated to invest heavily in recruiting and supporting top athletes to ensure their success on and off the field. Despite the higher opportunity cost of missing out on a collegiate football experience and investment attempts from universities, players still discard their collegiate dreams due to the inability to perform in the classroom in high school or other mitigating factors. However, once these players realize they cannot capitalize on their scholarship opportunities and must take another path, it's often too late.

In my case study, only 28.7% (N=49) of all players who committed and didn't enroll could return to any NCAA Division level to play football. Out of the committed and didn't enroll players who took the JUCO route (N=136) to reestablish NCAA eligibility, only 31.6% (N=43) succeeded in boosting their grades enough, indicating the difficulty in regaining academic eligibility while pursuing football careers. Findings support this stating that participation in college athletics hurts GPA, which is strongest among male football players (Routon & Walker, 2012). The odds are stacked against these players as they attempt to boost their GPA while continuing to experience success on the gridiron. Despite the potential for a successful collegiate and professional football career, these student-athletes encounter significant barriers that impede their progress, ultimately limiting their opportunities for success and redemption.

Nearly half of my sample of committed but non-enrolling athletes (48.9%) failed to enroll due to academic ineligibility. 88.9% of athletes experiencing academic-behavioral issues face this challenge due to academic ineligibility. This suggests that an athlete's ability to gain acceptance into a university, related to grades, test scores, and core classes, is the primary factor hindering their path to collegiate enrollment and a free education. Essentially, academic prowess is the primary determinant of whether an athlete can secure a spot in a college program and take advantage of the opportunity for free education through athletics. These findings underscore the need for targeted interventions to support student-athletes academically, ensuring they have the necessary resources and support to meet the academic standards required for collegiate enrollment. Additionally, it emphasizes the importance of early intervention and academic monitoring throughout a student-athlete's educational journey to maximize their chances of accessing higher education opportunities. Athlete's neighborhoods and socioeconomic also play a pivotal role in their ability to attend college and experience successful long-term economic outcomes. Related, the Moving to Opportunity (MTO) experiment reveals that moving from high-poverty to lower-poverty neighborhoods, especially at a young age, increases college attendance and earnings (Chetty et al., 2016). These findings underscore the importance of neighborhoods in shaping student-athletes' academic and economic trajectories.

My case study sample reveals an overrepresentation of Black athletes facing academic and behavioral challenges, with disproportionately high proportions compared to Whites and Pacific Islanders. The disproportionate representation of black athletes under the Academic-behavioral variable aligns with findings showing that black men with high levels of professional sports aspirations and beliefs are more likely to face academic probation, suspension, or arrest (Beamon & Bell, 2002). Hence, there is a more vital link between highly recruited black athletes

and behavioral/legal challenges than other racial groups, given the disproportionate representation of Black athletes as elite college athletes, especially in football and basketball, leading to more Black elite athletes who also fail compared to other racial groups (Allison et al., 2018). This disparity highlights systemic inequalities in access to resources, support systems, and opportunities, which hinders the academic and athletic success of Black student-athletes.

Overall, my study aims to fill a critical gap in understanding the complex interplay between individual characteristics, socioeconomic status, and institutional factors in determining athletic success and scholarship retention. By focusing on successful and unsuccessful high school recruits, I seek to provide valuable insights into the barriers talented athletes face and the factors that contribute to their outcomes. Additionally, by examining highly rated collegiate football athletes who didn't utilize their athletic scholarship opportunities, I address a gap in existing research. This research can potentially inform policies and interventions aimed at addressing systemic inequalities in athletics and education.

While the present study offers valuable insights, it faces several limitations. One major constraint is need for more publicly available information on high school characteristics and statistics for private schools, restricting the sample to public school players for variables like high school overall score and percentage of students using the free lunch program, which limits the generalizability of findings to public school settings. Additionally, the dataset focuses solely on highly rated high school football recruits, potentially overlooking factors influencing enrollment outcomes for less touted players. Moreover, emphasizing high school characteristics and demographic factors might overshadow other relevant influences, such as personal circumstances or coaching staff quality. Future research should address these limitations by exploring how socioeconomic and high school characteristics affect highly-rated sports recruits'

ability to maintain academic eligibility and avoid legal issues post-graduation, enabling immediate participation at the Division 1 level. Such research should include a more comprehensive range of variables, both public and private school contexts, and delve deeper into high school characteristics. Moreover, incorporating a wider range of players, including 1- and 2-star recruits, can provide a more comprehensive understanding of the factors affecting players' enrollment in collegiate athletics. By overcoming these limitations, future research can offer nuanced insights to benefit athletes, coaches, and policymakers in improving athletic development programs and promoting equal opportunities in sports.

VIII. Conclusion

In conclusion, this study provides robust empirical evidence that socioeconomic factors, including high school quality, family income, and family structure, significantly influence collegiate football enrollment outcomes of highly ranked high school football recruits. Findings indicate that players who didn't enroll come from lower-performing high schools, faced financial barriers represented by lower median incomes and higher rates of free lunch participation, and were associated with areas having higher percentages of black residents and single-parent households. The case study further highlights the challenges faced by committed and didn't enroll players, particularly the overrepresentation of black athletes in academic and behavioral issues. Despite these disparities, the study emphasizes the potential for success for all highly-rated athletes. However, limitations such as focusing primarily on high school characteristics and demographic factors underscore the need for further research to understand the complexities of collegiate football enrollment fully. Overall, I hope my contributions push the current literature forward.

Figure 1: Flow Chart

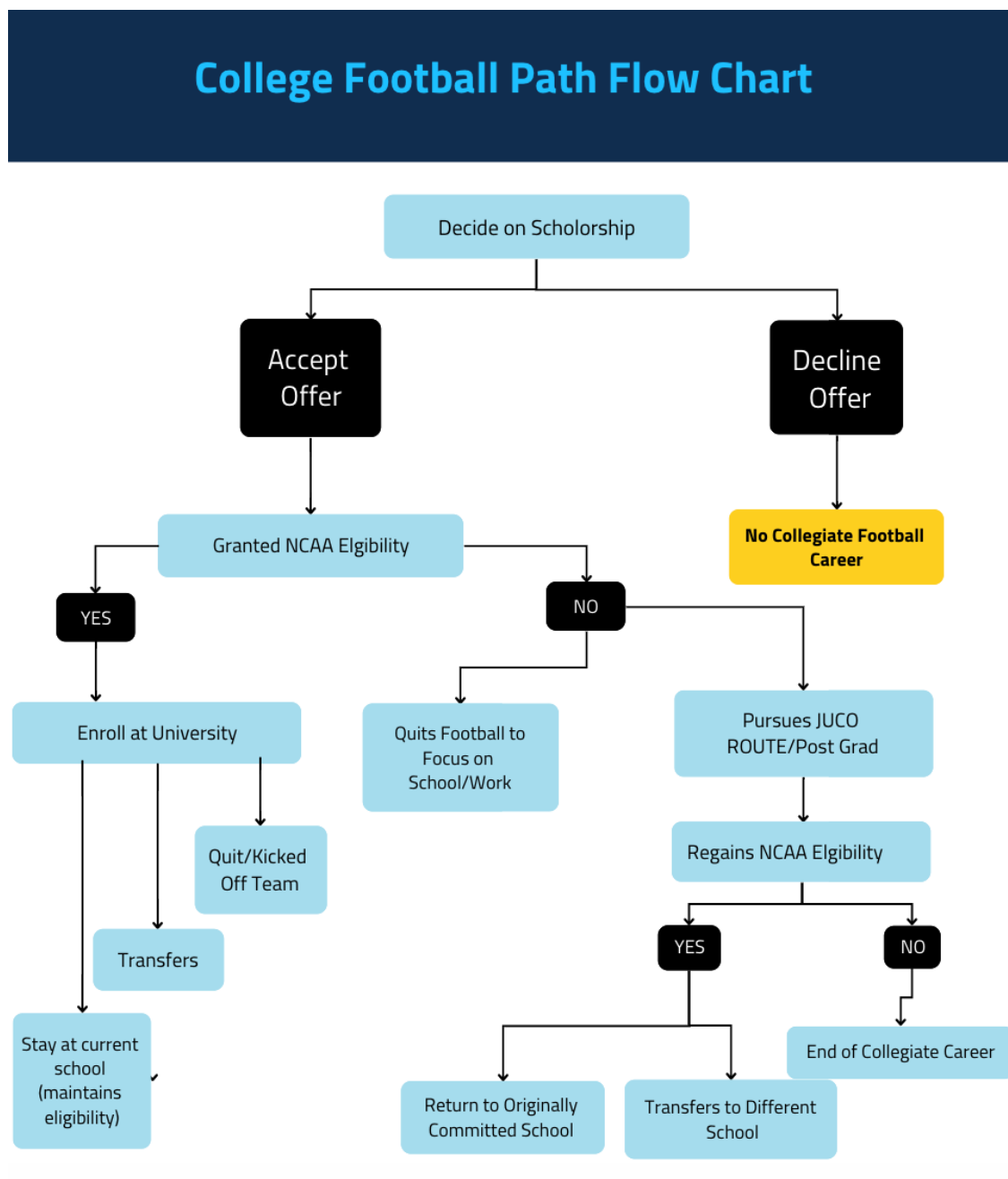


Chart Description: Illustrates the post-high school journey of college football players, detailing decisions like accepting scholarships, the approval or rejection of NCAA eligibility, transferring schools, or ending their collegiate career, with each choice leading to various outcomes in their athletic and academic pursuit.

Table 1: Variables & Definitions

Variable	Definition	Source
Race	Ethnicity of the player	247 Sports
Numerical Star Rating	A high school player ranking from 0 to 1	247 Sports
Academic Issues	Issues related to academic performance, ineligibility	Google Search
Medical Issues	Health-related issues preventing play	Google Search
JUCO Route	Players transferring from junior college (JUCO)	Google Search
Transfer Portal	Players entering the transfer portal	Google Search
Changed Sports	Players changing to a different sport	Google Search
Went Pro	Players who opted to pursue professional sports	Google Search
Arrested/Behavioral	Players involved in legal or behavioral issues	Google Search
Quit Football	Players who voluntarily quit football	Google Search
Academic-Behavioral	Issues related to academic performance, transferring via the JUCO route, or involved in legal/behavioral issues	Google Search
High School	% of Students by race, free lunch program, overall score	US. News
Zip Code	Median house income, % of single parent households	Department of Census

Table 2: Basic Summary StatisticsAll Players

	<u>Mean</u>	<u>St. Dev</u>	<u>Min</u>	<u>Max</u>	<u># obs</u>
School Score	62.88	24.59	25	99.68	26,554
Black	26.76	27.46	0	100	28,204
Free Lunch	44.69	27.12	0	100	21,250
Single Parent Household	0.15	0.07	0	0.96	33,740
Median Income	80,156.47	34,62.96	0	278,149.31	33,727

Committed and Enrolled

	<u>Mean</u>	<u>St. Dev</u>	<u>Min</u>	<u>Max</u>	<u># obs</u>
School Score	62.93	24.57	25	99.68	26,404
Black	26.74	27.46	0	100	28,036
Free Lunch	44.64	27.11	0	100	21,333
Single Parent Household	0.15	0.58	0	0.96	33,571
Median Income	80,255.53	20,843.11	0	278,149.31	33,558

Committed and Didn't Enroll

	<u>Mean</u>	<u>St. Dev</u>	<u>Min</u>	<u>Max</u>	<u># obs</u>
School Score	57.14	25.48	25	98.65	269
Black	28.57	28.63	0	100	304
Free Lunch	48.81	27.60	0	100	211
Single Parent Household	0.17	0.07	0.03	0.43	171
Median Income	66,444.51	28,155.22	26,435	191,766.17	171

Variable Definitions:

School Score: A measure of the overall quality of the high school, ranging from 0 to 100.

Black: % of Black residents in the zip code area.

Free Lunch: % of students in the high school eligible for free lunch programs.

Single Parent Household: % of family households in the zip code area with single parents.

Median Income: Median household income in the zip code area.

Table 3: Summary Statistics for Committed and Didn't Enroll Players

	N (%)	Race of Player		
	Total	White	Black	Pacific Islander
Number of Players	313 (100)	66 (21.1)	235 (75.1)	12 (3.8)
Academic Issues	153 (48.9)	8 (12.1)	137 (58.3)	8 (66.7)
JUCO Route	137 (43.8)	7 (10.6)	122 (51.9)	8 (66.7)
Arrested/Behavioral	21 (6.7)	1 (1.5)	19 (8.1)	1 (8.3)
Academic-Behavioral	171 (54.6)	9 (13.6)	154 (65.5)	8 (66.7)
Medical Issues	28 (8.9)	14 (21.1)	13 (5.6)	1 (8.3)
Transfer Portal	85 (27.2)	13 (19.7)	71 (30.2)	1 (8.3)
Changed Sports	23 (7.3)	7 (10.7)	15 (6.4)	1 (8.3)
Went Pro	13 (4.2)	4 (6.1)	7 (3.0)	2 (16.7)
Quit Football	57 (18.5)	23 (34.8)	33 (14.0)	1 (8.3)

Note: Variable definitions are presented in Table 1.

Table 4: Difference in Means Test

	School Score	Black	Free Lunch	Income	Single Parent
Academic-behavioral (n=171)	54.79	30.07	53.71	66444.51	0.17
Players who committed & attended (n=34,082)	62.93	26.74	44.64	80225.53	0.15
Diff	-8.14	3.33	9.07	-13781.02	0.02
T-stat	-3.89	1.59	3.56	-6.23	2.99

Note: the ‘academic-behavioral’ category consists of players who committed and didn’t enroll due to academic ineligibility, opted for the JUCO route, or faced behavioral or legal issues.

Variable Definitions:

School Score: A measure of the overall quality of the high school, ranging from 0 to 100.

Black: % of Black residents in the zip code area.

Free Lunch: % of students in the high school eligible for free lunch programs.

Single Parent Household: % of family households in the zip code area with single parents.

Median Income: Median household income in the zip code area.

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APPENDIX

Appendix Table 1 presents correlations illustrating the relationships among key demographic and socioeconomic variables across the committed and enrolled sample and academic-behavioral observations from the committed and didn't enroll sample.

Notably, a negative correlation between the school score and demographic indicators such as being from an area with a higher % of black residents (-0.53) and receiving free lunch (-0.63) suggests that students attending lower-quality schools are more likely to be from Black or low socioeconomic status backgrounds. Conversely, there is a positive correlation between the school score and income (0.60), implying that students attending higher quality schools often come from higher-income households. Additionally, there is a negative correlation between the school score and % of single-parent households (-0.49).

A positive correlation (0.58) exists between the proportion of black residents per zip code and both the percentage receiving free lunch and the proportion of single-parent households, indicating that areas with a higher black population correlate with a greater percentage of students from lower socioeconomic backgrounds with less two parent homes. Conversely, a moderate negative correlation (-0.44) between the proportion of black residents per zip code and median income indicates that areas with more black residents tend to have lower median incomes. Furthermore, a strong negative correlation of -0.63 between the % of students receiving free lunch and income implies that schools with a greater % of students receiving free lunch are typically located in areas with lower median incomes, consistent with previous findings (Micheltmore & Dynarski, 2017). Similarly, a moderately positive correlation of 0.57 between the % of students receiving free lunch and single-parent households suggests that schools with more students from lower socioeconomic backgrounds also tend to have a higher rate of single-

parent households, also consistent with previous findings (Micheltore & Dynarski, 2017). Finally, a strong negative correlation of -0.68 between income and single-parent households indicates that areas with higher median incomes tend to have a lower % of single-parent households.

The correlation results suggest that while there are moderate to strong relationships between all variables, they aren't so high as to indicate collinearity issues, which complicates the interpretation of regression results. Instead, they provide valuable insights into how each variable interacts with the others. For instance, the negative correlation between school score and Black students or those receiving free lunch indicates that areas with lower-quality schools tend to have a higher proportion of Black students and students from low socioeconomic backgrounds. Conversely, the positive correlation between school score and income suggests that higher-quality schools are often located in areas with higher median incomes.

The correlations provide crucial context for interpreting the difference in means tests. If the correlation coefficients are extremely high, it suggests that the variables are essentially measuring the same underlying factor, making it challenging to attribute differences in means solely to one variable. However, in this case, the correlations are moderately high but not excessively so, indicating that each variable contributes unique information. For instance, if the correlation between school score median income is very high, it's difficult to discern whether differences in means were due to school quality or socioeconomic status. As the correlations are moderately high, I can reasonably attribute differences in means to the specific variables being tested. Thus, the correlation tests help to contextualize the relationship between various socioeconomic and demographic factors and illuminate how they may influence enrollment decisions among collegiate athletes.

Appendix Table 1: Variable Correlations

	School Score	Black	Free Lunch	Income	Single P
School Score	1	-0.53	-0.63	0.60	-0.49
Black	-0.53	1	0.58	-0.44	0.58
Free Lunch	-0.63	0.58	1	-0.63	0.57
Income	0.60	-0.44	-0.63	1	-0.68
Single P	-0.49	0.58	0.57	-0.68	1

Variable Definitions:

School Score: A measure of the overall quality of the high school, ranging from 0 to 100.

Black: % of Black residents in the zip code area.

Free Lunch: % of students in the high school eligible for free lunch programs.

Single Parent Household: % of family households in the zip code area with single parents.

Median Income: Median household income in the zip code area.

<u>Coefficient Interval</u>	<u>Correlation</u>
0.0 – 0.199	Very Weak
0.2 – 0.399	Weak
0.4 – 0.599	Moderate
0.6 – 0.799	Strong
0.8 – 1.000	Very Strong