This chapter reviews the relationship between intercollegiate athletics and academic missions at Division III colleges and universities. It reports on a national data collection project, the College Sports Project, whose purpose includes gathering data to inform presidents about the academic performance of student-athletes.

College Athletics and Student Achievement: The Evidence at Small Colleges

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Introduction

Claims for the intrinsic value of intercollegiate athletics reflect longstanding ideals: (1) "Games" are a source of pleasure and satisfaction and an important way of introducing balance into a student's life; (2) By competing, one learns "life lessons": teamwork, discipline, resilience, perseverance, how to "play by the rules," and how to accept outcomes one may not like; (3) At their best, athletic programs contribute to school spirit, help build community, and provide valuable learning opportunities. Although one finds similar sentiments at colleges and universities at all levels, it is arguably within the NCAA Division III that claims for the educational value of athletic participation are most clearly and forcefully articulated.

Unfortunately, there exists little systematic evidence about the extent to which the realities mirror the ideals. The preponderance of attention to and research about athletics has focused on NCAA Division I institutions, even though leaders across the spectrum of higher education value data about athletics. At Division III institutions many questions remain. Do athletes have academic records comparable to the larger student body? Are recruited athletes performing as well in the classroom as one would expect?

A survey by the NCAA Division III Presidents Council finds that 95% of Division III institutions agree that student-athletes should be

recruited with, and perform at, the same academic standards as the general student body (2008). However, research suggests that at many colleges the relationship between intercollegiate athletics and academic values is not always harmonious (see Fried, 2007 and Aries, 2004). High-intensity, narrowly focused athletic programs can distort the experiences of student athletes and threaten the educational missions of colleges and universities. *The Game of Life* (Shulman and Bowen, 2001) and *Reclaiming the Game (*Bowen and Levin, 2003) identified disturbing trends toward greater differences between college athletes and other students in their academic achievement, choice of majors, and involvement in other aspects of collegiate life.

To build on these prior studies, The Andrew W. Mellon Foundation funded the College Sports Project (CSP) in 2003 to focus on academics and athletics within Division III. The CSP includes a longitudinal data collection effort comparing athletes to non-athletes at over 80 institutions in the United States.

This chapter draws on the CSP to highlight the challenges small colleges face when collecting data about athletics and academics, and uses CSP analyses to illustrate the ways these data provide a comparative assessment of athletes' academic outcomes. These examples may also suggest the limitations of any single data collection, no matter how comprehensive, for explaining the multiple and varied educational experiences and academic performance of student-athletes. As a backdrop for the discussion of the CSP, we summarize some distinguishing characteristics of Division III and its philosophies regarding academics and athletics.

Division III vs. Division I in the NCAA.

The NCAA Division III had 444 member institutions in 2008; one-fifth of these were universities and the remainder colleges. The enrollment at these institutions averages around 2,250 students, and this modest size means that intercollegiate athletes typically comprise from one-fifth to one-third of their student bodies. In sharp contrast,

athletes are a very small fraction of the student body at some of the largest institutions within Division I, such as Ohio State University or Michigan State University, both with enrollments over 40,000. Ethnic diversity is yet another point of contrast. At many Division I institutions, the ratio of minority athletes to minority students is very high (Lederman, 2008), whereas at many Division III institutions, athletic programs are less diverse than the student population as a whole (Fried, 2007).

Differences in philosophies about who plays sports, in which contexts, and to what ends further distinguish Division I from Division III. Bowen and Levin (2003) provide a succinct description of the dissimilarities, of which the absence of athletic scholarships at Division III institutions is among the most important (see also NCAA, 2009). Instead, these institutions commonly award financial aid based on need or academic merit. Additionally, public spectator-oriented, income-producing athletic contests are a phenomenon of Division I institutions, whereas within Division III the primary audiences are internal to the institution and local community, and competitions are not designed to generate revenue. The positive impact of sports on student athletes is considered especially important across Division III, and broad student participation is encouraged through the sponsorship of a maximum number and variety of athletics opportunities.

Although financial and operational distinctions between the two divisions are evident, both divisions can benefit from the availability of data on athletics. The NCAA has collaborated with other groups to produce a uniform data-reporting system for Division I that would provide "dashboard" indicators for peer comparisons of athletic spending (NCAA, 2007). Although the CSP does not directly address athletic spending, its underlying motivation to provide better comparative data to presidents, who are the ultimate decision-makers about athletics, is consistent with the NCAA's motivation to develop financial indicators at Division I institutions. Both projects promote collaboration and sharing

of data among athletics, financial and academic departments, and college presidents. However, it is important to note that because athletics budgets at Division III are established through the same procedures that set budgets for other campus programs and units, money has a much smaller role in athletics than it does at the Division I institutions (Weisbrod, 2008).

Common values and characteristics within Division III should not overshadow its diversity. Some of its colleges are nationally ranked and among the most highly selective in the country, whereas others admit nearly all of their qualified applicants. Most are co-educational, but a handful have a long tradition of being single-sex colleges. Some have strong religious affiliations, whereas for others such a connection is mostly a historical artifact.

Perhaps the most significant aspect of diversity within Division III, at least with regard to data collection about athletics, is the variation in recruiting practices for athletes. In some cases coaches and athletics staff members work closely with admissions officers to ensure that especially talented recruits are admitted. At other institutions admissions staff see nothing in an applicant's file to indicate he or she is being recruited by someone in athletics. This distinction, pertaining to the "blindness" of the admissions process for student athletes, is important especially when information about recruitment is an integral part of a data set, as it is for the CSP. However, before turning to these and other study details, several terms and guiding principles require definition.

The Goal of "Representativeness"

The notion that athletes should be similar to the non-athletes at their respective institutions, especially in regard to their academic outcomes and opportunities for engagement in campus activities, has been a guiding principle explicitly articulated by many Division III athletic conferences (Bowen and Levin, 2003). Athletes live with non-athletes, take the same courses, eat in the same dining halls, and ideally should

be similar to other students in their academic motivation, interests, classroom contributions, and achievement. In short, athletes should be "representative" of their own student bodies. Underlying this concept are the principles that athletes are first and foremost students, and that academic missions should not be compromised for the sake of winning athletic records.

Documenting progress toward the goal of "representativeness" requires the collection and dissemination of information about student academic performance -- measuring and reporting on student outcomes. In recent years, state and national higher education governing bodies have asserted a need for greater measurement of "accountability indicators" in order to judge the quality and effectiveness of institutions. They have shone a spotlight on the limited measurement of quantifiable undergraduate student outcomes, and they urge more systematic assessment (Brooks, 2005). The lack of innovation and inter-institutional collaboration in measuring student learning and progress greatly limits the alternatives for judging "representativeness," especially in a comparative framework across Division III institutions. The CSP works within this limited landscape to leverage available data and inform conversations about the impact of athletics on educational outcomes.

Overview of the College Sports Project

The College Sports Project is a loose confederation of around 80 institutions from NCAA Division III. A primary goal of the project is to provide summary data and useful information for institutional presidents interested in ensuring good alignment between their academic missions and intercollegiate athletics. A second component of the project develops programs aimed at integrating athletics more fully into the academic life of the institutions.

Building on prior research. The CSP was framed as a research tool to enable presidents and athletic conference heads to work collaboratively to develop local responses for slowing and eventually reversing any undesirable trends that might be uncovered within Division

III. The project was conceived largely in response to the findings reported in *The Game of Life* and (especially) *Reclaiming the Game* that Division III was not immune to some difficulties long associated with Division I athletics. These studies identified trends toward greater differences both in admissions standards and in academic outcomes between recruited athletes and non-athletes.

Other studies have found mixed trends in the differences between recruited athletes and non-athletes. A Wabash College inquiry found that among eleven liberal arts colleges, the academic performance and graduation rates of athletes were similar to or higher than their non-athlete counterparts, even when their high school performance and test scores were lower (Blaich, 2003). Similarly, Aries and colleagues (2004) discovered that when controlling for race, gender, and SAT scores, athletic participants at two highly selective institutions did not have significantly different GPAs than their non-athlete peers.

The complex relationships between academic performance, athletic status, and race have also been studied. Ethnic diversity and equality are high priorities at many institutions, as is the academic success of underrepresented minority groups. Still, Schulman and Bowen (2003) report that racial minorities who are recruited athletes have average high school credentials that are significantly worse than those of non-recruited students. A study by Matheson (2005) finds that in Division I, although male athletes in general graduate at a lower rate than non-athletes, within some racial/ethnic groups male athletes graduate at much *higher* rates than non-athletes. It is unclear whether these findings would persist in Division III, or if the relationships among these factors are even more complex.

The CSP data collection. The CSP tracks entire entering cohorts of students -- athletes and non-athletes, and transfer students -- from the point of admission up to graduation or withdrawal from college. It gathers demographic and secondary school data, as well as information about college athletic participation and academic performance. With data

on approximately 44,000 students per entering cohort, the project expects to track five cohorts through at least 2011.

The data collection was designed for long-term utility, so researchers link it to other national data sets on college students using information within individual student records. For example, information about individual high schools has been attached to records from the College Board to gain a limited sense of the academic quality of high schools. Linkages to other information about students, such as post college educational and career plans, may identify other similarities and differences between athletes and non-athletes.

Strict confidentiality requirements, such as those set forth in The Family Educational Rights and Privacy Act (FERPA), must be adhered to when undertaking any project of this type and scope. The risks associated with collecting and maintaining educational data about individual students cannot be overstated. The CSP spent many months ensuring that both project personnel and procedures comply fully with privacy and security needs.

Participating institutions have found the process of assembling CSP data challenging because of the many different locations on campuses where the information may exist. Registrars, admissions officers, athletics staff, and institutional research officers have all had a role in compiling reports for the CSP. Unfortunately, records about the recruitment of student athletes are often not preserved by coaches or admissions staff in an electronic form, or even at all. Initially the memory of athletics staff was relied upon for reporting. At many institutions the project has led to more and better record keeping, and has occasionally been used as leverage for obtaining resources to improve data storage and reporting capabilities.

The practical resource constraints of those with responsibilities for CSP data collection and submission are not limited to technical and computing infrastructure. The human resources available for institutional research are generally very modest within Division III; it

is not uncommon for one or two individuals on campus to perform all the internal and external reporting requirements for the college. However, because the project has instituted few changes to the data submission requirements from year to year, individuals have been able to create reporting templates to ease the data collection burden associated with the project.

A non-prescriptive analytical approach. To establish trust and credibility for the project, the CSP determined it would report information directly to the presidents of participating institutions. When possible, it provides a comparative context for the data--comparison either across cohorts or with groups of other participating institutions. The CSP does not suggest how presidents should view or respond to their reports. Rather it presumes that they and other leaders are better positioned to interpret and respond as they see fit.

Illustration of CSP Findings that Inform Leaders

The following example illustrates how this data collection, analysis, and reporting mechanism has yielded findings about athletes that further underscore the diversity within Division III. It also exemplifies the kinds of information that the project provides to its participating institutions, with the important difference that data given here do not include any parallel results for the local institutions.

Group Differences in GPA. The research findings in this section derive from preliminary analyses of college grade point averages (GPAs) for a single student cohort after two years of college. Among the 77 institutions contributing data for the student cohort entering college in the 2005-06 academic year, 63 institutions were liberal arts colleges with data on those variables needed for the analyses. Because differences in GPAs between athletes and non-athletes are greater at more highly selective colleges, we used institutional standardized test score averages to partition these colleges into three groups: 25 colleges that are highly selective, 23 that are moderately highly

selective, and 15 that are relatively less selective in admitting students.

Table 1 gives the average GPAs for each of six student groups at the three categories of colleges. Students are classified as non-athletes if they (1) are not recruited athletes when admitted, and (2) have never played an intercollegiate sport in college. Recruited athletes are those identified by coaches as promising athletes, and are either recommended for admission, or encouraged by the coaches to attend that college. Non-recruited athletes include those students sometimes referred to as "walk-ons".

In general, male recruited athletes have lower GPAs than non-recruited males and male non-athletes, with the greatest differences observed at the colleges with the highest selectivity. A similar pattern appears for female recruited athletes, but only at the two highest selectivity levels.

At many selective colleges and universities, an applicant's promise as an intercollegiate athlete can substantially enhance the chances for that student's admittance. This indicates that standardized test scores, high school grades, and other measures of academic strength may, on average, be lower for the recruited athletes at an institution than for their non-athlete counterparts. These differences might explain why college grades and possibly other measures of achievement during college are lower for recruited athletes than for non-athletes (as observed in Table 1).

The Meaning and Measurement of Underperformance. When college athletes do less well than standardized test scores, high school grades, other academic indicators, and known demographic characteristics (e.g., gender, race or ethnicity, citizenship, high school attended) predict, we say that they have "underperformed." In particular, the difference between the college GPA for a group of athletes and the GPA for a hypothetical group of non-athletes having precisely the same known

characteristics as the athlete group is a measure of the underperformance of the athletes.

To calculate underperformance, the CSP used regression models to predict GPAs based on student characteristics (see Figure 1). The predictor variables include demographics (gender, race/ethnicity, citizenship), measures of high school quality (such as the percentage of students from t high school planning to attend a 4-year college, acquired from the College Board), high school class rank, combined reading and math SAT scores (with ACT scores converted to SAT equivalents), athletic recruitment status (non-recruited athlete, recruited athlete), college athletic participation (membership on an athletic team), and college class status (freshman, sophomore, junior, senior). The regression models predicted what the GPAs for student athletes would be if they were not athletes; that is, the model predicted GPAs based on students' academic and other characteristics, *except for their athletic status.* In other words, in order to understand how being a recruited athlete impacts academic performance, the model estimated what students' GPAs would have been had their GPAs not been influenced by athletic participation or recruitment. For the three groups of institutions, the model predicted between 35% and 47% of the variation in college GPA, with higher predictive values for the less selective colleges.

Figure 2 displays the differences in the average college GPAs for four groups of athletes at the 25 most highly selective colleges. The figure also displays the predicted values of the GPA differences if athletic participation had not been a factor. The difference between these average predicted values for athletes and the actual average GPAs of the same athletes is the amount of underperformance for each athlete group, displayed as the right-most bar in each group.

The differences in GPA between recruited athletes and non-athletes are greater than those between the two groups of athletes, a finding that holds for both genders. Overall, male athletes are less representative of their

student bodies than are female athletes. Much of the difference in outcomes between athletes and non-athletes is attributable to underperformance, especially for the recruited athletes.

The corresponding analyses (see Emerson and Brooks, 2009) for the groups of middle and lower selectivity colleges indicate that the differences between athletes and non-athletes typically decrease as the level of selectivity decreases. For the 15 colleges with lower selectivity, only the male recruited athletes differ noticeably from their non-athlete counterparts, and there is little or no evidence of academic underperformance in any of the four groups of athletes. In other words, at less selective institutions, athletes are achieving at or close to the level predicted for their achievement given their entering characteristics and educational qualifications.

Explanations for underperformance. If academic underperformance by athletes is, by definition, not explained by the observed characteristics of students when they begin college, then what is the source of underperformance? Some have speculated that the time college athletes commit to practices, training, travel, and competition could lead to lower than expected academic performances. However, a close look at out-of-season athletes and at other students with very heavy extracurricular demands suggests that time devoted to sports cannot account for underperformance (Bowen and Levin, 2003, Aries, 2004). It is possible that some important cognitive or behavioral differences between recruited athletes and non-athletes may not be fully captured by test scores, high school grades, the quality of the high school attended, or other variables measured before students begin college. For example, academic motivation and level of interest in the college curricula may differ if recruited athletes feel an especially strong obligation to their coaches and teammates, and are consequently less committed to their studies than their classmates.

Another hypothesis is that athletes may believe, perhaps subconsciously, that others view them as being less able or less engaged in their academic pursuits, which may produce anxiety resulting in

lowered academic achievement. This phenomenon is what Steele (1997) referred to as "stereotype threat," and is described by Thomas Dee, a Swarthmore College economist, as

> "refer(ing) to the perceived risk of confirming, through one's behavior or outcomes, negative stereotypes that are held about one's social identity. More specifically, its key conjecture is that the threat of being viewed through the lens of a negative stereotype can create an anxiety that disrupts cognitive performance and influences outcomes and behaviors (2009)."

Dee tested the hypothesis that stereotype threat may contribute to academic underperformance by intercollegiate athletes at selective colleges. With blinded and controlled experiments he produced evidence of stereotype threat among college athletes in a laboratory setting. His work established that stereotype threat could be a contributing factor in academic underperformance by athletes, but the extent to which this experimental finding translates into the actual experiences of athletes is still unknown.

Other Findings and Evidence for Optimism

Other empirical evidence from the CSP lends support to the attainability of the goal of athletes being representative of other students. Three general findings stand out in this regard:

1. Even at the most selective colleges, where differences in academic outcomes between athletes and non-athletes are greatest, athletes who are not recruited perform nearly as well as non-athletes.
2. When individual sports are examined, some athletes attain academic outcomes comparable to or better than those of their non-athlete classmates. (For men these sports include cross country, indoor track, outdoor track, squash, and tennis, and for women they include cross country, indoor track, outdoor track, golf, and sailing.)
3. At many individual colleges, including some that are highly selective, athletes perform as well academically as non-athletes.

While some may believe the goal of representativeness is "pie-in-the-sky" idealism, data from the College Sports Project strengthens the position of college leaders who are working towards achieving greater representativeness among their intercollegiate athletes. Academic underperformance by athletes is not inevitable at Division III institutions, and it is up to institutional leaders to ensure that their academic missions are not casualties of the competitive pressures often present in the athletic arenas.

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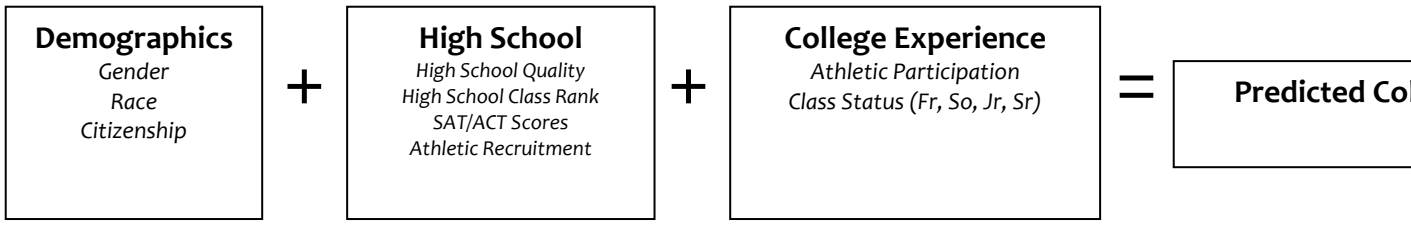
Table 1. Average GPA Two Years After Entering College

Student Group	*Selectivity Level at Liberal Arts Colleges*		
	Highly Selective	Moderately Selective	Less Selective
Male Non-athlete	3.21	2.97	2.74
Male Recruited	3.02	2.82	2.65
Male Non-recruited	3.15	2.89	2.75
Female Non-athlete	3.34	3.21	3.02
Female Recruited	3.24	3.18	3.03
Female Non-recruited	3.30	3.20	3.00

Figure 1. Variables Used in Regression Analysis to Calculate Underperformance



The regression model used variables of different types to predict colleg

Figure 2. Athletes vs. Non-athletes at Highly Selective Colleges