

Constructing an Indoor Practice Facility at MSU: A Cost Benefit Analysis

Montana State University

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Introduction

Over the last couple of seasons, the Montana State University–Bozeman football program has been quite successful on the field. The Bobcats won a share of the Big Sky Conference title and made the NCAA FCS playoffs for both the 2010 and 2011 seasons. This success in 2010 led to increased fan support and excitement about the program which prompted a fundraising effort to expand the end zone of the existing football stadium at MSU. The private fundraising campaign collected approximately \$6 million. This was coupled with a loan from MSU which allowed the \$10 million project to commence in the summer of 2011. Interest in the team is near an all-time high—nearly every game of the 2011 season was sold out.

Now that the stadium has been expanded, die-hard Bobcat football fans are suggesting new projects for the athletic department to undertake in the future. A January 2012 thread on the MSU Bobcat message board (bobcatnation.com) discussed two possibilities that the university could undertake. One idea was to expand the east sideline stands and add skyboxes to match the west side. This expansion would generate additional revenue for the stadium and cause the east stands to match up with the new end zone. Another proposed idea was to build an indoor football practice facility. This facility would be useful when the oft-inclement Bozeman weather disrupts practice time in the latter part of the season. An indoor practice facility would consist of a football field housed within a large warehouse-like building. Depending on the scope of the facility, it could also include a running track, weight rooms, locker rooms, offices for the coaching staff and administration, and possibly other features that would allow for the inclusion of other sports. It would also allow the football team (and potentially other sports) to conduct full practices at any time regardless of extreme weather events such as cold, snow, rain, wind, etc.

The facility would lead to the teams being better prepared for competition and hence have a better chance of winning. A facility would also be a major recruiting tool for the coaches—they could point to this facility as a symbol of MSU's prestige and commitment to success. It would increase the probability of landing higher quality athletes from around the country.

MSU football competes at the Division 1 level in the FCS (formerly 1-AA) subdivision. Presently, indoor practice facilities are very rare at the FCS level (only six of the 126 teams have such a facility). The FCS teams with a facility are Dartmouth, Maine, Northern Iowa, Penn, Tennessee State, and Youngstown State. These schools (with the exception of Tennessee State) are located in climates where late season weather could have an effect on practice time. The teams with a facility are often competitive on a national scale. MSU would like to be a perennial competitor at the national level and this is possible without a practice facility (the University of Montana has accomplished this). However, the presence of a facility would do nothing but help the competitiveness of MSU.

Due to the large costs of sports facilities, teams will often try to get the public to help pay for them. The proponents argue that the facility will be a public good and benefit the community as a whole. However, governments are not always very keen on paying for a team's stadium. For example, in April 2012 the Minnesota state legislature rejected a \$975 million proposal to help the Minnesota Vikings pay for a new stadium (Coss, 2012). Another current example is a proposed basketball and hockey arena in Seattle. This facility has been met with heavy public criticism as well. In these cases, it is not clear that the benefits a community will gain from the facility outweigh the costs. These public proposals for team facility upgrades both failed and succeeded at different times in history depending on public support. That is why a CBA would be needed for the MSU facility as well; it would ensure that the project is socially beneficial.

The prospect of building such a facility is an interesting one, but it would have significant cost to build and operate and there are no obvious revenue-generating features that would accompany the facility. Measuring the change in revenue resulting from facility will be a difficult task in conducting the CBA. Another challenge will be measuring the consumer surplus from the facility that comes as a result of the demand for a facility. The current economic climate of the United States has led to a more wary public in terms of the spending of money. If MSU were to ever decide to build such a facility, a proper cost-benefit study would have to be done prior to undertaking the project. This paper examines the potential methods along with possible results that could be used in assessing the costs and benefits of such a project.

Literature Review

There have been no formal studies done on the costs and benefits that result from an indoor practice facility specifically. However, there have been several studies done on the stadiums in which games are played. These papers provide background on assessing the costs and benefits of a sports building in general. The papers are primarily focused on the professional level, likely because of the large amounts of money tied up in that industry. The literature review focuses on three main ideas: the difficulty in measuring the economic data of sports; measuring the costs of a facility; and measuring the benefits of a facility.

Due to the widespread nature of the sports industry, the data from it is difficult to measure. The definitions of economic activity in sports are also quite different from other industries that are typically studied. Humphreys and Ruseski (2010) highlighted these problems in their paper *Problems with Data on the Sports Industry*. The first problem that they highlight is the definition of “sports.” The word itself is quite ambiguous and as a result, there is not consistency across different groups who try to measure the data for sports. Regardless of the

exact definition used, the three measures that are often used for sports are total economic activity, actual participation and attendance, and viewing and listening to the sports through different media.

According to Humphreys and Ruseski (2010), the problem with measuring the direct economic activity arises because the sport industry is not defined by the North American Industrial Classification System (NAICS) and as a result, no data specific to sports is collected. Also, at all levels of sports, the government is intertwined with the industry on the supply side; they subsidize teams' facilities and activities. This government involvement skews the data on sports. On the demand side, much of the benefits come in the form of consumer surplus, which is difficult to measure. Finally, much of the sports market involves non-traded goods and inputs that have no market value (for example, consider the college athlete; there is no market value of their labor, they are paid with education). All of these factors make the economic activity measures for sports difficult to obtain.

Lastly, the Humphreys and Ruseski (2010) paper pointed out the difficulty in measuring the economic activity derived from the viewing and listening to sports through various media. There are issues that lead to skewed audience data. For one, the current viewership data does not take into account for the length of time watched, merely whether or not the household watched the event at all. Most other measures for economic data, factor in proportions (for example, labor statistics distinguish between full-time and part-time labor). The sports data does not make a similar distinction. Another issue arises from the multitasking environment of sports watching. This makes the true opportunity cost of the activity difficult to assess. If a person cooks dinner and watches sports at the same time, what should the person be measured as doing? Along with these flaws (and others not mentioned), acquiring the data for viewership and listening is also

relatively expensive to obtain, making this measurement of sports data even more unpalatable. Overall, sports data is expensive and difficult to obtain.

Sports facilities are often subsidized by local and state governments. When these facilities are discussed before approval, the proponents have the tendency to underestimate the costs to the public. In the paper *Full Count: The Real Cost of Public Funding for Major League Sports Facilities*, Long (2005) discusses the ways in which the costs are often understated to the public. First, the stadiums land and infrastructure costs are often not included in proposals. These facilities are often constructed on public land. For some reason, the public does not usually consider the cost of this land. The infrastructure costs are the additional public works needed to make the facility possible, such as roads, sewer, and water. Second, the annual operating costs are often unstated or ignored. Proponents often will bring up the benefits of annual revenue and stadium naming rights without mentioning the costs. This misleads the public into believing that the stadium will pay for itself after a certain number of years when it simply is not the case. Lastly, the facility can cause a loss in property taxes to the city that is not mentioned either. Even if these facilities are privately owned, there are tax exemptions available because the owners can argue that they are intended for public use. Sports facilities costs' should be fully accounted for before they are built, but they often are misrepresented.

The last portion of the literature review focused on measuring the benefits that result from a sport facility. In the paper *New Sports Stadiums, Community Self-esteem, and Community Collective Conscience*, Eckstein and Delaney (2002) asserted that building a stadium rarely will benefit a city dollar-wise and because of that, proponents often have to turn to “non-economic” methods to get support to build the facility. One such “non-economic” measure is the community self-esteem derived from being a “big-league town.” The authors themselves were

not economists and the “non-economic” measures would be accounted for in the willingness to pay measurement. In the case of an indoor-practice facility, these intangible benefits will be an important measure because the increase in revenue from the facility would not be its sole benefit. One study that attempted to measure these intangible benefits was done by Johnson and Whitehead (2000). The authors attempted to measure the willingness to pay (WTP) of the average citizen in Lexington, Kentucky for a new University of Kentucky basketball arena. This measurement was done via the contingent valuation method. A randomized dichotomous choice survey was sent out to the public and asked what their WTP would be for a new arena. After controlling for other factors that would affect the citizens’ WTP, the researchers found that the average household maximum WTP was around nine dollars. A CBA of a practice facility will have to include similar measures to try to estimate the benefits.

Data and Methods

When considering a new indoor practice facility, the Kaldor-Hicks criterion should be used. This decision rule says that a proposal should be adopted if those who benefit could fully compensate those who bear the costs of the proposal. In this case, the facility would be approved if the benefits (consumer surplus) are greater than the costs; it would be rejected if the costs outweigh the benefits. Both the benefits and costs need to be measured prior to the decision.

However, before the benefits and costs can be measured, it must be decided who is to be given standing. Standing is determining whose costs and benefits are going to count. For this CBA, the groups that are given standing largely depend on how the project is paid for. The stadium expansion in 2011 was paid for by private donation and a loan from the university to be paid back with future athletic revenue. If this same payment method were to be employed, the groups given standing should be the athletes/coaches of all sports that would use the facility, the

students at MSU, and MSU boosters and alumni that could potentially donate to the program. Other groups, such as viewing and listening audiences, will be ignored because of the cost and unreliability of the information.

One major factor that would have a great effect on determining the costs of the facility is the scope of the facility. The scope would also affect the benefits that the facility creates; more benefits stand to be gained if more sports and activities can use the facility. Universities have the choice of what features to include in their facility and MSU would face the same choice. For the sake of this study, the facility used will have all of the appropriate features for a university of MSU's size. A maximum-scope facility would be used because the marginal costs of an additional feature are relatively low when the facility already exists. If MSU were to put forth the resources for any indoor facility, it would be most cost-effective to go all out and include all of the reasonable features possible.

Now that the issue of standing has been determined, the methodology needs to focus on calculating the costs of an indoor practice facility. The main determinants of the costs will include the fixed initial construction costs and the variable per-year operating costs. In addition to these obvious costs, the paper addressing the underestimation of costs of sports stadiums by Long (2005) prompts the consideration of the costs of land, public infrastructure, and forgone property taxes that are frequently glazed over in CBAs. These other cost factors will be properly addressed in this paper.

Even if the scope of the facility were decided upon, calculating the initial construction costs would be quite difficult. These costs can vary greatly based upon unforeseen problems that arise during construction. That is why construction companies pay big bucks to their estimators. Any facility that would be constructed would be bid on by a construction company and that

would give the person conducting the CBA a better idea of the initial construction costs.

However, since this paper is very hypothetical in nature and there are no formal proposals for this project yet, there are no bids that can be used to estimate the construction costs. The best method available at the present time would be to look at another facility and use its construction costs as a baseline. The ideal facility used would be similar in size and function to the one proposed.

Luckily, such a facility exists—the Watson and Tressel Training Site (WATTS) at Youngstown State University in Ohio. Like MSU, Youngstown St. competes at the FCS level, making it a comparable university. The \$12.3 million indoor practice facility was completed in the fall of 2011 and it includes a synthetic turf system football field, a 300-meter track surface, two long jump pits, a high-jump pit, four batting cages, protective netting, a training room and locker rooms (Watson and Tressel, 2012). These features are similar to what MSU would want and since this facility was completed recently, it would be a good estimated value for the facility MSU could build. Thus, \$12.3 million is the estimated value for the initial construction costs of an indoor practice facility.

The next costs that will have to be estimated are the annual costs of maintaining the facility. When projects are proposed, this is one aspect that is often overlooked in the decision making process because people automatically look at the construction cost and do not consider the annual costs. Annual costs are those that arise from the day-to-day operation of the building. Factors that add to the annual costs include insurance, custodial, management, and utility costs. The ideal method for determining the initial costs would be to survey other universities about their costs and come up with a reasonable estimate for that data. Another consideration would be the annual costs of other similar buildings on the MSU campus. The annual costs of large MSU

facilities such as the Brick Breeden Fieldhouse and the Bobcat-Anderson Tennis Center could give a good estimate of the annual costs of operating an indoor practice facility.

A cost per square foot estimate was obtained for a similar practice facility (Oregon State's). The estimated annual costs for this building were \$1.57 per square foot (OSHBE Meeting, 2000). This estimate is not perfect, but Corvallis, Oregon and Bozeman, MT are located at relatively similar latitude and it will give a good approximation of per year costs for the sake of this paper. If anything, it would be better to slightly overestimate the costs rather than underestimate them. Thus, in order to account for climate and temporal differences the baseline estimate of \$1.57 per square foot was inflated to \$1.75 per square foot. Next, a square-footage estimate is needed for the new facility. The size of Youngstown St. WATTS was used for the estimate, it is a 125,000 square foot building. This square footage estimate is relatively large, but a larger number is better for obtaining a more conservative estimate. The estimate for annual operating costs was determined by the following method:

$$(\$1.75/\text{square foot}) \times (125,000 \text{ square feet}) = \$218,750 \text{ (Annual Costs Per Year)}$$

In summary, using estimates from the WATTS facility the estimated initial construction cost for the MSU facility is \$12.3 million and the estimated annual costs are \$218,750.

The last bit of discussion for the costs of the project focuses on the land costs and the forgone property taxes that result from the building of sports facilities. Because MSU is a public university, they have non-profit status and are thus exempt from paying property taxes. So the case of foregone property taxes brought up in Long's paper (2005) does not apply here. The other costs to consider are the land and infrastructure costs. The project is still hypothetical so the exact site of the facility is unknown at this point. One possible building site is the current practice field (this site is shown in Exhibit 1). The university owns the land and it is in close

proximity to the Fieldhouse and the tennis center. The opportunity cost of the land would be minimal because it is currently being used as an outdoor practice field for the football team. The infrastructure costs would also be minimal because of its location in relation to the other buildings; it would not require significant infrastructure investment from the community. Even though these costs are often underreported, the site selection at MSU could minimize these costs. For this paper, it will be assumed that these costs are included in the initial construction estimate.

The next step in the CBA is to measure the benefits that would arise from the construction of the facility. One portion of the benefits that could be measured is the increased revenue to the school that could result from the facility. If the facility creates a competitive advantage for the team, it would lead to a better overall team (evidenced by an increased winning percentage). A better team would cause increased fan support and a larger following. This would lead to higher revenues for the MSU athletic department from higher ticket sales, advertising revenue (from larger television and radio audiences), and merchandise sales. It seems reasonable that there would be some amount of revenue increase that would benefit the university as a result of the project, but what is a reasonable number to use?

To determine this number, the hedonic value of a practice facility would be calculated in terms of winning percentage. The winning percentage of a team would be a function of many different variables including historical success, location, stadium size, university size, practice facilities, and others. The variable of interest in this function would be the presence of an indoor practice facility. Using econometric methods on past football winning percentage data, the value of the practice facility variable in terms of winning percentage could be estimated. For a simple example, the Youngstown State football team improved from a 3-8 record in the season before the WATTS facility was constructed to a 6-5 record in the following season. The facility is

obviously not the only factor that led to this increase; the hedonic value analysis would isolate the variable's effect.

In addition, a relationship between winning percentage and revenue would have to be calculated. A 2011 study attempted to estimate this value for soccer clubs in the English Premier League (Carmichael, McHale, & Thomas, 2011). This study estimated the revenue functions of teams and it was determined that the winning percentage variable had a positive relationship with revenue. A similar study could be done for college football revenues. The two estimated values could then be used in this equation:

$$\text{Revenue increase from the indoor facility} = (\text{Hedonic value of facility}) \times (\text{Revenue increase from a one point increase in winning percentage})$$

This method does not seem as if it would be the best for estimating this revenue increase.

However, this is a possible framework to begin to estimate the revenue benefits from the addition of the facility.

Another benefit of the facility arises from its existence value. Boardman et al. (2011) describes existence value as the value that an entity has simply because it exists. People can stand to gain benefit from both its use and nonuse. These benefits would consist of factors such as competitive advantage, utility, school pride, team prestige, and positive outside perception. These factors would benefit the students as well as the teams. The WTP of those with standing would capture this existence value. To estimate the WTP, a contingent valuation survey of all of the people with standing would be used.

To elicit the WTP for those that might donate to the project (i.e. boosters and alumni) it would merely consist of a fill in the blank survey. This could be done because the donation would be voluntary and the donator would have a good idea of their willingness to donate.

However, such a survey would not elicit accurate responses for measuring the willingness to pay for the athletes and students. Instead, a random-value dichotomous choice survey would be more appropriate for these groups. This survey would consist of a random value that would elicit a yes or no response from the survey taker. This is better because the survey takers would need some initial guidance on reasonable willingness to pay amounts. An example survey question for an MSU student would be: “*Are you willing to increase your student athletic fee by \$X for a new indoor practice facility?*” (where X is a random value that is from a range determined by the survey creator). Then the response data would be used to estimate the average willingness to pay for the group.

It is likely that the coaches and athletes of the sports that use the facility would have different level of benefit that may not be properly captured in the same survey as the one given to a normal MSU student. To try to capture this difference the question could be phrased differently. The question could instead be: “*would you be willing to have your salary/scholarship reduced by \$X for a new practice facility?*” This would elicit a more accurate response from this group because the costs to the survey taker would be more fully realized. The aggregate willingness to pay from these groups with standing would be the total existence value for the facility.

After both measures of benefit are determined, total benefits can be calculated in this way:

$$\text{Total Benefit} = (\text{Benefit from increased revenue}) + (\text{Existence value}) \quad (\text{See Exhibit 3})$$

Results

Unfortunately, due to time and resource constraints, a full CBA was not possible for this project. However, one might speculate on what would be found if a CBA was undergone. The costs of the facility would in theory be simple to calculate. At this point, there is no proposed

project so the costs of other similar facilities were used as an estimate. If there was an actual proposal in place, the numbers would be calculated from construction bids and actual building information instead. The costs of the project would consist of the sum of the initial construction costs and a discounted sum of the annual costs over time. If the site was chosen to be at the location in Exhibit 1, the land and infrastructure costs can be ignored for the reasons stated in the prior paragraphs.

In Exhibit 2, the sum of the discounted stream of costs was calculated over various social discount rates and periods of time. After performing this sensitivity analysis, a discount rate of 7% over a period of 50 years was decided upon. The 7% rate was chosen because U.S. federal policy dictates that CBAs of federal projects must be discounted at that rate (Guidelines and Discount Rates, 2012). A period of 50 years was chosen because that seems like a reasonable lifetime for the life of the facility. This discounted sum of annual costs ends up equaling \$3,018,913. Adding this figure to the initial construction costs of the WATTS center at Youngstown State (\$12.3 million); the total costs of the facility end up totaling \$15.3 million dollars.

Now that a cost for the project has been established, the benefits would have to be determined. If the benefits are equal to, or exceed this \$15.3 million mark, then the project should proceed. However, the benefits are not directly measurable and no actual contingent valuation survey was given. Thus, the possible benefits listed here are purely speculative. The contingent valuation study for the city of Lexington, KY in regards to a new basketball arena, came up with an average household willingness to pay of nine dollars (Johnson & Whitehead, 2000). With this in mind, the estimated willingness to pay for the average MSU student for the new facility would be at least nine dollars. The reason this is a reasonable minimum is that the

entire city of Lexington was given standing. For this project, the group given standing is much more specific (i.e. MSU students). It can be expected that a student body would have at least the same amount of willingness to pay for a facility upgrade for their team as an entire city with a populace not necessarily directly tied to the university. If the average willingness to pay for an MSU student was nine dollars, then the annual benefit would be

$$(\$9 \text{ per student}) * (14,153 \text{ (2012 enrollment)}) = \$127,377 \text{ (benefit per year)}$$

The discounted sum of these annual benefits (at 7% over 50 years) would be \$1,757,898. This is much lower than the discounted sum of the annual costs. If the annual costs of \$218,750 were funded by students alone, they would have to have a willingness to pay of \$15.46 per student. This number does not seem unreasonable because it would correspond to a \$7.73 increase in fees per semester.

The willingness to pay for the boosters and alumni is also highly speculative. The end zone project that was completed in 2011 generated \$6 million+ in donations (End Zone Donor Roll, 2011). A practice facility is not as impressive as an upgraded stadium, but there would still be some willingness to donate for this project. What that number is exactly is unknown. However, it seems reasonable that this number would be less than \$6 million. Therefore, \$6 million could be used as an upper limit of the estimate for the willingness to pay for boosters and alumni.

The last group to consider is the athletes and coaches that will benefit most directly from this facility. Once again, this result is unknown. Looking at the benefits and costs thus far, we can determine what the willingness to pay would have to be for this group. It would have to be around \$7-8 million dollars, depending on the exact willingness to pay of the boosters and alumni. This group consists of a small group of people, and it seems unlikely that they would

stand to benefit by \$7.5 million. The hedonic value of the facility in terms of winning percentage (and also perhaps revenue) would be included in this benefit section too, but it would not be proper to speculate on any sort of number without actually doing the study. Exhibit 3 attempts to summarize the costs and benefits considered in this analysis. As one can see, there are several estimates that are unknown including the most important one: the net benefits and costs.

Conclusion

The speculative nature of this CBA creates a difficulty in trying to conclude anything concretely. The costs of building the facility seems quite large at this point in relation to the benefits that would be gained. To carry out the full project based on this paper would be foolish and unwarranted. However, if the suggested methods were carried out properly and fully, the costs and benefits of the project would be measurable and a proper conclusion could be reached. Remember, if the CBA results in net benefits, then the project should be carried out.

However, in the hypothetical situation where the facility was already in existence, would the annual benefits outweigh the annual costs? The initial construction costs are what lead to the facility being unattainable. If a large, one-time donation was made and a facility suddenly existed, then the only costs would be the annual costs to operate the facility. In that case, the annual benefits would have to exceed the \$218,750 dollar value. This scenario does seem possible, especially if the building were constructed in such a way that it benefitted more than just the football team directly. One option could be to use the facility as an indoor convention center for large group meetings. Also, if intramurals could use the facility, that would result in an increase in the annual benefit. In these instances, the facility's benefits could justify its operating costs.

Another possible method that could be used in the analysis would be to conduct a weighted CBA. This method is mentioned in the book by Boardman et al (2011). This would consist of the analyst assigning different weights to the different groups that have standing. This is done because different groups have different values for their elasticity of demand. In this case, athletes likely have similar incomes to their non-football playing peers. Since their WTP is a function of their income, that measure would be underestimated. In this case, we might assign more weight to the athlete's willingness to pay. This would result in a higher measured benefit and perhaps a more accurate number for the CBA. This method is controversial because determining the weights to use is largely arbitrary and any use of this method would require extensive justification.

Even if this CBA were conducted properly, the results would have to be scrutinized carefully. The results that stem from contingent valuation surveys are not necessarily indicative of the true willingness to pay. According to Boardman et al (2011, p 231), existence values (measured with a contingent valuation method) "should be estimated whenever possible, [but] costs and benefits should be presented with and without their inclusion to make clear how they affect net benefits." Since most of the facilities benefits would stem from its existence value, any result would be open for justified criticism.

Another area that could be explored would be the additional benefits that might result from a higher football team winning percentage. One spillover could be the overall improvement of all the teams in the athletic department. Football is the main money-maker in college sports and successful football teams can aid in the improvement of other sports as well. Increased success has also been shown to increase the undergraduate admission to universities as well (McEvoy, 2005). If this were the case, MSU could either improve its total enrollment

number, or they could improve the quality of their students by being able to select from a larger pool.

This proposal has touched on most of the topics that make CBA difficult. For one, the benefits of this proposal were mainly existence values that are difficult to monetize. Picking what benefits to measure, the social discount rate, and standing illustrated the difficulty that CBA analysts face when they are forced to make subjective decisions to carry out their analysis. This project has made clear the problems with ex ante analyses and the variability that comes from the assumptions made. An analyst should always take great care in determining the assumptions made and sensitivity analyses should be conducted to determine the impacts from the assumptions.

The Montana State University Bobcat football program (and athletic department in general) is on the rise, but they are not yet to the level where an indoor practice facility would be socially justified. It is likely that the initial costs of the project would be too substantial to be overcome by the benefits that the facility would create. However, in the future, this facility may be a possibility if the program is at the level where building such a facility would be justified. It seems as though the program at this stage should pursue options that will have immediate revenue-generating benefits. At this point, Bobcat fans will just have to wait and see.

Exhibits

Exhibit 1: Possible site for the indoor practice facility.

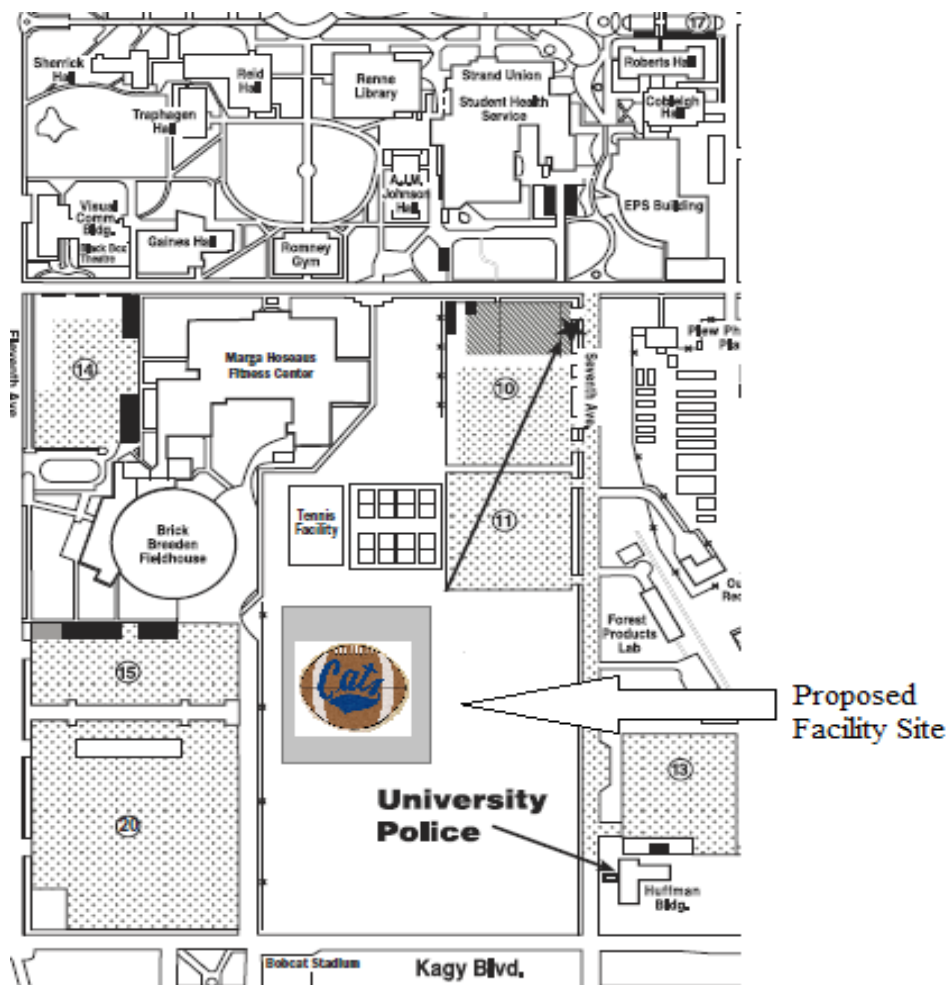


Exhibit 2: Discounted Sum of Annual Costs: Calculated by $\sum_{n=1}^k \frac{218,750}{(1+r)^n}$

Social Discount Rate (r)	k = 50 Years	k = 100 Years
5%	\$3,993,483	\$4,341,730
7%	\$3,018,913	\$3,121,399
9%	\$2,397,868	\$2,430,116

Exhibit 3: Summary of estimated costs and benefits. Unfortunately, no concrete conclusion can be drawn from this analysis.

<u>Costs</u>	Initial Construction	\$12.3 million
	Annual Operating Costs	\$3.0 million
	Land and Infrastructure	Negligible
	Total	\$15.3 million
<u>Benefits</u>	Students	\$1.8 million
	Boosters/Alumni	<\$6 million
	Athletes/Coaches	?
	Revenue increases	?
	Total	\$7.8 million?
<u>Net</u>		???*

*Because the net costs and benefits are unknown, this paper cannot make a final recommendation about this project.

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