Coaching Costs as Tullock Costs,
A Model of Rising Coaching Salaries

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Abstract

Escalating coaching costs have strained budgets at many universities. This paper analyzes these expenditures as a form of Tullock Costs (Tullock 1967). In this framework the money the universities receive are spent on recruiting top talent, so the schools receive little, or no, monetary gain under current scholarship rules.

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“Not a penny back… We turn over more than $12 million to the University of Connecticut – which is state run” – Jim Calhoun, February 2009

I. Introduction

As the University of Connecticut’s head men’s basketball coach got into a heated debate with a reporter, Ken Krayeske, Coach Calhoun challenged "Get some facts and come back and see me. We turn over $12 million to the University of Connecticut, which is state-run. Next question." This study addresses the issue of high salaries, along with other costs (such as stadium construction), and establishes a framework of why these salaries have been escalating over the years. The first step in controlling an issue is to understand how this issue has developed; we hope to do that in this study.

During the 2004/2005 year, the most recent year the data is split by sport, the University of Connecticut’s men’s basketball program listed revenues of $7.8 million with expenses of $5.5 million (IndyStar[1]). Although the University of Connecticut’s basketball team had a net revenue, the overall athletic department did not. From the 2004/2005 academic year to the 2008/2009 academic year the University of Connecticut’s athletic department has spent an average of $52.7 million.[2] During that time they have average revenues of $52.7 million, with an average of $3.9 million coming from student fees and $7 million coming from institutional support. The rest of the revenues are raised by the athletic department. Without these student fees and support form the university, the University of Connecticut’s athletic department is losing just under $10 million a year.

[1] http://www2.indystar.com/NCAA_financial_reports/ (accessed 30 December 2009)
[2] From USA Today NCAA Database: http://www.usatoday.com/sports/college/ncaa-finances.htm (accessed 30 December 2009)

Although Coach Calhoun is correct that his program brought in $12 million to the University of Connecticut, his comments are misleading. Although he brings it in, he, or his program also spend most of it. In 2009 the basketball program, according to ESPN, spent $7.8 million.[3] If any excess money exists after basketball expenses it does not leave the athletic department, so although Coach Calhoun is contributing to building an athletic program, there is no direct financial support to the state's educational system or the school itself (although there are possible indirect benefits, see McCormick and Tinsley 1984). This is a sub-set of the university itself, but he provides no funds to the state run university which he claims in his statement.

Work done by Gordon Tullock (1967) found that companies who are granted monopoly rights by the government spend a large portion of their rents in an effort to obtain those rights. Because the bidding process is costly, the net rents received are much lower than at a monopolistic level. We extend these 'Tullock Costs' to the venue of collegiate athletics.

<u>Tullock Costs</u>

Competitive Bidding → Monopoly Rights

<u>Coaching Costs</u>

Competitive Recruiting → Monopoly Rights of Athletic Talent

As the government grants contracts to corporations, giving them monopoly rights, in college the NCAA grants schools monopoly rights. When competitive bidding for these

[3] 'UConn program had $14M in revenue' ESPN 4/1/09 (Accessed November 29, 2009) available at: http://sports.espn.go.com/ncb/news/story?id=4033999&campaign=rss&source=ESPNHeadlines

monopoly rights exists, as in Tullock Costs, the money spent to gain these monopoly rights dissipates the rents received by the monopolist. In college athletics schools fight to recruit the most talented individuals in a competitive market. Once these athletes sign with a given school, the NCAA regulates the activities of schools and athletes. One of these rules requires the athletes to be amateurs; in addition to that the NCAA makes it difficult for these athletes to move to another school. These rules provide monopoly rents to the university because they cannot be transferred to the athletes providing these rents. The monopoly rents received from the top talent is estimated to be worth millions per top student-athlete (Fish 2009).[4]

Farmer and Pecorino (2010) have analyzed the increasing coaching costs as a function of scarce talent. The NCAA's cartel behavior is analyzed in Fleisher, Goff, and Tollison (1992). This paper looks to extend the research to have a better understanding of how these 'Coaching Costs' relate the Tullock's (1967) rent seeking behavior. The next section discusses Tullock Costs, followed by the relation of Tullock Costs to Coaching Costs. Section four will look at the current financial status of college athletic departments and the last section will conclude and discuss implications from this work.

II. Tullock Costs

Companies try to obtain monopoly rights in order to maximize their rents, or producer surplus. However, when these rights are distributed by the government, resources are spent, whether it is through lobbying, advertising, or information

[4] "Robert Brown, a professor at Cal State-San Marcos, crunched the collegiate football revenue numbers available in federal documents and obtained by ESPN.com, putting them into an economic model that suggests the typical elite college player -- one who will be drafted into the NFL -- has an average value of $1.3 million to $1.36 million over the course of one season" (Fish 2009). This is an update of Brown (1993).

dissemination, to obtain these rights. When companies bid for the monopoly rights, there is no social loss, just a transfer of wealth within society (Tullock 1967). Because of this, although the monopolist has a loss in surplus, we, as a society, should not be concerned when these events take place. The lack of social loss makes this a policy issue, debating who receives these transfers, not a welfare issue for society.

Tullock's (1967) work on monopolies has created the term 'Tullock Costs.' This work found that for companies to obtain monopoly rents, they must be bid on. This bidding process (confirmed in later works by Krueger 1974 and Posner 1975) causes a shift in welfare, from those seeking the monopoly rights to those granting those rights. These rent-seeking expenditures occur, because if one company does not get involved in the bidding process, they will receive no benefits as the monopoly rights are handed out. The Tullock Costs drive down the rents the monopolist receives (Producer Surplus). This occurs because companies use resources in an attempt to become the rightful owner of these rents (monopoly powers), which are provided by government. However, to get these governmental granted rights, the company must bid (or invest) money because they are not the only company interested in them. When there are multiple bidders and only one, or sometimes a few, winners, necessarily there are some companies that bid, lose. These lost monies are sunk costs in the investment for the rents. This is best stated by Corcoran (1984): "The lure of excess profits or rents associated with monopoly power gives rise to expenditures to obtain these rents. Competitive rent-seeking behavior is recognized as a factor which must be included among the wastes associated with monopoly power (Tullock, 1967; Posner, 1975)".

Posner (1975) uses Tullock Costs to discuss social costs and Ades and Di Tella (1999) use this model to address corruption. We will continue to build the literature by using Tullock Costs to address salaries in collegiate athletics.

III. Coaching Costs as Tullock Costs

There is one fundamental difference distinguishing Coaching Costs from Tullock Costs. In Tullock Costs the rents go from those seeking the monopoly rights to those granting the monopoly rights. In Coaching Costs, because the NCAA is a non-profit organization, the monopoly rents granted by the NCAA are supposed to be remunerated back to the schools themselves. The NCAA's goal with this process is to provide schools with extra funding, however we posit that these rents are dissipated by the coaches and contractors of the stadiums and arenas and the schools receive little rents, if any.

Athletic departments devote many resources to the competitive process of recruiting to obtain monopoly rights of talent. However, the school's monopoly rents are dissipated through this competitive process, leading to lower overall rents than would be received if they did not have to compete. Similar to Tullock Costs, this is not a social loss but rather a shift of resources from one source to another. However, the issue arises not because there is a shift, but rather because of where the shift goes. Instead of the shift going from the athletic department to the school, the rents are shifted from the school to the coaches and contractors.

The amount of money spent on recruiting top talent is high. The University of Tennessee spent over $1 million on recruiting, in football alone, during the 2008-2009 academic year (Davidson 2009). In addition to those reported recruiting expenses, other related recruiting expenses go unreported. In 2010 the University of Louisville will be opening a $600 million[5] basketball arena. This new arena can expand the number of seats, and ticket prices, for the games, but it can also be used as a recruiting tool. Because money spent on this arena, and stadiums in general, does not show up as a recruiting expense, the amounts schools report spending on recruits is underestimated. The recruiting process has become an 'arms race' between different schools to provide the best coaches, stadiums (arenas), and overall experience for their athletes. When T. Boone Pickens, the Texas oil tycoon and a 1951 Oklahoma State graduate, during the opening of a locker room, that bears his name, was asked if it was worth it, he said "[i]t's good for the recruiting, no question, because when a recruit comes in here and sees what we have, they know we're serious."

As stated earlier, when a top athlete comes to school they are restricted to receive a maximum salary of $0 to keep their amateur status. This unpaid talent can put fans in the seats and is estimated to bring in up to $3 million over their career (Fish 2009). Although NCAA claims that they are "… a voluntary organization through which the nation's colleges and universities govern their athletics programs"[6], The New York Times (Kessler 2004) called the NCAA basketball tournament "one of the world's most powerful monopolies". These monopoly rents are what the schools seek in the recruitment of top athletic talent. When a student-athlete signs with a school to play a sport, the NCAA restricts transferring to different schools.[7] This restriction on

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[5] http://www.uofl.info/Louisville-Arena (accessed 29 November 2009)
[6] From the NCAA website: http://www.ncaa.org/wps/ncaa?ContentID=2 (accessed 30 November 2009)
[7] This power is expanded by the NCAA's collusion with the professional leagues, where they set minimum age restrictions on entry to the professional leagues. There are players that want to skip college and play professionally, but they are not allowed to in the United States. The NCAA, along with the professional leagues, do not allow them, which artificially eliminates any opportunity cost that would exist. LaBron James was in the last class allowed to go directly into the National Basketball Association (NBA).

transferring, along with other NCAA rules including the rule that bans schools from paying athletes, provide monopoly rents to schools that can obtain this unpaid talent. But the rents do not leave the school's athletic department.

The goal of the recruiting process is to get the top talent to attend your school; because schools cannot pay they must use non-pecuniary means to attract this top talent. 'Coaching Costs' are the additional costs borne by the athletic department that are spent to increase the probability that a given recruit will pick their school. For schools to recruit the best talent, they have to provide athletes with the coaches and facilities that will maximize their chances of obtaining a professional contract, win games, and match their non-athletic needs and wants. Because the NCAA mandates that student-athletes must be amateur, these athletes cannot be paid during their service to the university, at least not monetarily. They cannot receive a paycheck, so the athletes look for other ways to receive compensation. The school's athletic department will provide facilities and coaches that increase the athletes' probability of receiving a professional contract, thus increasing their future wages to offset the lost wages for playing as an amateur.[8]

IV. Current Financial Status of Collegiate Athletic Departments

A recent Knight Commission Report (Weiner 2009) on the economic landscape of big time intercollegiate athletics supports the contention that most institutions receive little or no rent from their athletic programs: "The myth of the business model–that

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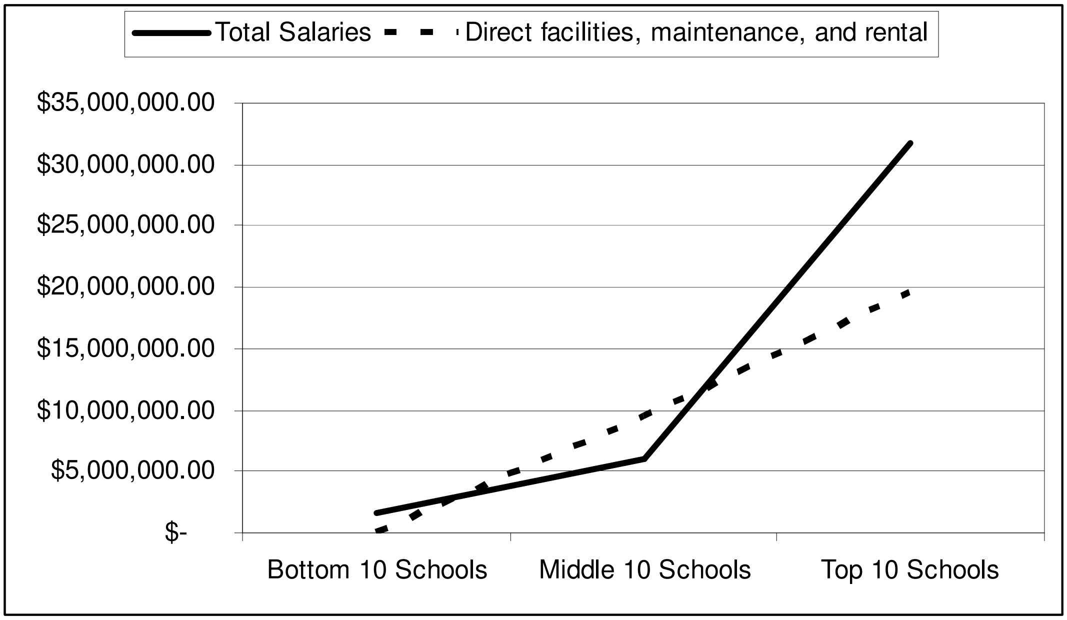
Currently in the NBA you have to play one year of college (and they are thinking of making it two years) and in the NFL you have to play two years (see Itri 2004 on Maurice Clarett). The NCAA also makes it very difficult, although not impossible, to transfer. When transferring, athletes can lose a year of playing time.

[8] It is important that although most athletes will not go professional in their sport, and may have no aspirations to do so, the profit generating sports' revenues are driven by only the top few athletes. These are the athletes that will be the top prospects at the professional level. These facilities also provide the opportunity for many, not just these select few athletes, to enjoy.

football and men's basketball cover their own expenses and fully support non-revenue sports–is put to rest by an NCAA study finding that 94 [of the then 119 FBS] institutions ran a deficit for the 2007-08 school year averaging losses of $9.9 million." Fulk (2009) finds that a total of 25 athletic programs in the FBS report positive net revenues in 2008, which has increased from 19 in 2006. During the five years of Fulk's (2009) study only 18 programs have reported a positive net revenue for all years.

While some athletic departments generate budgets of over $100 million, the revenue numbers are deceiving. What may be more deceiving, however, is the percentage of the dollars spent directly on the student-athlete. Student-athletes can receive tuition driven grants-in-aid or scholarships, although they cannot be paid in addition to that. According to the Knight Commission Report (Weiner 2009) these dollars totaled 16% of athletic budgets in 2007. Figure 1, from the USA Today NCAA College Athletics Finance Database, illustrates that large athletic departments spend a significant amount more on salary and facility costs than smaller athletic departments. With data for 209 NCAA institutions, Figure 1 looks at the average of the top 10, middle 10, and bottom 10 schools in terms of total spending. The top 10 schools, during the 2008-2009 academic year, spent an average of $31.8 million on salaries, while the bottom 10 schools spent an average of $1.7 million. This labor cost is, as noted in Knight Commission Report, largely fixed. A given number of sports in any athletic program, yields a given number of athletes. The only way to reduce this cost, is to reduce the number of sports offered, which is why many programs often cut non-revenue sports (particularly men's non-revenue sports given Title IX requirements).

Figure 1: Where the money goes in Colligate Athletics



Data Source: USA Today's NCAA College Athletics Finance Database (for academic year 2008-2009)

In the most recent three year span, major college athletic departments increased their operating budgets by nearly 11% a year. During this time their coaching expenditures have increased by more than 33%. "The NCAA's top-tier Football Bowl Subdivision went from a little more than $31 million in 2004 to $42.2 million in 2007, the most recent year covered in the report" (Wieberg and Berkowitz 2009). The USA Today article also finds that the only thing statistically significant regarding performance is the overall team expenditures. This article appeared around the same time that John Calipari left the University of Memphis for the University of Kentucky, with an expected contract worth $35 million over eight years. In the same state another basketball powerhouse, the University of Louisville, is building a new basketball arena downtown. This stadium, which has a planned opening in the fall of 2010, has a capacity of 22,000-

24,000 seats at an estimated cost of $600 million[9]. To cover the cost of this stadium, they will have to sell 22,000 seats for 20 home games at a price $45, for 30 years, just to cover the building cost. This is a non-discounted number and excludes the marginal cost of running the team and stadium. Hiring coaches and building better facilities are ways to increase the ability for the school to recruit. We will now look at coaching costs and construction costs in more detail.

a. Coaching Costs

Coaches' salaries and benefits are not subject to any NCAA legislation and their escalation is an issue of concern for college presidents and athletic directors according to the Knight Commission Report. According to a survey of FBS Presidents for the Knight Commission which accompanied their 2009 Report, "A very high majority of presidents (over 85%) feel that the total compensation of football and basketball coaches are excessive at other FBS institutions nationally" (Weiner 2009 p.10). A USA Today study found that "the average pay for a head coach in the NCAA's top-level, 120-school Football Bowl Subdivision is up 28% in that period [2006-2008] and 46% in three years [2006-2009] to $1.36 million" (Wieberg et al. 2009). Salaries and benefits, especially coaches' salaries, total the largest part of athletic budgets, 32% according to the Knight Commission Report (Weiner 2009). For schools with the largest budgets like Texas, Ohio State and Florida with budgets of $120.3 million, $115.7 million and $106.6 million; this means overall coaching expenses of $17.8 million, $14.1 million and $13.6 million respectively (Lavigne 2009). The USA Today Study of football Coaching Salaries found at least 3 head coaches making over $4 million dollars, at least 9 making over $ 3 million,

[9] http://www.uofl.info/Louisville-Arena (accessed 29 November 2009)

at least 25 making over $2 million and 56 making over $1 million. What may be more surprising is the escalation of assistant coaches' salaries, which are "approaching and even exceeding presidents' compensation and most eclipsing that of full professors" (Wieberg et al. 2009 p.2). Given that a football program has up to nine assistant coaches, this sum could be several million dollars. Per the USA Today study, more than 66 assistants make more than $300,000 per year and many of them generate some of the same kinds of perks that are sometimes reserved for head coaches like cars and performance bonuses. "Tennessee's nine assistants earn an average of more than $369,000; Texas' better than $327,000" (Wieberg et al. 2009).

b. Construction Costs

In addition to coaching costs there are two other costs which can be attributed to the recruitment of student-athletes to the university. The first are direct recruiting costs. The second are facility maintenance and construction costs. As noted previously, the NCAA does place restrictions on the recruiting process, however, the student-athlete is allowed limited periods of personal and phone contact with coaches and limited paid visits to campuses and athletic programs. Recruiting budgets are also necessary for members of coaching staffs to be able to make visits to scout and meet families. When a prospective student-athlete visits a campus he/she must be awed by the facilities: weight rooms, practice facilities, team rooms, locker rooms, stadiums, arenas, etc. For budgetary and reporting purposes, athletic departments grouped team travel, recruiting, and equipment and supplies into one category for the Knight Commission Report (Weiner 2009) and the study reported an average of 12% of overall budgets in this category.

Facilities maintenance and construction are another important aspect of the recruiting mechanism. Consider this another amenity with which to impress the prospective student-athlete. After the construction boom of the last decade or so, he/she will no doubt notice many of the new and improved facilities the market has to offer: "The University of Kentucky opened a $30 million basketball practice facility in 2007. Georgia opened a $31 million practice and weightlifting facility …and Texas A&M University topped that with a $27 million academic center and a $22 million basketball practice gym" (Weiner 2009 p.17). And the boom has not just been for better practice facilities. Many schools find themselves adding luxury suites to their football stadiums and building new basketball arenas or re-doing the old ones. Just as in the pros, the justification for the amenities comes not merely for wooing student-athletes, but for selling tickets and raising funds. The Knight Commission Report (Weiner 2009) reported 14% of overall budgets spent on facilities maintenance and rental. However, "In 2005, the NCAA's Presidential Task Force on the Future of Intercollegiate Athletics reported that nearly 20% of current spending on average is tied to facility expansion and capital debt"(Weiner 2009 p.17). Annual athletic department budgets may not reflect institutional debt on facilities, but the cost to the institution is there.

V. Conclusion and Implications

In examining athletic department budgets, the NCAA makes a distinction between two types of revenue. The first is “generated” revenue, which comes from external sources (cash, ticket sales, television revenues, marketing income, etc.). The second is “allocated” revenue, which “consists of intra-institutional transfer” (Weiner 2009 p.14). While some coaches claim to generate enough dollars to give back to the institution, that is rarely the case. According to the Knight Commission Report (Weiner 2009) and the 2004-08 NCAA Revenues and Expenses of Division I Intercollegiate Athletics Programs Report (Fulks 2009) it may be possible for some elite football and basketball programs to make enough dollars to cover their own costs. ”With few exceptions, however, reported surpluses from the two marquee sports were not enough to cover the costs of an athletic department’s other sports offerings whether it be 14 or 24 squads” (Weiner 2009 p.11). Per the Knight Commission Report (Weiner 2009 p.14), “virtually all athletics programs receive some form of institutional subsidy…half of all top-flight athletic programs rely on at least $9 million in institutional and governmental subsidies to balance their budgets. Even in the most prosperous conferences, its members received a median subsidy of $3.4 million.”

Although the amateur status established by the NCAA is designed to increase the money an athletic department has, this does not occur. We establish the idea of Coaching Costs to explain why this occurs.[10] As in Tullock Costs, Coaching Costs dissipate the rents received by a monopolist because in order to receive these monopoly rights, monies

[10] We are not addressing the spending issue that directly increases revenues, such as the building of a stadium that will increase revenues. What we are looking at is things that are built and increase the value to the campus beyond revenues. This would include the stadiums, but also a new weight room which will bring no direct profits.

must be spent. Schools are spending money on coaches and facilities to recruit the top talent. This talent leads to additional revenues made by the university, which develop an arms race for more, or better, coaches and facilities.

We are not saying this is a good or a bad thing, however if the issue is going to be addressed it must first be understood. These coaches are not helping the school by bringing in money because they, and the athletic department on the whole, are the ones spending it. These funds are used to build very nice buildings that could be used in other ways besides athletics, i.e. building a workout facility open to the student body. It has also been shown (McCormick and Tinsley 1984 and Pope and Pope 2009) that having winning athletic teams increases the quality and quantity of applications to the school. Thus these expenditures can increase the schools overall quality, financial status, and reputation; however they are not directly increasing any of these. These rents may also increase the schools' ability to comply with title IX, as any rents received, and facilities built, can be used to fund non-revenue athletic programs.

Splitting the revenues received, as most conferences share revenues, only dampens the effect that we find. The NCAA's ban on athlete pay does not increase the budget of the athletic department; it simply shifts the money from the athletes to the coaches and contractors used by the athletic department. This is not a social loss, thus the debate should continue with the implications on who receives these rents.

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