

Intercollegiate Athletics Subsidies

A Regressive Tax

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Center for College Affordability and
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Center for College Affordability and Productivity

The Center for College Affordability and Productivity (CCAP) is an independent, nonprofit research center based in Washington, DC that is dedicated to researching public policy and economic issues relating to postsecondary education. CCAP aims to facilitate a broader dialogue that challenges conventional thinking about costs, efficiency and innovation in postsecondary education in the United States.

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Introduction

Writing about business schools, a preeminent American social scientist once said, “A college of commerce is...peculiarly incompatible with the collective cultural purpose of the university. It belongs in the corporation of learning no more than a department of athletics. Both alike give training that is of no use to the community, except, perhaps as a sentimental excitement.... Both alike are related to the legitimate ends of the university as a drain on its resources and an impairment of its scholarly animus.”¹ Animus, by the way, means “purpose,” so the author is claiming that athletics is financially a drain and not consistent with the scholarly mission of universities. This statement was written not recently by some embittered college professor seething over budget cuts, or even a few decades ago, but rather well over a century ago, by Thorstein Veblen in *The Higher Learning in America*, a classic work on American universities finally published in 1918 but written earlier.

The point, of course, is that concern over the legitimacy of intercollegiate athletics on both academic and financial grounds has been around for a long time. Like many others, we are concerned about some of the adverse effects that athletics is having on the reputation of universities, on the seeming dilution of emphasis on the academic mission, and so forth. But in this study we wish to exclusively look at institutional finances. The conventional wisdom is that the rising costs of sport programs, along with declining third party support of institutions, is leading to increased subsidization of intercollegiate athletics at the very time universities can least afford it. We do not disagree with this, but believe that it ignores vast differences between institutions, even within Football Bowl Subdivision (FBS) category schools.

¹ Veblen, 210.



We will argue that there is a very significant inequality associated with the funding issue. Rich, famous and athletically well-known schools have only been trivially impacted at the institutional level by the explosion in ICA costs, while a significant number of schools that are, on average, poorer, less prestigious, and athletically more marginal have been clobbered. We can say that athletic subsidies are a tax on other revenues, a tax diverting resources from traditional academic purposes, and this tax is highly regressive, hitting the poor more than the rich. By “poor” we mean that in two ways: first, universities themselves are relatively poor with respect to institutional resources. Second, the sports tax burdens lower income students attending college on average more than those who are relatively affluent. The explosion in college costs is a burden on the poor to finance entertainments that largely are consumed by the middle and even upper classes.

The policy implications of this are interesting. Liberals should be upset over the regressive nature of the ICA arms race and its perceived unfairness in burdening the relatively less affluent members of society. But conservatives should also be upset because of the inefficiencies and distortions in the allocation of resources implicit in such subsidies. Persons of all political orientations should be concerned by the bundling of services – a student wanting to “buy” academic services that after a period of relative intense study leads to a bachelor’s degree, has to also buy entertainment services that she or he might wish to forego.

To be fair, the magnitude of the athletic tax at most American institutions is still very small, and it is certainly naïve to believe that fixing the problem of exploding ICA costs would have more than a marginal effect on the broader problem of higher education costs rising faster than the incomes of Americans who consume these services. Nonetheless, marginal effects can be important, and there are some schools in America where the ICA tax on students is relatively



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large, so eliminating or reducing that tax could go a long way towards making college more affordable.

Let us now document these assertions. For years the Center for College Affordability and Productivity has examined NCAA data on collegiate athletic finances, often frustrated by omissions of detail and the arguably inappropriate and inconsistent treatment of some revenues and expenses from institution to institution. We have augmented the NCAA data with the extraordinarily useful, if incomplete, data published by *USA Today*, and related that to other institutional data provided by various sources, the most important of which is the Integrated Postsecondary Education Data System (IPEDS), maintained by the U.S. Department of Education.

Empirical Evidence

New data made public by *USA Today* allows for a much more nuanced examination of intercollegiate athletics financing than has previously been possible. Previously, at the institutional level, subsidies were not differentiable from athletic department generated revenues. Rather, all revenues were reported as a total sum. However, this new data disaggregates the various revenue sources. For our analysis, we examined the 99 FBS schools which had available data. All are public 4-year institutions and the list includes the U.S. Air Force and Military Academies. With the exception of the Military Academy, all belong to one of the eleven FBS conferences.² Unfortunately, since the data is made available through public records requests, no

² The eleven FBS conferences are the: Atlantic Coast Conference (ACC), Big 12 Conference, Big East Conference, Big Ten Conference (Big-10), Conference USA (C-USA), Mid-American Conference (MAC), Mountain West Conference (MWC), Pacific-10 Conference, Southeastern Conference (SEC), Sun Belt Conference, and the Western Athletic Conference (WAC).



data for private schools is available. Regardless, these new data allow for a more in-depth analysis of athletics funding across major American universities.

It is no secret that athletic departments require a substantial amount of resources to operate and remain competitive. Yet, many have become alarmed by the rapid growth in resources used to finance what has become known as the “athletics arms race.” Evidence of this phenomenon abounds. On average between the 2004-05 and 2008-09 school years, real total operating revenues per full-time equivalent (FTE) student rose from \$1,718 to \$2,064; a 20 percent increase. Even controlling for growing overall university budgets during that time frame, on average athletic spending as a percentage of core university expenses³ grew from 6.9 percent to 7.42 percent.⁴ Clearly, intercollegiate athletics programs are using more resources and account for an increasingly larger share of universities’ overall budgets.

Despite the increasing marginal funds that are being devoted to athletics, the vast majority of ICA programs operate at a deficit. In 2008, only 13 of the 99 schools for which we have data reported a net pre-subsidy profit.⁵ The average loss for athletic departments was just under \$8.4 million. To balance these budgets, athletic departments rely on subsidies from other sources. These include student fees, direct state or other government support, direct institutional support, and indirect facilities and administrative support. Subsidies as a percentage of athletic departments’ total operating revenues have increased from 30.21 percent in 2004-05 to 31.01 percent in 2008-09.⁶ While this increase is small, the surprising part is that subsidies have not

³ Core university expenses are defined as total operating expenses minus hospital expenses, auxiliary enterprise expenses and independent operations expenses.

⁴ College Athletics Finance Database, IPEDS Data Center.

⁵ The 13 universities, in descending order according to profit, were: Texas A&M, Texas-Austin, Michigan, Iowa, Louisiana State, Alabama, Nebraska, Indiana, Kentucky, Purdue, Missouri, Georgia and Oklahoma.

⁶ College Athletics Finance Database.



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fallen considering their enhanced opportunity cost during the current times of strained university budgets.

Opportunity cost is an important concept when studying budgeting allocations. Monies used to support one function/program become unavailable for use by others. In this way, subsidies to intercollegiate athletics can be thought of as a tax imposed on the other dimensions of the institutions which house them. Sometimes the athletics tax is explicit as an allocation of students' fees directly to ICA. Other times the tax is more implicit, coming in the form of an opportunity cost imposed by devoting funds to ICA that would have been used elsewhere.

The athletics tax can be calculated in a number of different ways. First is the explicit per FTE student dollar amount of the tax. This is calculated by dividing a school's total subsidy to athletics by the number of FTE students attending the institution. For the 99 schools in our dataset, this figure was \$395 in 2004-05, but grew 28 percent to \$506 per FTE student in 2008-09. Two other interesting ways to analyze the athletics tax are to take the subsidy as a percentage of the school's tuition revenue and as a percentage of its total core expenses. In 2008-09, the athletic tax accounted for 8.33 percent of tuition revenues. Alternatively, calculated as a percentage of total core university expenses, the athletics tax was 2.12 percent of the university's entire core expense budget. Both of these figures are also greater than they were in 2004-05.⁷ Table 1 below summarizes these three figures for both the 2004-05 and 2008-09 school years.

⁷ College Athletics Finance Database, IPEDS Data Center, Authors' calculations.



Table 1: Measures of the Athletics Tax, 2004-05 and 2008-09

Taxation Measure	2004-05	2008-09	Growth
Subsidy per FTE Student	\$395	\$506	28.1%
Subsidy % of Tuition Revenue	7.48%	8.33%	11.4%
Subsidy % Total Core University Expenses	1.93%	2.12%	9.84%

Source: College Athletics Finance Database, IPEDS Data Center, Authors' calculations

The Unequal Athletics Tax

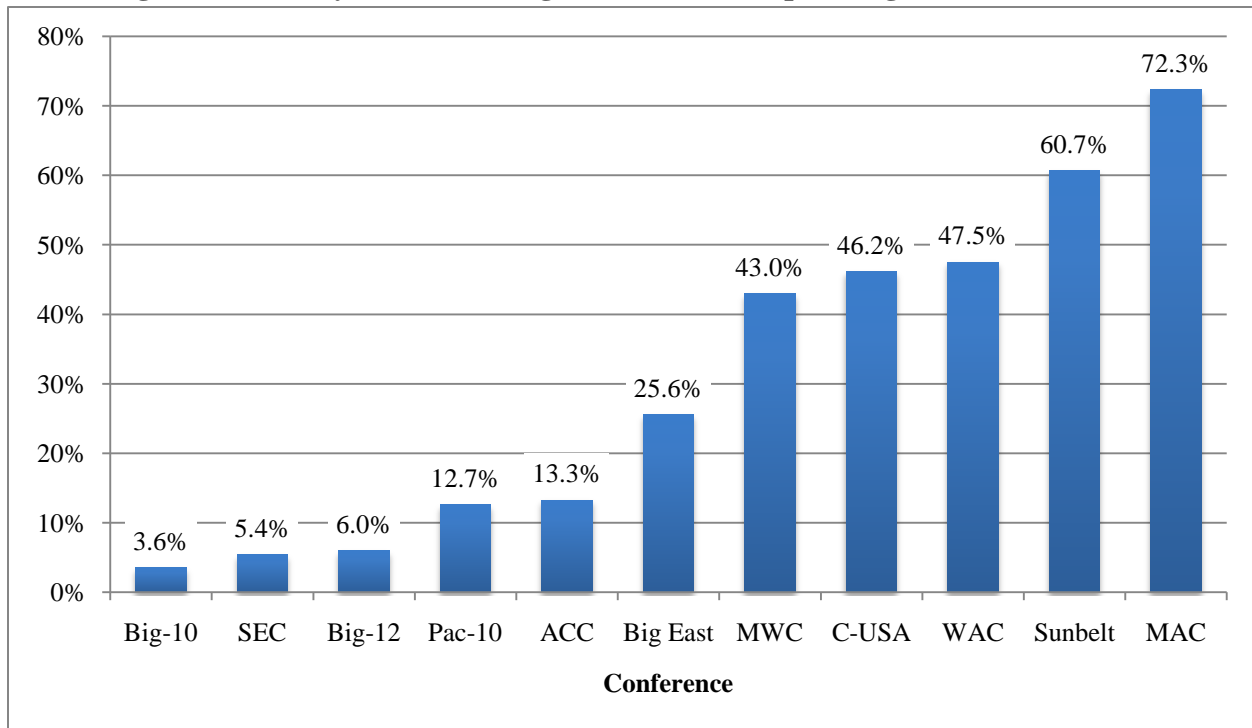
As alarming as these data may appear, the real story is the huge variation in the magnitude of the athletics tax among institutions and athletic conferences. Figure 1 shows the conference averages of the percentage share of ICA total operating revenues that are subsidies. The contrasts are undeniable. Almost a full three quarters of the revenues received by ICA in the MAC come in the form of subsidies. The MWC, C-USA, the WAC, and the Sunbelt Conference have subsidies greater than 43 percent of all ICA revenues. However, athletic departments at the established conferences such as the Big-10, SEC, and Big-12 are all nearly entirely self-financed with subsidies below 6 percent.⁸

Furthermore, Figure 2 shows the average total dollar amount of subsidy per FTE by conference in 2008-09. In this year, the average Big-10 student subsidized athletics to the tune of \$67 per FTE. At the other end of the spectrum, the MWC had an average subsidy of \$1,177 per FTE, more than 17 times greater.

⁸ College Athletics Finance Database.



Figure 1: Subsidy as a Percentage of Total ICA Operating Revenue, 2008-09



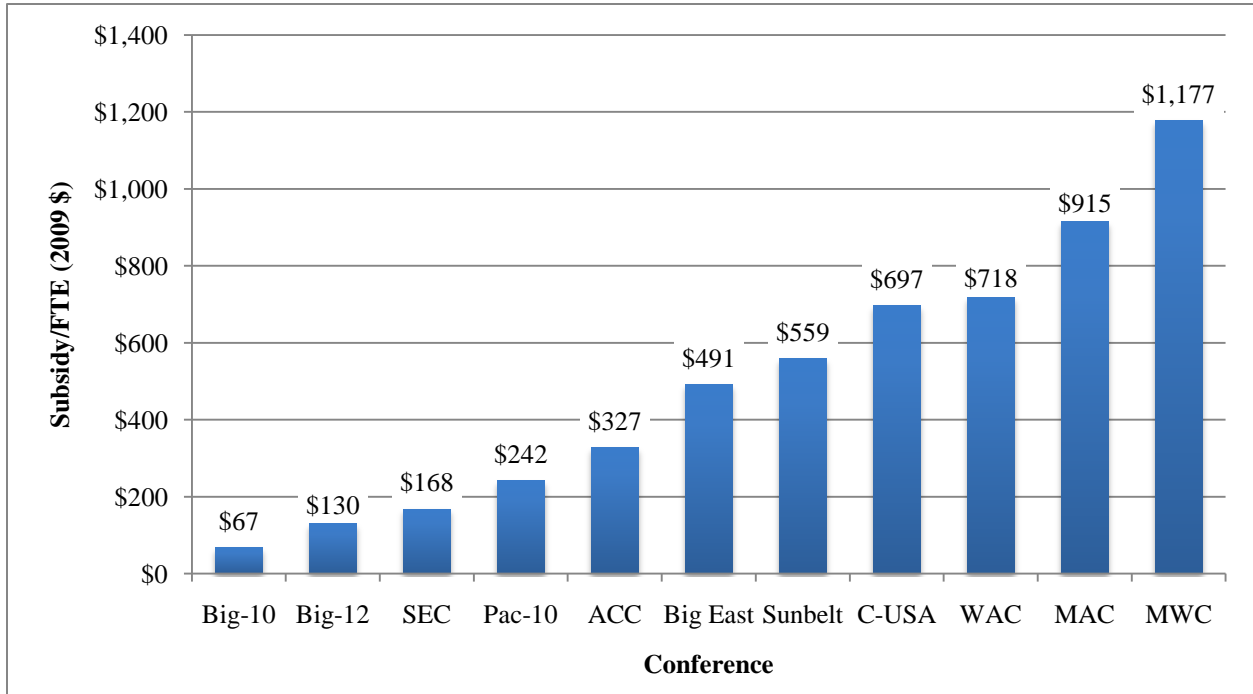
Source: College Athletics Finance Database, Authors' Calculations

Figure 3 illustrates discrepancies between conferences in the athletic tax as a percentage of tuition and fee revenues received from students, the so-called “ICA tuition tax.” While this tax within the Big-10, Big-12, SEC, Pac-10 and ACC are less than 4 percent, they are greater than 13.8 percent in C-USA, the Sunbelt Conference, the MAC, and the MWC. Tuition and fee revenues are generally thought of as payments made by students to receive an education. Yet, within some conferences these payments are taxed by ICA at more than 15 percent, while at others the tax is close to zero.⁹

⁹ College Athletics Finance Database, IPEDS Data Center.

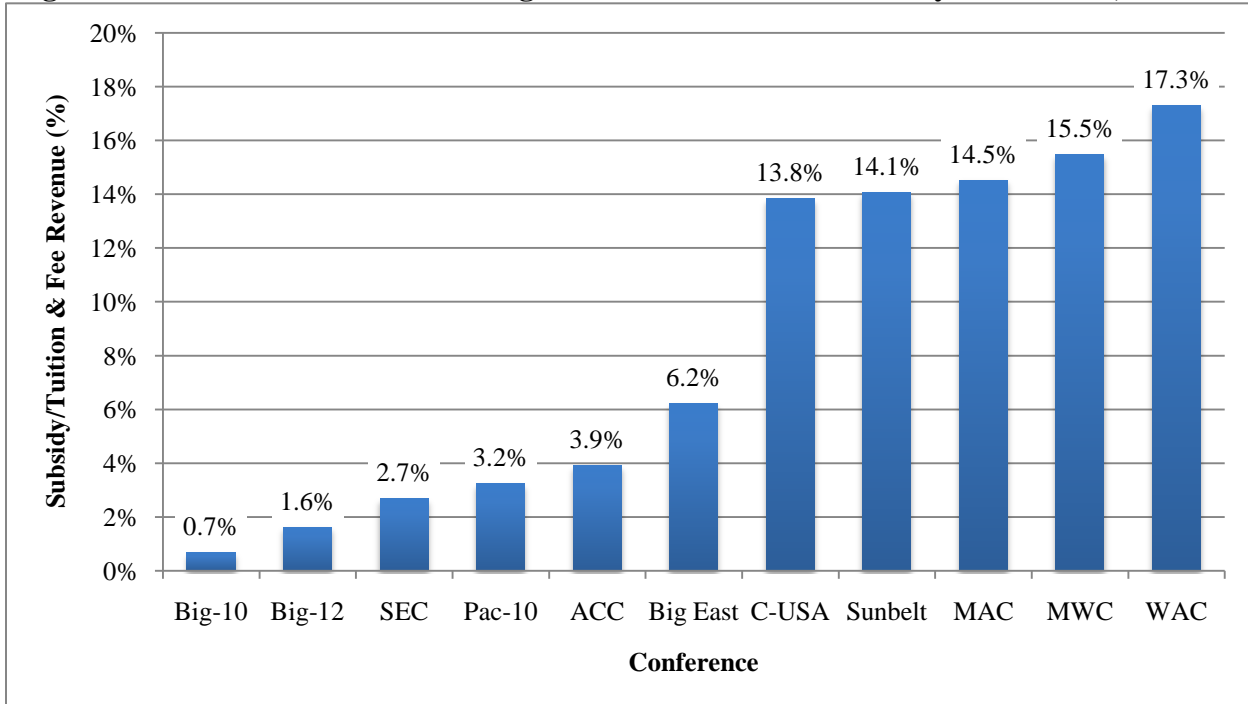


Figure 2: Athletics Tax per FTE by Conference, 2008-09



Source: College Athletics Finance Database, IPEDS Data Center, Authors' Calculations

Figure 3: Athletics Tax as a Percentage of Tuition & Fee Revenue by Conference, 2008-09



Source: College Athletics Finance Database, IPEDS Data Center, Authors' Calculations



The Regressive Athletics Tax

To even the casual observer of collegiate athletics, this data may seem counter-intuitive. The conferences with the smallest subsidies by all measures are the ones with institutions that spend the most on athletics and compete at the highest levels. These schools are the ones most often criticized for enormous coaches' salaries, growing commercialization, high-profile scandals and all around largess. Many of these institutions may very well warrant criticism, but when it comes to imposing the athletics tax, the lesser conferences stand at the apex of the athletics scandal.

Most disturbing is that it is these very institutions, and the students that attend them, that have a lesser ability to afford the tax. The more well-known, athletically competitive and affluent flagship schools comprise the major conferences which have negligible ICA taxes, while the poorer and less competitive lower tiered schools comprise those conferences which have large ICA taxes. Both the percentage of an institution's students receiving Pell grants and the total core university expenses per FTE are reasonable proxies for the wealth of an institution and its students respectively. As shown in Table 2, the conferences with the greatest wealth by these two measures have the lowest ICA taxes. When a tax burdens the poor more relative to the rich, it is known as a regressive tax. These data support this classification with respect to the ICA tax.

A comparison of two schools can help to clarify this argument. Compare the University of Michigan with Eastern Michigan University (EMU). Both institutions share a nearly identical geographical location. In fact, Rynearson Stadium on the campus of EMU is an entire 6.3 miles away from the Big House in Ann Arbor. An accomplished cross-country runner from either school could run between the stadiums in around 30 minutes. Yet, the contrasts between the two



institutions are remarkable. At EMU the students on average are poorer with nearly 39 percent on Pell grants, triple the proportion of those at the University of Michigan.¹⁰

Table 2: Evidence of a Regressive ICA Tax

Conference	% of Students Receiving Pell Grants	Total Core Expenses per FTE (\$)	Average ICA Tax per FTE (\$)
ACC	14.87%	\$38,426	\$327
Big-12	16.42%	\$27,622	\$130
Big-10	16.44%	\$41,631	\$67
SEC	19.13%	\$31,046	\$168
MWC	21.86%	\$42,481	\$1,177
Pac-10	22.93%	\$40,464	\$242
Big East	23.96%	\$32,100	\$491
MAC	26.95%	\$18,141	\$915
Sunbelt	30.41%	\$14,553	\$559
WAC	30.47%	\$24,472	\$718
C-USA	34.54%	\$28,888	\$697
Average	23.45%	\$30,893	\$499

Source: College Athletics Finance Database, *Financial Aid Professionals*, IPEDS Data Center, Authors' Calculations

However, the huge \$20 million subsidy at EMU for sports is equal to nearly 16 percent of tuition revenue. One could say there is a 16 percent ICA tuition tax at EMU. By contrast, at the relatively well-to-do (not only in terms of student body but also in terms of university endowment) University of Michigan, that ICA tax is zero.¹¹ The burden of intercollegiate athletic varies a lot --and it burdens the students who struggle the most financially to attend college. If one views big time ICA support at smaller schools like EMU largely as a consequence of pressure to compete with larger schools, one could say we are taxing the poor to benefit the rich.

A comparison of geographically similar athletic conferences is also helpful. The Big-10 serves a geographic area highly similar to that of the MAC. In the Big-10, the average ICA

¹⁰ *Financial Aid Professionals*.

¹¹ College Athletics Finance Database, IPEDS Data Center.



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tuition tax is under one percent, while in the MAC it approaches 15 percent. Yet the proportion of Pell grant recipients in the student population averages just 16 percent in the Big-10, compared with 27 percent in the MAC.¹² There are four athletic conferences besides the MAC where the ICA tuition tax is 13.8 percent or more, while there four other conferences besides the Big-10 where the subsidy averages 4 percent or less. The four conferences where the average Pell grant recipients are under 20 percent of the enrollment all have average tuition taxes of under 4 percent; the four conferences where there are over 25 percent Pell grant recipients, all have average tuition taxes exceeding 13.8 percent.¹³

Regression Analysis

Although insightful, to this point all the evidence provided has demonstrated simple negative correlations between wealth and the ICA tax. It is possible that these correlations are mere coincidences. To have more solid statistical evidence of the regressive nature of the ICA tax, regression analysis is needed.

Using the 99 public 4-year institutions for which we had data, we were able to estimate an ordinary least squares regression equation to model inter-institutional variations in ICA subsidization levels. Control variables included the enrollment size of the institution as defined by the school's FTE enrollment, the core university expenses per FTE student, the profit/loss of the school's ICA department excluding subsidy revenues, and the percentage of the school's undergraduates receiving Pell grants in 2008. Table 3 below describes each variable, what the variable is serving as a proxy for and the expected sign prior to estimating the model.

¹² *Financial Aid Professionals.*

¹³ College Athletics Finance Database, IPEDS Data Center, *Financial Aid Professionals.*



Table 3: Explanation of Independent Variables in Regression Analysis

Variable	Variable Explanation	Variable Proxy	Expected Sign
FTE Enroll, 2008	FTE Enrollment, 2008	Institutional Size	Negative
CoreExp_FTE	Core University Expenses per FTE, 2008	Institutional Wealth	Negative
Profit_PreSub	Profit/Loss of Athletic Department, pre-subsidy	Level of ICA self-sufficiency	Negative
Pell % FTE_UG	Percent FTE Undergraduates Receiving Pell Grants, 2008	Student Poverty	Positive

Included below for the interested reader is the actual regression model output.

Model 1: OLS, using observations 1-99
Dependent variable: Subsidy Percentage of ICA Revenues

	Coefficient	Std. Error	t-ratio	p-value
Constant	0.289076	0.077146	3.747100	0.000310
FTE Enroll, 2008	-0.000006	0.000002	-3.875400	0.000200
CoreExp_FTE	-0.000002	0.000001	-2.494500	0.014360
Profit_PreSub	0.000000	0.000000	-8.565500	<0.00001
Pell % FTE_UG	0.374091	0.161775	2.312400	0.022940
Mean dependent var	0.310120	S.D. dependent var		0.262268
Sum squared resid	2.410304	S.E. of regression		0.160130
R-squared	0.642436	Adjusted R-squared		0.627220



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In testing for evidence of a regressive ICA tax, the core expenditure per FTE and percentage of students receiving Pell grants are the most interesting control variables. One would expect that if the tax is regressive and burdening poorer institutions more, then those with smaller core expenditures per FTE would have a larger tax percentage. This variable is statistically significant and the coefficient term suggests that a \$10,000 increase in core expenditures per FTE would result in a reduction in the ICA subsidy percentage of around 2.3 percent. The Pell grant variable is also significant and the sign is in the hypothesized direction. Thus, it can be concluded that the regression analysis corroborates earlier evidence suggesting that the ICA tax is regressive.

Conclusion

For most colleges and universities in the United States, intercollegiate athletics is a losing financial proposition. The vast majority ICA departments do not break even and require subsidization from the institution as a whole. When schools are forced to heavily subsidize athletics, ICA serves to impose an “athletics tax” on other dimensions of the school. This tax has become increasingly worrisome due to the limited budget resources in the current economic climate.

However, the main story is that the magnitude of the athletics tax is greatly unequal across institutions and that this tax is highly regressive. The schools and athletic conferences that already have well established teams are likewise the well-known and affluent flagship public institutions. Here, the athletics tax is negligible. Yet, at the lesser conferences the picture is less rosy. Athletics impose a much greater tax with an ICA tuition tax that in some cases reaches beyond 15 percent.



The issue, of course, is what to do about all of this. We are convinced that universities will not unilaterally disarm, any more than belligerent governments do in the face of war. The changes will have to come from outside. We are reluctant to see federal intervention, as this might be the beginning of an attempt to overly politicize something that should be inherently apolitical. But we would see no harm in state governments forbidding institutions receiving state funds to subsidize ICA more than, say, five percent of tuition revenues, or two percent of all core expenditures. Attempts will be made to get around the legislation, but properly drafted with high penalties for violations, this approach could be effective.

A second, but we would expect less effective approach, would be for university presidents within the conferences where the problem is greatest to meet and agree on a conference rule on expenditures or institutional subsidies. The problem is one of getting agreement, and of enforcing the provisions. As universities become increasingly squeezed financially, particularly at schools where students are themselves hard pressed to pay their bills, the need for some sort of action is real and growing.



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