A Strategy to Reduce Financial Risk Facing Intercollegiate Athletic Departments from Variable Ticket Revenue

David M. Hondula
Pavilion Research

David B. Knight
Pavilion Research

Donald P. Stewart
Pavilion Research

Aaron L. Williams
Pavilion Research

Revenue from ticket sales is an important, yet highly variable, budget component at many intercollegiate athletics programs, thus exposing programs to considerable financial risk. We explore the potential for athletic departments to reduce or eliminate this uncertainly via a risk management model. 71 NCAA institutions were examined that met threshold criteria for ticket revenue importance and variability. Over the four years 2007–2010 these departments collected ticket revenues 10% or more below projected targets in nearly 25% of the cases examined. We propose that the $137 million in total unexpected revenue shortfalls over the study period were avoidable.

INTRODUCTION

Revenues funneling into intercollegiate athletics, in particular football and men's basketball, have exploded in size and scope over the past few decades. With the rise of television contracts as an important funding source (Clotfelter, 2011), elite programs with access to such national visibility have been vaulted into a league of their own in their abilities to tap different and expanding revenue streams (Dunnavent, 2004). Many schools believe that they could also gain access to such revenue if they have success on the field or court. As such, athletics programs have a strong motivation to raise revenues so that they are in a better position to field competitive teams.

This mentality has led to increased spending across all athletics programs. The prevailing belief is that spending directly corresponds to winning, which in turn will yield lucrative financial benefits for both the athletic program and the larger university (Zimbalist, 1999). In reality, however, there were only seven athletics programs that earned more than they spent each year from 2005–2010 (Knight Commission on Intercollegiate Athletics, 2010). To make up the difference, athletics programs rely on institutional subsidies, such as student tuition and/or fees, which postsecondary institutions are willing to

pay because of the alleged benefits that the athletics program may provide to the institution's applicant pool (Zimbalist, 1999), general academic fund (Grimes & Chressanthis, 1994), and potential links to state appropriations bodies (Alexander & Kern, 2007). Several researchers have shown these benefits to be overstated or limited (e.g., Frank, 2004; Humphreys & Mondello, 2006; Orzag & Orzag, 2005; Zimbalist, 1999), however, and the reliance on institutional subsidies becomes increasingly problematic in challenging fiscal environments (e.g., Cheslock & Knight, 2012).

Recently there has been increased media coverage of such uncontrolled spending on budget lines such as coaches' salaries, practice facilities, and stadiums. In response, college and university presidents, the NCAA, and many athletics programs have been seeking ideas for adopting sound business practices. These innovations may help the entire intercollegiate athletics system become more sustainable. Our paper investigates a new idea that could decrease athletic departments' uncertainty of reaching budgeted revenue levels from ticket sales.

Ticket Sales: An Important, Yet Unpredictable, Revenue Source

Revenue from football and men's basketball ticket sales account for a significant portion of total revenue for many intercollegiate athletics programs (Brown, 1993; Noll, 1991; Price & Sen, 2003). At Division I programs, it is the single most important source of revenue (Fulks, 2008). In 2008, ticket sales accounted for 26% of generated revenues (i.e., revenues not including institutional subsidies) and 20% of total revenues on average at Football Bowl Series (FBS) institutions. Ticket sales accounted for less at Football Championship Series (FCS) institutions for the same year, 16% of generated revenues and 5% of total revenues (Fulks, 2009). Despite the clear importance of this revenue stream, much of the previous literature focuses on athletic success and donations as opposed to ticket sales (Groza, 2010). Our study contributes to this small but growing area of inquiry that has large practical implications on athletic department budgeting.

Unlike other revenue streams, such as conference payouts from television contracts or institutional subsidies, ticket revenue can often be unpredictable at the start of the season because it is dependent upon fan attendance. Previous research has explored predictors of fan attendance from a variety of different perspectives and contexts. Armstrong (2002) investigated attendance at historically Black colleges and universities, and other authors explored the influence of television broadcasts on attendance at college football games (Fizel & Bennett, 1989; Kaempfer & Pacey, 1986). Geographic proximity has been linked to overall attendance at bowl games (Griffith, 2010) as well as visitor attendance at Mid-American Conference games (Leonard, 2005). Researchers have also demonstrated that certain marketing events, such as Homecoming celebrations, positively influence fan attendance (DeSchriver & Jensen, 2002; Wells, Southall & Peng, 2000).

Across all studies of sports spectators, however, team performance most consistently and strongly related to attendance. A study of Major League Baseball attendance indicated that winning leads to spectator support (Davis, 2008), and Knowles, Sherony, and Haupert (1992) showed that attendance at baseball games increased when the home team had at least a 60% chance of winning—in general, fans are more interested in supporting a winning team. The same holds true for intercollegiate athletics, as on-field performance is a major factor in determining revenue from ticket sales. Hay and Rao (1984) demonstrated through survey-based research that college football coaches rated winning the most important influence on game-day attendance. Similarly, Division I football fans responding to a questionnaire indicated that team achievement motivated their decision to attend the game more than any other factor (Robinson et al., 2005).

Several other studies support the notion that team performance influences fan attendance and in turn ticket revenues. Price and Sen (2003) developed a statistical model for Division I-A (now "FBS") football attendance for the 1997 season. They examined two dozen variables believed to be related to attendance, including game-specific factors (e.g., relative quality of teams and rivalry games), team specific factors (e.g., win-loss record and historical bowl appearances), and university-specific factors (e.g., enrollment and proximity to professional sports teams). Of the broad range of variables affecting attendance, the win-loss record of both the home and visiting teams had the strongest influence. On

average, one additional win over the previous 11 games by the home team resulted in more than 2,000 additional fans at the next game (Price and Sen, 2003). Similar findings have linked team performance to fan attendance for the Mid-American Conference (Leonard, 2005), mid-major college football programs (Padgett and Hunt, 2012), and Division II programs (DeSchriver & Jensen, 2002; Wells et al., 2000). As a season progresses, the home team's winning percentage becomes increasingly influential on fan attendance (e.g., DeSchriver & Jensen, 2002), and at the end of the season, a team's performance largely determines whether or not fans will renew their season tickets (Pan & Baker, 2005). Thus, there is remarkable consistency that team performance and attendance are inextricably linked, a finding that holds true across most institutional contexts.

For a handful of programs steeped in a tradition of winning, a few down seasons will have little bearing on game day attendance. Such programs would hardly notice a decline in ticket revenue if they experience an underperforming season. The correlation between attendance and football winning percentage for programs in the top-40 all-time was .05 compared to .35 for all other FBS programs (Cheslock & Knight, 2012). Fans of these historically successful programs can be characterized as "diehards" who support their teams financially even during periods of poor performance. (Clotfelter, 2011; Fink, Trail & Anderson, 2002; Wann & Branscombe, 1990). Building a critical mass of diehard fans, however, requires a rich history of success so that followers exhibit a strong organizational identity with the high-status team (Murrell & Dietz, 1992; Robinson, Trail, Dick & Gillentine, 2005; Wann & Branscombe, 1990). According to an analysis by Price and Sen (2003), however, only 17 large institutions have such immunity to attendance variability from one game to the next. Therefore, for nearly all teams, attendance and ticket revenue by and large is dependent upon team success on the field or court.

From an athletic department's perspective, having such a large proportion of the annual budget resting on the shoulders of college athletes can be daunting. Marketing efforts to drive higher attendance may be fruitless if combined with an unfavorable win-loss record. As such, financial managers within athletic departments must take into account team performance when projecting revenues (Padgett & Hunt, 2012). Such projections introduce a great deal of uncertainty into the budgeting process at the start of an academic year, as win-loss records are determined by successes and failures of coaches and players as opposed to financial planning and decision-making. An injury to a Heisman trophy candidate early in the season, poor clock management by a coaching staff, or an unlucky bounce can ruin a team's record and ultimately cost a program millions of dollars. In addition, athletic departments must cope with attendance fluctuations related to competing entertainment options, poor game-day weather conditions, or playing a set of underperforming opponents that are ranked lower than anticipated when they were originally scheduled.

Thus, there are many factors that determine attendance over which the athletic department has little or no control, most importantly team success, resulting in uncertainty in a major proportion of athletic department budgets and undesirable exposure to financial risk. Despite the overall intentions of athletic departments to grow their programs and become more successful, there is a limited number of wins that are distributed amongst all teams. Not every team can experience a winning record every year–some programs will suffer poor attendance and below-expected revenues from ticket sales in some years, and others may experience above-expected revenues in those years. In this paper, we seek to quantify the downside revenue variability facing major intercollegiate athletic departments and propose a method that could be implemented to reduce such uncertainty in ticket sale revenue. Results from this investigation could have important implications for policy as the intercollegiate athletics system seeks to become more sustainable.

DATA AND METHODS

The major goal of this study was to identify year-to-year drops in ticket revenue that could potentially be avoided by new policies adopted by intercollegiate athletic departments. An analog can be found in the rapidly growing weather derivatives market that enables weather-dependent businesses to hedge their risk against adverse events. Organizations are able to achieve more consistent revenue by entering into a

contract with an insurance-like company that collects a portfolio of contracts and premiums and compensates contract-holders when undesirable conditions occur (Jewson and Brix 2005). This derivative model can be extended to college athletics, where the risks to individual institutions are significant, but risk for the total population is stable. In any given year, the same number of wins and losses are spread across all competing programs; on the whole, each unexpected 8-4 record is mirrored by a 4-8 disappointment. This system can be considered "semi-closed," in which the total year-to-year variability for the whole system is orders of magnitude less (as a percentage) than the variability facing each institution.

Institutional Sample

We drew on publicly available data from the *USA Today* college athletics revenue database[1]. This data set contains revenue and expenditure information for 232 institutions for the academic years 2004–5 through 2009–10, for a total of 6 years of data. For this paper, we examined annual total revenue, which includes athletic department revenue from all sources, as well as ticket revenue, a specific revenue type which refers to "sales of admissions to athletic events," including "ticket sales to the public, faculty, and students and money received for shipping and handling of tickets" (*USA Today*). 38 institutions had at least one year of missing data during the period and were excluded from the analysis. All annual totals were adjusted for inflation using the Consumer Price Index (CPI), available online through the U.S. Department of Labor, Bureau of Labor Statistics[2].

Given this study's focus on examining the risks associated with variability in total revenue as a function of ticket revenue, we used two critical factors to select schools that would be realistic candidates for a risk management program: (i) ticket revenue importance, and (ii) ticket revenue variability. Ticket revenue may not account for a large enough percentage of the total revenue stream at certain institutions—in these instances, variability in ticket sales would have a relatively small impact on the total budget. We established 10% as a threshold value below which ticket revenue was not deemed to be important with respect to the total budget, which excluded 107 schools from the sample. Schools with low ticket revenue importance also tended to have lower actual ticket revenue—the mean 2009–2010 ticket revenue of excluded schools was $613,746, compared to a mean of $13,721,003 for schools that met the importance criteria. We also eliminated schools from the sample that do not demonstrate inter-annual downside ticket revenue variability of at least 5% over the period of record. This excluded some programs with historically large fan bases and a legacy of success (primarily in football) that have enjoyed consistent demand in recent years (e.g., Alabama, Auburn, Florida, Georgia, Oklahoma, Oregon, Texas, Texas A&M), as well as schools that have experienced exceptional ticket revenue growth throughout the period of record well-above national averages (e.g., North Carolina State, Rutgers, Texas Tech, West Virginia). 15 schools were excluded at this stage because they would have little or no motivation to hedge against downside revenue risk based on the data available in this study.

Considering these qualifications, 71 of the 194 schools with six complete years of revenue available in the *USA Today* database were identified as probable candidates for a risk reduction model (see Appendix 1). The subsequent analysis is based solely on these institutions' ticket revenue data.

Analytical Modeling Procedures

Our conceptual model is largely based on the put option, a common financial instrument where the individual or entity that buys the option receives a payout when an outcome falls below a certain threshold. Each school would pay a premium to enter into a contract that guarantees a certain ticket revenue level for an entire season (the "target"). Following the season, if revenue falls below the target, the school would receive compensation from some external risk assurer. The guarantee provides dollar-for-dollar compensation until a maximum payout is reached. When ticket revenue falls above the target, the school enjoys the surplus and has no additional obligation to the risk assurer. We considered several different options for establishing the target ticket revenue for each athletic department, including metrics like the 6-year sample mean or a simple linear trend over the entire period. Because the analysis is intended to show that losses can be avoided by taking action *in advance*, it would be improper to use the

entire period of record to determine expected annual revenue because the six-year sample mean or trend would not be known in year one. We instead developed an approach to determine an expected revenue value for each year based on the previous two years of data with caps that account for exceptionally high or low year-over-year changes. The expected revenue is intended to be a value that could be presented to an athletic administrator as a "fair" target for the school the following year and is calculated through several steps (see Table 1 for an example, also described as follows).

The initial target for a given year is made by extracting a linear trend through the previous two years' ticket revenue values. From a system-wide risk management perspective, however, it would be unfair to other participants in the system to reward a school that experiences exceptional growth from one year to the next with an expectation that they will increase their performance by the same magnitude again the following year. We accordingly constrain the target to prevent any year-over-year increases in expected revenue by more than 2.5%, the long-term historical average rate of increase for ticket revenue (McEvoy & Popp, 2012). If a school's ticket revenue increased by 10% between 2004 and 2005, for example, the target for 2006 will be 2.5% above the 2005 income. For the sample shown in Table 1, though the linear trend for Virginia's initial 2008 revenue forecast was $15,999,847, the final targeted ticket revenue was $15,628,3000 to meet this constraint.

TABLE 1
DEMONSTRATION OF RISK MODEL CALCULATIONS

	VIRGINIA	OREGON STATE
2004 Collected Ticket Revenue*	$ 12,812,200	$ 7,036,616
2005 Collected Ticket Revenue*	$ 13,234,495	$ 7,618,090
2006 Collected Ticket Revenue*	$ 14,494,397	$ 9,541,300
2007 Collected Ticket Revenue*	$ 15,247,122	$ 8,669,566
2008 Initial Revenue Forecast	$ 15,999,847	$ 7,797,832
Constraint 1: Maximum forecast is no more than 2.5% over previous year	$ 15,628,300	n/a
Constraint 2: Minimum forecast is no less than previous year's collected ticket revenue	n/a	$ 8,669,566
2008 Target Ticket Revenue	$ 15,628,300	$ 8,669,566
2008 Collected Ticket Revenue*	$ 13,920,149	$ 10,233,795
2008 Collected - Target Revenue	$ (1,708,151)	$ 1,564,229
2008 Payout to School	$ 1,708,151	$ -
2008 Estimated Contract Premium	$ 703,273	$ 390,130
2008 Final Ticket Revenue	$ 14,925,026	$ 9,843,664
2008 Final - Collected Revenue	$ 1,004,877	$ (390,130)

Table 1. A demonstration of the calculation of 2008 target ticket revenue for two FBS institutions along with a comparison of simulated end-of-year revenues in 2008 with and without the revenue risk management program presented in this manuscript. * indicates collected ticket revenues that have been adjusted for inflation using the Consumer Price Index.

Just as the system seeks to avoid penalizing other schools in the system for exceptional upside variability at a single institution, it also seeks to avoid penalizing individual schools for exceptional downside variability. If a school is expected to generate $2 million in 2005 but only realizes $1.75 million, the system should not forecast 2006 revenue of only $1.5 million (i.e., based on a linear trend)—that school's long-term average is the change in revenue over the long run. In our own exploratory

analysis, we found very little temporal autocorrelation in year-to-year revenue variability. If a school saw a drop in one year, one should not assume that revenue will continue to decline the next. As such, if the revenue model were to project continued revenue declines, the premium associated with simply maintaining revenue from one year to the next could be prohibitively expensive. We avoid this problem by capping downside variability for an individual institution at the previous year's actual ticket revenue (see the Oregon State example in Table 1). In summary, every school's expected revenue k in year n falls in the range k_{n-1} to $1.025*k_{n-1}$. If a school is experiencing growth in ticket revenue, their target revenue will increase by up to 2.5% each year; at a minimum, each school can be assured of receiving at least as much revenue from ticket sales as in the prior year. To eliminate outlier cases we applied a coverage limit of up to a 20% decline from the previous year's actual ticket revenue.

Given the set of revenue targets and the historical revenue data, it is possible to determine the annual cost to each institution that would be required for this kind of risk management program to be sustainable. In each year the payout to a school is either $0 if the observed ticket revenue was above the target value, or the difference between the target and observed ticket revenue when the observed ticket revenue fell short. The total cost to all institutions must at least equal the total payout over the period of record for the system to be sustainable.

An additional component of the framework we are proposing is that schools could have the autonomy to choose their own revenue target. As the risk management program is designed to protect against unexpected losses, the expected revenue k represents the upper bound for guarantee levels and is associated with the highest annual cost each institution would be required to pay. It is possible that paying for a guaranteed target ticket revenue associated with 0–2.5% growth does not make financial sense for an institution for any number of reasons, and thus a lower target could be offered to them at a lower price. We briefly explore this idea later in the text, but the main results we present henceforth are based on the target revenues established using the method described above.

RESULTS

Historical Ticket Revenue Patterns

Total ticket revenue collected by the 71 schools in the sample increased by an average of 3.37% over the six years of the study period. Four of the five years were associated with an increase, including 10.11% growth between 2006 and 2007. Ticket revenue dropped between the last two years of the period by 1.40% (Figure 1). At the individual school level, there were 355 year-to-year changes in ticket revenue

FIGURE 1
TOTAL TICKET REVENUE FROM 71 NCAA INSTITUTIONS, 2004–2009

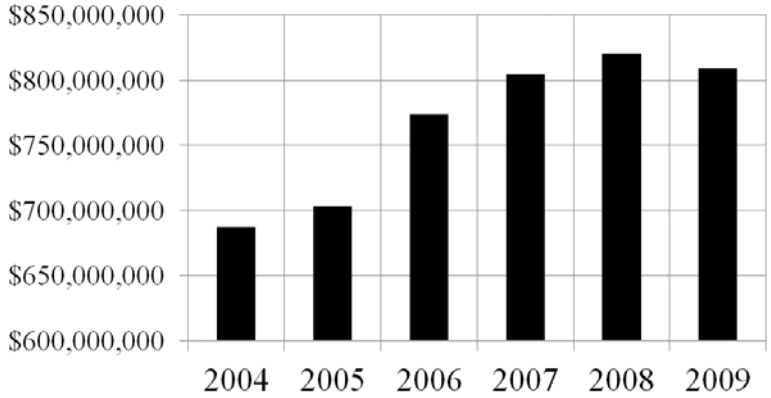

Figure 1. Total collected ticket revenue from a sample of 71 NCAA institutions between 2004 and 2010. The sample only includes schools where 10% of revenue is derived from ticket sales and there was one year-to-year drop in ticket revenue of 5% over the study period.

over the study period (71 schools times 5 years). Of these 355, 169 (47.6%) were negative (i.e., revenue dropped from one year to the next). 114 (32.11%) of the year-to-year changes were drops of 5% or more, and 67 (18.87%) were 10% or more (Figure 2). Eliminating these large drops is the principal goal of the risk management system.

FIGURE 2
YEAR-TO-YEAR CHANGES IN TICKET REVENUE AT 71 NCAA INSTITUTIONS, 2004–2010

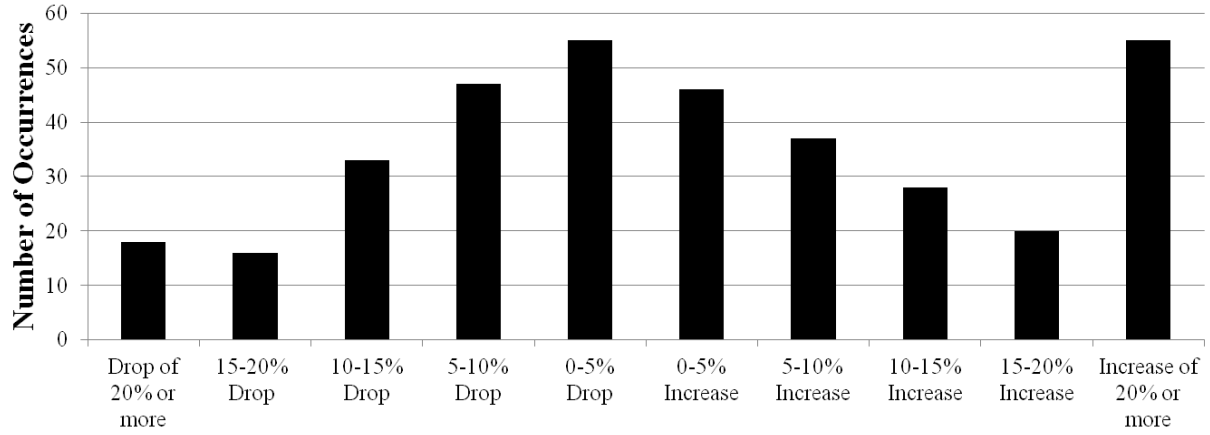

Figure 2. Distribution of year-to-year changes in collected ticket revenue at a sample of 71 NCAA institutions between 2004 and 2010.

Risk Management Potential

One indicator of the potential benefits of a risk management program is to compare the differences in observed revenue to target revenue. This quantity represents the total dollar amount in unexpected revenue drops that could have been avoided with a program in place. With an operable risk management program, every participating school is guaranteed to achieve its revenue target every year. Using our assumption of revenue targets that are 0-2.5% above the previous year's collected ticket revenue, there was a revenue shortfall of $137,429,261 over the four years of the study period with targets available. 22 schools would have received payouts totaling nearly $20,000,000 in 2006 with a risk management program in place; this total increased to over $46,000,000 in 2009 when 50 schools would have received payouts (Appendix 2). Of the 284 cases (i.e., years multiplied by schools) where we could compare the target to observed ticket revenue, there were 152 (53.5%) instances where a school would have received money under the risk management program (Figure 3); of these, 44 were associated with payouts of over $1 million. In 66 of 284 cases (23.2%) over the period of record, schools in the sample came up at least 10% short of their ticket revenue goal—these were the athletic departments that would have benefited greatly from such a system.

The risk management program does not guarantee, however, that target revenue will continue to increase year after year; it only guarantees that the next year will meet or exceed a target. Should collected ticket revenue decline from one year to the next, the upcoming year's target revenue will drop relative to the previous year's target; thus, it is possible and expected that there will be years when revenue declines, even with an operational risk management program. The benefit is that the drop in revenue is known a year in advance, and it is possible that the full extent of the loss will not be realized if ticket sales exceed the target. Therefore, the risk management program creates an absolute floor for ticket revenue that is known at the start of the year.

The break-even point to cover the total cost of all payouts over the four sample years was 4.3% of the target ticket revenue. Assuming that a risk management company would add a small percentage for underwriting the risk (the *risk loading*), we estimate that a risk management contract for the revenue

targets established here would cost institutions roughly 4.5% of the target. A larger suite of potential contracts could be presented to each institution associated with lower target revenues and lower costs.

FIGURE 3
ESTIMATED PAYOUTS OVER FOUR YEARS WITH RISK MANAGEMENT PROGRAM

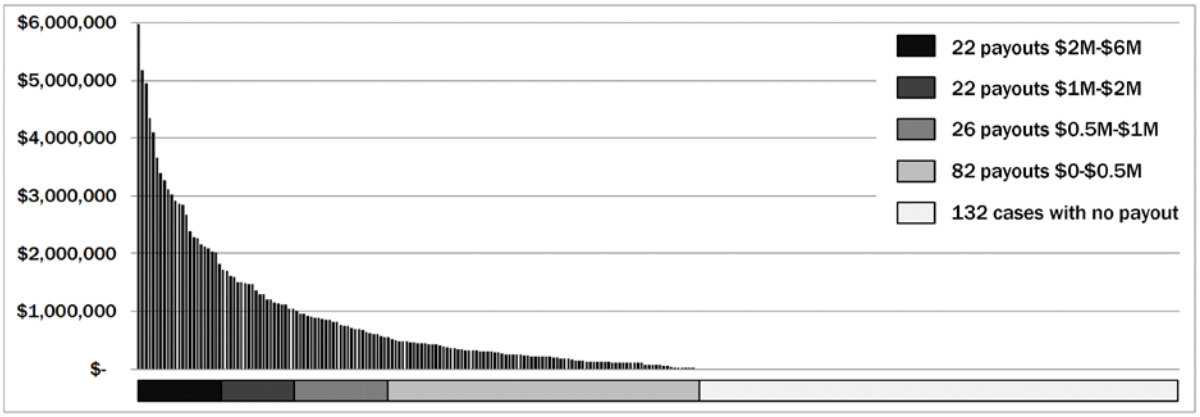

Figure 3. Estimated payouts to 71 NCAA institutions over four years with a ticket revenue risk management plan in place. Each of the 284 bars represents a single-year payout to a specific school. Note: with a payout of $0, bars do not appear on the right side of the figure for the 132 cases without a payout.

Over the long run, institutions can expect to recover this investment through payouts, with the exception of the small risk loading component. Over the shorter four year study period presented here, however, not all schools benefitted equally. In terms of dollars gained or lost over all four years, the average school ended the four-year trial period with a net total loss of $30,625 because of premium costs and the risk loading; individual school net outcomes ranged from a $4.8M net loss to a $3.2M net gain. The school that would have benefitted the most (in absolute dollars) was Florida State, which experienced two years with significant drops in collected ticket revenue and thus two substantial payouts (Figure 4a). By the same metric, the school that would have benefited the least was Tennessee, where collected ticket revenue consistently increased over the four sample years, and thus the school did not receive any net payouts (Figure 4b). (Although Tennessee did not see a revenue drop during the four simulated years with a risk management program, they did meet the "revenue variability" criteria based on 2004 and 2005 data). Tennessee and other schools that received small or no payouts would have still experienced the guaranteed revenue floor from the risk management program, but during these sample years they were fortunate enough not to have to rely on the risk management program to meet their revenue targets. At Tennessee, for example, collected ticket revenues were a total of $11.2 million above revenue targets over the four sample years. The maximum potential loss related to the risk management program each year is 4.5% of the target revenue; schools that pay this premium and receive no payout experience substantial increases in collected ticket revenue but still avoid the potential negative effects of an unforeseen downward turn in ticket revenue. As an analogy, individuals sometimes pay into insurance programs year-after-year without receiving benefits but do so to protect against sudden negative occurrences that can be quite expensive, such as unforeseen medical bills or housing repair costs following a flood or fire.

Total gains and losses, however, are not the main foci of the program, as premium costs are small relative to the potential payouts—over the long run, the total gains and losses are expected to be close to zero. As noted, there were 66 cases in which schools fell at least 10% short of revenue targets for a given year. At Iowa, for example, collected ticket revenue fell from $23.07M in 2006 to $19.55M in 2007. The school would have paid just over $1M in 2007 for a target revenue of $23.65 M and thus avoided a drop of over $3.5M (Figure 4c). Collected ticket revenues rebounded sharply in the following year, and the

ticket revenue exceeded its 2008 revenue target. Participating in a risk management program would have stabilized revenues considerably.

FIGURE 4
SIMULATED TICKET REVENUE WITH AND WITHOUT RISK MANAGEMENT

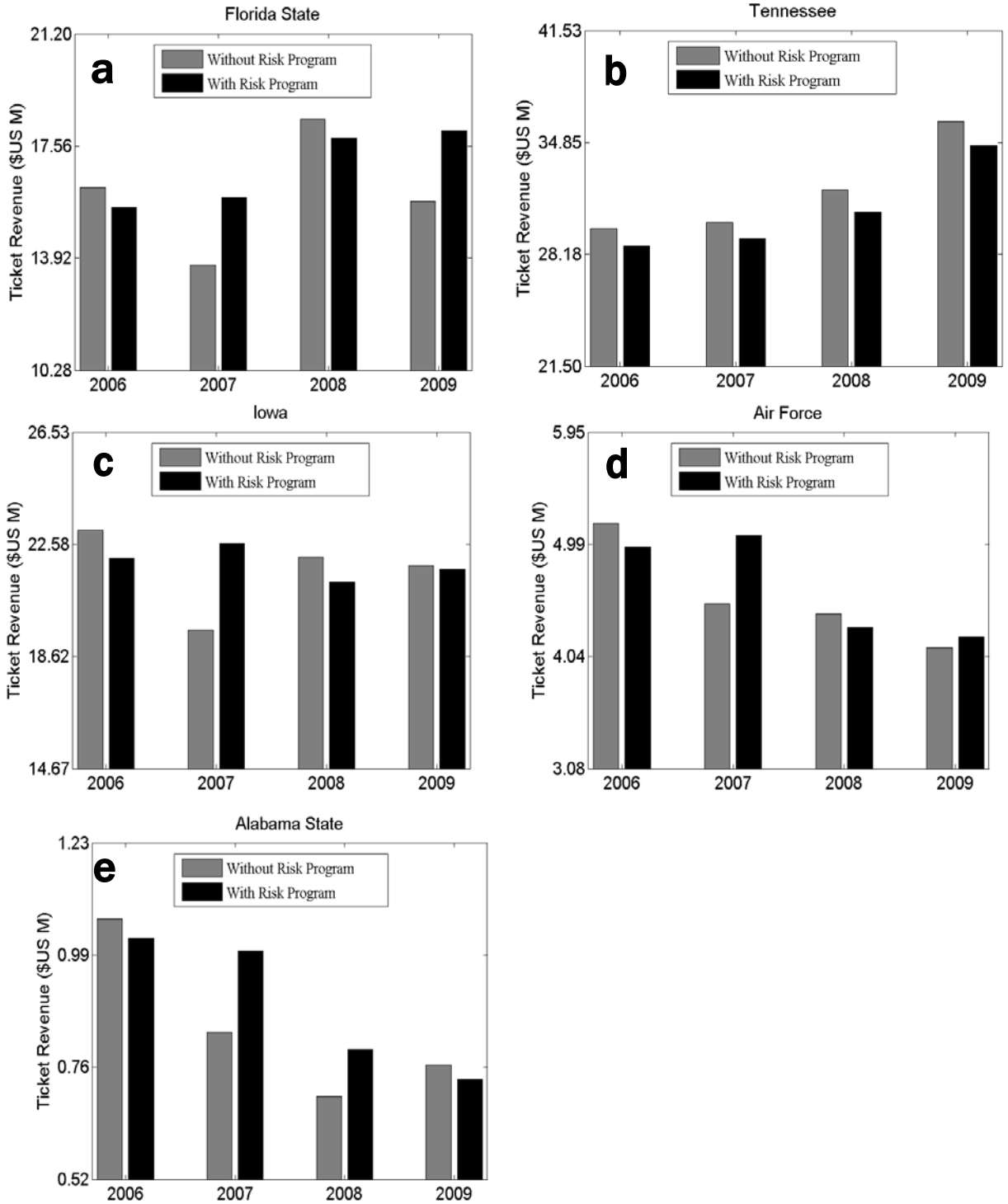

Figure 4a–e. Simulated annual collected ticket revenue with a risk management program in place compared to actual collected ticket revenue at five NCAA institutions, 2006–2009.

The Iowa and Florida State examples are the idealized cases, but at some schools revenue dropped during the study period and did not recover. At Air Force and Alabama State, for example, collected ticket revenue dropped between 2006 and 2007, and thus targets dropped in 2008 (Figures 4d and 4e). When collected revenue did not return to previous levels, the target in 2009 remained well below of where it was at the start of the study period. Such a decrease in target revenue is important so that the system is fair for all participating institutions, thereby avoiding cases where institutions become "free riders" on the entire system.

In summary, the conceptual model we have presented herein could significantly reduce revenue variability at NCAA institutions. Assuming that each school committed 4.5% of target ticket revenue to a risk management program, over $137 million in unexpected revenue shortfalls would have been avoided across a sample of 71 NCAA schools between 2006 and 2009. These shortfalls would have been mitigated by annual payouts from the risk management program to participating institutions that collected ticket revenues below targets (Figure 3).

DISCUSSION

The time period and sample of schools we examined strongly support the notion that variability in ticket revenue poses a significant risk for intercollegiate athletic departments. Our goal was to present a conceptual model for a financial program that could help athletic departments manage this risk and operate in a more secure financial environment. The magnitude of losses that could have been avoided or delayed leads us to believe that a framework like the one we have presented could be effective. As the total premiums collected were greater than the total payouts during the time period, there is evidence to support the potential sustainability of such a risk management program. There are a number of other factors, however, one might consider before implementing such a program, as well as a number of limitations of our study that merit further discussion.

One of the advantages of this framework is that it enables individual schools to determine their own participation in the risk management program. Further, participating schools can specify the amount of risk protection they require based on their own risk tolerance and projections. This model differs from a traditional revenue sharing approach like that currently used by the Big Ten Conference. From a statistical modeling standpoint and that of a potential risk assurer, this flexibility makes anticipating the number of participating schools and their level of risk assumed more difficult. We have presented results using an intentionally selected sample of schools under the assumption that all of the qualifying schools participated at the same level guaranteeing their initial target revenue. In reality, the number of participating schools and their risk protection level would vary from year to year, and future work might run a large number of simulations to model these potential outcomes.

A potential negative consequence of individual schools' autonomy to determine participation levels is that schools might only choose to participate when they expect a negative downturn. The information that leads them to believe their ticket revenues will decline would not necessarily be available to a risk assurer. We found very little year-to-year correlation in ticket revenue growth, however, suggesting that anticipating downturns may be difficult. Further, because of this low correlation, a number of schools who have seen consistent growth will eventually experience a surprise decline in revenue, and these are the unexpected drops that the risk management program would seek to avoid. If a school is not participating in the program, they would remain unprotected. Thus, there is an additional danger that those schools that are potentially in most need of revenue protection will choose not to participate because they are less likely to foresee a downturn.

For such a risk management program to be viable, the target ticket revenues calculated by the model would need to be consistent with actual targets determined by athletics administrators. The constraint of 0–2.5% represents a relatively narrow range compared to some of the year-to-year revenue fluctuations evident in the historical data. Athletics administrators who recognize that such large revenues swings are possible may set targets in a wider range than that we have proposed here. A future step to further refine this concept would include communication with athletics administrators to gain a better understanding of

the factors that would be used in setting their ticket revenue targets. If the risk management program is not able to offer a target revenue level that is agreeable to athletics administrators, fewer schools would be expected to participate. Furthermore, the financial environment in college athletics continues to evolve rapidly, particularly with the growth in major television contracts and conference realignment. Dependence on ticket revenue could decline as additional revenue sources grow, and communications with athletic directors could gauge their expectations of the potential change in ticket revenue's relative importance.

Finally, any program of this type will require the backing of an entity with significant financial resources. Although over the long run the program is designed for the schools (collectively) and risk assurer to roughly break even (with the exception of the risk loading component), some years would be associated with payouts to schools far greater than the premiums, perhaps on the order of tens of millions of dollars. Large financial firms, including banks and insurance/reinsurance companies, are potential candidates to assume such risk, although the NCAA might also be financially equipped to manage such a program for its member institutions. Any risk assurer would want the number of participating schools to be as large as possible, as this would lead to increased predictability in year-to-year revenue fluctuations relative to the total revenue managed.

CONCLUSION

There is significant downside financial risk facing college athletic departments as a result of variability in ticket sales. This financial risk could be significantly reduced if athletic departments elected to participate in a risk management model analogous to those found in other industries. Across a sample of 71 NCAA institutions over the period 2007–2010, we estimate that over $137 million in unexpected ticket revenue declines could have been mitigated with a risk management program in place. We further estimate that there is nearly a 25% chance that an athletic department will see ticket revenues at least 10% below targets in any given year.

Offering this type of risk management program would have a number of implications for practice and policy in intercollegiate athletics. At individual schools, the risk management program would immediately enable a better planning environment, within which staff would be more confident in hiring decisions, promotions and marketing efforts, and budgets for those sports that do not generate significant (or any) revenue. Whereas under current operating practices athletic directors and financial executives must consider a large range of potential revenue outcomes for the following year, this type of risk management program would narrow the range of potential outcomes by eliminating the possibility of ticket revenues falling below a specified target before the season. Athletic departments would become far less likely to need to rely on the academic institution for emergency financing in the event of unexpected revenue shortfalls. Benefits from this added stability could be seen in staff morale and effectiveness as well as services and equipment available for student-athletes. In addition, reducing the reliance of the athletic department on the academic institution during difficult financial circumstances could improve athletics-university relations (e.g., Cheslock & Knight, 2012).

Athletic departments could be encouraged by institutions, states, conferences, and even the NCAA to participate in such a program. These other entities each suffer when an individual athletic department struggles to meet financial goals. As athletic programs do not have the financial capacity to manage such shortfalls on their own, the adoption of an NCAA-wide ticket revenue risk management program would offer significant benefits for its member institutions and the entity as a whole.

ENDNOTES

1. http://content.usatoday.com/_common/_fragments/_modal/ncaa/ncaa-modal-search.htm
2. http://www.bls.gov/cpi/

REFERENCES

Alexander, D.L. and W. Kern (2007). Does athletic success generate legislative largesse from sports-crazed representatives?: The impact of athletic success on state appropriations to colleges and universities. *International Journal of Sport Finance, 5*(4), 253-267.

Armstrong, K.L. (2002). An examination of the social psychology of blacks' consumption of sport. Journal of Sport Management 16: 267–288.

Cheslock, J.J. and D.B. Knight (2012). Following a problematic, yet predictable, path: The unsustainable nature of the intercollegiate athletics system. Final project report submitted to the Knight Commission on Intercollegiate Athletics, September 2012.

Clotfelter, C. (2011). *Big Time Sports in American Universities*. Cambridge: Cambridge Univ Press.

Davis, M. C. (2008). The Interaction Between Baseball Attendance and Winning Percentage. International Journal of Sport Finance, 58-73.

DeSchriver, T.D. and P.E. Jensen (2002). Determinants of spectator attendance at NCAA Division II football contests. *Journal of Sport Management, 16*, 311-330.

Dunnavent, K. (2004). *The fifty-year seduction: How television manipulated college football, from the birth of the modern NCAA to the creation of the BCS.* New York: St. Martin's Press.

Fink, J., Trail, G., & D. Anderson (2002). An examination of team identification: Which motives are most salient to its existence? *International Sports Journal, 6*(2), 195-207.

Fizel, J.L. and R.W. Bennett (1989). The impact of college football telecasts on college football attendance. Social Science Quarterly 7: 980–988.

Fort, R. (2010). An economic look at the sustainability of FBS athletic departments. *Journal of Intercollegiate Sport, 3*, 3-21.

Frank, R. (2004). "*Challenging the Myth: A Review of the Links Among College Athletics Success, Student Quality, and Donations*." Knight Commission Report. Available online at http://www.knightcommision.org/about/white_papers/frank_report/.

Fulks, D.L. (2008). 2004-06 NCAA Revenue and Expenses of Division Intercollegiate Athletics Programs Report. National Collegiate Athletic Association: Indianapolis, IN.

Fulks, D.L. (2009). 2004-2008 NCAA revenues and expenses of Division I intercollegiate athletics programs report. NCAA: Indianapolis, IN.

Griffith, D.A. (2010). An analytical perspective on sporting events attendance: the 2007-2008 U.S. NCAA college bowl games. *Applied Geography, 30*, 204-209.

Grimes, P.W. and G.A. Chressanthis (1994). Alumni contributions to academics: The role of intercollegiate sports and NCAA sanctions. *American Journal of Economics and Sociology, 53*(1), 27-40.

Groza, M.D. (2010). NCAA conference realignment and football game day attendance. *Managerial Decision Economics, 31*(8), 517-529.

Humphreys, B.R. and M. Mondello. (2006). Intercollegiate athletic success and donations at NCAA Division I institutions. *Journal of Sport Management, 21*(2), 265-280.

Kaempfer, W.H. and P.L. Pacey (1986). Televising college football: The complementarity of attendance and viewing. Social Science Quarterly, 67, 176-185.

Knight Commission on Intercollegiate Athletics. (2010). *Restoring the balance: Dollars, values and the future of college sports*. Miami, FL: John S. and James L. Knight Foundation.

Knowles, G., Sherony, K., & M. Haupert (1992). The Demand for Major League Baseball: A Test of the Uncertainty of Outcome Hypothesis. American Economist , 72-81.

Leonard, J.M. (2005). The geography of visitor attendance at college football games. *Journal of Sport Behavior* 28: 231–252.

McEvoy, C. and N. Popp (2012). Measuring the scope and effectiveness of outbound ticket sales teams in NCAA Division I athletic departments. Winthrop Research Services. Available online at http://winthropintelligence.com/2012/06/18/.

Murrell, A. and B. Dietz (1992). Fan support of sports teams: The effect of a common group identity. *Journal of Sport and Exercise Psychology, 14*, 28-39.

Orzag, J. and P. Orzag (2005). "*Empirical Effects of Division II Intercollegiate Athletics*." A Study Commissioned by the NCAA, January 2005, p. 1-50. Available online at http://www.2.ncaa.org/portal/media_and-events.

Pan, D.W. and J.A.W. Baker (2005). Factors, differential market effects, and marketing strategies in the renewal of season tickets for intercollegiate football games. *Journal of Sport Behavior, 28*(4), 351-377.

Padgett, T. and C.S. Hunt (2012). The influence of winning on mid-major college football attendance. *Journal of Applied Business and Economics, 13*(2), 129-132.

Price, D.I. and K.C. Sen (2003). The demand for game day attendance in college football: An analysis of the 1997 Division 1-A season. *Managerial and Decision Economics, 24*(1), 35-46.

Robinson, M., Trail, G., Dick, R. & A. Gillentine (2005). Fans vs. spectators: An analysis of those who attend intercollegiate football games. *Sport Marketing Quarterly, 14*, 45-53.

Wann, D., and N. Branscombe (1990). Die-hard and fair-weather fans: Effects of identification on BIRGing and CORFing tendencies. *Journal of Sport & Social Issues, 14*, 103-117.

Wells, D.E., Southall, R.M., & H.H. Peng (2000). An analysis of factors related to attendance at Division II football games. *Sport Marketing Quarterly, 9*(4), 203-210.

Zimbalist, A. (1999). *Unpaid Professionals: Commercialism and Conflict in Big-Time College Sports*. Princeton, NJ: Princeton University Press.

ACKNOWLEDGEMENTS

The authors thank a number of university presidents and athletics staff members at NCAA institutions whose ideas and feedback have contributed to this research.

APPENDIX 1
CPI-ADJUSTED TICKET REVENUE AT 71 NCAA INSTITUTIONS

NCAA Institution	Percent of total revenue derived from ticket sales	2004	2005	2006	2007	2008	2009	Largest ticket revenue drop in time period
Air Force	14.83%	$ 3,146,826	$ 4,467,603	$ 5,171,194	$ 4,483,373	$ 4,402,122	$ 4,111,024	-13.30%
Alabama State	12.77%	$ 1,171,361	$ 884,338	$ 1,066,765	$ 830,224	$ 694,446	$ 760,745	-24.50%
Arizona	23.32%	$ 10,370,506	$ 10,685,603	$ 12,664,474	$ 11,514,572	$ 12,779,991	$ 12,735,496	-9.08%
Arizona State	20.89%	$ 8,115,727	$ 11,166,591	$ 9,355,377	$ 13,656,804	$ 13,543,147	$ 12,039,166	-16.22%
Arkansas	45.23%	$ 27,099,399	$ 23,075,020	$ 30,569,256	$ 29,322,462	$ 32,223,903	$ 32,894,044	-14.85%
Arkansas - Pine Bluff	10.25%	$ 541,778	$ 866,824	$ 467,107	$ 426,253	$ 553,520	$ 426,808	-46.11%
Arkansas State	12.11%	$ 907,834	$ 1,594,216	$ 1,001,319	$ 980,227	$ 1,004,302	$ 889,970	-37.19%
Boise State	19.86%	$ 4,020,086	$ 4,187,527	$ 4,704,272	$ 6,384,793	$ 5,722,284	$ 7,102,661	-10.38%
Cal-Berkeley	22.00%	$ 11,298,021	$ 10,338,217	$ 14,756,403	$ 15,847,379	$ 15,819,570	$ 14,345,310	-9.32%
Cincinnati	15.98%	$ 4,397,281	$ 4,847,532	$ 4,327,084	$ 5,102,478	$ 5,286,196	$ 6,377,284	-10.74%
Clemson	34.51%	$ 15,173,438	$ 16,025,310	$ 22,200,089	$ 21,595,790	$ 21,478,065	$ 19,877,413	-7.45%
Colorado	27.43%	$ 12,243,229	$ 12,541,262	$ 11,725,535	$ 15,157,361	$ 14,328,711	$ 13,438,344	-6.50%
Colorado St.	13.90%	$ 2,799,172	$ 2,992,781	$ 3,722,820	$ 3,738,082	$ 3,685,850	$ 2,473,093	-32.90%
East Carolina	17.20%	$ 3,372,646	$ 3,348,875	$ 5,066,955	$ 6,019,645	$ 5,623,076	$ 6,138,102	-6.59%
Florida A&M	21.11%	$ 2,293,904	$ 2,084,570	$ 1,708,992	$ 1,887,210	$ 1,807,055	$ 1,792,435	-18.02%
Florida State	21.00%	$ 14,366,772	$ 14,440,250	$ 16,222,404	$ 13,710,113	$ 18,430,723	$ 15,775,516	-15.49%
Georgia Tech	20.57%	$ 10,141,620	$ 9,985,823	$ 11,819,525	$ 11,567,967	$ 10,080,052	$ 12,293,143	-12.86%
Grambling State	21.48%	$ 1,799,761	$ 1,303,981	$ 1,115,608	$ 1,474,672	$ 1,259,328	$ 977,891	-27.55%
Hawaii	25.32%	$ 8,286,659	$ 8,103,461	$ 8,411,059	$ 8,755,516	$ 7,257,550	$ 6,908,034	-17.11%
Illinois	24.34%	$ 14,602,189	$ 14,319,543	$ 15,446,144	$ 14,634,148	$ 17,845,143	$ 17,861,359	-5.26%
Indiana	22.71%	$ 9,487,198	$ 11,550,249	$ 11,981,436	$ 14,729,851	$ 12,259,333	$ 13,346,437	-16.77%
Iowa	26.75%	$ 21,445,446	$ 21,873,034	$ 23,073,423	$ 19,554,414	$ 22,126,564	$ 21,815,895	-15.25%
Iowa State	28.07%	$ 10,313,934	$ 11,102,499	$ 7,418,517	$ 13,515,450	$ 11,820,508	$ 11,377,858	-33.18%
Jackson St.	18.13%	$ 515,307	$ 1,028,753	$ 1,639,195	$ 1,375,193	$ 1,268,019	$ 784,662	-38.12%
Kansas St.	28.89%	$ 14,431,485	$ 13,578,753	$ 15,241,631	$ 14,493,048	$ 14,273,376	$ 13,606,196	-5.91%
Kentucky	34.89%	$ 21,401,321	$ 20,840,801	$ 21,113,091	$ 27,907,585	$ 26,447,937	$ 27,219,554	-5.23%
LA-Lafayette	11.06%	$ 1,066,605	$ 1,067,506	$ 1,268,726	$ 1,363,183	$ 1,160,311	$ 1,486,071	-14.88%
Louisville	30.38%	$ 14,432,321	$ 16,717,365	$ 18,354,304	$ 17,512,026	$ 20,904,780	$ 18,395,654	-12.00%
LSU	34.09%	$ 26,406,200	$ 23,389,978	$ 30,047,669	$ 29,192,793	$ 35,780,410	$ 31,721,048	-11.42%
Maine	10.80%	$ 2,007,835	$ 1,906,038	$ 1,643,286	$ 1,803,498	$ 1,520,942	$ 1,300,935	-15.67%
Marshall	13.92%	$ 2,217,544	$ 3,137,683	$ 2,787,325	$ 4,504,172	$ 3,014,331	$ 2,788,491	-33.08%
McNeese St.	14.48%	$ 997,792	$ 697,613	$ 849,622	$ 1,161,680	$ 1,015,380	$ 1,210,221	-30.08%
Memphis	25.69%	$ 6,949,801	$ 8,580,766	$ 9,338,382	$ 8,867,595	$ 7,826,493	$ 9,087,159	-11.74%
Michigan	40.40%	$ 35,531,258	$ 39,943,999	$ 38,080,149	$ 41,209,144	$ 37,891,289	$ 41,715,138	-8.05%
Michigan St.	28.25%	$ 20,946,813	$ 21,173,499	$ 23,615,803	$ 22,387,161	$ 21,905,460	$ 23,503,885	-5.20%
Minnesota	30.89%	$ 21,304,600	$ 19,692,921	$ 19,945,332	$ 20,842,592	$ 21,458,112	$ 21,514,964	-7.56%
Mississippi	30.33%	$ 10,108,941	$ 10,184,309	$ 11,069,508	$ 11,665,144	$ 11,047,022	$ 13,205,834	-5.30%
Mississippi St.	26.59%	$ 7,252,765	$ 7,268,655	$ 11,069,508	$ 8,956,850	$ 7,670,958	$ 10,776,417	-19.09%
Missouri	31.63%	$ 17,024,203	$ 15,898,387	$ 16,919,790	$ 19,318,820	$ 20,823,076	$ 20,642,471	-6.61%
Missouri St.	14.60%	$ 2,051,096	$ 2,171,617	$ 2,275,914	$ 2,034,890	$ 1,974,875	$ 1,650,667	-16.42%
Montana	26.27%	$ 4,560,502	$ 4,085,555	$ 4,379,293	$ 4,267,922	$ 5,082,847	$ 4,690,373	-10.41%
Montana St.	11.24%	$ 1,412,538	$ 1,573,245	$ 1,483,977	$ 1,652,072	$ 1,575,087	$ 1,632,988	-5.67%
Nebraska	40.97%	$ 24,392,701	$ 26,892,865	$ 29,855,144	$ 31,281,831	$ 34,299,348	$ 31,504,769	-8.15%
Nevada	14.61%	$ 2,734,751	$ 3,642,308	$ 3,776,222	$ 3,865,881	$ 3,820,639	$ 3,126,851	-18.16%
New Hampshire	10.03%	$ 2,367,981	$ 2,440,712	$ 2,399,536	$ 2,423,925	$ 2,343,374	$ 2,120,411	-9.51%
New Mexico	21.31%	$ 7,478,372	$ 6,694,627	$ 6,709,748	$ 6,719,749	$ 6,878,354	$ 6,590,165	-10.48%
North Dakota	25.63%	$ 3,567,920	$ 3,595,086	$ 3,720,018	$ 3,913,754	$ 3,859,067	$ 3,576,178	-7.33%
North Dakota St.	11.45%	$ 966,795	$ 1,033,545	$ 1,208,967	$ 1,364,477	$ 1,754,339	$ 1,638,848	-6.58%
Ohio State	36.15%	$ 38,516,638	$ 45,849,745	$ 45,497,370	$ 39,519,983	$ 41,156,090	$ 39,515,387	-13.14%
Oklahoma St.	22.88%	$ 15,805,758	$ 14,742,786	$ 17,307,637	$ 17,942,653	$ 20,385,539	$ 23,640,296	-6.73%
Oregon St.	16.52%	$ 7,036,616	$ 7,618,090	$ 9,541,300	$ 8,669,566	$ 10,233,795	$ 9,525,756	-9.14%
Purdue	27.79%	$ 16,737,735	$ 15,581,513	$ 16,504,350	$ 18,012,561	$ 17,602,640	$ 16,587,166	-6.91%
San Diego St.	10.61%	$ 3,371,663	$ 3,806,734	$ 3,874,501	$ 3,460,632	$ 3,163,809	$ 3,042,365	-10.68%
South Carolina	27.65%	$ 12,744,010	$ 15,128,157	$ 20,086,045	$ 21,313,493	$ 21,890,782	$ 19,044,853	-13.00%
South Florida	16.28%	$ 3,362,989	$ 4,608,388	$ 4,262,177	$ 6,875,963	$ 6,480,319	$ 6,414,049	-7.51%
Southern Miss.	12.79%	$ 2,063,366	$ 2,140,355	$ 2,746,400	$ 2,413,592	$ 3,138,106	$ 2,888,213	-12.12%
Tennessee	30.86%	$ 29,692,287	$ 22,995,066	$ 29,703,033	$ 30,097,781	$ 32,018,087	$ 36,109,495	-22.56%
Tennessee St.	10.44%	$ 1,014,392	$ 926,631	$ 1,074,197	$ 994,528	$ 975,061	$ 691,005	-29.13%
UCF	11.67%	$ 1,489,006	$ 1,148,454	$ 3,624,989	$ 6,202,998	$ 6,162,922	$ 5,953,071	-22.87%
UCLA	32.22%	$ 16,628,978	$ 15,131,895	$ 20,660,785	$ 22,931,667	$ 25,229,669	$ 19,329,439	-23.39%
UConn	24.05%	$ 17,161,820	$ 14,520,881	$ 14,266,604	$ 11,871,196	$ 11,421,071	$ 11,469,043	-16.79%
UNLV	12.95%	$ 3,588,400	$ 4,012,341	$ 4,259,775	$ 6,715,334	$ 5,517,886	$ 5,409,086	-17.83%
Utah	27.14%	$ 7,880,400	$ 8,376,457	$ 7,842,638	$ 7,349,533	$ 7,947,343	$ 7,887,230	-6.37%
UTEP	16.30%	$ 4,114,313	$ 4,989,718	$ 4,804,756	$ 3,761,394	$ 4,301,870	$ 2,841,759	-33.94%
Vermont	10.47%	$ 1,236,602	$ 1,415,251	$ 1,375,420	$ 1,648,975	$ 1,558,474	$ 1,444,466	-7.32%
Virginia	20.60%	$ 12,812,200	$ 13,234,495	$ 14,494,397	$ 15,247,122	$ 13,920,149	$ 14,444,012	-8.70%
Virginia Tech	27.45%	$ 15,950,027	$ 14,090,515	$ 18,060,693	$ 17,899,755	$ 17,132,011	$ 16,740,933	-11.66%
Washington	34.26%	$ 15,386,299	$ 20,429,350	$ 17,660,870	$ 23,089,690	$ 21,538,409	$ 21,622,833	-13.55%
Washington St.	16.01%	$ 5,077,207	$ 6,205,256	$ 6,014,496	$ 6,911,236	$ 6,036,750	$ 5,181,093	-14.17%
Wichita St.	19.41%	$ 3,191,269	$ 3,528,772	$ 3,966,160	$ 3,465,316	$ 3,949,294	$ 3,995,492	-12.63%
Wyoming	13.72%	$ 3,185,380	$ 3,447,268	$ 3,629,285	$ 3,581,993	$ 2,968,607	$ 3,854,527	-17.12%

Note: Table shows annual CPI-adjusted collected ticket revenue for 71 NCAA institutions where ticket revenue comprised at least 10% of total athletics revenue and there was one or more years between 2004 and 2010 where revenues were at least 5% below the previous.

APPENDIX 2
ANNUAL ESTIMATED PAYOUTS WITH RISK MANAGEMENT PROGRAM

NCAA Institution	2006	2007	2008	2009
Air Force	$ -	$ 817,101.07	$ 81,250.68	$ 291,098.19
Alabama State	$ -	$ 218,686.84	$ 135,777.71	$ -
Arizona	$ -	$ 1,466,513.96	$ -	$ 363,994.30
Arizona State	$ 2,090,378.53	$ -	$ 455,077.86	$ 1,503,980.70
Arkansas	$ -	$ 2,011,025.65	$ -	$ 135,456.99
Arkansas - Pine Bluff	$ 177,698.96	$ 40,854.00	$ -	$ 113,471.69
Arkansas State	$ 326,814.18	$ 21,092.16	$ -	$ 138,406.88
Boise State	$ -	$ -	$ 822,129.21	$ -
Cal-Berkeley	$ -	$ -	$ 423,993.22	$ 1,474,259.81
Cincinnati	$ 641,636.44	$ -	$ -	$ -
Clemson	$ -	$ 1,159,301.76	$ 117,724.59	$ 1,600,652.06
Colorado	$ 1,113,760.82	$ -	$ 1,207,584.13	$ 890,366.67
Colorado St.	$ -	$ 77,809.14	$ 67,493.42	$ 737,169.94
East Carolina	$ -	$ -	$ 547,060.04	$ -
Florida A&M	$ 375,577.29	$ -	$ 127,334.51	$ 14,620.31
Florida State	$ -	$ 2,917,850.30	$ -	$ 3,115,975.22
Georgia Tech	$ -	$ 547,046.74	$ 1,487,914.90	$ -
Grambling State	$ 188,373.15	$ -	$ 252,210.57	$ 251,865.67
Hawaii	$ -	$ -	$ 1,716,853.99	$ 349,515.93
Illinois	$ -	$ 1,198,149.96	$ -	$ 429,912.39
Indiana	$ -	$ -	$ 2,838,763.73	$ -
Iowa	$ -	$ 4,095,844.40	$ -	$ 863,833.01
Iowa State	$ 2,276,012.32	$ -	$ 2,032,827.75	$ 442,650.47
Jackson St.	$ -	$ 304,982.04	$ 107,173.78	$ 253,603.81
Kansas St.	$ -	$ 1,129,623.33	$ 219,672.35	$ 667,179.99
Kentucky	$ -	$ -	$ 2,157,337.31	$ -
LA-Lafayette	$ -	$ -	$ 236,951.78	$ -
Louisville	$ -	$ 1,301,135.63	$ -	$ 3,031,745.72
LSU	$ -	$ 1,606,067.09	$ -	$ 4,953,872.67
Maine	$ 262,752.34	$ -	$ 327,643.79	$ 220,006.77
Marshall	$ 428,800.00	$ -	$ 923,355.21	$ 225,840.26
McNeese St.	$ -	$ -	$ 175,342.52	$ -
Memphis	$ -	$ 704,246.77	$ 1,041,102.32	$ -
Michigan	$ 2,862,449.51	$ -	$ 4,348,083.46	$ -
Michigan St.	$ -	$ 1,819,036.96	$ 481,700.47	$ -
Minnesota	$ -	$ -	$ -	$ 479,601.30
Mississippi	$ -	$ -	$ 909,750.50	$ -
Mississippi St.	$ -	$ 2,269,249.04	$ 1,285,892.14	$ -
Missouri	$ -	$ -	$ -	$ 701,182.07
Missouri St.	$ -	$ 297,921.85	$ 60,014.89	$ 324,208.12
Montana	$ -	$ 220,853.56	$ -	$ 519,544.76
Montana St.	$ 128,598.90	$ -	$ 118,286.59	$ -
Nebraska	$ -	$ -	$ -	$ 3,652,062.37
Nevada	$ -	$ 4,746.53	$ 134,901.84	$ 693,787.67
New Hampshire	$ 102,194.18		$ 104,940.43	$ 222,963.00
New Mexico	$ -	$ 5,120.72	$ -	$ 446,794.90
North Dakota	$ -	$ -	$ 152,530.57	$ 282,889.33
North Dakota St.	$ -	$ -	$ -	$ 159,349.26
Ohio State	$ 1,498,619.26	$ 5,977,387.00	$ -	$ 2,669,604.79
Oklahoma St.	$ -	$ -	$ -	$ -
Oregon St.	$ -	$ 1,110,266.48	$ -	$ 963,883.56
Purdue	$ -	$ -	$ 860,235.07	$ 1,015,473.76
San Diego St.	$ 27,401.53	$ 481,635.50	$ 296,823.37	$ 121,443.79
South Carolina	$ -	$ -	$ -	$ 3,393,198.58
South Florida	$ 461,420.55	$ -	$ 567,543.31	$ 66,269.86
Southern Miss.	$ -	$ 401,468.66	$ -	$ 328,345.22
Tennessee	$ -	$ 347,827.56	$ -	$ -
Tennessee St.	$ -	$ 106,524.39	$ 19,466.90	$ 195,012.17
UCF	$ -	$ -	$ 195,151.11	$ 209,850.60
UCLA	$ -	$ -	$ -	$ 5,172,082.07
UConn	$ 254,276.85	$ 2,395,407.56	$ 450,125.04	$ -
UNLV	$ -	$ -	$ 1,365,331.68	$ 108,799.57
Utah	$ 743,230.24	$ 493,105.43	$ -	$ 258,796.60
UTEP	$ 309,705.63	$ 960,951.10	$ -	$ 881,883.34
Vermont	$ 75,212.16	$ -	$ 131,725.01	$ 114,008.16
Virginia	$ -	$ -	$ 1,708,150.83	$ -
Virginia Tech	$ -	$ 612,455.27	$ 767,743.72	$ 391,078.33
Washington	$ 3,279,213.79	$ -	$ 2,128,523.71	$ -
Washington St.	$ 345,891.88	$ -	$ 1,047,266.68	$ 855,657.17
Wichita St.	$ -	$ 599,998.16	$ -	$ 52,534.39
Wyoming	$ -	$ 138,023.55	$ 613,386.06	$ -