

The Academics Athletics Trade-off

Universities and Intercollegiate Athletics

Matthew Denhart

Robert Villwock

Richard Vedder

Center for College Affordability and Productivity



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About the Authors

Matt Denhart has been a research associate at CCAP since its inception in June of 2006 and has co-authored studies for CCAP assessing the status of higher education in the states of Texas, Iowa and Michigan. He is junior at Ohio University majoring in economics and political science with a special interest in international development. He is also a McClure/Fuller-Cutler Scholar.

Robert Villwock is a senior at Ohio University studying Business Economics. His research interests include the history of finance in the U.S. and specifically causes of the Great Depression.

Richard Vedder is the director of the Center for College Affordability and Productivity. His studies include higher education financing, labor economics, immigration, government fiscal policy and income inequality. A distinguished professor of economics at Ohio University, he is the author of several books, including *Going Broke by Degree*, and *The Wal-Mart Revolution: How Big Box Stores Benefit Consumers, Workers, and the Economy* (with Wendell Cox). Dr. Vedder earned his Ph.D. in Economics from the University of Illinois.

About the Center for College Affordability and Productivity

The Center for College Affordability and Productivity is a nonprofit research center based in Washington, DC, that is dedicated to research on the issues of rising costs and stagnant efficiency in higher education.

1150 17th ST. NW #910 202-375-7831 (Phone)
Washington, DC 20036 202-375-7821 (Fax)

www.centerforcollegeaffordability.org
www.collegeaffordability.blogspot.com

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Introduction

Since beginning in 1852, few issues in higher education have captivated Americans as much as intercollegiate athletics. Intercollegiate athletics is almost uniquely American. Each year, millions of fans attend games and matches between student athletes who provide fans with entertainment while helping bind together communities. Proponents of college athletics point to other benefits such as enhancing a school's visibility on a national level and providing opportunities for athletes to develop leadership, teamwork and other traits that add to human capital upon graduation.

Despite some benefits, intercollegiate athletics has many critics as well. Some critics argue that coaches and sports administrators denigrate academics and overemphasize the importance of sports. Others claim that athletes in the big-revenue sports of men's basketball and football are exploited by the university. Others feel that intercollegiate athletics create a culture on college campuses that downplays the importance of gaining knowledge. The debates about intercollegiate athletics have been growing for over a century and seem to be exacerbated by an inability to fully quantify its costs and benefits.

An interesting aspect of intercollegiate athletics is the diversity of participation among higher education institutions. According to Weisbrod, Ballou, and Asch, in 2006, there were 2.9 million undergraduate students enrolled at Division I Football Bowl Subdivision schools while there are 11.3 million at all schools offering a bachelor's degree.¹ Put differently, almost 75 percent of undergraduate students do not attend an institution that competes prominently on a national level. For-profit institutions do not compete in athletics, and liberal arts and community colleges engage in athletics only to a very limited extent.

The main focus of this study will be the 119 Division I Football Bowl Subdivision schools. The Division I Football Bowl Subdivision (FBS) is the most scrutinized and regulated division of the National Collegiate Athletic Association (NCAA). Regulations are imposed on these schools in a variety of areas, including the number of varsity sports, football attendance mandates, scheduling requirements, and financial-aid minimums to name a few.² The other subdivisions in Division I are the Football Championship Subdivision (FCS) and the non-football subdivision; both encapsulate smaller schools and provide athletics on smaller scales.

This analysis focuses on several key issues in the FBS. The intrinsic benefits of athletic programs are discussed in the first section. Trends in graduation rates and academic performance among athletes and how they correlate with the general student body are discussed in the second section. Finally, an overview of the revenues and expenses of athletic department budgets are discussed in an effort to gain a better understanding of the allocation of funds to athletics. In spite of recent growth in revenues and expenses, the athletic department budget comprises on average only 5 percent of the entire university budget at an FBS school, though spending and revenues have increased dramatically in recent years. In the grand scheme of things, American higher education faces several other, arguably more pressing, areas of reform. However, athletics is a significant and growing dimension of higher education that warrants in-depth examination.

We utilize a variety of sources ranging from journal articles to documents published by the NCAA to substantiate key facts and findings. The NCAA keeps detailed statistics regarding institutional and team graduation rates and revenues and expenses of each member school by distributing surveys to member institutions.³ Published statistics give an idea about the overall state of NCAA revenues and expenses, though individual school data is not currently available due to confidentiality issues. This study largely uses the statistics compiled by Daniel Fulks for the period of 2004-06 to draw conclusions about the revenues and expenses at FBS schools. Various other sources are used to supplement the NCAA data.

Though a good number of critics are animated in their views of intercollegiate athletics, it is clear that there are *at least some* benefits as well as costs to the institution, participants, and society as a whole. Part I will explore some of these in greater detail.

Part I: Benefits of Intercollegiate Athletics

Intercollegiate athletics is important to institutions for many reasons. Assuming that university administrators are rational in their decision making, it would be illogical for them to continue to support athletics if they did not perceive at least some benefit. Beyond benefitting individual collegiate athletes themselves, a case can be made that athletics provides benefits to schools and even society as a whole. Intercollegiate athletics benefits the institution, society, and the participants as well.

Benefits to the Institution

A successful athletic program can benefit the broader institution in a number of ways. First, athletics can help institutions gain national exposure. As Tim Weiser, former athletic director at Kansas State remarked in 2001,

“Athletics can be thought of as the front porch of a house. People will often see the university through the athletic program in a way that they might not otherwise see the university. . . . [I]f you drive by a house and you see a front porch that is not well-kept, with shingles falling off, you are likely to draw the conclusion that the rest of the house must also be in bad shape. Conversely, if you have a well-kept front porch, the rest of the university will take on the same image. So when it is done right, athletics give people all across the country the chance to draw very positive conclusions about the rest of the University.”⁴

Weiser correctly notes the potential costs and risks associated with portraying a negative image of the university through athletics as well. Regardless, many argue that increased positive athletic exposure can benefit the school in things such as future enrollments. After playing in the 1996 Rose Bowl, applications at Northwestern University for the next year’s incoming class of freshmen rose by 30 percent.⁵ This allowed for greater selectivity, and average SAT scores of that class rose by nearly 20 points.⁶ Subsequently, the school rose four places—from thirteenth to ninth—in *U.S. News and World Report* (hereafter *USNWR*) ranking of colleges.⁷ Athletics may help augment applications where a student who cannot decide between two universities may decide on the fact that he or she will have the opportunity to attend major Division I sporting events at one school, but not at the other.

Athletic success can help build school solidarity among the entire university community. Since television broadcasts reach a huge audience, athletics can help to connect alumni back to their alma-mater. Broadcasts even show overhead views of the university that allow alumni to see changes in the campus and/or reminisce about their time at the university. Many believe the increased loyalty leads to higher alumni donations.⁸ Higher donations earn institutions a higher rating in prominent college rankings such as the *USNWR*.⁹ A higher institutional rating is likely to yield more applicants in future years as well as the perks of being a more prestigious university. At least this is what proponents of large athletic subsidies argue.

Benefits to Society

Intercollegiate athletics entertain millions of viewers every year. It is apparent that Americans highly value watching college football, as ESPN is televising the five BCS Championship Football Games for \$500 million over four years.¹⁰ On November 18, 1999, the NCAA and CBS agreed to a new 11-year agreement for the NCAA Basketball Championship Tournament, commencing with the 2003 championship.¹¹ The agreement, for a minimum of \$6 billion, includes rights to television (over-the-air, cable, satellite, digital and home video), marketing, game programs, radio, Internet, fan festivals and licensing (excluding concessionaire agreements). Without a doubt, many enjoy watching intercollegiate athletics.

Yiannakis, Douvis, and Murdy studied some of the non-economic impacts of sports.¹² Their findings measured sports' impact on 702 Connecticut residents (non-athletes) in terms of job creation, infrastructure, image promotion, economic impacts, environmental impacts, crime, as well as other areas. The authors found that conflicts, issues, ideologies, pain, success, and tragedy are all blended in sports. People identify with these and are able to better handle the challenges of life as they see teams fighting on the field of play.

Benefits to Participants

In some respects, student athletes benefit greatly from being involved in intercollegiate athletics. Most obviously, athletics provides scholarships to gifted athletes, allowing even some of America's most disadvantaged youth an opportunity to obtain a college degree. Athletes develop leadership traits, a competitive spirit, and the importance of teamwork, cooperation and time-management. There is some evidence to support this. In a 2005 survey of student athletes at 18 FBS institutions, 82.2 percent responded either "very much" or "quite a bit" when posed the question: "To what extent, if any, has your athletics participation added to your educational and/or personal development?"¹³ Additionally, 98 percent responded that athletics positively influenced their leadership skills, 98 percent to teamwork, 97 percent to work ethic, and 94 percent said athletics positively influenced their time-management skills.¹⁴

Furthermore, it is argued that athletics can help to develop character, though the differences in the definition of athletes' perception of character can have positive and negative impacts on society.¹⁵ Rudd and Mondello argue that athletes and athletic administrators view character from a social perspective, emphasizing traits such as self sacrifice, teamwork, perseverance, and work ethic while most of society views character from a moral standpoint.¹⁶

The Rudd and Mondello study hypothesizes that college head coaches tend to focus more on the social dimensions of character rather than the moral aspects. Moral aspects of character define traits such as honesty, fairness, responsibility, and respect. Putting emphasis on the social aspects of character as opposed to the moral aspects can give athletes a misguided approach to character. Arguably this has led to more penalties for celebrations in football and a subsequent crackdown by the NCAA on unsportsmanlike conduct.¹⁷

Another argument made by Rudd and Mondello is the contradiction that can occur between social and moral views of character.¹⁸ An example would be a coach's request of a baseball player to "lean into a pitch" in an attempt to reach first base for being hit by the pitch. On the one hand, an explicit rule of the game has not been broken and a player is self-sacrificing for the betterment of the team. This meets the social view of character. On the other hand, this act does not meet the moral traits of honesty, responsibility, and respect. It should be noted that instances such as the one above can be found in any sport and the more times an athlete is faced with such a dilemma, the easier it becomes to choose the social rather than the moral view.¹⁹

Intercollegiate athletes must fulfill more obligations outside of the classroom than the average student. Student athletes must learn how to manage their time to meet the academic standards of the university as well as the time commitment associated with excelling on the athletic field. According to Cigliano, student athletes claimed the following virtuous character traits were gained by being a student athlete: recognition, patience, time management, self-discipline, maturity, motivation, self confidence, perseverance, leadership, and teamwork.²⁰ Athletes have an easier time developing relationships and establishing rapport with teammates because they relate to each other on many levels. The increased kinship among team members may attract higher retention and ultimately graduation rates among athletes.

Wage Differentials

Along with the benefits discussed above, some evidence suggests that athletes make more money upon graduation than non-athletes. Daniel Henderson et al. show that some collegiate athletes earn wages higher than others, though the margin is slim, and, "Less than half the college athletes actually receive a positive gain."²¹ The study suggests that athletes earn more in the fields of business, military, and manual labor, but they are also more likely to become relatively low paid high school teachers.²² Long and Caudill in 1991 suggested that male athletes earn four percent higher wages early in their labor market careers, when aged 28 to 30.²³ They attribute these findings to the fact that athletes gain skills that are valuable in the labor force, such as discipline, confidence, motivation and a competitive spirit.²⁴ Though there may still be validity to the Long and Caudill study, the data concerning wage differentials was compiled during the 1970s.

The Center for College Affordability and Productivity used regression analysis in attempting to explain institutional-level variation of the starting salaries of graduates, as reported by the website Pay-scale.com. The results suggest that successful athletic schools, other things equal, have graduates with higher earnings, regardless of whether they were athletes or not, suggesting there might be some positive earnings spillover effects from athletes to non-athletes.. CCAP's Daniel Bennett²⁵ developed a statistical model using the starting salary of 298 schools as the dependent variable, which was then

regressed against institutional characteristics, such as geographic location, school size and type, various demographics and social characteristics, selectivity, graduation rates, endowment size, net tuition and athletic success. Director's cup score was used as a proxy for athletic success and was found to have a moderately significant positive correlation with starting salary, indicating a positive benefit for all students of a college with a successful athletics programs. Please note that this analysis does not attempt to explain causation. The regression results are included in this study's appendix.

Part II - Graduation Rates and Academic Success

College athletes are often criticized for poor academic performance and failure to graduate. An image of the “dumb jock” often is associated with college athletes—and especially with athletes in the major sports of football and basketball. A closer look at the data suggests this is not always the case. However, this issue is complicated. Graduation rates often cited for NCAA Division I athletes are calculated in a different manner than for the general student body. The difference came about because university presidents wanted a graduation rate that better reflected the mobility among college athletes.²⁶ The Graduation Success Rate (GSR) is the term used to measure graduation rates for Division I athletes.

GSR vs. Federal Graduation Rate

The GSR rate differs from the Federal Graduation Rate (FGR) in that schools are not penalized for athletes who leave the school in good academic standing. According to GSR proponents, athletes transfer at a higher rate than the school's general student body, which justifies using the GSR as opposed to the FGR. The GSR captures 37 percent more student athletes than the federal rate, thus making it a more accurate reflection of athletes' academic success.²⁷ However, a possible shortcoming of GSR is that it does not follow transfers all the way to graduation. Rather, as long as they are in good academic standing upon transferring (i.e. eligible to compete in the next academic term), they are excluded from the denominator when calculating athlete graduation rates for a school. This problem is likely alleviated to a certain extent in that athletes transferring into a school are then counted in that school's denominator. However, the GSR does not consider athletes leaving early to compete professionally. When using the GSR for student athletes and the FGR for regular students, it appears that athletes actually graduate at far higher rates, 77 percent compared with 62 percent. However, to some extent this is like comparing apples with oranges.

When the FGR is applied to student athletes, the rate is remarkably *similar* to the general student body. The 2000-2001 freshman cohorts yielded a 62 percent graduation rate for all students and a 63 percent rate for student athletes (see table 1).²⁸

According to an article released by *NCAA News* on October 14, 2008, “Student-athletes continue to perform well in the classroom, graduating at a higher rate than ever before and continuing to surpass the graduation rates achieved by the general student body.”²⁹ The article notes that graduation rates have continued to rise since the implementation of GSR rates as opposed to the FGR. But is the GSR a legitimate measure?

Table 1: Graduation Rates for the General Student Body and Student Athletes

Freshman Cohort Graduation Rates	All Students	Student Athletes
2000-2001 Graduation Rate	62%	63%
Four Class Average	61%	62%
Student Athlete GSR	N/A	77%

Source: Official NCAA Website

The argument is made that athletes transfer at a higher rate than students generally, but there is no conclusive data to verify the claim. Since the NCAA began calculating student athlete graduation rates using the GSR, rates have seen enormous growth, likely partially attributed to the different methodology employed under the GSR. Identifying and creating a more accurate system for calculating graduation rates is an area of necessary reform for all of higher education. The current FGR is less than ideal because it ignores the very real problem of transfer students. The GSR attempts to control for this issue; however, a good case can be made that it is not perfect in capturing actual graduation rates either.

Recent research by the *Atlanta Journal-Constitution* on SAT scores of entering athletes at universities in the major BCS conferences is very revealing. Their study shows that athletes on average have lower scores compared with the general student body. Nationwide, athletes averaged 124 points lower on the SAT than other students (1037 compared with 1161).³⁰ The data are worse for football and men’s basketball players with football players scoring 220 points, and basketball players 227 points below the national average for all students.³¹ These are extremely large differences. This suggests that on average athletes enter college far less prepared for academic success compared to other students.

Academic Progress Rate

The success in recent years of higher graduation rates by sport can be attributed to new NCAA academic progress reform policies. NCAA President Myles Brand led the trend towards academic reform by mandating each of 6,272 Division I sports teams meet requirements to maintain eligibility.³² In May 2008, the NCAA said that only 218 teams at 123 institutions will be sanctioned for violations while 712 teams were rewarded for being in the top 10 percent of their respective sport.

The academic progress rate (APR) is measured on a scale of 1,000 based on variables associated with academic performance. The APR provides a snapshot of each team based on eligibility, graduation rate, retention rate, and progress towards a degree. Under this measure, athletes must complete 40 percent of a degree by the end of their second year, 60 percent by the end of their third year, and 80 percent by the end of their fourth year. Athletes must also be enrolled in at least six semester hours to be eligible. Schools that earn an APR of less than 900 (equivalent to a GSR of 50 percent) are punished by the NCAA in the following ways.³³

- First year sanction is a public warning letter for poor performance
- Second year sanctions include restrictions on scholarships, recruiting, and practice time

- Third year sanctions result in loss of postseason competition for the team
- Four consecutive years of poor academic performance results in restricted membership status for an institution

In addition to this, schools can lose up to 10 percent of their athletic scholarships if they score less than 925 and have athletes leave the school for academic reasons. Schools are rewarded if former student athletes return to school and obtain a degree, even if it is 10 years after participation.³⁴ While implementation of programs like the APR enhances graduation rates, there are unintended consequences.

A possible unintended consequence of the APR is the appearance of student athletes ‘clustering’ together in easy majors. There is evidence that athletes in some schools in many cases are clustering in the same majors. In their research, *USA Today* found 235 clusters (defined as 25 percent of team members for larger teams and 33 percent for smaller teams). Of these 235, one third included at least half—i.e. 50 percent—of team members.³⁵ While clustering is not necessarily a bad thing, it becomes so if athletes are simply taking an easy major to comply with the strict rules enforcing the completion of a major within 5 years.³⁶ Rather than studying a subject that interests them, or will be most beneficial to them in the future, they are choosing—or being directed to—a major to simply maintain eligibility. In this scenario, academics are taking a back-seat to athletics, violating generally held university missions and priorities. It is unclear whether this clustering phenomenon existed before the NCAA implemented the APR. Further research is warranted.

Table 2 illustrates the clustering of majors among football players and majors as previously reported by *USA Today*.

At Auburn, less than 1 percent of all undergraduate students major in sociology while 26.3 percent of the football team chose sociology. At North Carolina State the same trend is occurring as less than 1 percent of the undergraduate student body majors in sports management as opposed to 33.3 percent of the football team. While perhaps athletes have an aptitude and passion for certain areas of study, the varying majors exhibiting “clustering” tendencies across different institutions suggests this is not a wholly convincing explanation.

Accordingly, student athletes are sometimes faced with the difficult decision of choosing between sports or a more challenging major because of the time commitments associated with both choices. Although a student athlete does make his or her own decision regarding a major, the prospect of losing a full athletic scholarship to pursue a more challenging degree poses a difficult choice. The rising cost of obtaining a college degree does not make the decision any easier.

A result of student athletes clustering in easy majors is higher graduation rates, which is a goal of the NCAA. Unfortunately, higher graduation rates come with certain unintended consequences. Though graduation rates have increased in the past few years because of the addition of the GSR measure as well as reform actions such as the APR, there is still much deviation by gender and sport.

Table 2: Percentage of Football Players & All Undergraduates Pursuing Certain Majors, 2002-03

School	Major	Percentage of Football Players	Percentage of Undergraduates
Auburn	Sociology	10 of 38 (26.3%)	62 of 19,603 (0.3%)
Duke	Sociology	14 of 43 (32.6%)	123 of 3,821 (3.2%)
Harvard	Economics	35 of 75 (46.7%)	666 of 5,019 (13.3%)
NC State	Sports Management	11 of 33 (33.3%)	176 of 22,971 (0.8%)
Michigan	Sports Management	11 of 50 (22%)	248 of 24,517 (1%)
Southern Mississippi	Sports Administration	29 of 66 (43.9%)	843 of 14,058 (6%)
Virginia Tech	Residential Property Management	10 of 54 (18.5%)	75 of 19,218 (0.4%)
Wake Forest	Communication	23 of 52 (44.2%)	241 of 2,000 (12.1%)

Source: USA Today³⁷

Table 3: Average GSR for Division I Student Athletes, 1997-2000 & 1998-2001

Category	1997-2000 Cohorts	1998-2001 Cohorts
Division 1 Overall	77%	78%
Division 1 Men	70%	71%
Division 1 Women	87%	87%
Division 1 FBS	78%	79%
Division 1 FCS	75%	75%
Division 1 No Football	79%	81%

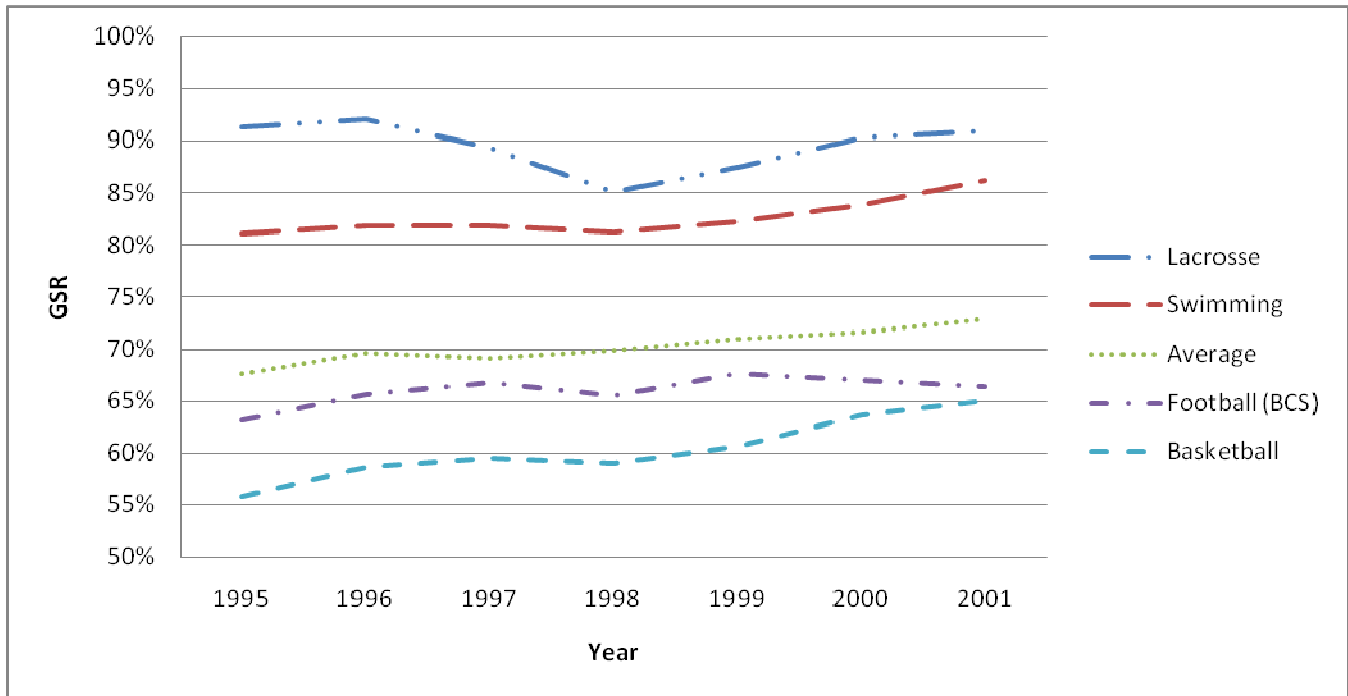
Source: Official NCAA Website

GSR Rates for Athletes

There is great disparity in GSR rates by gender and sport. Table 3 shows the overall average GSRs for Division I student athletes, cohorts 1997-2000 and 1998-2001.

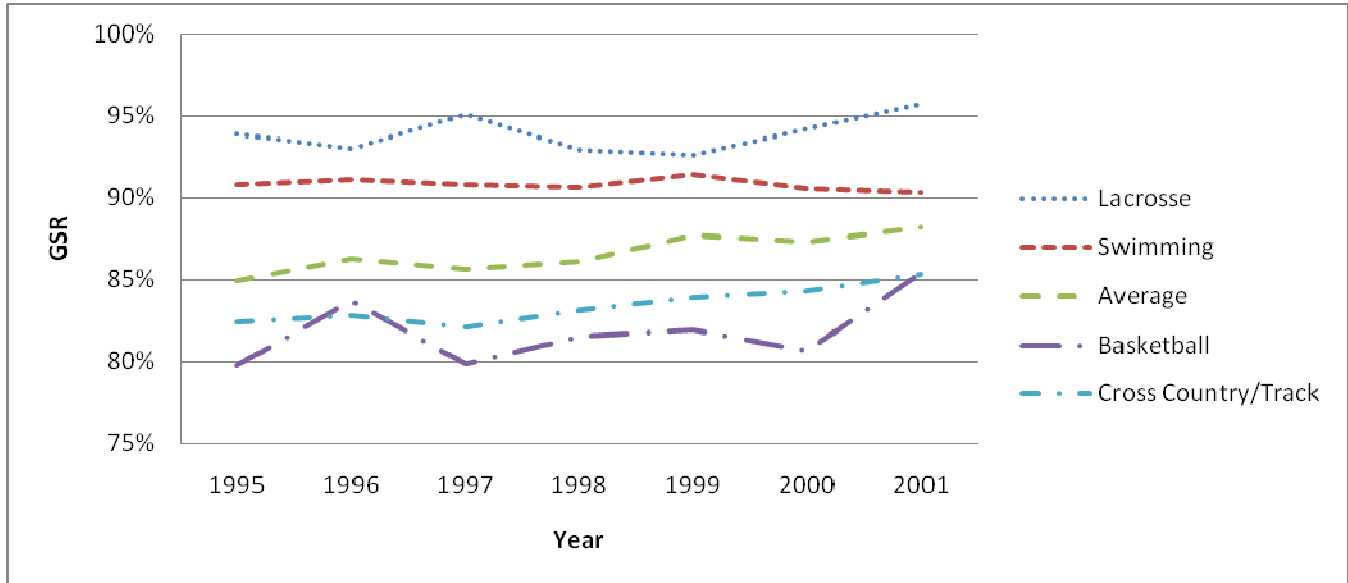
The first observation is the disparity in graduation rates between male and female athletes. As is discussed earlier, male sports dominate university athletic budgets. Yet female athletes graduated at a 16 percent higher rate than male athletes in 1998-2001. The proportion of allocated funds to male against female sports programs correlates negatively with graduation rates.

Figure 1: GSR for Selected Men's Sports, 1995-2001: Entering Year Cohort



Source: NCAA Official Website

Figure 2: GSR for Selected Women's Sports, 1995-2001: Entering Year Cohorts



Source: NCAA Official Website

Examining GSRs by sport shows even more dispersion for both genders. As is evident from figures 1 and 2, females have a higher average GSR than males; 88 percent in 2001 compared with 73 percent for males.

Table 4: GSR, University of Wisconsin-Madison, 1998-2001 Cohorts

Men's Sport	GSR	Women's Sport	GSR
Swimming	89%	Tennis	100%
Basketball	86%	Ice Hockey	96%
Cross Country/Track	83%	Swimming	94%
Wrestling	79%	Cross Country/Track	91%
Tennis	75%	Volleyball	91%
Ice Hockey	72%	Crew/Rowing	84%
Soccer	71%	Basketball	80%
Football	63%	Softball	82%
Golf	50%	Soccer	81%
		Golf	75%

Source: NCAA Official Website

There is much greater deviation between sports in male athletics. Basketball, football, and cross country/track, which generate the most revenue (save cross country/track), are below the average GSR for male athletes. Male GSR rates range from a low of 55 percent in 1995 for basketball to 100 percent in 1995 for fencing athletes. Fencing, lacrosse, and swimming fare exceptionally well in terms of GSR, although they do not generate much revenue. The lower GSR sports of basketball and football have made progress in raising GSR rates closer to the average in recent years.

As far as women's sports are concerned, there is much less disparity between the average GSR and the sport by sport comparisons. Again it is interesting to note that basketball, the sport that generates the most revenue among women's sports, has the lowest GSR. Consistent with men's sports, fencing, lacrosse, and swimming also have the highest GSRs for women.

There has long been a debate of why athletic departments subsidize small sports that do not return revenue. Among many possible reasons, these sports help achieve higher aggregate GSR rates. It is possible that regardless of NCAA rules regarding minimum team levels, schools may voluntarily choose to support such teams as they help boost the athletic department's overall GSR.

The average FBS school had 560 student athletes in 2006, according to data from the Equity in Athletics database published by the US Department of Education.³⁹ The more telling statistic is the range, which goes from 251 athletes at Tulane University to 988 athletes at The University of Wisconsin-Madison. A school that cross subsidizes its poor performing GSR sports (football, men's basketball) with sports that achieve higher GSRs (swimming, fencing, lacrosse) reaches higher aggregate levels. Wisconsin-Madison offers 19 varsity sports,⁴⁰ which helps it achieve a higher average GSR than smaller schools where football and basketball make up a higher percentage of the student athlete population.⁴¹ Though the overall GSR was a respectable 79 percent for Wisconsin-Madison, table

4 shows the dispersion in GSRs among sports. Football had the second lowest GSR for all sports at the university but was “subsidized” by the high GSR rates of men’s and women’s swim teams, women’s cross country/track teams, women’s ice hockey team, and women’s volleyball teams.

Tulane University had an aggregate GSR rate of 80 percent. Perhaps the most interesting thing about Tulane is that 106 of its 251 student athletes (42 percent) are football players compared with Wisconsin-Madison’s 120 out of 988 (12 percent).⁴² In this case the typically lower GSR score for football players has a larger impact on the school’s overall score at Tulane than at Wisconsin-Madison.

The GSR fails to account for vast deviations between sports and also fails to capture the difference in school size. The fact that a large school can manipulate its aggregate GSR by offering more sports with higher GSR averages gives incentive to do so, which is the trend today. Tulane plans to expand its athletics to include men’s tennis and both men’s and women’s swimming teams in 2009-10. The

Table 5: Median Operating Costs for Various Sports

Proposed Addition of Tulane University Athletics Program	
Men's Tennis	\$368,300
Men's Swimming	\$546,300
Women's Swimming	\$620,300
Women's Soccer	\$654,800
Total	\$2,189,700

Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

school also plans to add women’s bowling and women’s soccer in 2010-2011.⁴³ Historical figures suggest that aggregate GSR will increase considerably in future years, though minimal revenue will be added to the athletic department. Indeed, these smaller sports almost always have negative generated revenue, meaning they are a cost item to the athletics department.

Tulane’s athletic budget in 2006 was a modest \$19,168,000 (well below the average FBS school). According to data from the NCAA regarding revenues and expenses, the operating costs associated with the sports Tulane proposes adding are as follows:

It should be noted that these operating costs are for the median program in the NCAA FBS sub-division. Also, these are *annual* expenses for the athletic department and do not include any capital costs that may need to be invested to build or upgrade current facilities.

The addition of these sports will raise the aggregate GSR of Tulane considerably if historical trends hold in the future, but at what cost? The operating expenses alone will account for a rise of 11.4 percent in the athletic budget. Tulane is almost certainly not one of the 19 NCAA schools that earn revenue in excess of expenses, though the NCAA does not disclose this information for specific institutions. An athletic program that is already losing money will add 11.4 percent to its budget; almost

certainly, a privately run business would not do that. Since these sports traditionally do not cover expenses, this increased spending will require further subsidization from outside the athletics department. An increase of 11.4 percent is especially high when considering the low number of student athletes that will benefit from the additional costs of adding these programs.

According to the U.S. Department of Education, 3.2 percent of college students participate in intercollegiate athletics in the FBS.⁴⁴ On top of that fact, if approximately 100 student athletes are brought in to compete on the new teams, the annual cost per athlete would be \$21,897.⁴⁵

Summary

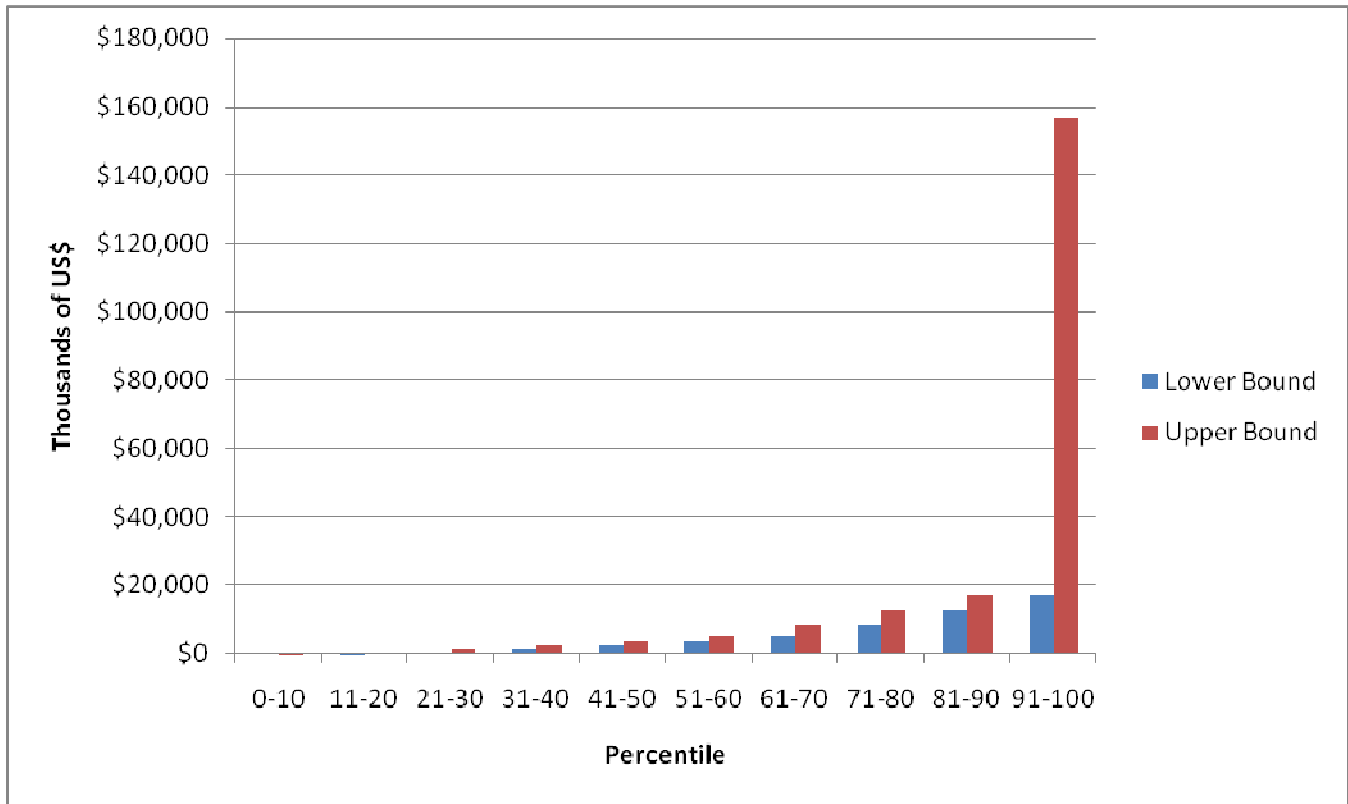
The switch from FGR to the GSR raised graduation rates for student athletes relative to the student body. Data about transfer students is trivial at best today as the FGR does not take into account transfers from one university to another. For example, if a student transfers from University A to University B, he or she is counted as a dropout from University A and gets lost in the shuffle at University B. Until better data is compiled concerning the entire student body, it is difficult to justify the fact that athletes are measured on a different scale as far as graduation rates are concerned.

Another problem is the incentive system to spend more by adding marginal programs to boost graduation rate performance. The larger schools' ability to manipulate its aggregate GSR rate is particularly problematic because the increased spending is often times not offset by an equal percentage of revenue generating activities. In a private business, these incentives do not exist because the entities are not subsidized by various outside sources.

While graduation rates and other indicators of academic progress have improved, much more needs to be done. The NCAA took a step in the right direction when it implemented the APR initiative to reform academic standards on a team by team basis. The ball was put in the individual teams' court and they have responded with success, and GSRs are on the rise in the problematic sports, namely football and basketball, although the existence of clustering and other practices raises the issue of the true extent of improvement. It is imperative that the NCAA continue to enforce its rules amid pressure from poor performing schools. While a 60 percent GSR is an improvement for some teams, the low rate still warrants more action on the part of coaches, administrators, and the NCAA.

Part III – Revenues

Athletic programs are often thought of as “profit-centers” generating revenue that helps subsidize other university budgets. However, the data largely do not support this thesis, with only 19 athletic programs in the country realizing positive net generated revenue during fiscal year 2006.⁴⁶ Furthermore, of those 19, the median net generated revenue was only \$4.3 million. The remaining 100 FBS programs had *negative* median revenue on the order of \$8.9 million.⁴⁷ What's more, a 2007 study by Laura Frieder and Daniel Fulks examining the effects on schools moving up divisions in the NCAA concluded, “there are neither obvious financial nor considerable nonfinancial *measurable* benefits from reclassification and that the primary motivation to reclassify is intangible” (e.g., increased perceived prestige).⁴⁸ Indeed net losses for schools moving up divisions *increased* on average.⁴⁹ While it is possible that athletics bring intangible benefits, and as many argue increased donations, it seems clear that for most institutions an athletics program is a financial cost item. Moreover, the definition

Figure 3: Total Net Revenue, All Profiting FBS Institutions, 2006

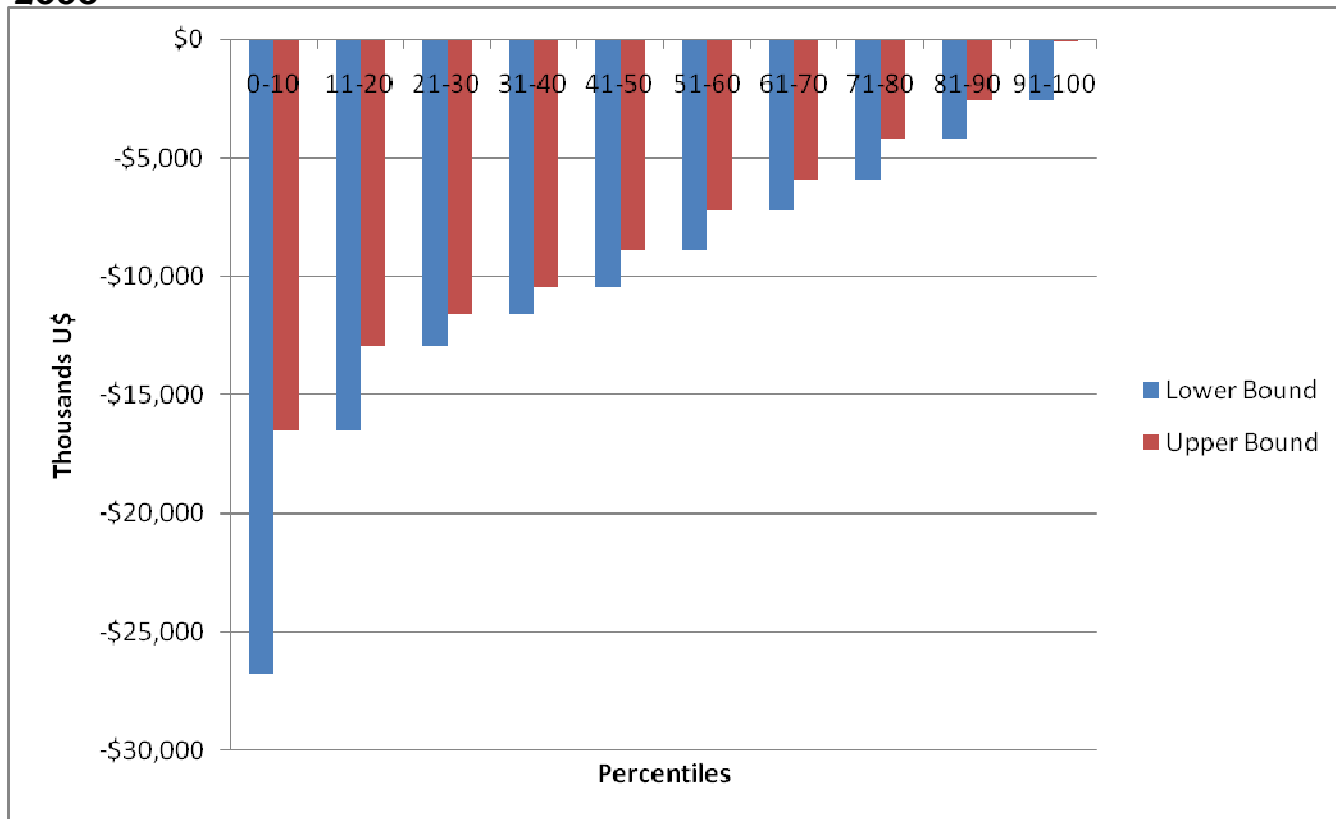
Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

of revenues and costs is subject to criticism, and one can argue the fiscal drain is often greater than the official data indicate.

Men's sports, especially in the major sports of football and basketball, are indeed profitable. In fact, in 2006, 51 percent of all men's programs reported profits from operations. However, *zero* percent of female programs profited.⁵⁰ When taken as an aggregate, expenses exceed revenues at all but a handful of FBS institutions.

As noted earlier, there are huge disparities in the revenues of intercollegiate athletics programs. Figure 3 shows the net revenues for the 19 profiting FBS institutions in 2006 and Figure 4 shows the net revenues for the remaining 100 institutions losing money from athletics in 2006. While the disparities between these two groups are striking, the variations among schools in each category are astounding as well. While the variation in profits in the 90 percent of institutions below the top revenue generating schools is only slightly more than \$17 million, the range within the top 10 percent was an astronomical \$139.4 million. (It should be noted that the gift to Oklahoma State athletics by T. Boone Pickens in 2006 is likely responsible for much of this wide disparity at the top). This shows that with the exception of a very few schools, athletics are not a large revenue generator. While a few schools profit, most are losing money. With the prospect of net revenues over \$150 million in a year, it is hardly surprising that schools continue to yearn to produce top performing athletic teams. However,

Figure 4: Total Net Revenue, All FBS Institutions with Negative Net Revenue, 2006



Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

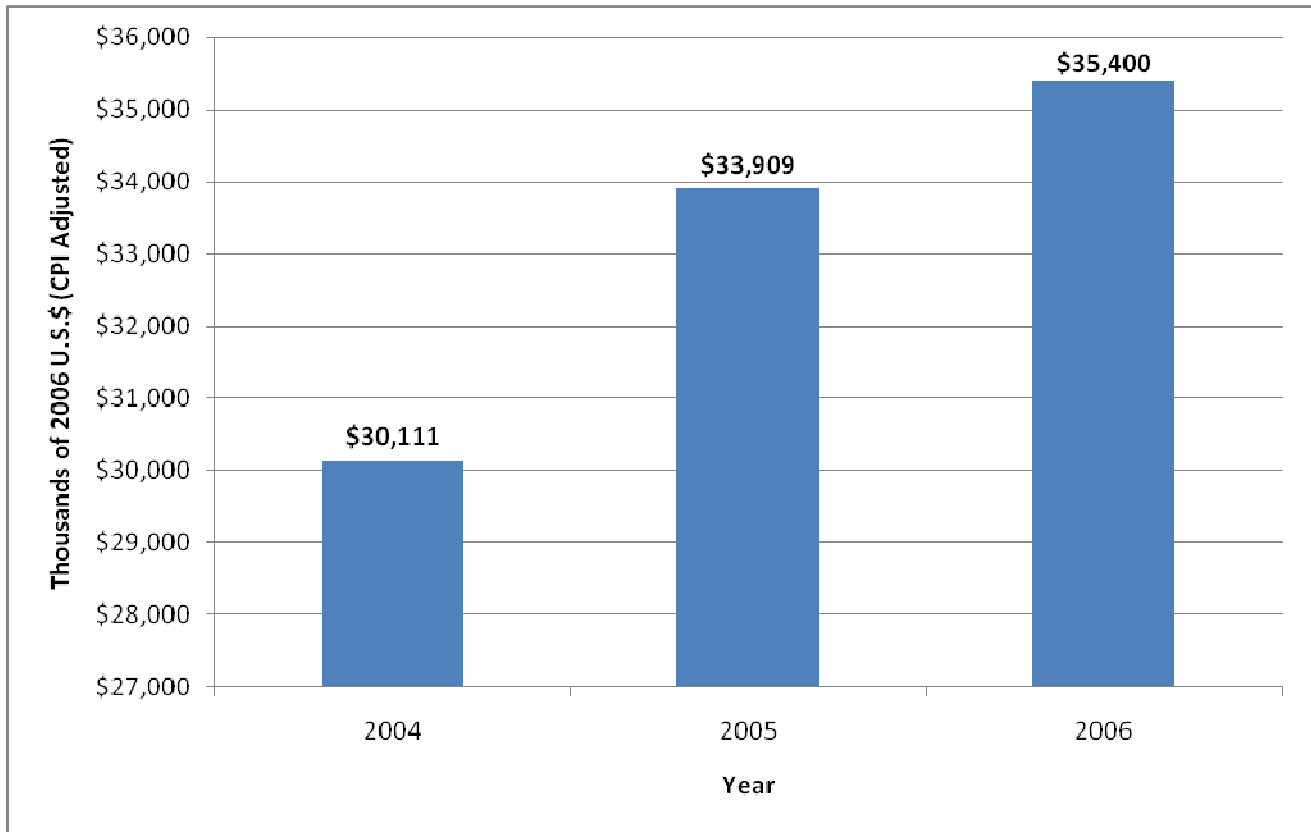
as evidenced by the data, risks are quite high and success rates are quite low. Playing intercollegiate sports is a bit like playing the lottery –most lose money, but sometimes a school gets a nice payoff.

Figure 4 represents the 100 institutions with negative net revenue from athletics in 2006. While the variation is still large, it is somewhat less dramatic than that shown in Figure 3 for the 19 profiting institutions. Yet, the range is still \$26.6 million .This indicates that a few schools lost extraordinarily large amounts to athletics, and suggests that losses for the average institution were much more modest. Indeed, the median losses for schools falling in the 51-60 percentile range was between -\$8.9 million and -\$7.26 million. Roughly, the typical loss was \$8 million annually –using accounting methods than tend to understate true losses. Despite the wide disparities within categories, probably the most interesting point is that for 84 percent of all FBS institutions, athletics is a revenue bust, and sometimes a big one.

Revenue Growth

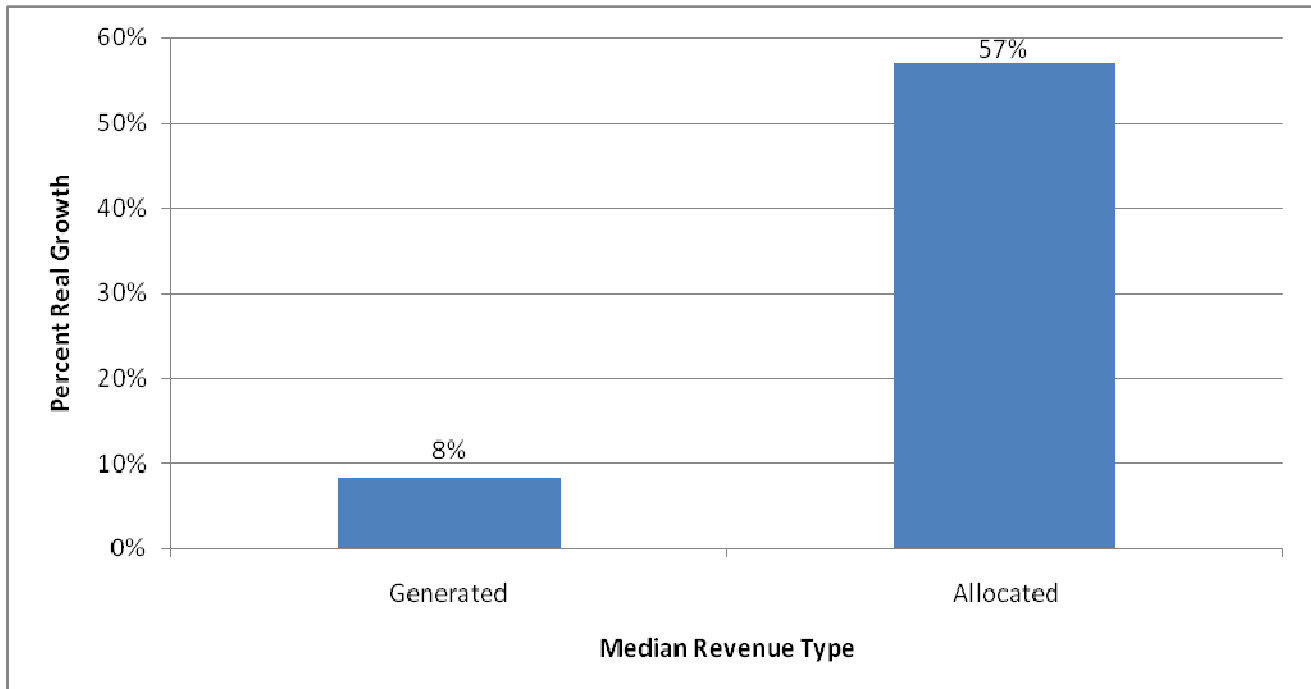
Athletic revenues grew significantly over the three year period of 2004-2006. Figure 5 shows that total median revenue at FBS schools increased from around \$30.1 million in 2004 to \$35.4 million in 2006—a growth of 17.6 percent.

Figure 5: Growth of Median Total Revenues, All FBS Institutions, 2004-06



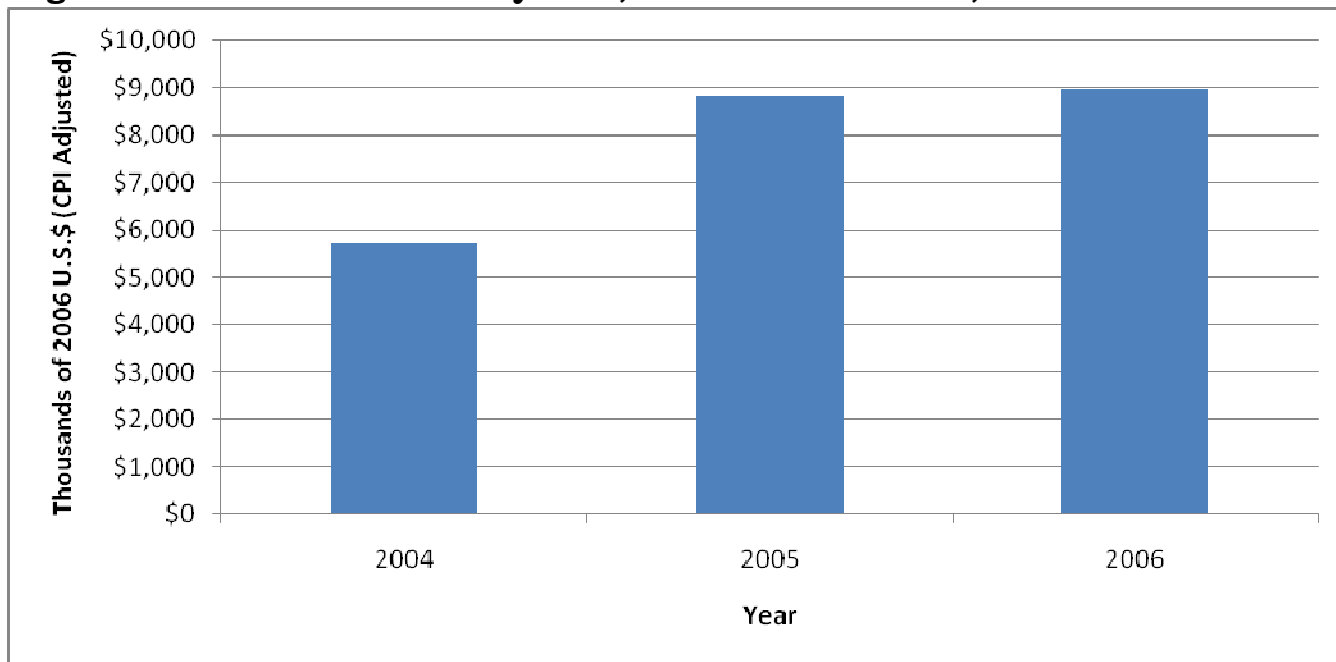
Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 6: Growth Rates of Generated & Allocated Revenue, all FBS Institutions, 2004-06



Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 7: Allocated Revenue by Year, All FBS Institutions, 2004-2006



Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

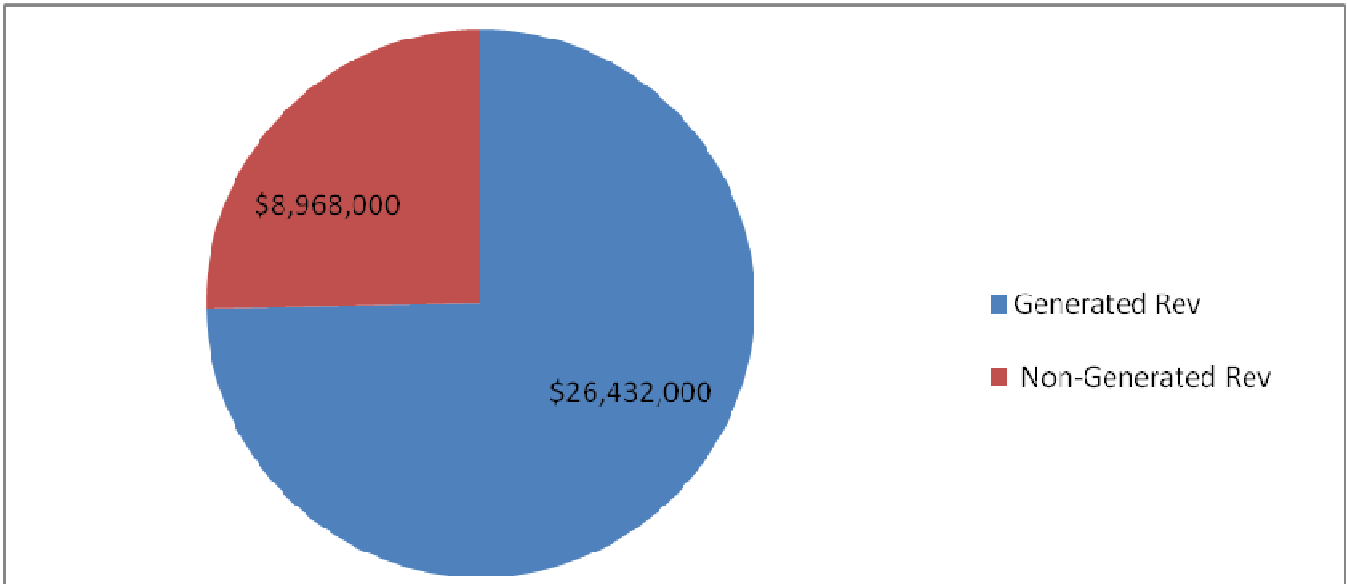
This figure must be qualified however. Revenues are reported in two broad categories: generated and allocated. Generated revenues are those produced specifically by the athletic department and include things such as “ticket sales, radio and television receipts, alumni contributions, guarantees and other revenue sources that are not dependent upon entities outside of the athletics department.”⁵¹ Allocated revenues are those earmarked to the department from the larger institutional budget or from government earmarks specifically to athletics. Although both types grew over this period, allocated revenues grew at a much faster rate. Figure 6 shows that while generated revenues did increase by 8.3 percent, allocated revenues grew by much more at 57.1 percent.

An institution’s generation of new athletic income was much more modest. In both total dollars and as a percentage, allocated revenue growth outpaced the growth in generated revenue. In fact, 61 percent of the overall real growth is explained by allocated revenue—i.e. schools simply appropriating more money to athletics. When considering this figure, revenue growth rates between 2004 and 2006 are less impressive.

Figure 7 shows median allocated revenues for the years 2004-2006 at all FBS institutions. While the revenues of the athletic department have increased, more than half of the total growth has been at the expense of the institution.

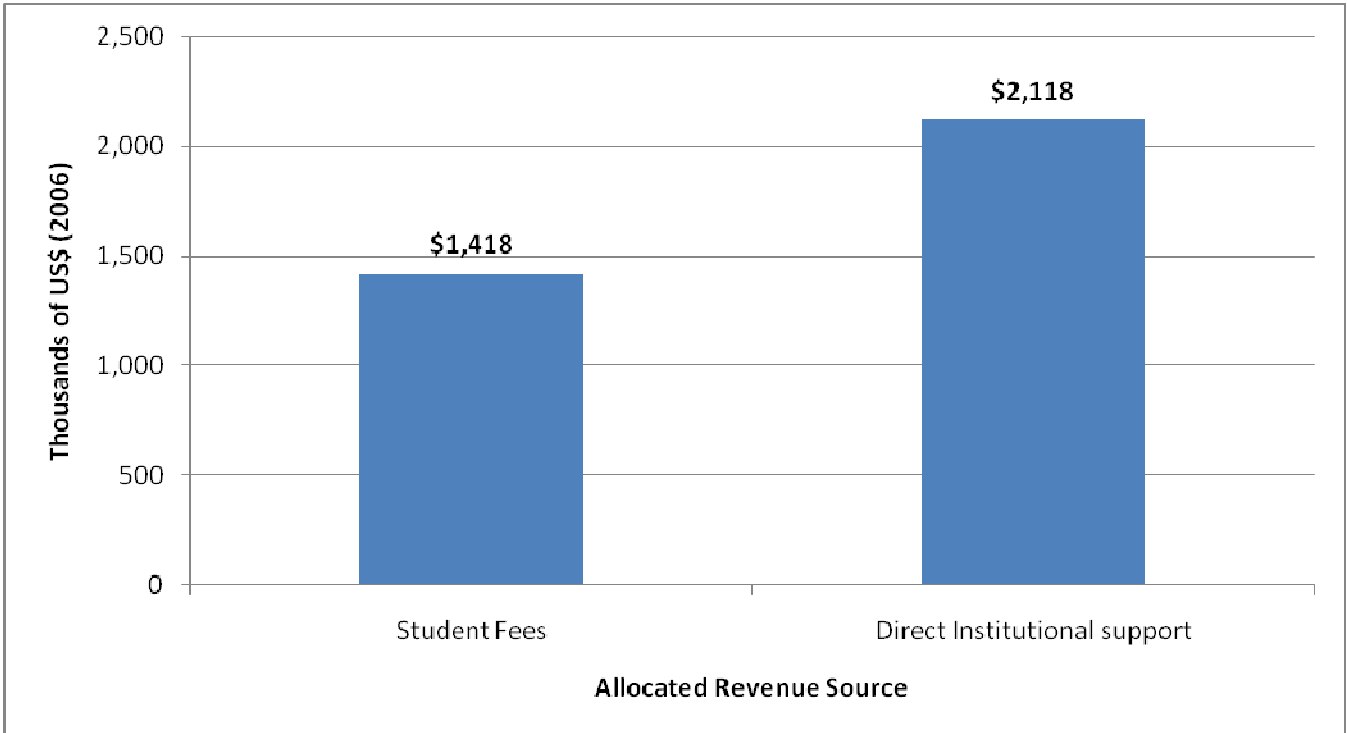
Figure 8 shows that in 2006 allocated revenues made-up slightly more than a quarter of total athletic department revenue. This suggests that most programs are not self-supporting. *Rather than being revenue-generating profit centers for the university, most big-time athletic programs actually increasingly divert university funds.* Athletic budgets are becoming *more* dependent on institutional resources.

Figure 8: Generated vs. Non-Generated Revenues, Median FBS Institution, 2006



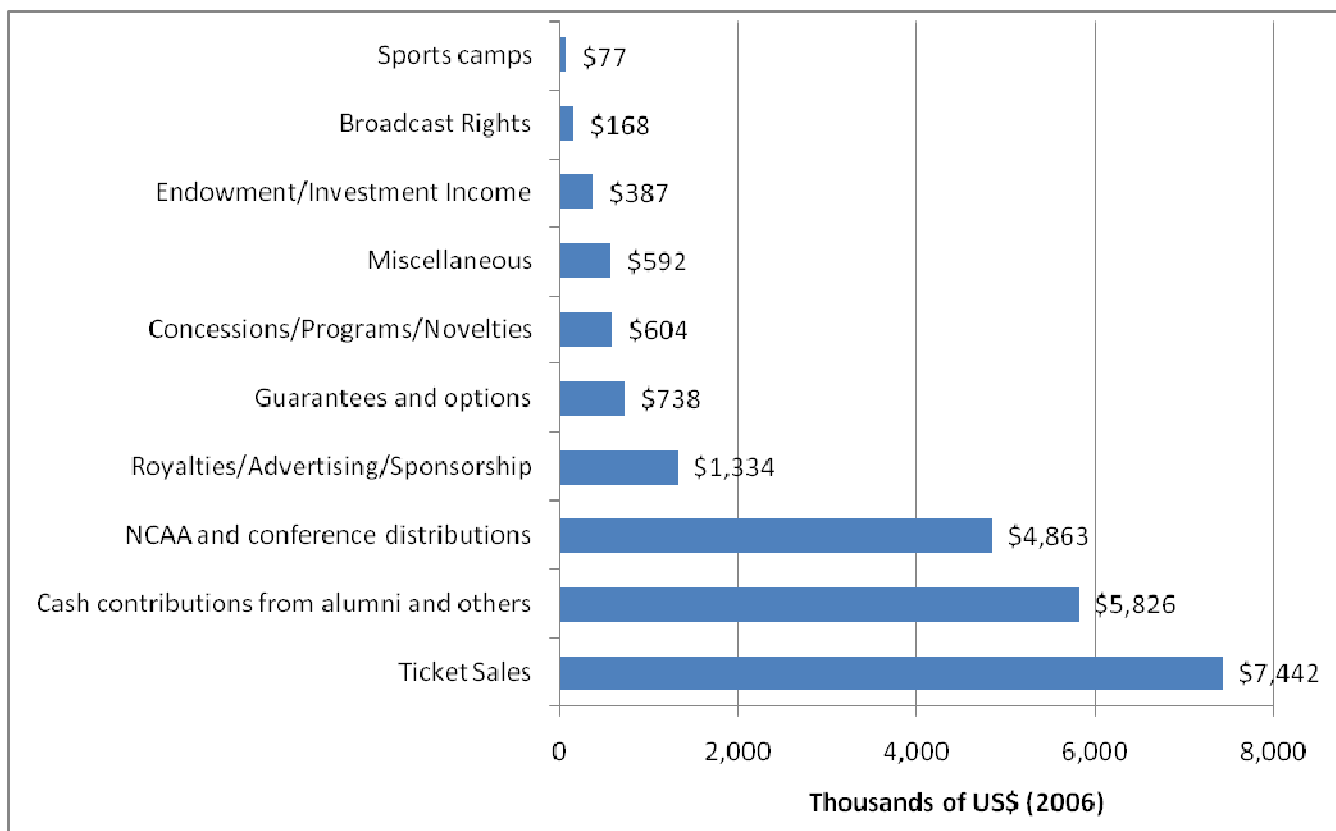
Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 9: Median Allocated Revenue Sources, All FBS Institutions, 2006



Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 10: Total Generated Median Revenue by Source, Average FBS Institution, 2006



Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

It is interesting to examine the source of allocated funding to athletic programs. Allocated revenues include: student fees allocated directly to athletics, direct institutional support (financial transfers directly to athletics from the general fund), indirect institutional support (such as the payment of utilities, maintenance, support salaries, etc), and direct government support from state or local governments.⁵² Figure 9 shows student fees and direct institutional support as two major sources of total allocated revenue. Student fees account for more than \$1.4 million and direct institutional aid more than \$2.1 million. Dividing student fee allocations by the average undergraduate enrollment of 17,476 for all FBS institutions in 2006 students gives a value of \$81.13—meaning students were paying an average of \$81.13 directly to athletics.

As figure 10 indicates, athletic budgets consist of several different line items. Ticket sales and cash/alumni contributions are by far the largest revenue generators, making up 50 percent of total median generated revenue for all FBS institutions.⁵³ NCAA and conference distributions account for another 18 percent and royalties/advertising/sponsorship around 5 percent. Many of these categories surely vary widely by institution and athletic conference. Big time programs certainly sell more tickets, make more money from merchandise sales to fans, have larger television and radio contracts, etc. Furthermore, NCAA distributions are given to conferences based on a number of factors, including

the number of sports sponsored and post-season participation over a six-year rolling period. Thus, schools with larger athletic programs and more successful teams can expect greater revenues.

These revenue line items shed light on the incentive structures facing athletic programs. With ticket sales accounting for more than \$7.4 million annually in revenue at a typical school, schools work hard to augment this figure. The incentive is to build larger stadiums, host more home games and spend money in attempts to produce winning teams that fans will pay money to come watch. However, as Ryan Miller points out, increasing the season length has the negative effect of also increasing the amount of time student-athletes are away from the classroom.⁵⁴ There is a trade-off between meeting academic values and athletic objectives, and athletics often wins. Additionally, increasing the number of home games usually also means increasing the number of away matches. This imposes new travel costs, which can be substantial.

Donations

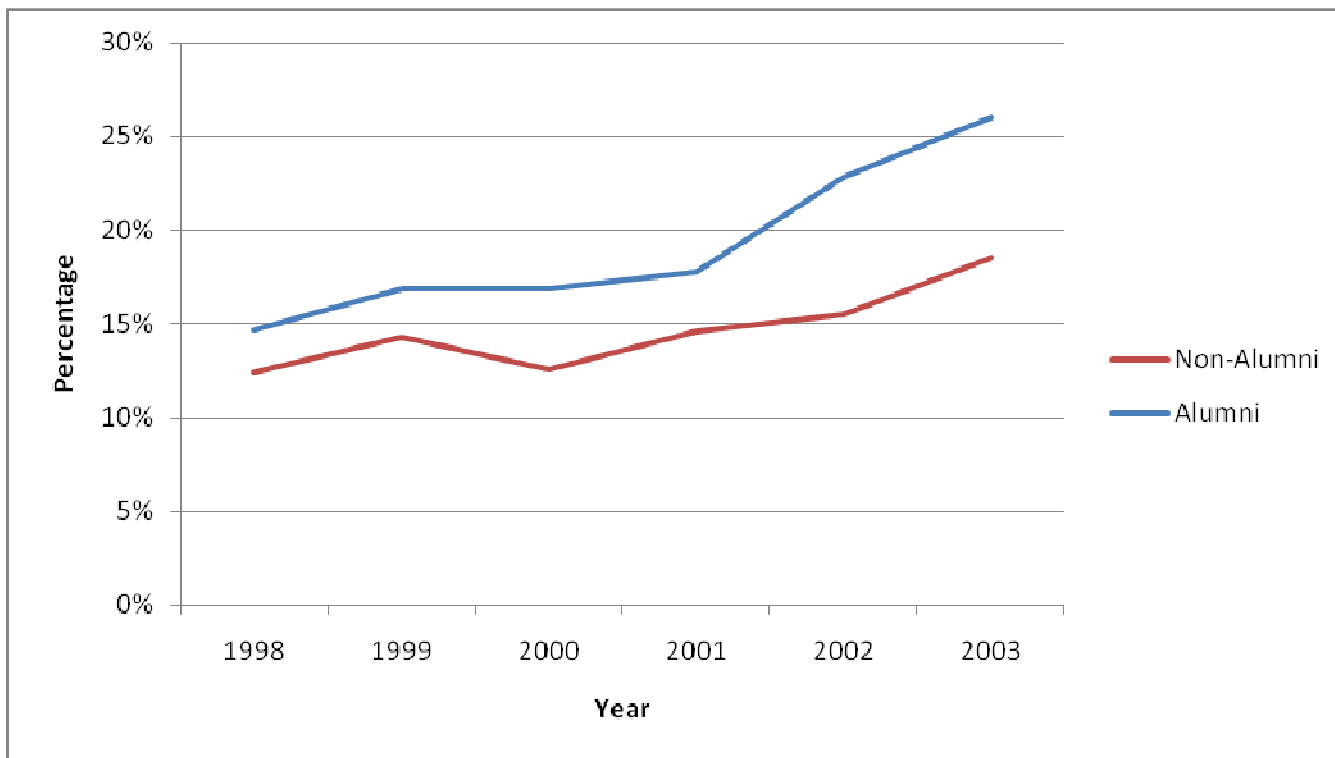
Perhaps the most interesting of the generated revenue line items are “cash contributions from alumni and others.” Not only is this category large—about 22 percent of total generated revenues, but it is also possible that donations to athletic departments impose an opportunity cost by distracting donations that may have otherwise been made to academic dimensions of a school. The most extravagant example is T. Boone Pickens’ gift of \$165 million in 2006 to Oklahoma State University athletics—the largest single athletics gift to a U.S. university in history.⁵⁵ While this gift could possibly transform Cowboy athletics, it may have been of more direct benefit to the academic mission of the university if the gift were unrestricted in nature.⁵⁶ It is plausible that such gifts, or at least a portion of them, may have been given to academics if athletics did not exist. In this sense athletic donations may induce the “crowding-out effect” by competing with the overall institution for scarce donations.

On the other side of the debate however, many argue that athletics create a sense of school spirit and loyalty which leads to increased donations to the academic side of a school, not just the athletics department. In this case, it could be that even if the vast majority of athletic programs run a budgetary deficit, they may still be worth the investment as they augment the overall revenue to the university through increased donations.

A number of studies have attempted to address these questions. A 1990 study by Robert E. McCormick and Maurice Tinsley found that, “A 10 percent increase per alumnus in donations to the athletic booster club is associated with a 5.0 percent increase in donations to the alumni fund.”⁵⁷ This builds on their 1987 study claiming that athletic programs, and especially successful athletic programs, offer cheap advertising that attracts more student applications. With a wider pool of applicants the institution can be more selective, and thus realize a higher quality student body.⁵⁸ The conclusion to be drawn from the two studies is that “the elimination of athletics and athletic fundraising could have deleterious effects on both academic contributions and academic standards.”⁵⁹

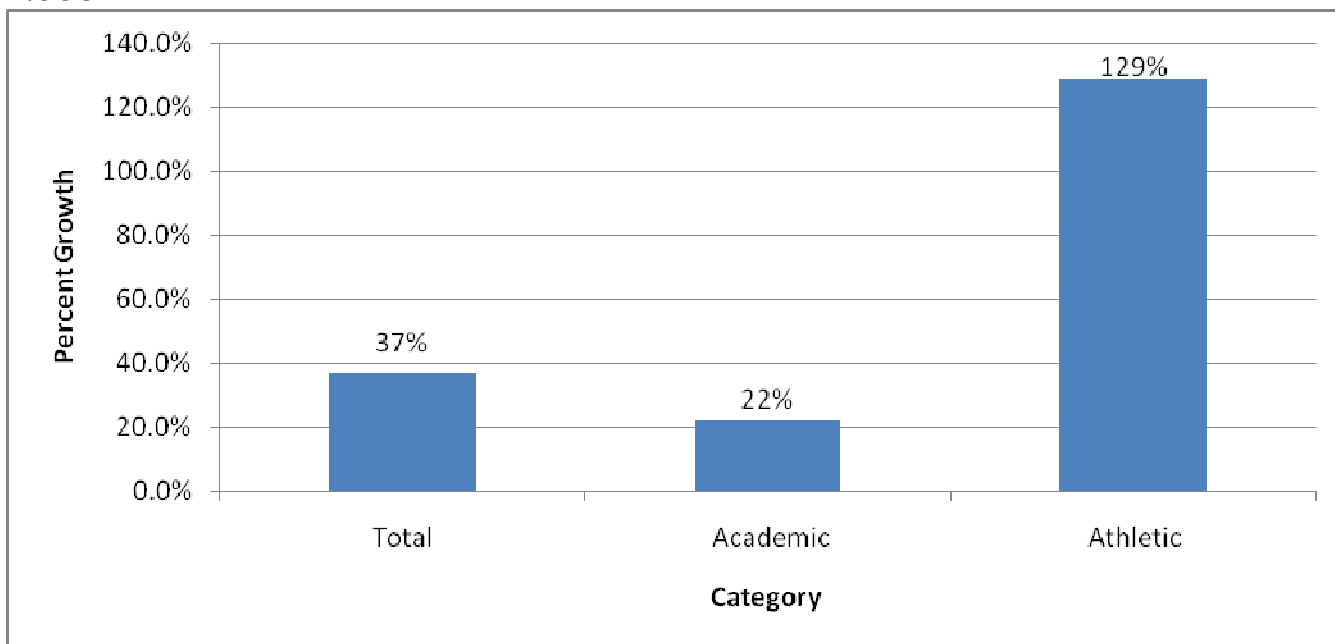
A third study, by Grimes and Chressanthis, found a significantly positive correlation between athletic success at Mississippi State University and overall contributions to that institution. This includes a spill-over into increased academic contributions.⁶⁰ These three studies seem to refute the notion that

Figure 11: Percentage of Contributions Given to Athletics, FBS Institutions, 1998-2003



Source: Jeffrey L. Stinson. "The Effects of Intercollegiate Athletics Success..."

Figure 12: Percent Growth in Contributions by Type, FBS Institutions, 1998-2003



Source: Jeffrey L. Stinson. "The Effects of Intercollegiate Athletics Success..."

athletic donations impose a crowding-out effect on academic contributions. Indeed, these suggest the opposite to be the case, with athletic and academic contributions sharing a symbiotic relationship.

However, more recent data suggests these findings may be invalid. According to Jeffrey Stinson, reporting figures from the Council for Aid to Education, the percentage of donations being given to athletics (compared with academics) increased dramatically between 1998 and 2003. Figure 11 shows that on average for all FBS institutions in 1998, around 15 percent of alumni donations and 12 percent of non-alumni donations were given specifically to athletics. By 2003 those same figures were 26 percent and 18.5 percent. Furthermore, as shown in figure 12, at a growth rate of nearly 129 percent, athletic contributions accounted for a disproportionate amount of the growth in total contributions. All this evidence suggests that athletics have been capturing a larger proportion of total contributions that may have otherwise gone to academics. This seems to support the claim that athletics crowd out academic fundraising.

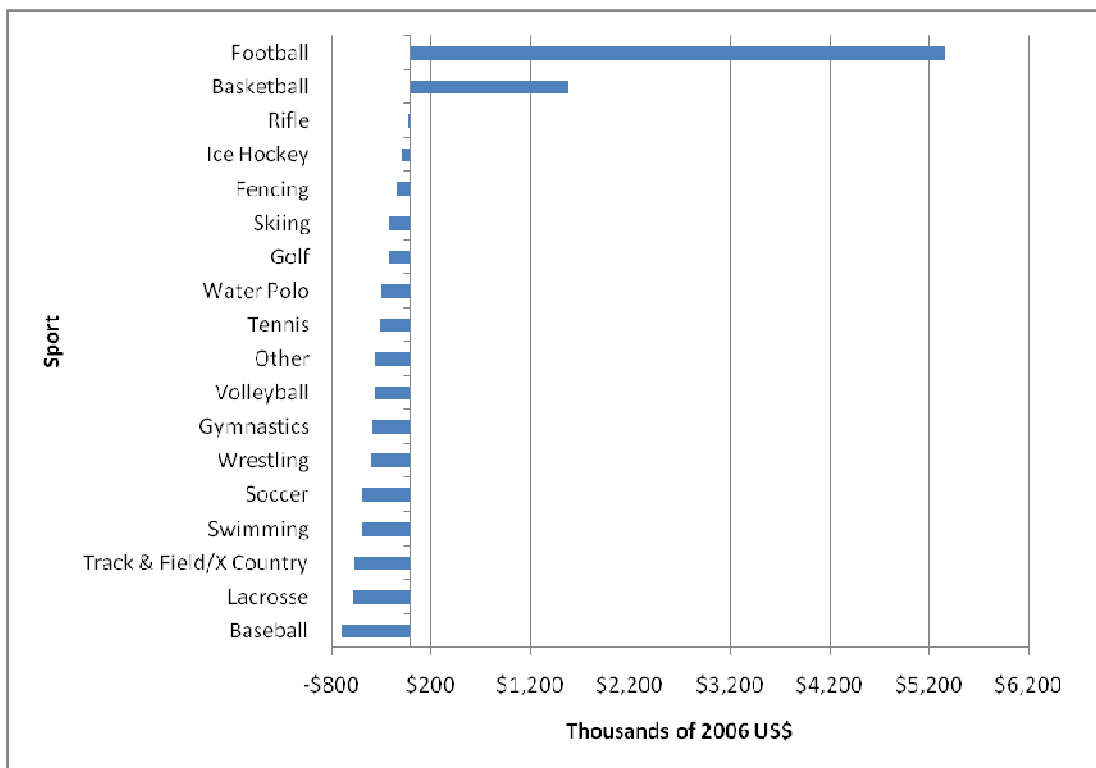
Essentially, successful teams are more crucial to obtaining donation dollars for athletics at schools where a strong academic tradition is less firmly established. At Tier 1 (*US News and World Report* rankings) schools, the percentage of contributions going to athletics was smaller than at lower ranked academic institutions. Stinson concludes that “Total giving to schools with the strongest academic reputations was less susceptible to the changing fortunes of athletic teams...than total giving to institutions not included in the top tier of academically ranked schools.”⁶¹ Yet, institutions at all levels demonstrated an increasing proportion of donations being given to athletics compared with academics between 1998 and 2003.⁶² This supports the hypothesis that athletics is capturing resources that may have gone to academic functions and in turn may be crowding out donations.

It is difficult to assess the overall contribution of athletics to total fundraising efforts for a university. In terms of the affect of athletic success upon donations, Stinson does conclude that athletic success variables were significant in explaining *athletic* giving patterns but not academic giving.⁶³ While a school’s athletic success does not seem to matter to academic giving, it could still be that the mere existence of an athletics program helps attract more donations. It is important that university administrators thoughtfully consider the costs and benefits of supporting athletics before making such budgetary decisions.

How about the argument of McCormick, Tinsley and others stating that athletics, and especially successful athletics, help advertise an institution, bringing in more applications? Increased applications allow an institution to either increase the size of its student body or be more selective in admissions. Increased selectivity provides for a more qualified entering student body and a more academically qualified institution. However, one must question the use of athletics to simply attract more qualified students to a school. Rather than spending resources to attract better inputs, it may be more prudent for a university to focus on boosting its educational product and providing better outputs. School X may subsidize intercollegiate athletics \$10 million a year, and that subsidy yields 200 more applicants, but the money spent on improving the academic product, marketing efforts, etc., might have a larger positive application effect.

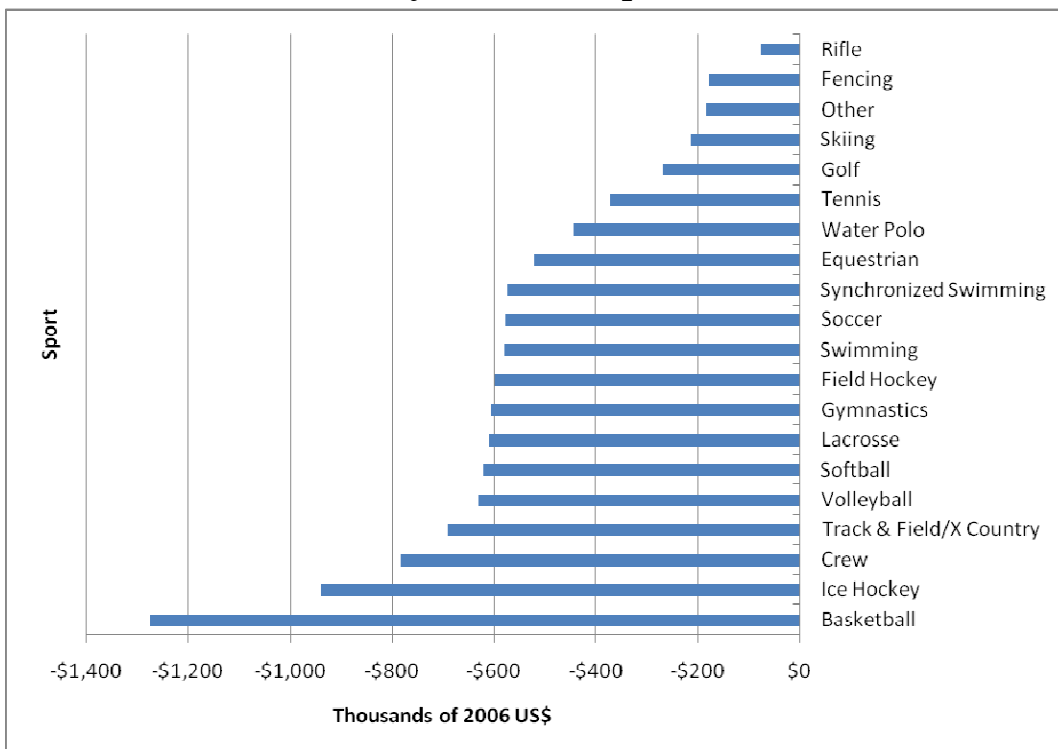
If athletics does indeed boost applications, it is being used to compete more favorably with other institutions for more of the limited quality students. Attracting better inputs allows a school to appear

Figure 13: Median Net Revenue by Men’s Sport, FBS Institutions, 2006



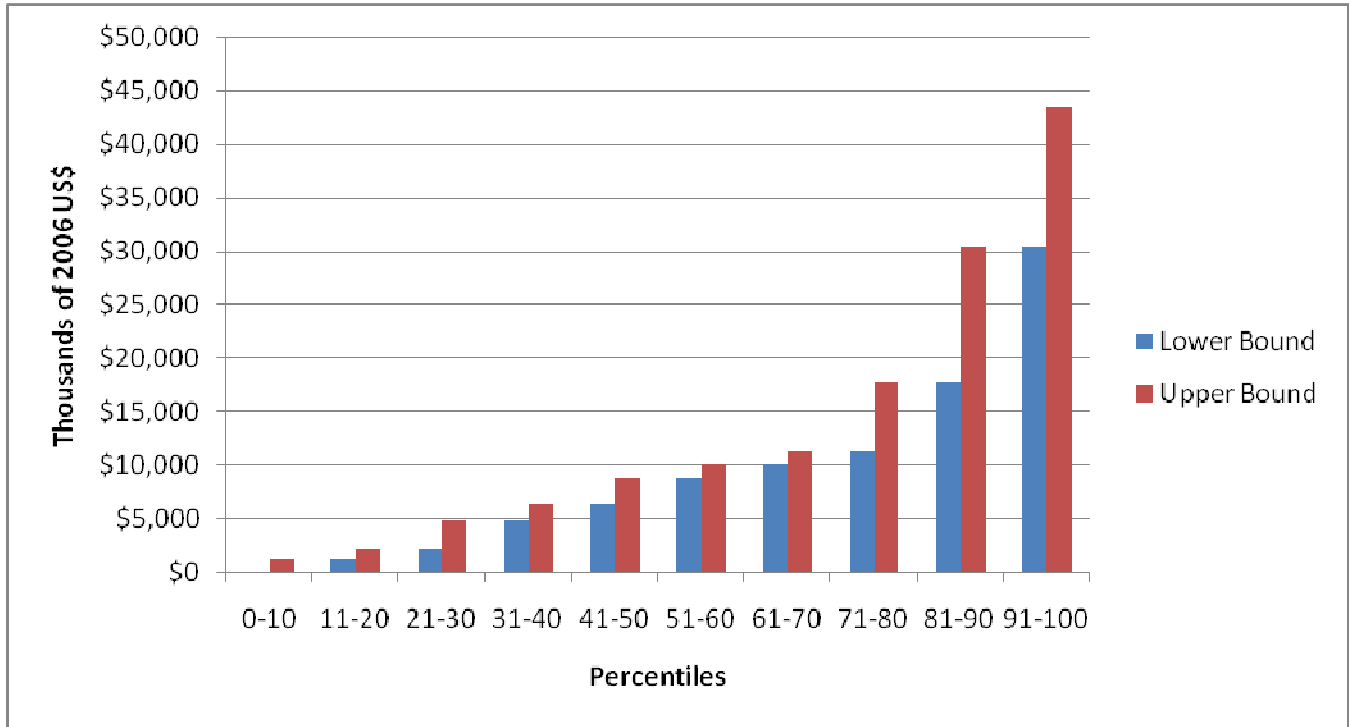
Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

Figure 14: Median Net Revenue by Women’s Sport, FBS Institutions, 2006



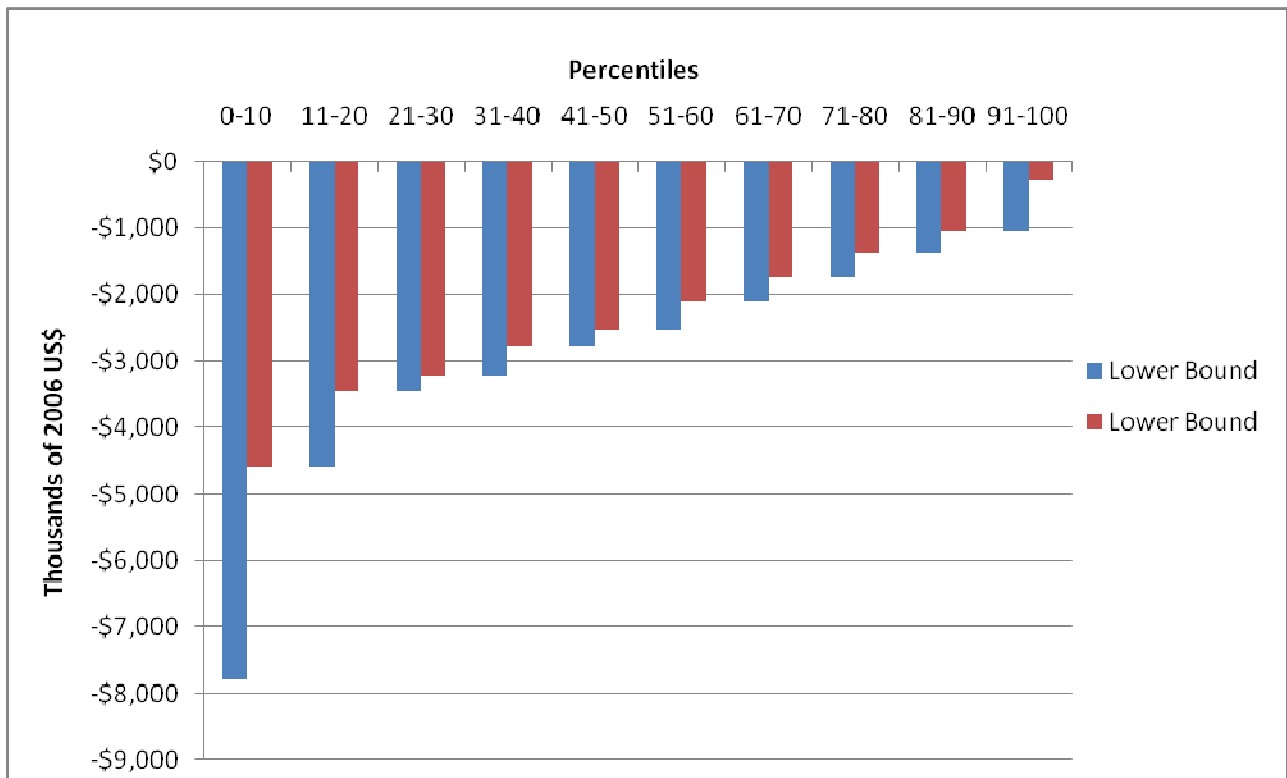
Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

Figure 15: Total Net Football Revenue, All Profiting FBS Football Programs, 2006



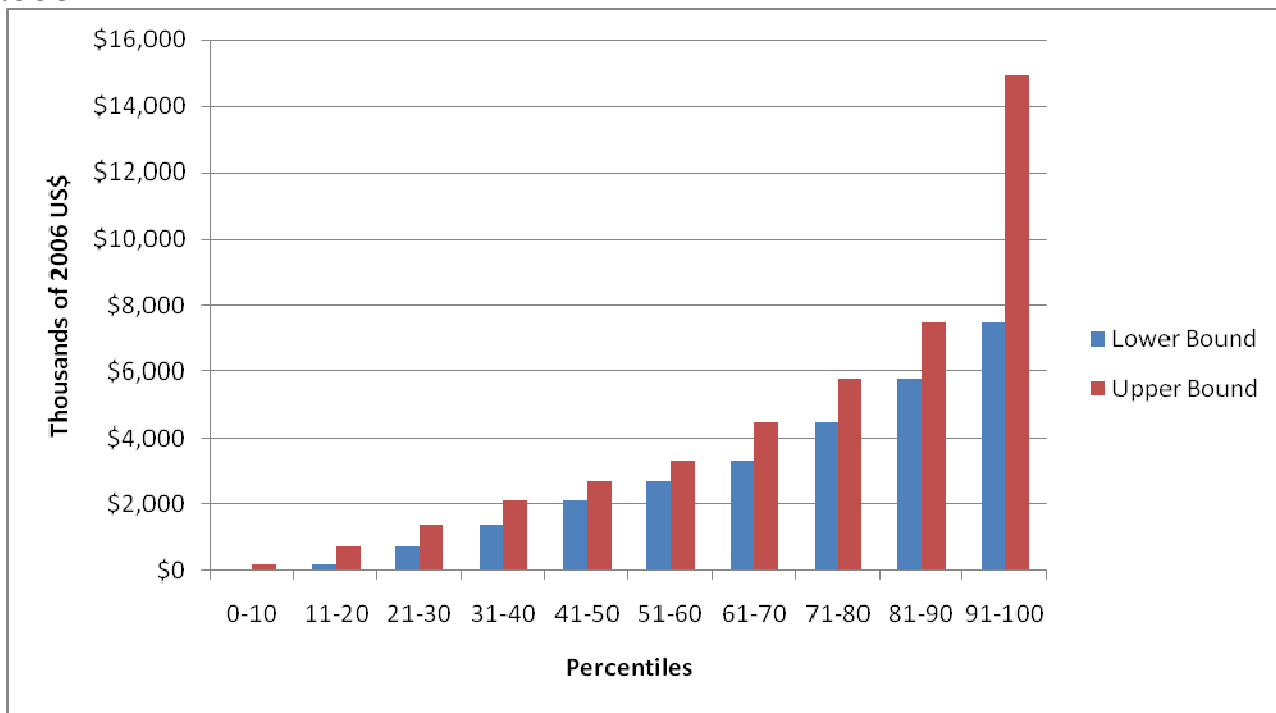
Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 16: Total Net Football Revenue, All FBS Programs Losing Money, 2006



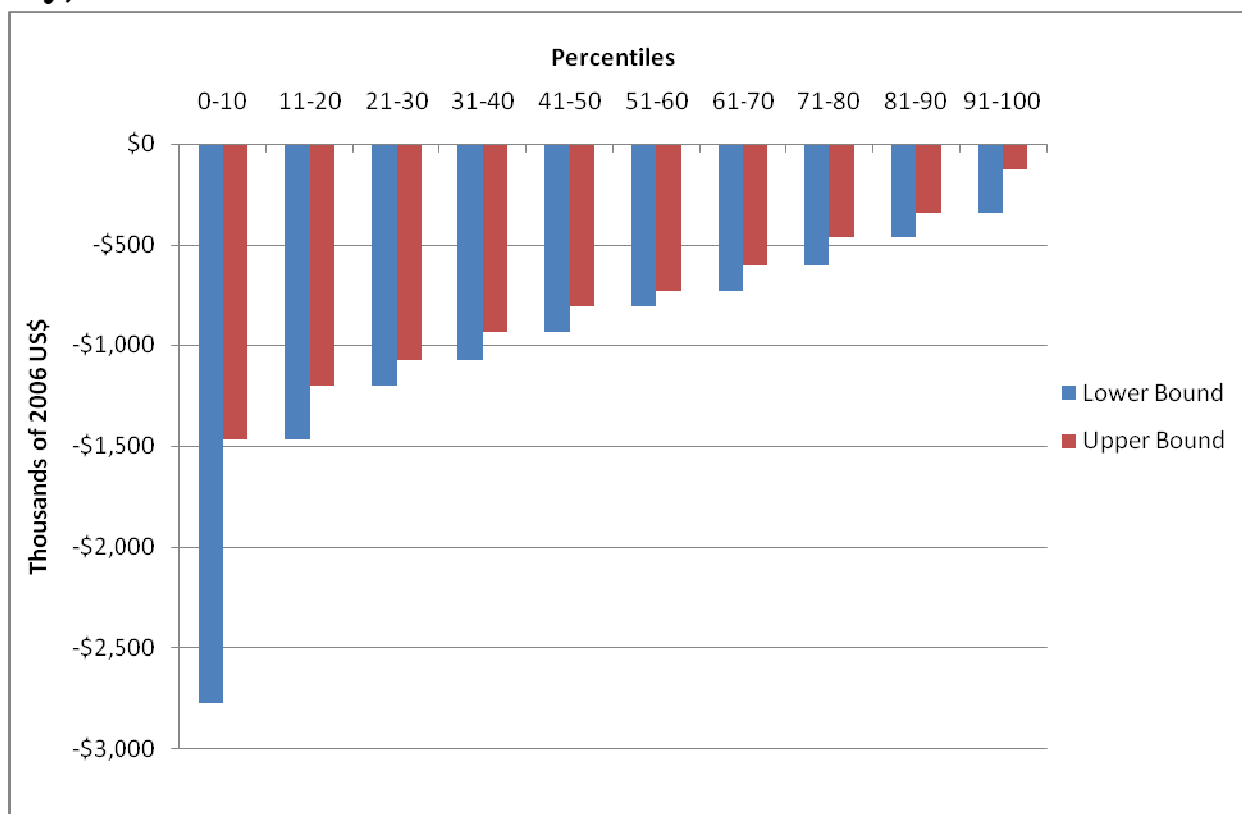
Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 17: Total Net Men’s Basketball Revenue, All Profiting FBS Programs, 2006



Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

Figure 18: Total Net Men’s Basketball Revenue, All FBS Programs Losing Money, 2006



Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

superior; however outputs are what truly count when measuring the effectiveness of education. Rather than investing heavily in athletics which only marginally, if at all, improve educational outputs for the average student, perhaps schools would be more wise to invest in academic functions that will have a more direct and positive impact for the average student. This is not to say that universities should necessarily cut all athletic subsidies to zero; however a careful analysis of the costs and benefits of spending such large amounts seems warranted.

Revenues by Sport

While men's football and basketball are big revenue sports, all others realize negative net revenues. Figures 13 and 14 show the median net revenues for all sponsored men's and women's sports at FBS institutions in 2006. A considerable portion of men's football and basketball programs actually realize a profit from operations. In 2006, 56 percent of football programs and 57 percent of men's basketball programs had revenues that exceeded expense. However, all other sports consistently have expenses that exceed revenues and therefore need to be subsidized. Women's basketball is the most costly, with a median loss of more than \$1.25 million in 2006.⁶⁴ A profit maximizing corporation would eliminate all sports beside football and men's basketball as they do not generate profits. However, universities are not profit maximizing entities, and NCAA stipulations require an institution to support a minimum of 14 sports in order to maintain its Division I status. Additionally, Title IX regulations require schools to sponsor women's athletic programs. With these stipulations, if schools were purely profit-maximizing, most would cut athletics entirely. Since only 19 of the 119 programs profited in 2006, it simply would not make sense to support them in most cases.

While football and men's basketball are revenue generators for a majority of schools, there are still wide disparities between institutions within these two sports. Figure 15 shows total net football revenue for those FBS institutions profiting in 2006. Schools ranged from just barely breaking even on football to generating over \$43 million in profit. The disparity even within the top 10 percent highest profiting institutions is large with a difference of \$13 million between the upper and lower bound schools. Figure 16 shows that the losses from football are much smaller than the possible payouts. The school losing the most money from football in 2006 lost slightly less than \$7.8 million compared to the payout of \$43 million for the school profiting the most from football. Figures 17 and 18 show similar findings for men's basketball—although on a smaller scale.

Summary

Athletics are a losing proposition as revenue generators for most FBS institutions. Indeed, only 19 of 119 institutions realized positive net generated revenue in 2006. The other 100 relied upon allocated funds from the wider university budget to subsidize operations and balance athletic budgets. While total revenues grew over the period from 2004 to 2006, much of this growth was due to increased allocation from the wider university budget. In fact, in 2006 allocated funds accounted for nearly a quarter of median total revenues. Ticket sales, donations and NCAA/conference distributions accounted for most generated revenue. Thus, schools with successful teams with large fan bases were the schools profiting from athletics.

While numerous studies from the late 1980s and early 1990s suggested that the net externalities from athletics on donations to the wider university were positive, newer research suggests the opposite may be the case. Increasingly athletic giving is taking a greater share of total donations to a university. While athletic success appears to significantly impact giving to a school’s athletic department, it does not show a positive relationship to academic giving. It is possible that athletics may be imposing a crowding-out effect to a certain degree on donations that may have gone to traditional academic missions of the university were athletics not to exist. Weisbrod, et al briefly mention this as one possible systematic shortcoming of calculating the profitability of athletics. They cite donations as a prime example of revenue that may have still gone to the university were athletics to not exist.⁶⁵

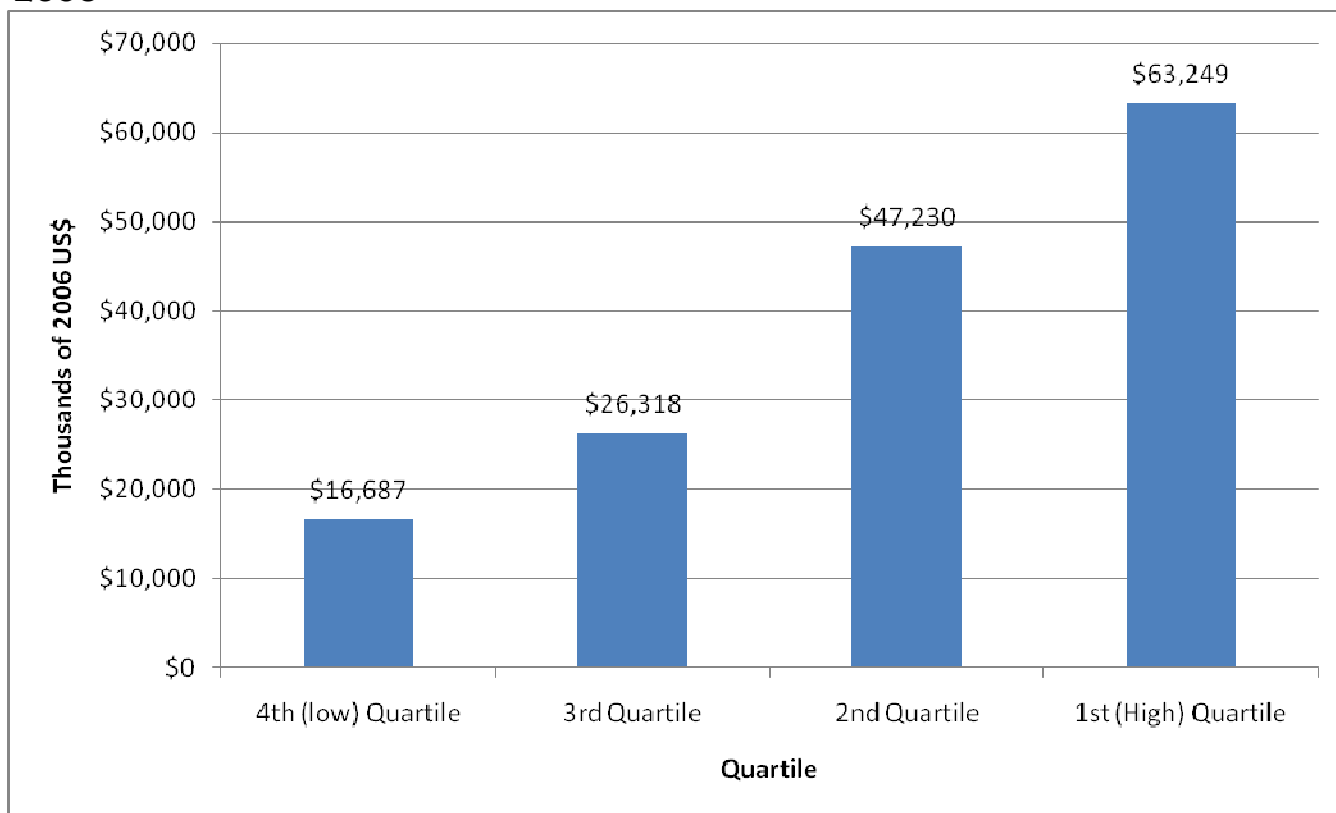
With such high potential payouts from athletics—the highest profiting institution brought in \$156.5 million in 2006—it is no wonder schools strive to build their fan base and put winning teams on the field. Yet, there is a great cost associated with this risky investment.

Part IV - Expenses

In 2006 the median total expenses for all FBS institutions were over \$35.75 million. Additionally, the average expenditure per athlete was reported as \$65,800. Just as growth was observed in revenues between 2004 and 2006, there too was growth in athletic expenses over this time period.

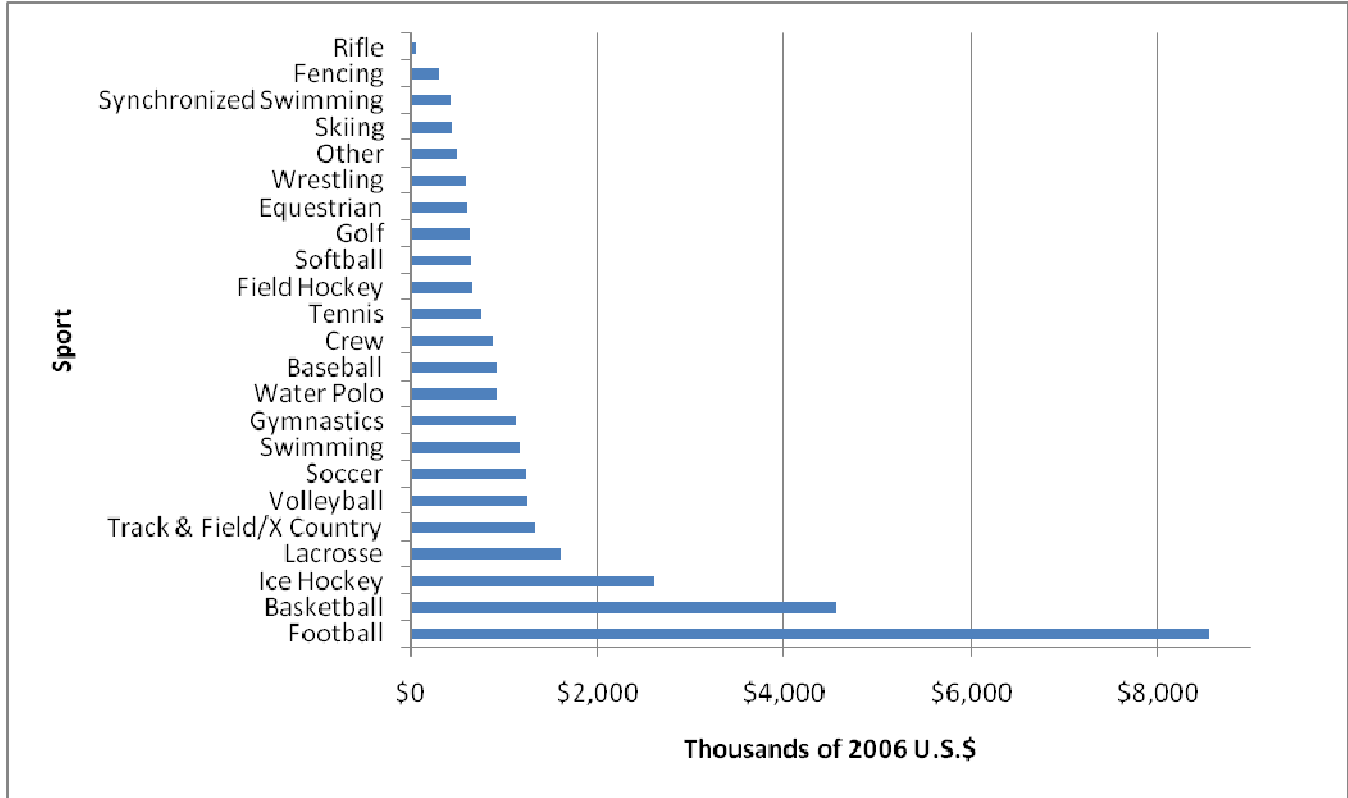
Disparities in Athletic Expenditures

Figure 19: Median Total Operating Expenditures by Quartile, FBS Institutions, 2006



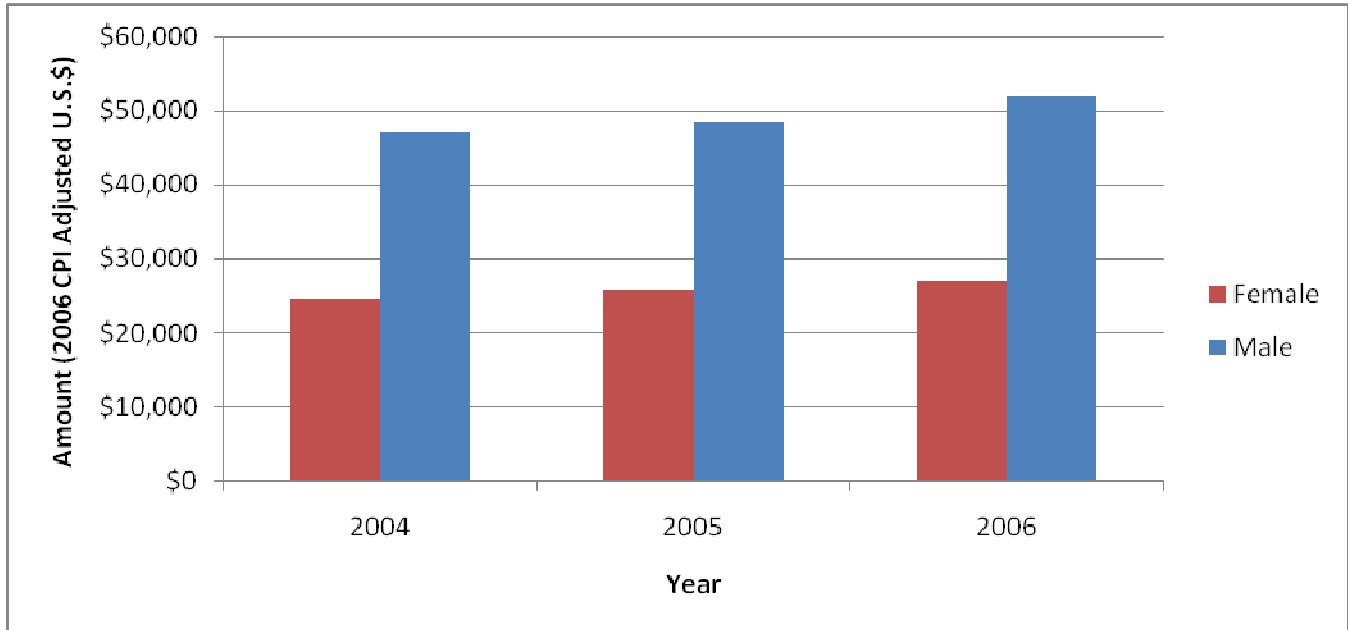
Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

Figure 20: Median Total Expenses by Sport, FBS Institutions, 2006



Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 21: Average Athletic Expenditures per Male & Female Athlete, FBS In-



Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

As with revenues, there are wide disparities in terms of expenditures for athletics among FBS institutions. Figure 19 breaks down median total operating expenditures for all FBS institutions by quartile. Spending in 2006 ranged from a median of just less than \$16.7 million at the bottom quarter of schools to around \$63.25 million at the top quarter. Certainly the profitability of a school's athletic program helps explain much of the variation in total expenses. Those programs able to cover their costs would logically be more likely to spend greater amounts.

Expenditures by sport vary widely as well with football and basketball again falling at the top of the list. In 2006 the median spending on football exceeded \$8.5 million and men's and women's basketball combined to total median spending in excess of \$4.5 million (as shown in figure 20). Several other sports are surprisingly expensive. Of the non-major sports, ice hockey is the most expensive with median spending at \$2.6 million. Yet several smaller sports are devoted much fewer resources. In fact, football expenditures exceed the sum of median expenses for the bottom 14 sports listed in figure 20.

It should not come as a surprise that schools invest more heavily in the major sports of football and basketball. As we saw from the previous section, football and men's basketball are the only two sports that annually produce generated revenue in excess of expenses. Furthermore, the prospects for big payouts present themselves in these two sports through participation and victories in major bowls and the annual NCCA men's basketball tournament. These sports are also by far the most visible nationally. Thus, it is rational to support the football team more heavily than the rifle squad if the objective is to promote the university on a national stage.

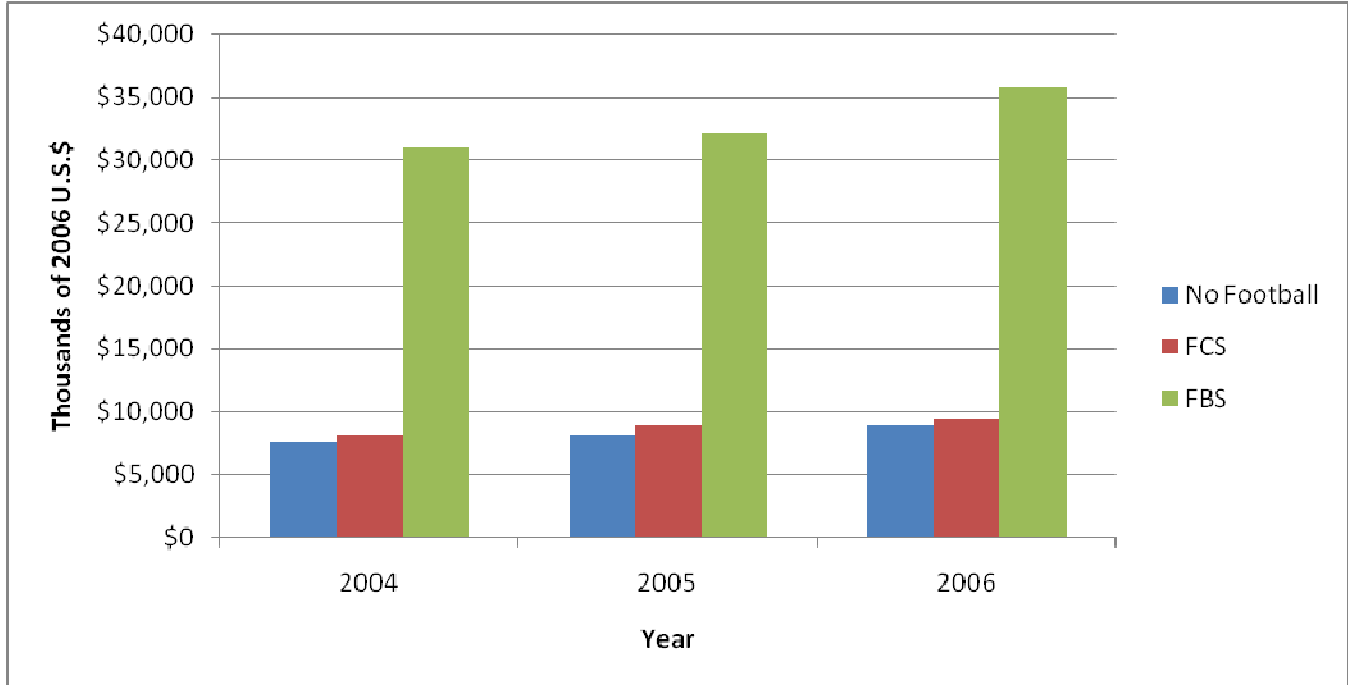
It is interesting to examine athletic expenses by gender. Figure 21 shows total athletic expenditures per male and female athlete from 2004 to 2006. Although athletic expenditure growth between 2004 and 2006 was divided fairly evenly between male and female athletes, the disparity between overall spending per athlete still heavily favors male athletes. Over this timeframe, real expenditures per male athlete climbed from \$46,958 to \$52,000, a growth of 10.7 percent. Spending per female athlete nearly kept pace at 10.0 percent, but despite this, growth expenditures were \$27,000 in 2006—a figure \$25,000 less than for men. Football likely contributes a good deal to this disparity.

Expenditure Growth

Figure 22 highlights the contrast between the spending for athletics at FBS institutions and those programs not competing at the top levels nationally. Median expenses in 2006 were 2.8 times greater at FBS institutions than FCS (football "championship") institutions. Second, it shows the overall scope of spending for athletics is quite large. Finally, it is evident that real expenses grew significantly, from slightly less than \$31 million in 2004 to \$35.75 million in 2006—a growth of 15.6 percent at FBS schools.

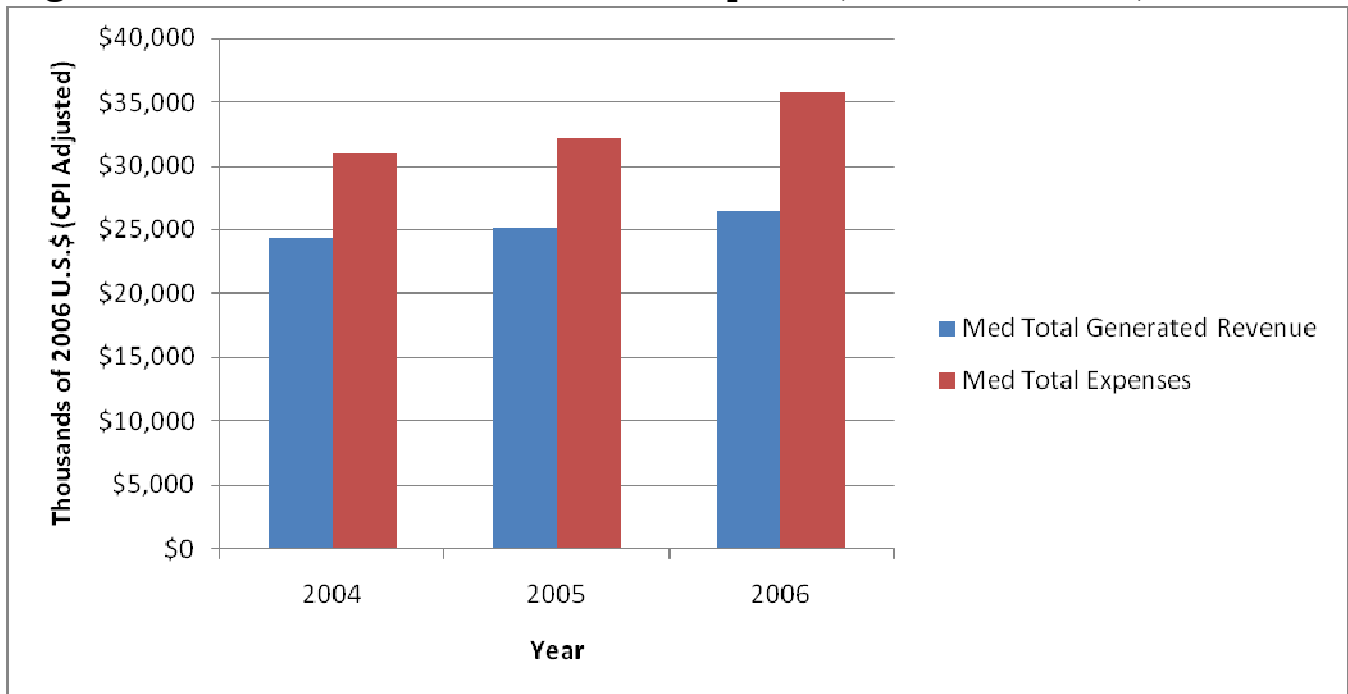
We saw earlier that total real revenue growth for FBS institutions over this same period was around 17.6 percent. One must keep in mind that the growth in *generated* revenue was much more modest at 8.3 percent. Thus, the 15.6 percent growth in expenditures signals that nationwide between 2004 and 2006 athletics at FBS institutions became *more* of a financial burden and required more institu-

Figure 22: Median Total Expenditures by NCAA Classification, 2004-2006



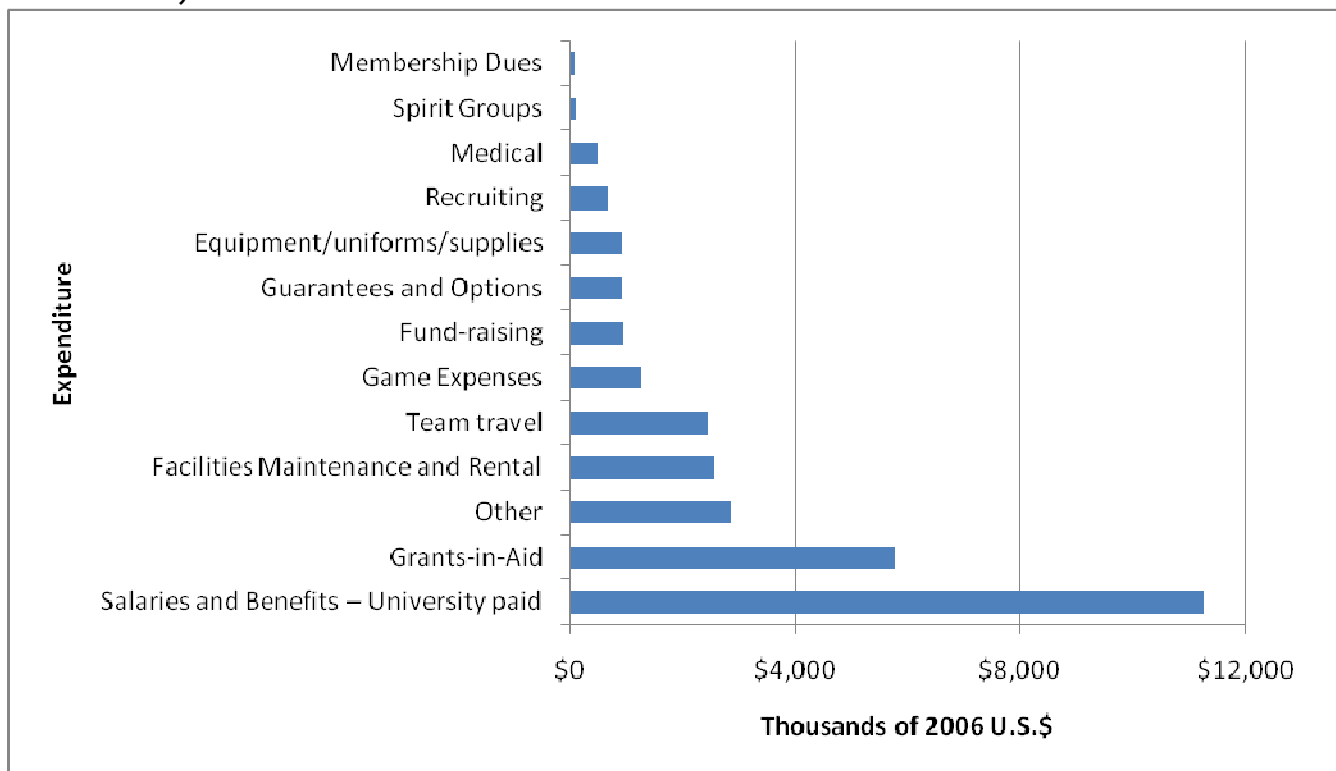
Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 23: Generated Revenue vs. Total Expenses, FBS Institutions, 2004-06



Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 24: Total Median Operating Expenses by Object of Expenditure, FBS Institutions, 2006



Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

tional resources. Figure 23 juxtaposes median total generated revenues and median total expenses to highlight this.

Expenditure Line Items

Figure 24 displays the median spending by individual line items for FBS institutions in 2006. Two categories, salaries/benefits and athletic grants/scholarships, combine to account for 48 percent of total expenditures.⁶⁶ “Other” expenditures are the third largest category at \$2.87 million and 8 percent of total spending. Dr. Daniel Fulks, chief architect of the annual NCAA voluntary survey of inter-collegiate athletics finances, assures us that he has made it a priority

to have “other” spending better defined by schools and that the figure reported for 2006 is less than in previous years.⁶⁷ This is a welcome development and should be encouraged in the future as a way to bring more transparency to athletic spending.

Among coach/administrative salaries and athlete grants, it is surprising that the salaries nearly double the cost of scholarships for athletes. The athletes are the ones who attract the large crowds, generate the revenue and are the ones for whom athletics supposedly exist to benefit. Yet, it appears athletic coaches and other athletic officials may be profiting considerably.

Indeed there is a growing debate on the issue of student-athlete compensation. Athletes in the major sports of football and men's basketball generate huge revenues for the athletics department. However, compensation levels (essentially tuition, fees, room, board and books) are wildly below the market value the athlete would command in a competitive market, which is determined by the marginal revenue the employee contributes to the business enterprise. A recent *Wall Street Journal* article highlights this with examples of student-athletes who left college early to compete professionally.⁶⁸ Kevin Durant left the University of Texas after a stellar freshman season and signed a contract worth \$3.5 million to go along with endorsements with companies like Nike and Gatorade. Heisman Trophy winner Reggie Bush opted out of his senior season with the University of Southern California and signed a deal with the New Orleans Saints guaranteeing \$26.3 million over six years. In both of these cases, compensation paid by the athlete's respective school was only around 1 percent of his next year compensation as a professional athlete. A good case can be made that major college athletes are some of the most exploited labor in America today.

Top level football and basketball coaches at FBS schools typically earn several times the salary of the university president, and the era of million dollar top *assistant* coaches has arrived.⁶⁹ Since a large part of the success of coaches arises from their ability to recruit good players, it can be argued that a large portion of their salary reflects their capturing some of the economic exploitation of their more talented recruits. This raises ethical and moral as well as economic issues.

Facilities maintenance and rental comprises another 7.2 percent of spending. This does not include capital expenditures on new facilities and stadiums. Such spending is supposed to be recorded as athletic department debt service, yet these figures are not readily available. A 2001 report by the Knight Commission makes the case that an athletics arms race is under way. The report cites a rise in capital expenditures for facilities of 250 percent in the seven years leading up to 2001.⁷⁰ The Commission points out that institutions often conclude that joining the arms race is a necessity to remain competitive with other programs. This spending is justified as providing positive externalities such as increased donations, applications, etc. Yet, as we have seen, very few programs generate revenues and even these other ostensible benefits do not hold-up to empirical scrutiny as well as university officials would have the public believe. The Commission argues that the "Pursuit of success in this context jeopardizes not only the universities' moral heritage but also their financial security."⁷¹

Team travel costs the athletics department almost \$2.5 million per year. It is interesting that this cost exceeds actual game expenses. This suggests that it is more expensive to get to a competition than to actually host it. It is not uncommon for a team from the East coast to fly out to California to compete in a non-conference match-up, or vice versa. Additionally, tournaments are often held in exotic, and hard to reach, locales. A sampling of this year's (2008-09 season) preseason men's basketball tournaments revealed that they were being held in destinations such as Maui, the U.S. Virgin Islands, Puerto Rico and Cancun, Mexico. Not only is the cost of transporting a team across the entire country costly, but such long trips require multiple nights of costly lodging. One of the NCAA's newest postseason football bowl games, The International Bowl, is held in Toronto, Canada. Recently passed immigration requirements mandate passports to travel between the two countries, meaning athletic departments now have to purchase passports for players and coaches just to attend the game. Minimizing games played at great distances from home would be an easy way to reduce these costs.

It is also not uncommon for sports teams to stay in hotels the evening before a *home* match. A November 2008 article reports that within the Western Athletic Conference (WAC), Boise State is the only football team to not stay in a hotel the night before home games.⁷² Putting a stop to practices like this is another small possible step to reduce the cost of athletics.

The next most expensive line item is fundraising at \$953,000. You will recall that cash contributions/donations are the second largest revenue generator for athletics at around \$5.8 million annually. It is not surprising that institutions would invest in development efforts to maximize donations. In effect, this expense imposes a 16.4 percent tax on all donations to run the advancement wing of the athletics department. Equipment/supplies, guarantees and options, recruiting and medical costs, spirit groups and membership dues combine to account for the remaining 9 percent of total median athletic expenditures.

These line items shed much light on the nature of athletic expenditures. Given the especially large magnitude of salaries and grants-in-aid, we will next turn our attention to a more close examination of these two expense items.

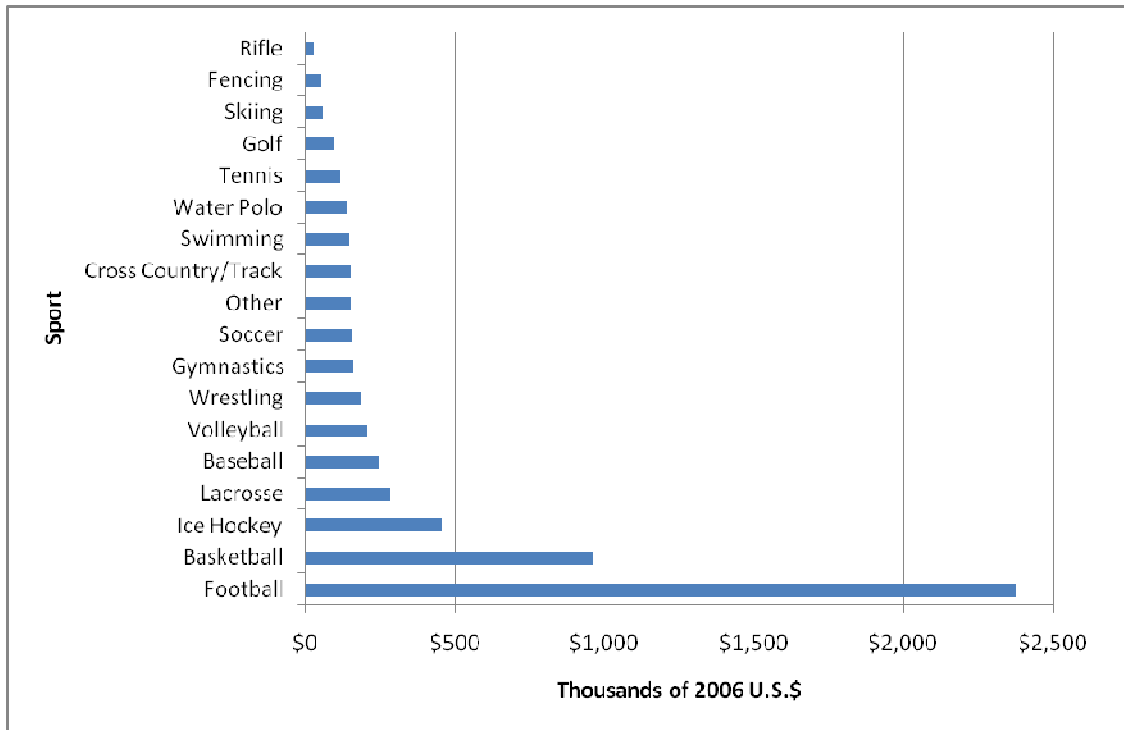
Athletic Related Salaries

It is common to hear complaints about the enormous salaries of head athletic coaches. These accusations are not without merit. Data compiled by *USA Today* show that 48 head football coaches in 2006-07 at FBS institutions reporting salary data earned in excess of \$1 million (not including performance bonuses existing at most schools). Football coaches at 69 FBS schools earned more during that same year than the president of their institution.⁷⁴ This statistic is particularly alarming at a number of schools. For example, at the University of Iowa, head football coach Kirk Ferentz had total earnings of \$3.03 million, while the university's president only made \$324,050. At Oklahoma, Coach Bob Stoops made slightly less than 9 times that of the university's president, and at Tennessee, Coach Phillip Fulmer earned 6.4 times more than the schools president in 2006-07.

These figures seem counter-intuitive since it is the university president that is ultimately responsible to students, taxpayers and state legislatures (at public institutions). Within the larger organizational structure, the position of football coach is similar to that of a department chair. The football team is but one wing of the athletics department, just as say the theater department is one wing of the fine arts college. It would be unusual for the chair of the theater department to be paid more than the dean of the college, much less the university president. Yet, that is the scenario observed with respect to football (and indeed some basketball coaches) at the majority of FBS schools.

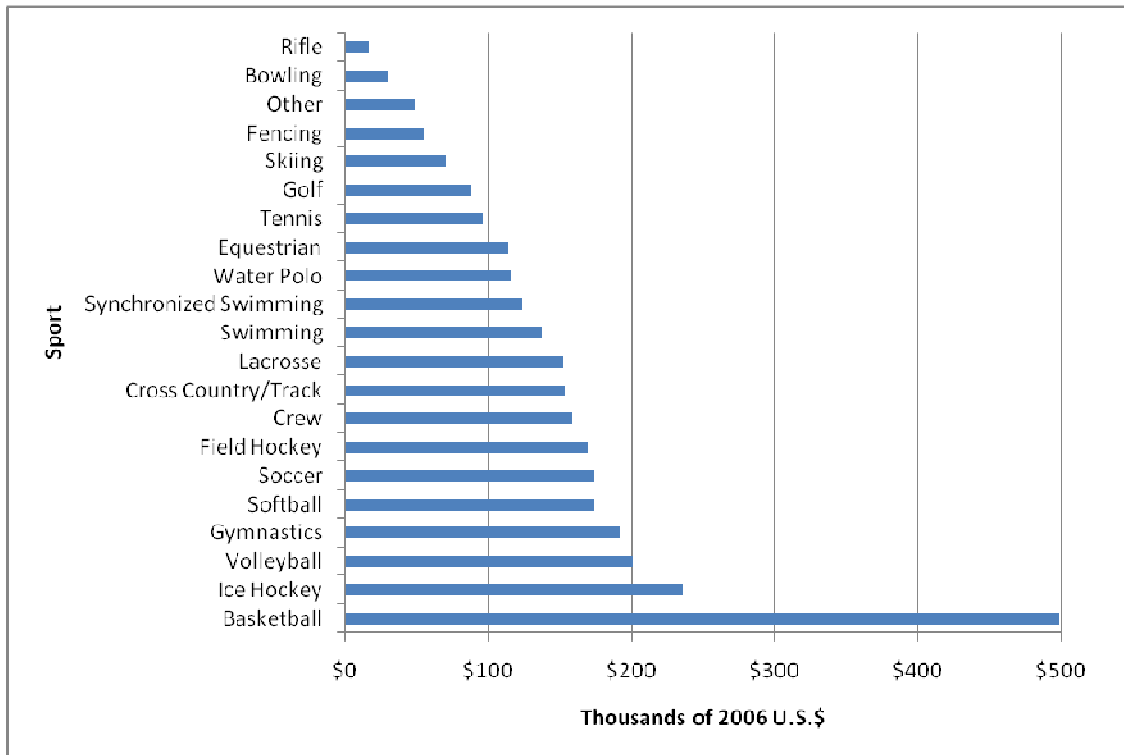
While compensating a mid-level manager more than his/her superiors may indeed seem counter-intuitive, the phenomenon can be explained by institutional priorities and simple economics. The fierce competition between schools for top coaches demonstrates a relatively high demand and low supply of desirable coaches. When the demand is especially high, because the school places an especially large priority on sports, the salary a coach is able to command can be well beyond the salary of that coach's bosses. Ultimately, market forces show that our competitive colleges value top athletic teams highly. It is the job of the boards of trustees to provide some oversight and determine if they are in agreement with this prioritization and allocation of resources.

Figure 25: Median Salary Expenses for All Men’s Coaches by Sport, FBS Institu-



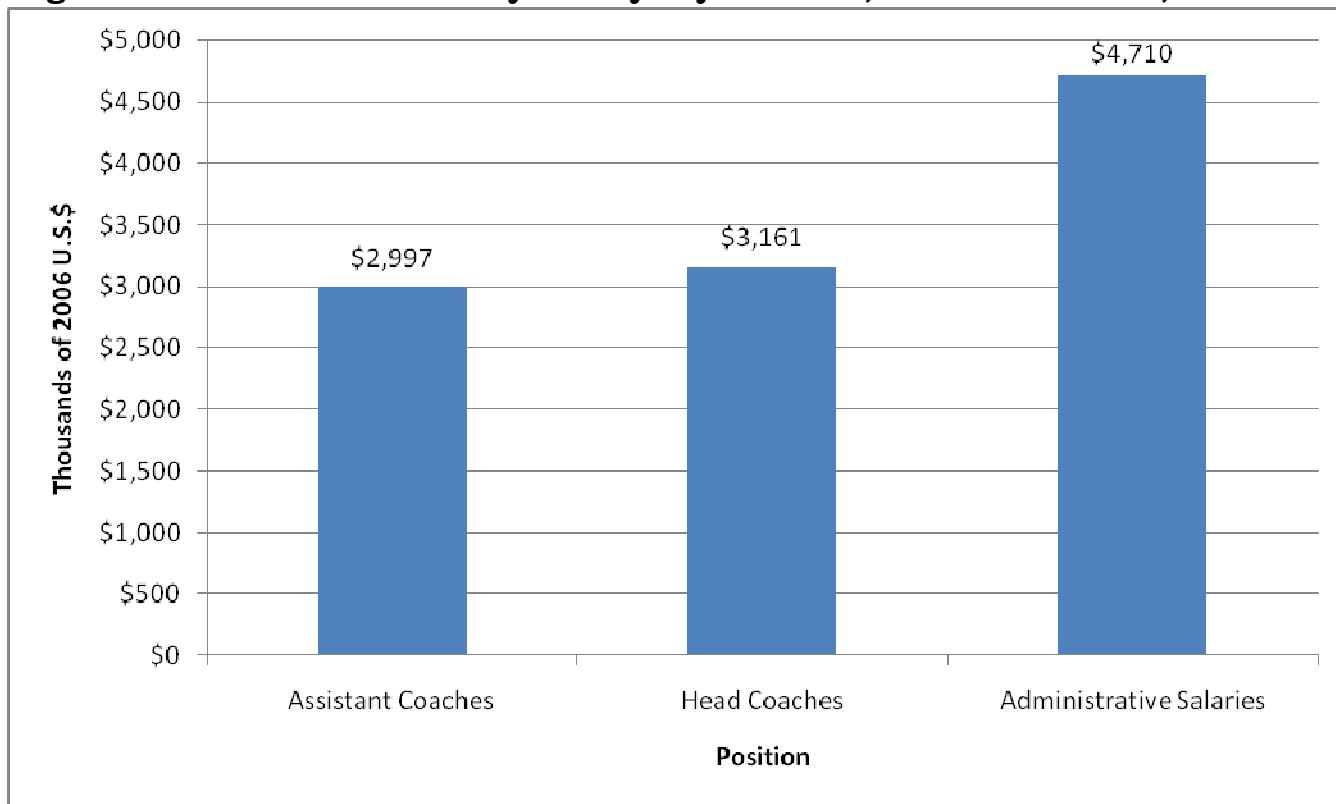
Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

Figure 26: Median Salary Expenses for All Women’s Coaches by Sport, FBS In-
stitutions, 2006



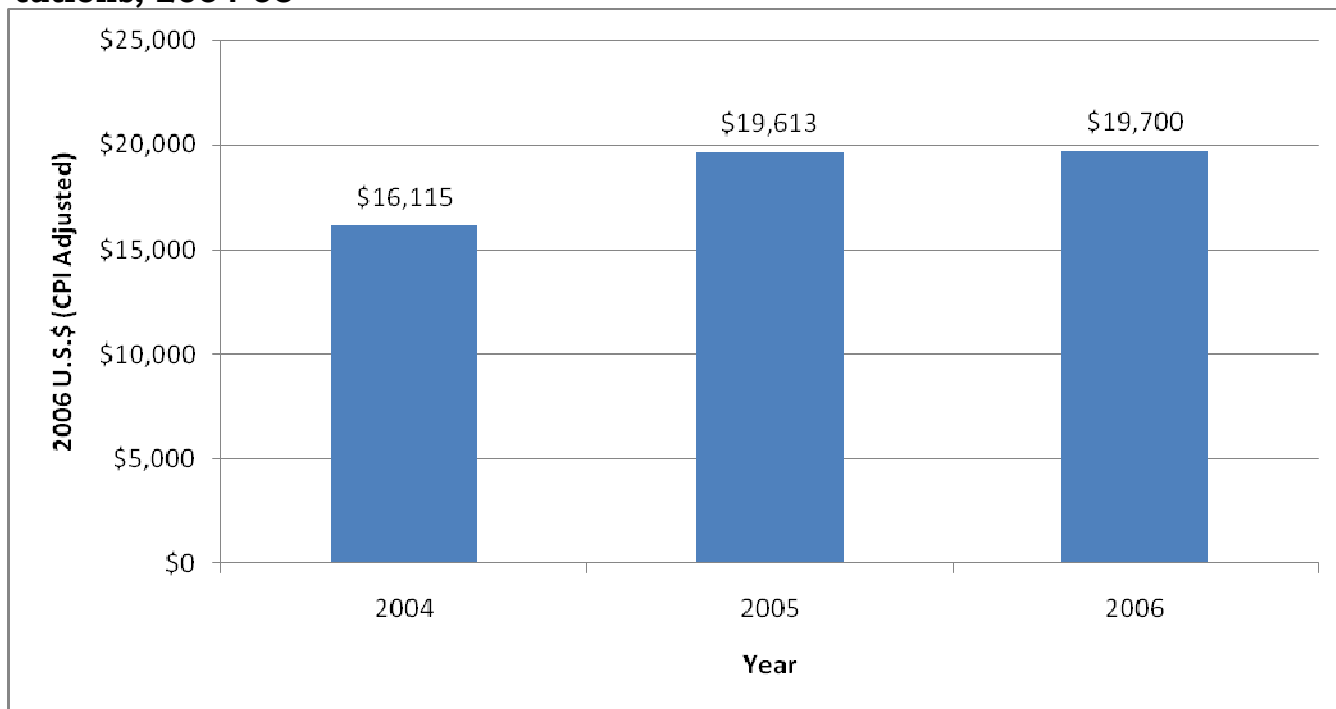
Source: Daniel Fulks, “2004-2006 NCAA Revenues and Expenses...”

Figure 27: Median Total Salary Outlays by Position, FBS Institutions, 2006



Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

Figure 28: Annual Average Cost of Full In-State Grant in Aid, Public FBS Institutions, 2004-06



Source: Daniel Fulks, "2004-2006 NCAA Revenues and Expenses..."

The extraordinarily high salaries are concentrated in a few sports. Men's football, basketball, ice hockey and women's basketball are the only sports with median salaries greater than \$200,000 per year. These sports—with the exception of hockey—are the greatest generators of revenue. The correlation between median head coach salary by men's sport and median generated revenue by sport is strong and positive at 0.95. This suggests that colleges invest most heavily in head coaches for those sports that generate large amounts of revenue. When looking at the correlation between a sport's head coach salary and that sport's GSR (graduation success rate), the correlation is negative at -0.63. Such a figure suggests that *schools value coaches for generating revenue, not for graduating their student-athletes*. Weisbrod, et al illuminate this point by examining the incentives designed into contracts for a sample of football and basketball coaches. They find that the incentives for winning contests greatly outweigh those for the academic success of student athletes. In the case of Auburn University, potential athletic based incentives outpace academic incentives by a ratio of 37:1.⁷⁵

Figures 25 and 26 show the median salaries for all coaches (head coaches and assistants) for men's and women's sports in 2006. We observe wide disparities in the figures. Football coaches earned a median salary close to \$2.4 million, men's basketball coaches just under \$1 million and women's basketball coaches slightly less than \$500,000.

Salaries are by far the largest athletic related expense. While much of this pays for coaches, a surprisingly large amount is spent on the salaries of administrators. Figure 27 shows median total salary outlays to assistant and head coaches as well as administrators. The fact that the median total outlays for athletic administrators exceed \$4.7 million indicates that a sizeable bureaucracy supports athletics. Administrative salaries account for an estimated 13.2 percent of total athletic operating expenditures. Indeed outlays for administrators alone are nearly as large as those for athlete scholarships. Shaving this bureaucracy could be a significant way to reduce costs.

Grants-in-Aid

Scholarships to athletes were first introduced in the 1930s and were widespread by the 1950s.⁷⁶ In 2006 grants-in-aid were the second largest expenditure item for a school's athletic budget at around \$5.8 million. This figure has grown rapidly. In 2004, the annual average real cost of a full in-state grant was \$16,115. Only 2 years later, in 2006, that same figure had increased 22.2 percent to \$19,700 as is shown in figure 28. The costs are even larger for out-of-state student athletes and also for athletes attending private institutions. Out-of-state grants increased 15.5 percent to slightly more than \$29,000, and the average cost for grants at private schools rose 5.1 percent to \$39,600 in 2006.

The growth in tuition and room/board explains much of this increase. Between 1976 and 2006, the compounded real annual rate of growth was 2.4 percent, meaning costs rose from \$9,130 in 1976 to \$18,445 in 2006. In the wake of the recent economic downturn, institutions will be forced to place a greater scrutiny on all expenses to determine which can be eliminated and how each relates to the fundamental mission of the school. Athletics may be one area to see cutbacks.

Summary

Intercollegiate athletics is a big business and the expenses to sponsor them are significant. Median total expenses at FBS schools in 2006 were around \$35.75 million and median expenditures per ath-

lete were \$65,800. Spending is concentrated largely in the sports of football, basketball, and to a lesser extent, ice hockey. Spending on male athletes was nearly double that of their female counterparts in 2006.

Expenditure growth has not been encouraging. Over the short period from 2004 to 2006, total median athletic expenditures increased 15.6 percent and median expenditures per athlete rose 13.75 percent. With generated revenue growing only 8.3 percent over the same period, it is clear that costs are rising faster than new revenues for athletics. Thus, athletics has become more of a burden on institutional resources over this period.

Salaries for coaches and administrators, athlete grants, maintenance, and rent on facilities and travel costs are notably large. Salaries for top football coaches have, in many cases, reached extraordinary levels. Of those schools where data is available, 69 head football coaches at FBS institutions earned more during the 2006-07 year than that university's president. Beyond high salaries paid to coaches, it seems that athletics departments are typically run by large bureaucracies, with median outlays to administrators around \$4.7 million annually. Clearly, an athletic arms race is well under way. Expenses have grown wildly, and top coaches are commanding record salaries as schools continue to pour money into athletics. This spiraling spending does little to make school "A" more competitive with school "B" because on balance, for every winner there must be a loser. To bring costs under control, real reform is needed.

Conclusion and Recommendations

Intercollegiate athletics have many positive benefits. Among many things, sport competitions can create a sense of school spirit and solidarity that extends beyond the immediate campus to help connect far-flung alumni back to their alma mater. Furthermore, athletics benefits the student-athletes themselves. They provide an opportunity for athletically gifted students to pursue their greatest passion while helping to instill important values. Among many things, athletics helps teach responsibility, leadership, competitiveness, sportsmanship, teamwork, cooperation and time-management skills. All of these things contribute to more productive workers upon graduation, advancing society. Beyond that, college sports are a staple of American culture and are a wildly popular form of entertainment.

Lots of college students attend universities or small colleges where there is little in the way of serious intercollegiate athletic competition or where such competition is relatively low key and fairly inexpensive to offer. Some of the nation's top schools have very modest or no intercollegiate athletic competition (schools like the University of Chicago, M.I.T., and Cal Tech come immediately to mind).

Yet it seems that at many of America's largest colleges and universities, athletics has become over-emphasized at great financial, academic and, arguably, moral costs. The fundamental mission of any university should be to advance the knowledge of its students and society through instruction and research. Athletics are often a distraction, both to the athletes themselves and the wider institution in meeting these primary goals. While graduation rate data are still somewhat murky, the low graduation rates among athletics, particularly in sports like football and basketball, is alarming, although there is strong evidence that this problem is endemic to the entire academic enterprise. The introduction of the Academic Progress Reform (APR) by the NCAA is a positive development that ap-

appears to be helping to provide an incentive for coaches and athletes to take academics a bit more seriously. However, there have also been reports of athletes ‘clustering’ in certain academic majors that are less strenuous in order to meet these new standards. If it is the case that certain athletes can only remain eligible for competition by pursuing meaningless academic endeavors, our universities need to reexamine their priorities before granting them admission to an institution of higher education. By admitting sub-standard students, universities compromise their academic integrity and have negative spillover effects on the academic mission.

While the major sports of basketball and football have poorer graduation rates, athletes in many minor sports generally perform much better in the classroom. It appears that smaller sports enhance the athletic department’s overall graduation rate performance. This creates the incentive to add a greater number of smaller sports even though they may not be a financially sound investment. Overall, on Myles Brand’s watch, the NCAA has taken some concrete steps to ensure that athletes remain students first. Enforcement of these policies and continued vigilance is necessary in this area.

For virtually all colleges, intercollegiate athletics is not a good financial investment. In 2006, only 19 of 119 FBS institutions realized a net profit from athletics, using a liberal definition of the term “profit.” As an average for the entire period from 2004 to 2006, only 16 broke even. Instead of making money, the evidence suggests that allocated revenue (largely coming from the wider university budget) has grown. By 2006, this allocated revenue accounted for more than *a quarter* of total athletic revenues. Since expenditures per athlete have grown more rapidly than generated revenues, athletics have become more of a burden, using up scarce university funds. When considering the opportunity cost of such funds, such as spending to build new classrooms, purchase new technologies, or hire quality faculty, this cost is considerable.

Despite this, the current incentive structure encourages increased spending. The current prevailing wisdom is that spending increases athletic performance. So schools try to buy the best coaches, and spend a lot to buy the best facilities in order to recruit good athletes. In some aggregate sense, this is doomed to failure, since the average of all relevant teams wins 50 percent of its games – for every winner, there is a loser.

Donations from alumni and others are the second highest revenue generator among FBS athletic programs. The effect of athletic success on donations has been the subject of several scholarly studies, and we would conclude that the evidence is inconclusive, with their perhaps impacting less distinguished academic institutions more than schools with an existing reputation for academic excellence. On the whole, the argument that successful athletics is necessary to maximize donations to academics appears somewhat dubious.

With growing expenses in a time of budget shortfalls, reform of athletic expenses is needed. The salaries of coaches and athletic administrators seem out of line with institutional priorities. In 2006, 48 head football coaches made in excess of \$1 million and 69 earned more than their university’s president. Travel expenses are another large expense. Teams often have to charter flights and stay in hotels for multiple nights to compete in games and tournaments in hard-to-reach locales.

Grants-in-aid are the number two expense for athletics. This expense has grown significantly as college tuition and room/board costs have soared. Over the 30 year period from 1976 to 2006, such costs have increased on average 2.4 percent compounded annually. This has been far greater than both the growth in inflation and personal incomes. It is clear that much reform is necessary beyond athletics to solve these problems.

It is unlikely that universities and/or their athletics cartel, the NCAA are going to reform spending on their own, and given the popularity of college sports, political leaders are hesitant about forcing changes that might incur the wrath of sports fans. Yet, as financial pressures rise on schools, the ability to effect real reform is growing. What form might reform take? Below we outline a scenario that might be plausible and might work.

Suppose the leaders of 25 to 30 universities, most of them with good athletic reputations as FBS schools and also with relatively high academic reputations, were to get together to call for a radical revision of college athletics. For example, what if schools like the University of Michigan, University of Illinois, University of North Carolina, University of Virginia, Duke University, Stanford University, University of Notre Dame, University of California (Berkeley), University of Washington, University of Texas, Northwestern University, Ohio State University, University of Southern California, Boston College, University of Georgia, UCLA, University of Florida, Wake Forest, Vanderbilt, and the University of Wisconsin gathered, with the support of the eight presidents of the Ivy League schools (Harvard, Yale, Princeton, Columbia, Pennsylvania, Brown, Dartmouth and Cornell). These schools represent a significant portion of several major athletic conferences, including the Southeastern Conference, Big 10, Pacific-10, Big 12, and Atlantic Coast Conference, as well as the entire Ivy League.

Suppose these schools say they are going to:

- Reduce the length of seasons, number of games, size of coaching staffs, and the number of permissible players in football and perhaps other sports;
- Play at least 80 percent of their matches with other schools adhering to these reform principles;
- Form at least two new conferences (seriously gutting five major existing conferences in the process);
- Outlaw redshirting and other practices that detract from emphasizing the primacy of academic matters even for athletes;
- Prohibit play during examination periods;
- Put limits on coaches salaries and put a limit on administrative staff size;
- Insist that athletic departments be under the control of a university official such as the Provost;
- Put strict limits on the size of institutional subsidy for the athletic programs;
- Put academic officials in firm control of changes in conference/ national association policies (or at least give them a veto power);

- Strictly limit post-season participation in bowl games, etc.

It is an interesting issue whether the university presidents could pull this off and whether alums, legislators, or others would try to derail the reforms, etc. On the other hand, seeing a large number of prestigious and also athletically proficient schools sign on might bring others along for the reforms – Penn State might follow the lead of Ohio State, for example, Texas A & M the lead of Texas, and Virginia Tech the lead of Virginia. Obviously, the larger the initial group that agrees to the principles, the greater the probability the effort will succeed.

Long before sports became as commercialized as they are now, huge crowds gathered to watch Harvard play Yale, Michigan play Ohio State, Army take on Navy, etc. School spirit can exist, entertainment can be provided, and athletic programs can be at most a minor financial drain on institutions. An athletic disarmament conference might work, if dominated by academic types and not coaches, athletic directors, and fanatic alums.

Short of that rather radical scenario, perhaps less far reaching reforms are possible. Greater transparency regarding intercollegiate athletics is certainly necessary. A major problem is that financial data by institution is not readily available. Thus, there is not much accountability to the general public. Publishing both total revenues and generated revenues would be a good first step, and this should be encouraged.

Shorter seasons would likely benefit both athlete academic performance and help lower costs. Decreasing travel distances likewise would reduce costs. As noted above, pre-season and post-season tournaments often require teams to travel across the country, and even internationally to compete. Realigning athletic conferences to be more regional is one possible reform. Between 2004 and 2005, the Atlantic Coastal Conference (ACC) expanded by adopting the University of Miami, Boston College, and Virginia Tech. It was hoped that such a move would garner higher revenues, especially through new football revenues. James Moeser, former chancellor of the University of North Carolina, remarked in 2008 that the league's expansion "has not been an enormous benefit."⁷⁷ Yet, this move did greatly increase travel distances for conference teams. The driving distance between Boston and Miami is over 1,500 miles. While making the trip to compete in a football match may generate revenues, smaller sports teams also must travel, which further increases their losses. Making a concerted effort to maintain regionally based conferences should be a serious consideration.

Renting out athletic facilities to private organizations when they are not in use is another cost-cutting suggestion. Alternatively, rather than building and maintaining expensive recreation and training facilities, universities could contract these services out to private businesses.

Schools increasingly use student fees to subsidize athletics. Some argue that student fees are advance ticket sales and gym memberships. It is highly possible that a student may never attend, or desire to attend, an intercollegiate athletics contest. Yet, under such a scheme they are charged regardless of their desire to consume. A market-based approach would be to allow students to opt-in for use of the recreation center and sport tickets, and then base allocations on demand for such services.

In short, there are all sorts of possibilities for both modest and radical reforms. It will take joint action among all or a sizable portion of major institutions to make reform possible. Perhaps banning athletic directors and coaches from the decision-making meetings of the NCAA would provide an atmosphere where academic and financial constraints will be given greater prominence. However change occurs, it is needed to increase the financial viability of schools, reduce the downplaying of academic standards and values, and lower the culture of corruption and dishonesty that sometimes pervades college sports.

An alternative reform approach relates to the distribution of income within athletics. A very good moral and economic case can be made that athletes in major revenue sports are severely exploited, and the formation of a national athletics union or some other mechanism might lead to paying players more, and perhaps coaches less. This type of reform, however, is quite different, and some ways contradictory, to the reforms aimed at reducing sports commercialization outlined above. This alternative approach involves accepting that college athletics is big business, and might lead to divorcing the athletic programs of universities from the academic mission completely, viewing players as up and coming professional performers gaining experience before trying to enter the big leagues of professional sports.

Either way, the current situation is not sustainable long-term. Cost and other pressures will require that universities rethink the role of intercollegiate athletics in the life of the academy.

Appendix

Regression Output: Athletic Success as a Factor in Explaining Starting Salary

Dependent Variable: Starting Salary				
Method: Least Squares				
Sample: 1 302				
Included observations: 297				
Excluded observations: 5				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Mid West	-2090.705	1043.263	-2.004005	0.0460
North East	-300.3813	971.4647	-0.309205	0.7574
South East	-2185.175	1031.563	-2.118315	0.0350
West	-1433.844	1038.041	-1.381297	0.1683
Medium Enroll	2641.301	689.7565	3.829323	0.0002
Large Enroll	2548.197	674.5656	3.777537	0.0002
Religious	349.9240	656.2914	0.533184	0.5943
Percent Pell	1.283136	18.70848	0.068586	0.9454
Percent Women	-322.7639	24.56969	-13.13667	0.0000
Percent Black	109.9241	36.26842	3.030849	0.0027
Percent Asian	197.2421	30.78115	6.407886	0.0000
Percent Hispanic	40.68606	29.52154	1.378182	0.1693
Percent Admitted	-20.64906	12.38115	-1.667783	0.0965
Percent Graduate	28.08339	16.17934	1.735756	0.0837
Endowment per FTE	0.004887	0.001251	3.905671	0.0001
Net Price	0.252419	0.050782	4.970666	0.0000
Director's Cup (no data = score of 0)	1.678630	0.844205	1.988415	0.0477
Constant	55272.20	2305.505	23.97401	0.0000
R-squared	0.732253	Mean dependent var	46549.49	
Adjusted R-squared	0.715939	S.D. dependent var	6645.274	
S.E. of regression	3541.757	Akaike info criterion	19.24133	
Sum squared resid	3.50E+09	Schwarz criterion	19.46519	
Log likelihood	-2839.337	F-statistic	44.88409	
Durbin-Watson stat	1.938513	Prob(F-statistic)	0.000000	

NOTES

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53. Readers should be cautioned against taking a sum of the various line items presented in figure 10 to arrive at a median total generated revenue figure for all FBS institutions. This sum differs from the previously reported figure of \$26,432,000 because the various line items are themselves median values for all FBS institutions. The figure previously reported is the median of total generated revenues for all FBS institutions, while taking a sum of the various line items is a sum of the medians of several categories.
54. Ryan Miller. "The Role of Athletics in Higher Education," Major Themes in Economics. Spring 2003. <http://www.cba.uni.edu/economics/Themes/miller.pdf>.
55. Robert Frank. "Honey, I Shrunk the Charity," The Wall Street Journal Online. 29 October 2008, http://blogs.wsj.com/wealth/2008/10/29/t-boone-pickens-honey-i-shrunk-the-charity/?mod=googlenews_wsj.
56. Responding to considerable criticism, Mr. Pickens later made a very large gift to Oklahoma State's academic mission. Whether his lifetime academic contributions were helped or hindered by his enthusiasm for OSU athletics, however, is impossible to state with certainty.
57. R.E. McCormick & M. Tinsley. "Athletics and Academics: A Model of University Contributions," Sportometrics, p. 200. 1990.
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65. *Mission and Money* by Burton A. Weisbrod, Jeffrey P. Ballou, and Evelyn D. Asch. Page 247. 2008, Cambridge University Press, New York City.
66. Again, readers should be cautioned against taking a sum of the various line items presented in figure 28 to arrive at a median total expenditure figure for all FBS institutions. This sum differs from the previously reported figure of \$35,756,000 because the various line items are themselves median values for all FBS institutions. The figure previously reported is the median of total athletic expenditures for all FBS institutions, while taking a sum of the various line items is a sum of the medians of several categories.
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74. The figure of 69 is from a sample of the 94 FBS Institutions that report compensation data for both the head football coach and the university president.
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