

Chapter 4
Maintaining a Nice Green Lawn:
The Competitive Landscape in Lower Profile College Sports

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CHAPTER FOUR

MAINTAINING A NICE GREEN LAWN

The Competitive Landscape in Lower Profile College Sports

James L. Shulman, William G. Bowen

Shulman and Bowen consider the effects of competitive pressures in “lower profile” college sports; that is, all sports other than football, men’s basketball, and men’s ice hockey. They examine the financial costs of such sports and the academic qualifications of athletes participating in them. Their data indicate that the level at which institutions choose to compete has a significant impact on both financial and academic matters. As an institution’s competitive level increases, costs rise and, on average, athletes’ SAT scores decline. The authors urge review of the role of athletics on college campuses in light of clear and accurate financial data and a strong sense of institutional mission.

[Warned of water shortages,] we are far better off if we all . . . let the lawns get a little browner.

A homeowner, stepping onto his back porch at night, cocks his head and hears the swish of invisible lawn sprinklers in the darkness up and down the block. He damns the lack of enforcement and turns the handle on his own sprinkler, making the violation unanimous.

SHELLING (1978)

This chapter draws heavily from the research presented in *The Game of Life: College Sports and Educational Values* (2001). We are grateful to the Princeton University Press for permission to publish this material. We also would like to express our gratitude to our collaborators on that book, Lauren Meserve and Roger Schonfeld, as well as to three researchers whose suggestions and generous conversation have been extremely important to the development of this article: Mike McPherson, Morty Schapiro, and Gordon Winston.

Tom Schelling's tale reminds us that we sometimes find ourselves in the position of doing something to make ourselves slightly better off and, in doing so, contribute to the whole system being worse off. *Someone* on the street cares enough about his or her garden to break the rule and turn on the sprinklers, leading to a retaliatory strike by others, and eventually by everybody. Under the normal presumption of a social contract, Schelling notes, "Some gain more than others, and some not enough to compensate for what they give up." And soon the well will inevitably go dry. In this article, we describe how this process plays out when one college (or admissions officer, dean, coach, or trustee) cares a great deal about lacrosse, swimming, or squash.

As colleges and universities compete to attract students, faculty, and donations, they are often caught up in a race of what economist Gordon Winston refers to as "competing amenities." If Vanderbilt learns that a student chose to attend Duke over Vanderbilt because of the beautiful tulips on Duke's campus, the order immediately goes out for bulbs at Vanderbilt. In this essay, we examine the institutional repercussions of the competition in sports that take place far from the football stadium, the basketball court, or the hockey rink; that is to say, we ask what competing in sports costs when there are no delusions of gate or TV revenue, when few alumni are watching, and when it is hard to see how the sport affects many people besides those who are participating.

The Schelling sprinkler analogy is helpful for thinking about the competition in these sports in two ways. First, in the same way that the water users do not believe that they are, individually, going to make much of a difference by turning on the faucet, so also trying to get ahead of the pack in these sports is perceived to have little financial or curricular impact on the schools that are trying to get ahead. This may be the case, or it may be the case that the collective repercussions of small incremental turns of a faucet eventually lead to changes of some significance.

The Schelling sprinkler analogy fails, however, to capture an important element of the landscape of college sports. In the sprinkler example, the drought will eventually end, the summer will pass, or the city will run out of water and the citizens will, perhaps, learn their lesson. But in sports the cycles do not end. The fall season leads to the winter and spring, and eventually to the next fall. New sports can be added, talent levels increased, and better coaches found. Even winning a championship does not lead to any rest, since there is always a new season for which to prepare. If, as we posited above, turning the faucet is considered to have only incidental impact, then this endless cycle of opportunities to compete is also considered to be harmless. If there are costs, however, the endless arenas for competition must inevitably magnify those costs.

Schools now must compete not only on the field but also in the quality of their sports facilities. In February of 1997, Yale hired Marisa Didio, the field hockey coach who had left Division I-A Northwestern after making the Final Four: “Within the support system that existed, I did not feel that I could take that [Northwestern] team any further. . . . Yale has made a change in commitment with this hire to bring the program, within a time frame, to another level.” At the time that Didio was hired, the Harvard coach explained one aspect of the competitive disadvantage that Yale had been facing: “Certainly, a higher level of field hockey is played on astroturf. Princeton got turf two years ago and that turned their program around. Turf helps in recruiting and in developing team skills. It makes a huge difference.”

In this chapter, we begin by looking at the financial costs of lower profile sports, using publicly available data, as well as considering some of the financial investments that are often overlooked. We then turn to trends in the SAT scores of athletes who play such sports as a result of the competition for talented athletes. Finally, we conclude by “thinking out loud” about the implications of this unusual model of competition.

Away from the Spotlight: Lower Profile Sports

In *The Game of Life: College Sports and Educational Values*, we examine a broader set of issues related to college sports. In this chapter, we examine only certain aspects of what we call “lower profile” sports—all sports other than football, men’s basketball, and men’s ice hockey—at selective colleges and universities, ranging from Swarthmore and Kenyon, to Ivy League universities like Yale and Columbia, to big-time universities like Stanford and the University of Michigan. Few would argue that these sports have a direct impact on the revenues that are earned by a school, in the same way that high-profile sports like football and basketball do. But the competition among schools in these sports is, nevertheless, intense, and it is interesting to note that at the schools in this study, there are twice as many lower profile athletes among the men than there are football, basketball, and hockey players combined; 12 percent of the men at the schools in the study played sports ranging from baseball to fencing, and tennis to soccer, while 6 percent of the men played the three more highly visible sports.

We make use of the Equity in Athletics Disclosure Act (EADA) filings that each of the schools makes available in order to understand the financial sides of the equation; we also draw on a restricted access database called College and Beyond that contains individual student records pertaining to those

students who entered thirty selective colleges and universities in 1951, 1976, and 1989.¹

Financial Investments

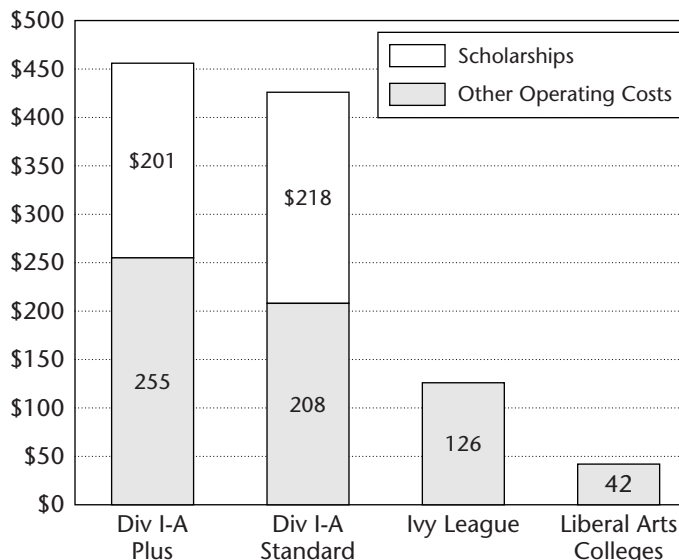
We begin the analysis by categorizing the institutions for whom we have dependable data by the scope of their athletic programs. There are enough similarities between types of intercollegiate programs to permit us to group most of the College and Beyond institutions into four categories:²

- *Division I-A “Plus” Universities.* The four Division I-A universities in our database that have the most ambitious intercollegiate programs and spend the most money on them (University of Michigan, Penn State, Notre Dame, and Stanford).
- *Division I-A “Standard” Universities.* The four other Division I-A universities in our database that also have big-time programs but that generally enroll somewhat fewer athletes and spend somewhat less money on intercollegiate sports (Duke, Northwestern, Vanderbilt, and Tulane).
- *Division I Ivy League Universities.* The four Ivy League schools in the database (Columbia, University of Pennsylvania, Princeton, and Yale).
- *Division III Coed Liberal Arts Colleges.* The seven coeducational liberal arts colleges in the database (Denison, Kenyon, Hamilton, Oberlin, Swarthmore, Wesleyan, and Williams).

The institutional investments in lower profile sports are far from trivial, ranging from total annual outlays averaging \$10 million per school in the Division I-A Plus category, to an average of \$5.7 million per school in Division I-A Standard, to averages of \$3.5 million per school in the Ivies, and just over \$800,000 among the Division III liberal arts colleges. The large difference in outlays on lower profile sports between the Division I-A Plus and the I-A Standard schools is almost entirely explainable in terms of differences in the breadth of athletic offerings (with the Division I-A Plus schools fielding an average of twenty-three teams as compared with an average of fourteen in the Division I-A Standard category). The Ivy League schools, on the other hand, field twice as many teams as we find in the Division I-A Standard schools but spend only about 60 percent as much money on them.

Clearly there are large differences in average spending per team (Figure 4.1), with the two groups of Division I-A schools spending an average of more than \$400,000 on each lower profile team, as compared with averages of \$126,000 in the Ivy League and \$42,000 in the Division III colleges. These large differences demonstrate—even outside the arena of big-time football and men’s basketball—

Figure 4.1. Expenditures on Average, Lower Profile Teams (in thousands)



Source: Equity in Athletics Disclosure Act data 1997–98 and Appendix Table 11.1.³

the financial impact of the chosen level of play. The Division I-A universities spend nearly *ten times* as much per team (and per athlete) as the Division III colleges, and the Ivies spend *three times* as much per team as their Division III brethren.

Moreover, this pattern is quite consistent when we make comparisons on a sport-by-sport basis for both men’s and women’s teams. The leading exception to this rule is women’s basketball, which is on the way to becoming a big-time sport and shows a more pronounced set of differences in outlays by division. The Division I-A universities spend an average of about \$1 million per year on their women’s basketball teams, whereas the Ivies spend perhaps \$225,000, and the Division III colleges about \$40,000.⁴

The most interesting comparisons involve the other lower profile sports. We were able to collect detailed expenditure data for representative schools in each division for field hockey, tennis (men’s and women’s), swimming (men’s and women’s), men’s soccer, and men’s lacrosse. The similarities in expenditures within divisions are pronounced. At the Division I-A level, the average outlay per sport for the sports listed above was in the range of \$300,000 to \$375,000 per year. In

the Ivy League, the average outlay was in the \$110,000 to \$135,000 range, and in Division III it was consistently in the \$30,000 to \$50,000 range. Men's lacrosse is a relatively expensive sport, while tennis (for both men and women) is relatively inexpensive, but the variations by sport are not large.

The differences by division, on the other hand, are striking. They are driven, first, by the large number of athletic scholarships given to athletes playing lower profile sports in Division I-A and especially by the scholarships given to women athletes in an effort to balance the heavy spending on football scholarships for men. Of course, many of the men playing lower profile sports at these schools also receive athletically related student aid. We estimate that about half the difference between the Ivies and the Division I-A schools in expenditures on lower profile sports is due to the awarding of athletic scholarships (with the other half due to a combination of factors listed later in the chapter). This use of athletic scholarships is a clear example of "contagion" effects. Patterns established in big-time sports at Division I-A schools spread more or less inexorably to other sports. Returning to the Schelling image, we realize that lawn care is something we all understand regardless of the size of our garden; if someone's twenty acres are lush, you don't feel that it's just fine for your tiny front yard to be ragged. When information flows freely, expectations rise to a highest common denominator.

Staffing Costs

We see this same phenomenon, albeit in slightly muted form, in staffing arrangements, which are the second main determinant of divisional differences in outlays in the lower profile sports. In this regard, the Ivies have much more in common with the Division I-A schools than they do with the liberal arts colleges that compete in Division III. In both the Division I-A schools and the Ivy League, the common pattern is for the head coaches of most lower profile sports to be assigned full-time to their sports. This is the reason why coaching costs, as best we can estimate them, differ less than one might have expected as one moves across the divide between Division I-A and the Ivies. For example, we estimate that coaching costs (excluding benefits) in field hockey range from a high of \$128,000 at one Division I-A school to a low of \$60,000 at one of the Ivies, with the figures for all of the other schools for which we have data in the \$62,000 to \$72,000 range. In sharp contrast, coaching outlays for field hockey in the Division III schools for which we have comparable data are around \$20,000. Almost identical patterns exist in tennis.

As was noted in our earlier discussion of football and men's basketball, the Division III schools continue to expect most of their coaches to perform a variety of coaching, teaching, and administrative tasks, and the cost savings are both direct

and indirect. A very few highly successful Ivy League teams are also coached by individuals who have a variety of duties (an example is Al Carlson at Columbia, who is head coach of golf part-time and associate director of athletics), but the trend is clearly in the direction of dedication to a particular sport. The only other part-time head coach at Columbia coaches archery.

The presence of full-time coaches makes possible aggressive off-campus recruiting and greater commitments to off-season conditioning and preparation of athletes than would otherwise be feasible. Other expenses of all kinds (especially for equipment and travel, as well as recruiting trips and visits) rise accordingly, and this is why the Ivies spend nearly three times as much per lower profile sport as the Division III colleges. Even when we correct for the fact that there tend to be somewhat more athletes per team in the Ivies than in Division III, we find that total expenditures per lower profile athlete in the Ivies are appreciably greater than in Division III—roughly \$4,000 in the Ivies versus \$1,500 in Division III. Of course, the Ivies regularly compete with Division I-A schools for national championships in sports such as lacrosse, crew, and field hockey, and so this level of expenditure is not really surprising when seen in the context of ambitions for success at the highest levels of play. And if the Ivies are going to compete for coaches and the best athletes with their Division I-A counterparts, they are naturally going to feel the pressure to offer reasonably comparable programs (with the exception of athletic scholarships), including similar schedules, travel, and facilities.⁵

Capital Costs and Overhead

Williams College provides a useful example of the degree to which reported expenditures on intercollegiate athletics at schools in *all* divisions, from Division I-A through Division III, understate the full costs of supporting these programs. At first blush, Williams appears to provide an extensive athletics program at a modest net cost. Subtracting the minimal amount of revenue generated by athletics (\$152,000) from total expenditures (\$1,682,000) implies a net recurring cost of just over \$1.5 million. Of this, approximately \$1.4 million should be attributed to general administration and lower profile sports, though obviously a good part of the administrative energies of the department may be devoted to football, basketball, and hockey.

Digging deeper reveals a different picture. The “global accounting” concepts developed by Gordon Winston, a professor of economics and former provost at Williams, lead, first of all, to the allocation of roughly \$420,000 of central institutional costs (a share of the president’s salary, a share of admissions office expenses, and so on) to intercollegiate athletics. This adjustment raises net costs for the whole department to roughly \$2 million, and the total for lower profile

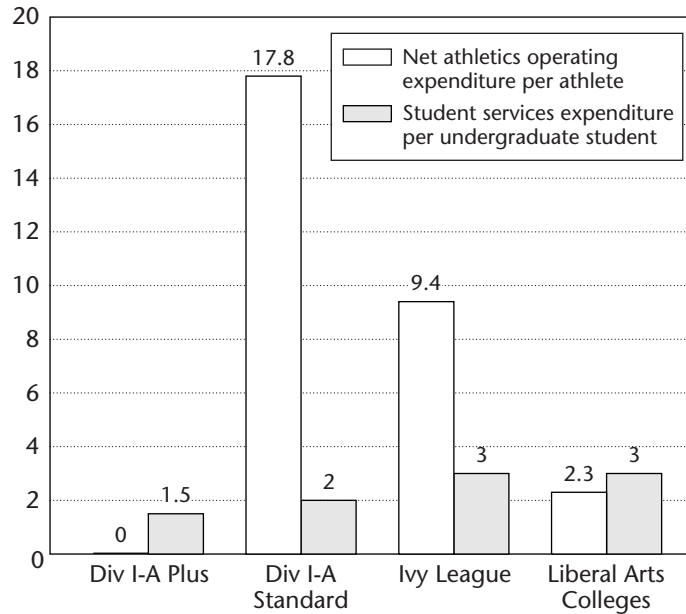
sports to perhaps \$1.6 million.⁶ It is capital costs, however, that change the picture dramatically. Professor Winston and his colleagues at Williams have estimated the replacement costs of athletic facilities at Williams (on a building-by-building basis) to be \$46.5 million; to this sum, they add the estimated value of related land and athletics equipment (\$3.2 million) to obtain a total capital cost of roughly \$50 million. They then assume that half of this cost should be assigned to intercollegiate athletics and half to physical education, intramurals, and the like. The final step in the analysis is to assume a depreciation rate of 2.5 percent per year and an opportunity cost of capital of 8.5 percent per year—all very conservative assumptions. The final result is an estimated capital cost for intercollegiate athletics alone of about \$2.7 million per year (and approximately \$1.8 million for lower profile sports). *The true cost of intercollegiate athletics at Williams, then, is on the order of \$4.7 million per year, not the \$1.5 million of more easily measured direct costs. Of this more accurate total, \$3.4 million can be attributed to the lower profile sports.* These costs supported over 700 intercollegiate athletes at Williams; even so, the true cost per athlete was over \$6,500 a year.⁷

Net Operating Costs in Perspective

One way of gaining some perspective is by expressing the current net costs of intercollegiate athletics on a per-athlete basis. As we saw earlier in the chapter, some athletic programs serve the interests of far more students than do others. Dividing total expenditures on athletics by the number of participants makes little sense because of the need to take account of revenue generated by sports such as football and basketball. It is instructive, however, to divide the *net* costs of intercollegiate athletics (subtracting revenue from expenditures) by the number of intercollegiate athletes who, as participants, are the most direct beneficiaries of these general funds outlays. The results of a very crude exercise of this kind (which ignores both capital costs and unallocated central administrative costs) are shown in the white bars in Figure 4.2.

The zero that we have entered for the Division I-A Plus schools reflects the assumption that a very small number of the most elite programs succeed in covering at least the direct costs of all intercollegiate programs out of athletically derived revenues (an assumption that certainly does not hold in all of these situations). The other sets of schools in our study are alike in that none of them can make this claim, but they differ in all other respects. Whereas the overall net costs of intercollegiate athletics may be roughly the same in the Division I-A Standard schools and in the Ivies, the average number of athletes is almost twice as large in the Ivies (850 versus 422); thus the net cost *per athlete* is just over \$9,000 in the Ivies but nearly \$18,000 in the Division I-A Standard programs included

Figure 4.2. Net Athletics Operating Expenditure per Athlete Versus Student Services Expenditure per Students (in thousands)



Source: Equity in Athletics Disclosure Act data 1997–98 and Integrated Postsecondary Education Data System 1997–98.

in our study. Duke is a clear exception to this pattern because it has both somewhat lower net costs and appreciably more intercollegiate athletes than the other Division I-A Standard programs; as a result, the estimated net cost per athlete at Duke of \$8,500 is very similar to the net cost per athlete in the Ivies. The more favorable financial picture at Duke reflects its success in holding down the costs of football and the fact that its men’s basketball program does so well competitively. In short, the high cost of being a Division I-A school can be moderated somewhat by targeting one’s aspirations on basketball and being a consistent winner—which it is certainly not easy to do! It is noteworthy that both sets of the Division III schools in our study are estimated to have net costs of roughly \$2,500 per athlete—or *less than one-third* of the estimated costs in the Ivy League. Moving up the ladder, from Division III to Division I-AA (the Ivies) to Division I-A, is obviously a very expensive proposition.

One way of confirming that this pattern represents a distinctly athletics phenomenon, tied directly to the levels at which schools choose to compete in

sports, is by examining differences across National Collegiate Athletic Association (NCAA) divisions in some other category of expenditures. For this purpose, we have chosen expenditures per student on all student services. These costs turn out to be remarkably similar across divisions, ranging from a low of \$1,500 in the large Division I-A Plus schools, to \$2,000 in the Division I-A Standard schools, to roughly \$3,000 in the Ivies and the Division III schools.⁸ When we now compare the net expenditures on athletics per participant (the white bars in Figure 4.2) with the more or less comparable expenditures on student services per student (the shaded bars in Figure 4.2), we see that the two kinds of costs are roughly comparable at the Division III liberal arts colleges; the athletics costs per participant are three times higher in the Ivies and nearly nine times higher at the Division I-A Standard schools; and only in the case of the small number of Division I-A Plus schools are the net operating costs of athletics per athlete estimated to be lower than the student services costs per student.

These comparisons neglect all capital costs of both athletics and student services, and they also ignore the fact that students who are athletes also benefit from general student services. To obtain an additional set of reference points, we asked some schools to provide data on the costs of club sports, intramural programs, and other types of student activities. The scattered bits of information available show a surprisingly consistent picture. Expenditures on club sports and intramurals (added together) ranged from \$160,000 at one Division III college to \$260,000 at several Division I-A universities that were able to provide data. Outlays for orchestras and other student groups proved impossible to sort out with any precision, but we were able to obtain a list of such activities at one Ivy university that together cost \$322,000. For this amount, the university supported bands, an orchestra, dramatic and debate organizations, student government, ethnic organizations, and everything from the Anti-Gravity Society to the Chinese Calligraphy Association. These data confirm the simple but important point that intercollegiate competition entails an entirely different level of financial commitment than the less formal club and intramural sports or the full range of extracurricular activities.

Competition on Other Fronts: SATs of Lower Profile Athletes

The new facilities and shrewder coaches are only going to win if the schools find and admit talented athletes. The increase in recruiting of athletes, documented more fully in *The Game of Life*, reminds us that, as one basketball coach put it, “You can’t teach tall; you can’t teach fast.” Seeking out and admitting talented athletes represents the most substantial, but also the most subtle, battleground for sports competition. At selective colleges and universities, an admissions slot is an extremely

scarce resource; at a number of the schools in this study, ten applicants are rejected for every one who is accepted. While there is no hard and fast rule about what the best use of these scarce admissions places is, and while SAT scores surely are not, on their own, a perfect tool, we can look at trends in test scores to see the degree to which competition for golfers, soccer players, and butterfly specialists has affected the levels of academic preparation that students bring to campus.

One of the most widely circulated myths about college athletes is the image of the “dumb jock,” admitted on the basis of his ability to tackle an opposing running back rather than his ability to do mathematics or to hold forth on literature. To test this myth empirically, and to ask whether it has any validity at all in those sports where hardly anyone is watching, we must be much more specific. Is the myth of the underprepared athlete truer at some levels of competition than at others? Have the Ivies and the Division III liberal arts colleges escaped the perceived problems of the universities with big-time athletic programs? Is the myth truer among recent cohorts than it was in earlier eras? And, finally, are there marked differences in the academic credentials of those who play different types of sports?

1989 Cohort Comparisons

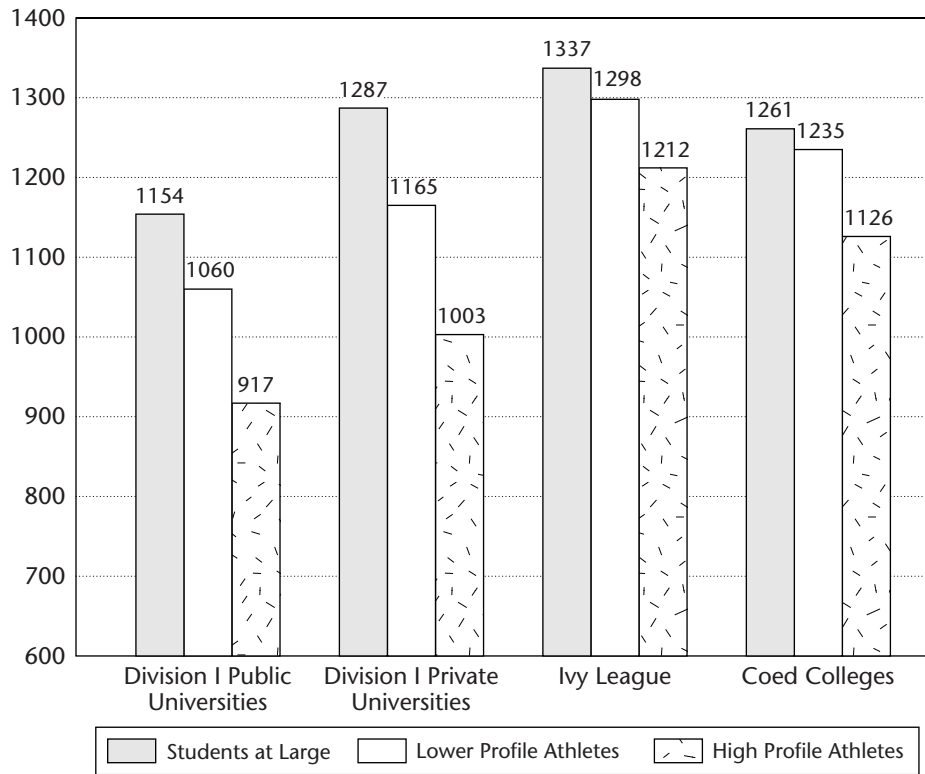
We start out by comparing the SAT scores of those athletes in the 1989 entering cohorts, who went on to play both the high-profile sports (football, basketball, and hockey) and the lower profile sports, with the SAT scores of their classmates (students at large). The general pattern is the same in all four sets of schools depicted in Figure 4.3.

The gaps in average SAT scores between students at large and high-profile athletes are large in every set of schools, especially at schools that operate big-time programs. The largest gap in scores (284 points) is at the Division I-A private universities, and this is hardly surprising. These schools recruit athletes who can play football and basketball at the most demanding level of play while simultaneously attracting some of the most academically well-prepared students in the country.

We also find that those playing the lower profile sports also had lower average SAT scores than students at large (with the gaps ranging from roughly 100 to 120 points at the Division I-A level and from 25 to 40 points in the Division III colleges and Ivy League schools).

The Growth in the Test Score Gap

How new are these patterns? We have reliable data for the 1951 cohort for only the Ivy League and the Division III colleges. Even in that early year and in these schools with less intensive athletic programs, lower profile athletes had lower SAT

Figure 4.3. Average SAT Scores of Entering Male Cohort of 1989

scores than did students at large. So the existence of differences in academic preparation between athletes and other students is not a new phenomenon. It was also present in the mid-1950s, but the differences were much smaller then. The gaps in SAT scores among Ivy League lower profile athletes have grown over time: from 20 points in the 1951 cohort to 30 points in the 1976 cohort to 40 points in the 1989 group. By the time of the 1989 cohort, the situation had changed markedly (Figures 4.4 to 4.7). Only a small number of lower profile teams fell inside the 20 to 30 point range: four in the Ivies, four in the liberal arts colleges, five in the Division I-A privates, and two in the Division I-A publics. The sports that most frequently record average SAT scores that are more or less comparable to the general standard for the school are crew, squash, fencing, golf, and swimming.⁹ What is most surprising is the size of the test score gap that has emerged in a sport like tennis: in 1989, tennis had the second-largest gap of *any* sport in the liberal arts colleges (-143 points, second only to football) and gaps of more than

Figure 4.4. 1989 Ivy League SAT Divergence from Students at Large, by Sport

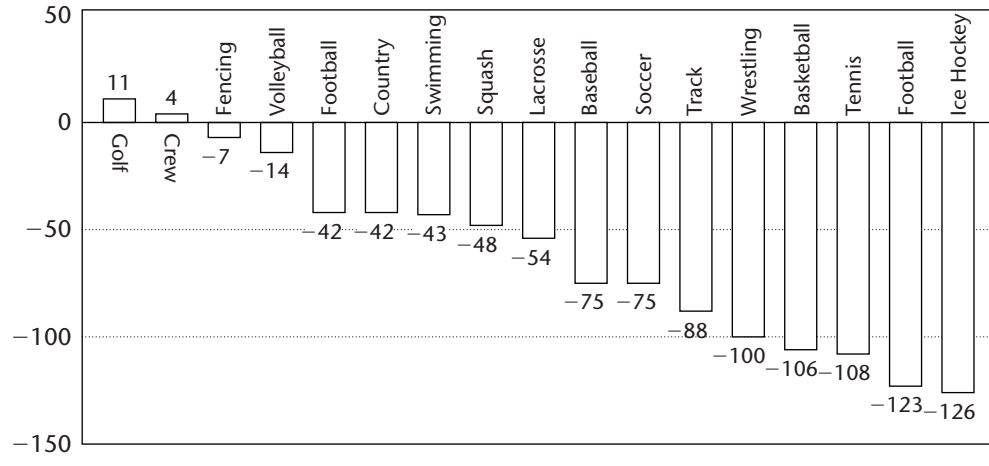


Figure 4.5. 1989 Division III-C SAT Divergence from Students at Large, by Sport

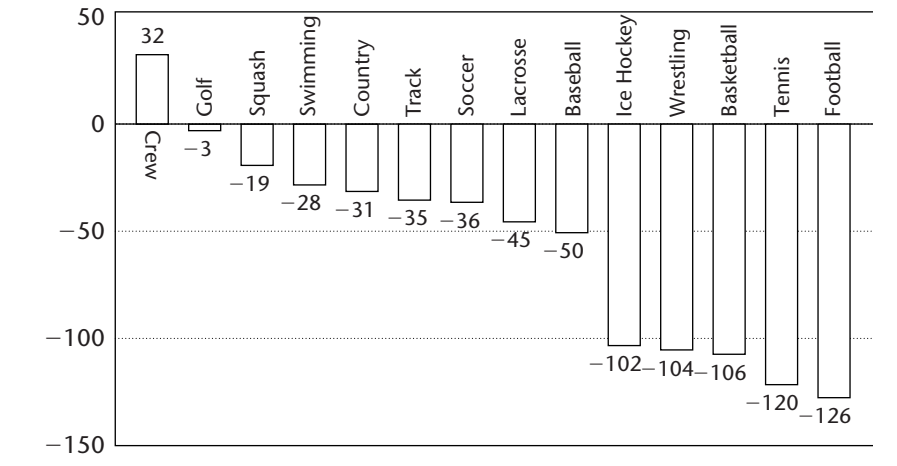
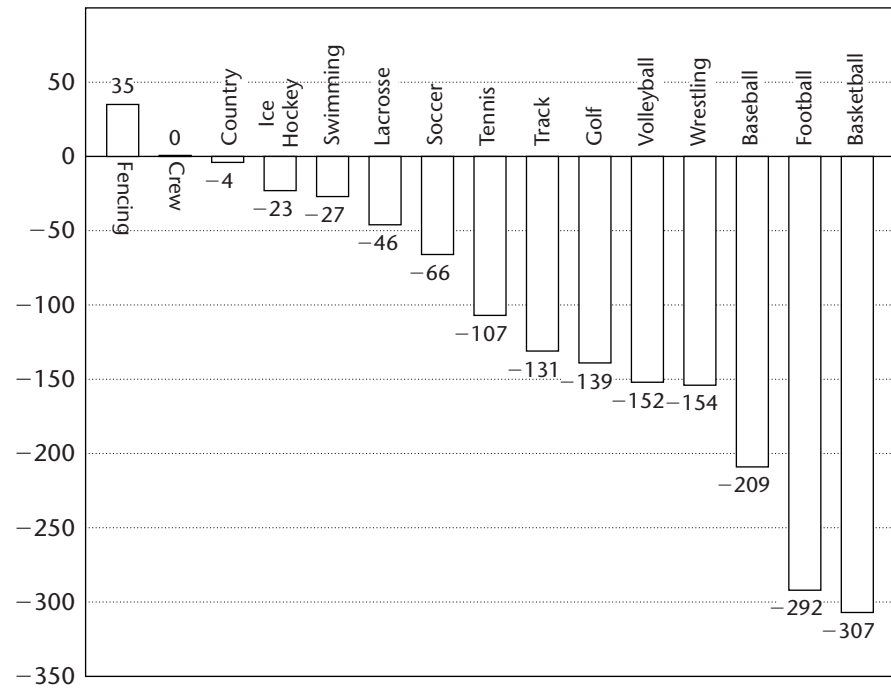


Figure 4.6. 1989 Division I Private SAT Divergence from Students at Large, by Sport

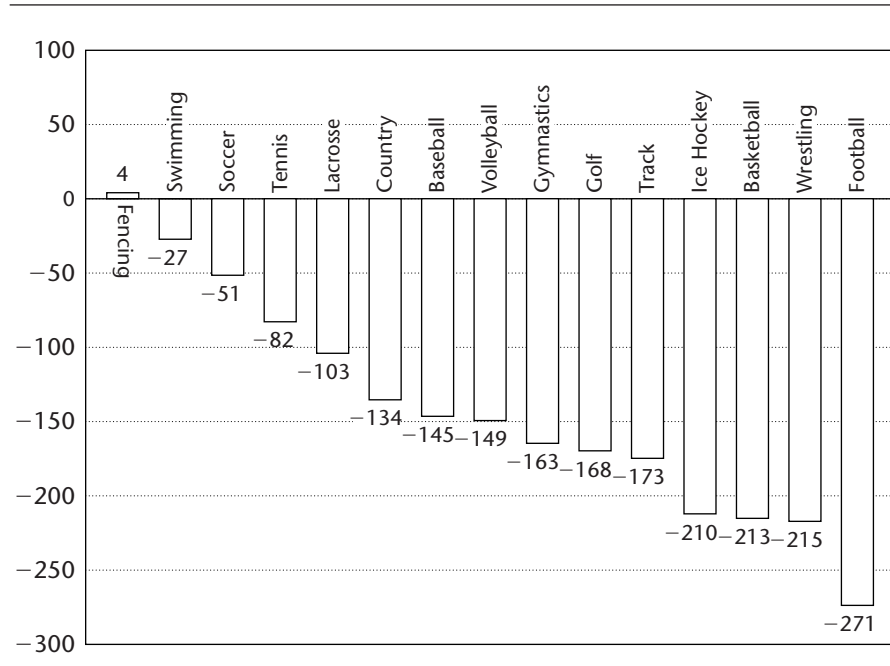


100 points in both the Ivies and the Division I-A private universities. None of these gaps is of course nearly as large as those characteristic of basketball and football (which are in the -300-point range in the Division I-A private universities), but the gaps in these lower profile sports certainly appear to be moving in the same general direction.¹⁰

In Figure 4.8, we see that women's sports have followed the same pattern as men's, with gaps in SATs widening dramatically between 1976 and 1989 as schools sought to build women's sports up to the level of the men's programs. This sort of "catching up" is clearly another arena in which competition is "succeeding."

At selective colleges and universities, questions of academic preparation have little to do with having enough brainpower to "survive" college. The mean SAT scores of male athletes at the Division III liberal arts colleges and Ivy universities in the study were above the eightieth percentile of all male test-takers nationally; the mean scores of athletes at the Division I-A private and public universities were above the seventieth percentile and the fiftieth percentile,

Figure 4.7. 1989 Division I Public SAT Divergence from Students at Large, by Sport

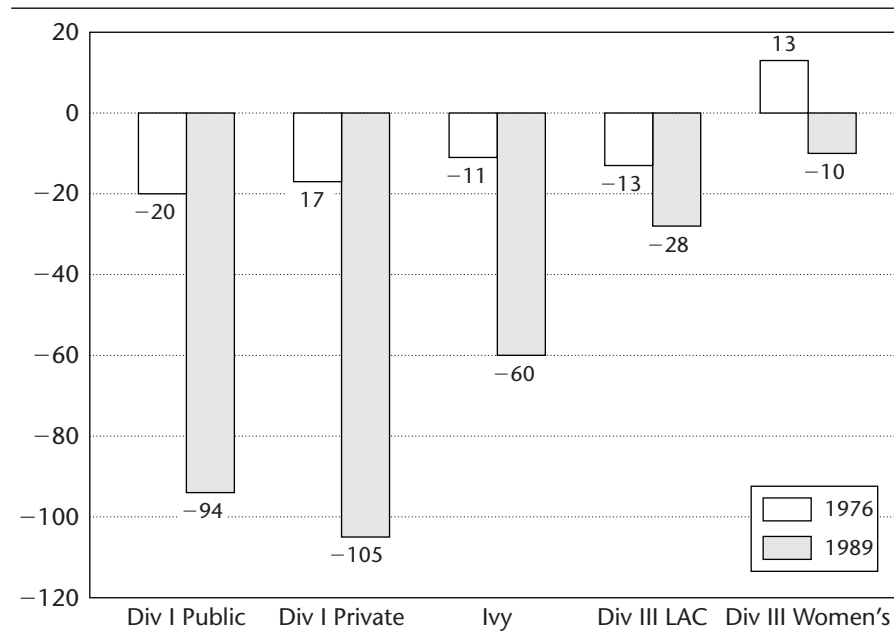


respectively.¹¹ The athletes at these selective schools are clearly smart people. Nonetheless, there are differences in precollegiate academic preparation between athletes and their classmates, and these differences have generally become much more pronounced over time. These patterns of difference in academic preparation are clear *at every level of play and in many sports—not simply in the high-profile programs at the Division I-A schools*. Women’s athletics programs more and more resemble the men’s, the lower profile sports look more and more like the high-profile sports, and athletic programs at the nonscholarship schools have taken on more and more of the attributes of the Division I programs.

Competition Without End: Where To from Here?

Seeking anything but the top of the sports rankings may seem like surrender. Resisting these pressures is made even more difficult by the frequent failure to distinguish between *levels of play* (which depend on how talented the athletes are, how much time and how many resources are devoted to preparing for a contest, and

Figure 4.8. SAT Score Deficit of Female Athletes Versus Students at Large



so on) and *vigorous competition* (which can occur, or fail to occur, at any level of play). A competitive cluster of like-minded schools gets the competitive juices flowing for a campus or community whatever the level of play—from Hamilton College field hockey to Penn State football. Heroes in uniforms help to build identity, and they help campus and alumni constituencies to coalesce under a common banner. That is clear. What is more difficult to understand is why it is so hard to convince people that, within the closed ecosystem of the conference, healthy competition does not depend on how expert the play is. A Denison-Kenyon swim meet from 1955 presumably inspired passion even though the times were seconds (or even dozens of seconds) slower than they are today.

Healthy competition requires a rough parity that makes the game worth playing, and sustaining such competition is anything but easy. Even among seemingly like institutions, differences that from a distance would be difficult to detect provide profound competitive advantages (or disadvantages). Within the Ivy League, student bodies of different sizes mean that it is much easier to absorb a few more athletes with lower qualifications in a relatively large school than in a smaller peer. Professional teams recognize that such persistent advantages are

detrimental to all and employ revenue sharing, salary caps, and draft pick systems to redress imbalances systemically.

Since the college equivalents of these measures (NCAA regulations and conference rules) never really end the race, an individual school will inevitably continue to act in ways that may make it 5 percent better off, although the whole system may end up 10 percent worse off. Building a new artificial turf field may help your team recruit, but only until the other schools in your league catch up. Then everyone has paid for a new field and its subsequent maintenance, but no one is any better off competitively. The classic example of this sort of behavior occurs when someone viewing a parade stands on his tiptoes to get a better view. Within moments the entire crowd will be on tiptoes, and no one will see any better. No one wants to miss the parade, and the competitive dynamic in sports has unquestionably fueled the increases in expenditures on coaching and facilities at all levels of play. It has also put tremendous pressure on the admissions process. With the unimpeded flow of more and more information about the precollege achievements of athletes, and with the mobility of coaches between institutions, there seems to be no limit to the contagion of athletic expectations. In the end, this dynamic fails all involved. Schools are keenly aware that collaboration in the use of library materials, or even in the sharing of faculty, serves all involved; collaboration in an arena where the essence of the experience is head-to-head competition will never be that sensible. But can there be ways for schools to learn to “play nicely in the sandbox” and escape at least some aspect of mutually assured degradation?

The first lesson is that *as long as individual teams or entire programs are seen as no-cost goods, situations will inevitably worsen*. Awareness that every admissions or budgetary decision has trade-offs must exist at every level. Sometimes understanding these trade-offs is difficult, since evidence is always difficult to compile and difficult to sort through. But efforts must be made to do so.

Beyond this, the system—held together only by the NCAA—must develop ways of acting out of a sense of sector well-being. This, it seems to us, must start with a clear understanding of the facts combined with a clear sense of the missions of the sector and the individual institutions within it. As nonprofits, colleges and universities sometimes seem to be protected from the competitive forces (and tests) that determine the winners and losers in the free market of the for-profit world. The fences around this protected realm have, for a number of reasons, been permeated, leaving schools in between worlds. In some ways, they are competitive with the for-profit world but not in others. Moreover, within this protected realm, institutions (as we have seen) are competitive with each other in some ways that probably do not make a whole lot of sense—when doing so produces no particularly positive end. In the for-profit world, competition leads eventually to better products at better prices, by driving out the inefficient firms or ineffective products. Within higher

education, endless raising of the stakes—in the talent of athletes, expertise of coaches, or splendor of facilities—does not seem to achieve any optimal goal. Recognizing the spiraling of the process and quantifying, where possible, the costs of endless competition may be the first steps in convincing the society at large that sometimes the grass may be greener on the other side—only when it isn't.

Endnotes

1. These data sources are described in more detail in *The Game of Life*.
2. More detail about this taxonomy is available in *The Game of Life*.
3. The data in this chapter that are not related to students in the College and Beyond database are taken from the forms prepared by individual schools to comply with the requirements of the Equity in Athletics Disclosure Act (EADA) of 1994. These forms are publicly available and were obtained from the individual colleges and universities.

All coeducational institutions of higher education that receive federal funding for student aid or any other purpose, and that have intercollegiate athletic programs, must document participation by gender and also provide data that indicate the division of coaching complements, expenditures, and targeted revenues between men's and women's teams. In this chapter, our interest is in the overall dimensions of athletic programs. Women's colleges are exempt from these reporting requirements, and so they are not included in this analysis. There are manifold differences in ways of accounting for athletic expenditures (especially in the treatment of overhead costs and costs of maintaining facilities), and it would be a serious mistake to assume that anything like strict comparability exists across institutions. There are also major problems involved in interpreting data such as average salaries per full-time equivalent coach or staff member, because they do not take account of variables such as length of service. Moreover, all of the reported figures suffer from a failure to make adequate allowance for capital costs, a subject to which we return later in the chapter. Generic problems and anomalies notwithstanding, these EADA data are by far the best available source of information about the finances of intercollegiate athletic programs. As we hope to demonstrate, careful use of the FY 1997–98 reports can provide instructive profiles of patterns of expenditures. We expect that these annual reports will prove even more useful over time as improvements continue to be made in the forms and the accompanying instructions.

4. The figures for the Division I-A schools are taken directly from Table 10 of the EADA reports; the actual average of the figures for the eight Division I-A schools on which this study concentrates is \$1,067,000, with a large “clumping” in the \$800,000 to \$900,000 range. No one should treat the school-by-school differences as precise, since much judgment inevitably entered into the process of presenting these data. The figures for the Ivies and the Division III schools are our own estimates, based on detailed data supplied by five individual schools.
5. More surprising than the differences between the Ivies and the Division III schools are the differences between the Ivies and Division I-A in expenditures per lower profile athlete. These differences reflect the following factors: (1) much larger expenditures on women's basketball in Division I-A; (2) the presence of athletic scholarships at the Division I-A schools; (3) some (but only modest) differences in coaching costs; (4) some differences in

operating and other expenses that reflect, in part, the easier time that the Ivies have in scheduling contests with neighboring schools that have similar programs; (5) a “mix” effect, in that the additional teams that the Ivies field tend to be in relatively less expensive sports such as squash (the “mix” effect also explains why the average expenditure at the Division I-A Plus universities is lower than the average for the Division I-A Standard schools, which support fewer of the relatively inexpensive sports and devote relatively more money to women’s basketball); and (6) the presence at the Ivies of more “self-funded” teams, such as wrestling, volleyball, and water polo at Princeton.

6. For the sake of simplicity, we estimate that 67 percent of the administrative and capital costs should be attributed to the lower profile sports. Considering that efforts to recruit and oversee these programs are driven by the numbers of athletes and teams, and also that some of these sports (such as swimming) are extremely capital intensive, these rough estimates seem reasonable.
7. We are indebted to Richard S. Myers, assistant provost and director of Institutional Research at Williams, for this painstaking analysis and to Winston and his colleagues for the underlying analytical framework. For the latter, see Winston and Lewis (1996). There is one other respect in which even this set of numbers underestimates the economic cost of intercollegiate athletics at Williams. Almost all of the Williams coaches also teach physical education, which holds down the costs of intercollegiate sports but almost surely increases the costs of physical education since, in the absence of a strong intercollegiate program, Williams could no doubt hire physical education staff at less than the prorated costs of head coaches of intercollegiate teams.
8. The data showing expenditures on student services are taken from the Department of Education’s Integrated Postsecondary Education Data System (IPEDS) forms. The IPEDS glossary defines student services as follows: “Funds expended for admissions, registrar activities, and activities whose primary purpose is to contribute to students’ emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instructional program. Examples are career guidance, counseling, financial aid administration, and student health services (except when operated as a self-supporting auxiliary enterprise).” Although no mention is made of intramural and recreational athletics, we know that some schools include this class of expenditures under this heading, and some of the Division III schools, at least, also include the expenses of intercollegiate teams. It is evident from the data, however, that the costs of big-time sports programs are not included here. It is also clear that the treatment of health expenditures varies markedly from school to school, and in arriving at crude averages for divisions we have excluded what appear to be clear outliers.

It is also possible, of course, to express the net costs of intercollegiate athletics per student, on the theory that all students may be presumed to benefit to some degree from the presence of the intercollegiate athletics program. But the trouble with this approach is that surely it is the tennis players who benefit primarily from the existence of an intercollegiate tennis program, just as it is the students who take classics who benefit mainly (although not exclusively) from the existence of a classics department.

9. Crew has been called “the last of the amateur sports.” The relative lack of recruitment of rowers is reflected in their higher average SAT scores.
10. The growing differences between athletes and other students in SAT scores are also reflected in self-reported differences in intellectual self-confidence, in self-ratings of mathematical and writing ability, and in their perceptions of whether they will graduate with honors or

attain at least a B average (as expressed on the Cooperative Institutional Research Program [CIRP] surveys).

11. These comparisons are based on the distribution of verbal SATs among all male college-bound seniors in the 1989 cohort. The results are very much the same if the math SAT is used. National SAT data were obtained from the College Board.

References

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