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A Brief Study on the Economic Impact of the US Cellular Coliseum in Bloomington-Normal

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Abstract

This research can be used to identify which events generate the most attendance for The US Cellular Coliseum, which can ultimately lead to more profits for the Coliseum and in the neighboring community.

Keywords

economic impact, arena, economic benefit, attendance, expenditures, cost-benefit analysis

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I. Introduction

The US Cellular Coliseum is the largest ticketed attraction venue in the Bloomington-Normal area, housing multiple sports teams such as the Bloomington Edge (football), Thunder (hockey), and Flex (Basketball). Since it's opening in April 2006, the Coliseum has hosted an assortment of events including concerts, graduations, tournaments, and family shows. In the past year alone there were over 200 events held at the Coliseum with headliners such as Eric Church, Lee Brice, and Joan Jett and the Blackhearts (US Cellular Coliseum, 2015).

The ability to attract these well-known artists is a good way to draw larger crowds which ultimately leads to increases in revenue. However, The US Cellular Coliseum actually ended the 2015 fiscal year with almost a $500,000 loss in net operating income, indicating that expenses exceeded their revenue for the past fiscal year. Additionally, last year's total attendance of 174,000 is statistically one of the lowest turnouts since its construction (US Cellular Coliseum, 2015).

These figures do not show signs of success. However, when it comes to attractions such as professional sports stadiums and performance venues like the US Cellular Coliseum, we must not overlook the economic impact these sites have on the surrounding community. The economic impact of the Coliseum on the community is estimated at $12.5 million the past fiscal year, and in total over $127 million since it's opening in 2006 (US Cellular Coliseum, 2015). The cost of constructing The US Cellular Coliseum cost over $37 million (Guetersloh, 2004) so, we might ask, have the benefits of the Coliseum outweighed the costs of construction, maintenance, and renovation? There has been a large amount of economic research focusing on whether or not sports and performance arts venues are worth the construction costs due to the fact that most of these venues are partially if not completely funded by the public. However, the US Cellular Coliseum has already been operating for 10 years, so the focus of this research will not be on that topic. Further reading on whether or not sports and performance venues are worth the costs can be found through the works of Baade (1988), and Coates and Humphreys (2008).

Instead, this study will focus on projecting expenditure from the attendance records in the Coliseum's most recent year-end report. Furthermore, we will estimate the additional economic impact on the surrounding region from tourists as their distance traveled to the Coliseum increases. These findings will allow us to establish a strategy for booking events that maximizes revenue for not only the US Cellular Coliseum but also the surrounding area.

As previously mentioned, the Coliseum's NOI (net operating income) loss was nearly $500,000 the past year, which more than doubled their previous years NOI loss of $185,000 (Nagle, 2015). This is concerning for the residents of Bloomington because under the current contract the city taxpayers are responsible to pay for these losses via higher tax rates. The Coliseum's large losses in 2015 were partially due to the fact that the Pepsi Ice Center parking lot located across the street was closed for most of the year. This resulted in the loss of the annual Bloomington-Normal Homebuilders Trade Show, a marquee event in Central Illinois (US Cellular Coliseum, 2015). However, it is important to determine what factors drive attendance so that the Coliseum can sustain profitability year after year.

This research can be used to identify which events generate the most attendance for The US Cellular Coliseum, which can ultimately lead to more profits for the Coliseum and in the neighboring community.

II. Literature Review

A. Gravity Model

One way of estimating the amount of tourists that visit a certain place is through the use of gravity models. The seminal theory of the gravity model was created by Jan Tinbergen (1962) to calculate the standardized flow of trade between two countries. Tinbergen applied Newton's law of gravitational force to international trade flows. It estimates trade from one country to another by multiplying some constant by the GNP of both countries and then dividing that by the distance between the two countries. According to Anderson (1979), this model is one of the most important empirical trade devices of the era.

AG Wilson (1967) applies this theory to generate his own models that include the movement of international travelers and tourists from one area to another. These were created because tourism is a special type of trade that involves much more than just imports and exports. His model overcomes the linear limitations of standard gravity models, however, Wilson also admitted that gravity models at that point in time would only be valid if identical people or goods were being considered. The gravity models at the time would not apply to people with different incomes or goods with different price levels.

The standard assumption that goods are priced the same in each country is flawed due to various outside effects, such as border effects. For example, John McCallum (1995) explains that crossing the United States border has an enormous trade-destroying effect on the trade flows of Canada's provinces. He found that Canada's provinces traded twenty-two times more with each other than with US states. However, economists believed that such a high border effect was impractical. Anderson and Wincoop (2003) were able to eliminate the inflated border effects with the development of their updated model and found that borders reduce trade between the US and Canada by 44%. Anderson assumed a constant elasticity of substitution (CES) import demand system, which means each country produces and sells goods to other countries that are different than the goods manufactured in all other countries. This model allowed Anderson and Wincoop to account for the presence of income differentials in their gravity model.

Other studies have applied these gravity models to their own empirical work. Martinez and Nowak (2003) applied the gravity model to assess the determinants of trade between the European Union and MERCOSUR countries plus Chile. They used OLS to estimate aggregate trade flows based upon independent variables such as importer and exporter incomes, distance, and infrastructure costs.

Another empirical study by Park and Jang (2014) applies destination competitiveness to the gravity model in order to better explain tourist flows. They gathered data from the thirty nations that were most visited by international tourists from 1995 through 2009 and then used OLS and panel data with three different gravity models to estimate how different variables affected tourism flows. They were able to find that neighboring countries play a large role in the amount of tourists that are attracted to a certain country and they also found that applying various components from destination competitiveness are useful when using gravity models to estimate tourist flows. If a destination has a rich country nearby it is more likely to attract more tourists.

These two empirical studies, along with other similar studies on tourism such as McCallum (1995), find that as the distance between destinations increases tourist arrivals diminish. This is because in general as transportation costs increase the amount of tourist arrivals decreases. However, in Webster, Patton, and Zech's study in 1993, distance actually has a positive coefficient after they ran their regressions. This is because the gravity model in this study is estimating the expenditures of tourists while on their trip, whereas most other studies are estimating the amount of tourists who visit from one country to another. The findings from this study imply that as the distance between destinations increases, tourists are willing to spend more money. Although less people travel as the distance increases, the ones that do travel are willing to spend more money once they arrive because of the increased effort it takes to get there.

This theory is backed up by a study on the economic impact of the Route 66 Highway. This study finds that international travelers outspend U.S travelers in almost every category surveyed, spending roughly twice as much as U.S. travelers on eating and drink establishments, snacks, museum admissions, and all other purchases (Route 66, 227). In addition, only about one sixth of the sample size comes from the international subgroup, which agrees with previous gravity model studies that show tourist arrivals decrease with distance, and it also validates the claim that distance is positively correlated with expenditure.

Due to a lack of research on domestic tourism, we will be using the distance coefficient form Webster, Patton, and Zech's gravity model together with RIMS II multipliers in order to estimate the economic impact of out-of-state tourists while they visit the U.S Cellular Coliseum. Although the coefficient of distance is not statistically significant in the study this is expected because time is a superior specification for distance than miles.

B. RIMS II Multipliers

Input-Output multipliers are used to estimate increases in economic activity in a region supplied by different industries. Wassily Leontief (1941) calculated the original input-output table after he recognized a fundamental relationship between the volumes of output in an industry with the size of its inputs. His seminal work explains the change in demand for inputs based on a change in the production of a final good at a national level.

Walter Isard (1951) expanded upon Leontief's original work to suit a regional economy. This is beneficial because various regions throughout the economy have different characteristics and might cause them to have different ways of production in an industry as well as various forms of leakage in their respective economies.

A later development by Richard Stone (1961) applied input-output tables to national accounting records, which provides a more complete framework and standardized system of economic accounts. Stone's report also separates national accounts to each individual industry which gives insight on how these various industries were integrated.

These input-output theories helped provide the theoretical framework for the Bureau of Economic Analysis's development of RIMS in the 1970's and later RIMS II in the 1980's. These multipliers are able to show the amount of expenditure resulting from changes in final demand. The RIMS II methodology is based upon the accounting framework in the earlier input-output methods and it is a useful tool to estimate the regional economic impact of various industries.

Economists traditionally use input-output methodology to examine the impacts of tourism on the economy in a region but Zhou et al (1997) conducted a rather unique empirical study by comparing input-output tables with a different methodology in order to better analyze the impact a reduction in visitor expenditure had on Hawaii's economy. Data was collected on the three primary factors of production; land, labor and capital in the year of 1982 to analyze the impact on the state's economy from a 10% decrease in visitor expenditure. Both of these models find that many industries such as hotels, transportation, restaurant and bars, total trade, and manufacturing are significantly affected in an adverse way from the reduction in tourism expenditure. This shows that a reduction in tourism can have a substantial negative impact on many industries in the region and also shows the importance of maintaining tourism expenditure.

A later empirical study by Cela et al. (2009) explored visitor spending patterns as well as the economic impact of tourism in the Silos and Smokestacks National Heritage Area (SSNHA) in Iowa. They determined that understanding expenditure patterns of tourists during their visit to a specific location is crucial for strategic planning and marketing in order to maintain and increase expenditure in that area. They gathered data from a large sample of respondents at forty-seven different partner sites and utilized the IMPLAN software to estimate the economic impact of those visitors in the SSNHA. The study finds that lodging is the highest spending category, which is expected due to the higher costs relative to food or shopping expenditure. They also estimated that over 547,000 people visited the area from out of town and produced over $62 million indirect impact throughout the various industries in the area. This study provides good insight on the impact that tourists can have on the local economy where the attraction is located.

As mentioned in the previous section, we will be using the RIMS II multipliers together with the gravity model to estimate the amount of direct impact tourism expenditure has on the local economy. We will also be using the RIMS II multipliers to estimate the economic impact of the U.S Cellular Coliseum itself, and together these two estimates will help quantify the total economic impact derived from events hosted at the Coliseum.

III. Data Description and Methodology

The U.S Cellular Coliseum releases a report at the end of each fiscal year that is made available to the public. The reports contain all of the accounting records from the previous fiscal year, as well as the

attendance records generated by TicketMaster. With the exception of one distance measure, all of the data collected for this research is obtained from the Coliseum's most recent year-end report.

The attendance records in the 2015 year-end report also provide us with the date, type, and length for each event. We extracted this data from the year-end report and copied it into a separate spreadsheet so that we could better examine each variable of the events. In addition to type, length, and date, we identify a fourth characteristic, class, to help us better understand what drives the dependent variable, attendance. Three-fourths of the independent variables, class, type, and date of event, are categorical rather than continuous, which means that we needed to recode these variables through the use of dummy variables in order to produce meaningful results. Date is recoded as 39 winter events, 35 spring events, 8 summer events, and 35 fall events, class of event is recoded as 37 community events, 178 Sporting events, and 16 performing arts events, and type of event is recoded as 121 ticketed events, 88 non-ticketed events, 13 meetings, and 9 other events. There are also 202 events that were one day in length, 6 that are two days, 3 that are three days, and 2 that are four days in length which can all be seen in Figures 1 through 4 in the Appendix.

The next step is to extract data from the accounting records of the U.S Cellular Coliseum in the year-end report to determine their total expenses, or economic output, for the 2015 fiscal year. We also determined the number of employees who worked at the Coliseum as well as their total payroll. This data is used to help us estimate the economic impact of the coliseum itself.

In order to estimate the economic impact of tourists from out of state we have to first estimate how far these tourists are traveling to see the event at the Coliseum. It is impossible to know how far each individual traveled, so therefore, we measure the distance from Bloomington to each state's largest populated city and use those numbers as our baseline distance traveled from each person in that state. For example, Columbus is the most populated city in Ohio so we find the distance from Columbus to Bloomington on Google Maps, 346 miles, which can be seen on Table 1 in the attached Appendix along with the distances from each of the other forty-nine states to Bloomington.

The attendance dataset in the 2015 year-end report is very thorough, and it provides detailed statistics about all 231 events which makes the research more accurate and reliable. However, the dataset is only for events in 2015 so it is impossible to determine if the drivers of attendance from this study hold true over time. Additionally, TicketMaster does not include box office sales in their reports, meaning their analysis of ticket sales excludes a percentage of the consumer base.

In order to determine what drives attendance we must run an OLS regression on the program Eviews. After running the regression, we will be able to examine the parameters of the following equation:

Attendance = C + B0Date + B1Length + B2Type + B3Class + Error Term

With this equation, we will be able to determine which variables positively affect attendance and which variables negatively affect attendance, along with their significance levels.

To estimate the economic impact of the Coliseum we use the RIMS II Multipliers. These multipliers estimate the additional expenditure created from a given output in the industry. In order to estimate the economic impact of the coliseum itself we have to use the multipliers from the promoters of performing arts and sports industry, and in order to estimate the economic impact of tourists themselves we have to use the multipliers from the hotels and motels as well as the food and drink industry, which can all be seen in Table 2 of the attached appendix. Although many of the multipliers are very similar for the various industries our input values are different for each industry and even a 1/100th of a decimal difference will have a significant effect when dealing with millions of dollars in input.

Once we have chosen the correct industry we then input the expense, payroll, and employee figures that we retrieved from the dataset and apply those numbers to their respective multiplier. The output values from each category will give us an estimate of the economic impact of the coliseum itself.

The only difference to find the economic impact of the out-of-state tourists is that we have to calculate their initial expenditure ourselves. The equation for this calculation is:
(Distance between point of origin and Bloomington) x (Gravity Model Distance Factor) x (# of event doers) = expenditure

Once we input the data into the equation, we will know the tourists' total expenditure. According to the Bloomington-Normal Area Convention and Visitor Bureau, out of town tourists spend approximately 25% of their expenditure on food and drink, and 75% of their expenditure on accommodations during the duration of their stay. Therefore, we take 25% of the tourists' expenditure and apply that value to the food and drink multiplier, and we apply the other 75% of tourists' expenditure to the accommodation multiplier, and the sum of those two equations will give us the total economic impact from tourists outside of McLean County.

These methods have never been applied to the U.S. Cellular Coliseum, which will give new insight on the attendance records and economic impact the Coliseum has. However, the economic impact of out-of-state tourists involves estimated data, which limits the accuracy of the results.

IV. Estimation Results

As discussed in the data and methodology, the first step we have to take in order to estimate the parameters of the equation is to recode the categorical independent variables into dummy variables so that they can be applied to the regression on Eviews.

Attendance(thousands)= C +B1summer +B2spring +B3fall +B4winter +B5performance +B6sports +B7community +B8ticketed +B9non-ticketed +B10meeting +B11other +B12length + Et

For each event we code the dummy variables with either a 1 or a 0. The characteristics that applied to the event are coded with a 1, and the characteristics that did not apply are coded with a 0. After we ran the regression, we remove the least significant variable from the equation and run the regression again until all of the variables are statistically significant. This allows us to obtain our final estimated equation.

Attendance(thousands)= 1.692 +0.195length +2.264summer +1.325performance –0.872sports –1.358non-ticketed –2.420meeting + Et

Details of the regression results can be found under Table 3 in the Appendix. The constant coefficient of 1.692 is statistically significant at the 99% critical value level and this means that the average attendance at an event at the Coliseum will be 1,692 people. Length is also significant at the 99% critical value level and this coefficient tells us that 195 more people attend the event at the Coliseum for each additional day that an event runs. The coefficient values of the dummy variables tell us by how much the dependent variable is, all else held constant, higher or lower than the average for the rest of the dummy variables in their respective categories. This means that for the category type of event the average attendance for "meeting" events is 1.06 thousand less than non-ticketed events and 2.41 thousand less than ticketed events. In the category class of event performance events average an attendance of 1.325 thousand more than community events and 2.197 thousand more than sporting events. The final category date of events show that the average attendance at a summer event is 2.264 thousand more than an event during the other seasons as all of the other variables in the category are statistically insignificant.

The adjusted R-Squared of this model is 0.254 which means that 25.40% of the variance of the dependent variable is explained by the regression equation which is considered relatively low. It is not unexpected because there are many different factors that can affect attendance. We also run three residual diagnostics tests in order to test for autocorrelation, homoscedasticity, and normal distribution; the Breusch-Godfrey test for autocorrelation, White's test for homoscedasticity, and Jarque Bera's test for normality. The probabilities of the Breusch-Godfrey test statistics are greater than 0.05 which means we fail to reject the null hypothesis that the residuals are not auto correlated which is what we want. Nevertheless, the probabilities of White's test statistics are less than 0.05 which means we reject the null hypothesis that the residuals are homoscedastic and the probability of Jarque Bera's test statistic is less than 0.05 which means we reject the null hypothesis that the residuals are normally distributed. Both of these rejections are likely caused by two isolated residuals. We could eliminate these results from our regression, but that would ultimately contradict the purpose of our study to find the drivers of attendance at the Coliseum. Although the residuals are heteroscedastic, eliminating the residual outliers would make the regression irrelevant in practical term so we will decide to keep them in the regression.

As discussed earlier, the results from the second part of the study estimate the economic impact

of tourism expenditure from the Coliseum. The first results we obtained represent the estimated economic impact of the coliseum itself. The multipliers from the promoters of performing arts and sports industry, as shown in Table 2, are multiplied by the size of the economic output of the U.S Cellular Coliseum, which we retrieved from their most recent year-end report. We first measure a subset of the total impact by calculating the direct effect multipliers of the Coliseum. One of the multipliers measures the regional earnings resulting from the U.S Cellular Coliseum's payroll of $1.268 million, which adds up to a total of $1.62 million in regional earnings. The other direct effect multiplier measures the additional regional employment resulting from the Coliseum's 21 full-time employees, which adds up to a total of 23 jobs for the region. In terms of final demand, the Coliseum generated $3.179 million of economic output in 2015, which results in a total economic impact in terms of output of all industries in the region of $3.972 million, an economic output of household earnings of $1.095 million, and the creation of 72 jobs in the region.

The last step of the economic impact study is to project the economic impact of out-of-town tourists, which is accomplished via the following equation.

(Distance between the point of origin and Bloomington) x (Gravity Model Distance Factor) x (# of event goers) = Expenditure

We estimate the distance between the point of origin of each state and Bloomington by finding the most populated city of each state, and then calculating the distance between those cities and Bloomington. We also use the distance coefficient, .98, from Webster, Patton, and Zech's study in 1993, meaning that each additional mile a tourist travels brings in an additional $0.98 dollars in expenditure. The Coliseum also provided analytic data that is compiled by TicketMaster, which gave us the number of event-goers from each state that visited the Coliseum for one of its major events from December 2013 through April of 2015. A total of 51,214 eventgoers visited the Coliseum during this time period and state by state attendance records can be found in Table 4 in the Appendix. These tourists combined to create an estimated expenditure of $13.06 million dollars. A recent study done by the Bloomington-Normal Area convention and Visitors Bureau found that out-of-town tourists direct approximately 25% of their expenditures on food and drink and 75% of their expenditure on accommodations. It should be noted that 39,445 of these event goers came from areas in Illinois but outside of McLean County. Therefore, we only apply the hotel and food expenditure to half of these eventgoers due to their close proximity to home. After breaking down the total expenditure into two different categories, we find that tourists spent approximately $3.26 million on food and drink and $9.8 million in accommodations during this time period.

We are then able to use these economic output numbers with the RIMS II multipliers in their respective industries in order to find the estimated economic impact the out-of-state tourists have had on the region. Money spent on food and drink created a total of $4.05 million in economic output of all industries in the region while money spent on accommodations created $12.08 million in total output. This means that tourists visiting the U.S Cellular Coliseum over this time period created a grand total of $16.13 million in economic activity.

V. Conclusions

We began this research by collecting data from the most recent year-end report that the Coliseum made available to us. After we gathered our data, we created four independent variable categories represented by dummy variables in order to run a regression and determine what the drivers of attendance were at the Coliseum. We find that the length of an event has a positive impact of about 200 additional people per day that attend the event. We also find that performance events hold significantly higher attendance rates than that of sports and community events. The high rate of attendance at performance based events is expected due to the relatively high profile status of booked events, but we also expected the coefficient of sports events to be much larger. The reason for the shortcomings in attendance at sporting events is most likely caused by the low attendance at Bloomington Flex and Illinois State Hockey games, as well as a few other isolated sporting events that are hosted at the Coliseum.

The average attendance at ticketed events is over 1.36 thousand higher than non-ticketed events and over 2.42 thousand higher than meetings at the Coliseum. This shows us that meetings in particular are a very bad driver of attendance and the allocation of the Coliseum's resources can be put too much

better use in order to create more revenue. We also find that attendance during the summer is, on average, 2.26 thousand higher than the other seasons. This number is partially inflated by the Jehovah Witness Convention that attracted thirteen thousand people in one day but it can also be attributed to larger performance events being in higher demand during this season as well.

In order to estimate the economic impact that the Coliseum has had on the region, we find the size of economic output of the Coliseum, $3.179 million, and apply that number to the RIMS II multipliers of their specific industry to determine the additional revenue and jobs that are created in the region from the Coliseum alone. We find that the Coliseum's output created $3.972 million in total output for all industries in the region, $1.095 million in household earnings, and 72 jobs in the region.

Next, we obtain the economic impact from tourists outside of McLean County by first estimating their expenditure in the region and then applying that to the RIMS II multipliers for food and drink as well as accommodations. To do this we use Google maps to estimate the distance between the largest populated city of each state and Bloomington and then multiply that by the number of event goers from each state and the gravity model distance factor of 0.98, which gives us the estimated expenditure of the tourists of $13.06 million. Then, we multiply that number by 0.25 to give us our estimated food expenditure of $3.26 million, and by 0.75 to give us our accommodation expenditure of $9.80 million. From there we multiply each output with the multipliers of their respective industries to estimate the total economic impact of $16.13 million in additional output created by tourists alone.

These findings are in agreement with the findings from Webster, Patton, and Zech (1993), as well as the findings from the Route 66 Economic Impact Study in 2011 that the further the tourists have to travel to reach their destination the more they are willing to spend once they arrive. For example, a tourist coming to see an event at the Coliseum from Oregon is much more unlikely than a tourist coming to visit the Coliseum from Indiana but the tourists that do come from Oregon are willing to spend more money in Bloomington because of their greater effort to reach their destination.

This particular study on the economic impact of a performance venue is unique because it combines three different concepts from economics including regression analysis, the gravity model, and RIMS II multipliers. This type of study can be applied to other venues of similar size in order to compare and contrast the results from the studies, which will give us a greater insight on what specific factors drive attendance as well as the economic impact created from venues this size. Additional research on the Coliseum can be done as well by using data from multiple years in order to attain more complete results but this data was not available for this particular study.

Now that we know all of this, we believe that the Coliseum can use this information in order to better allocate their resources when booking events. Although it is a positive aspect that the Coliseum hosts multiple local semi-professional sporting events it may be a good idea to set a cap on the number of these events. In addition, the Coliseum would be wise in trying to obtain a larger budget in order to attract more high profile performance events due to it being the largest driver of attendance out of all the variables. The Coliseum can also use the results of the economic impact study to allocate their marketing resources more efficiently. Over 85% of tourists that visited the Coliseum were from the Midwest Region, which is where most of their marketing efforts should be focused.

Appendix

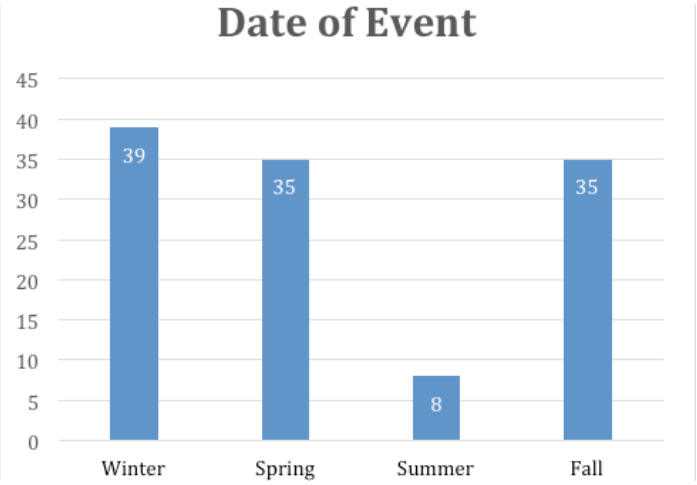

Figure 1: Date of event

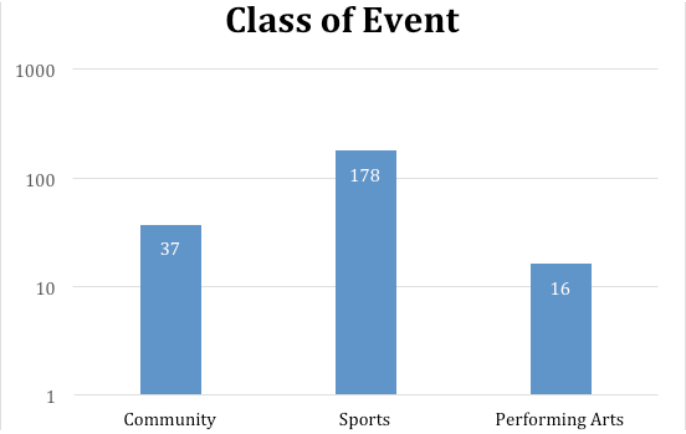

Figure 2: Class of Event

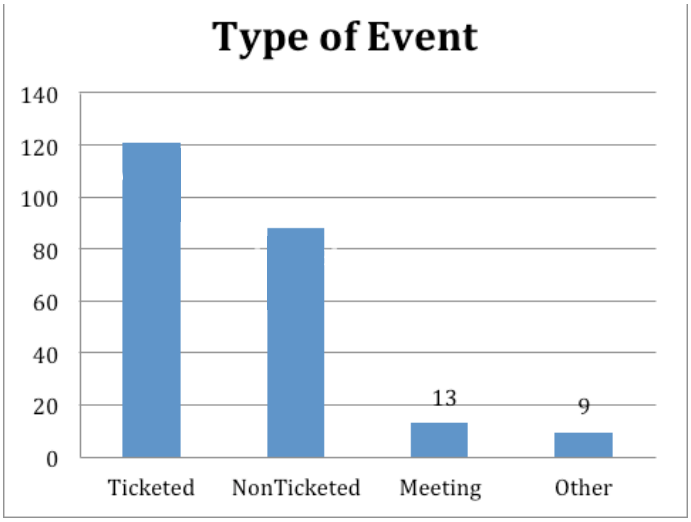

Figure 3: Type of Event

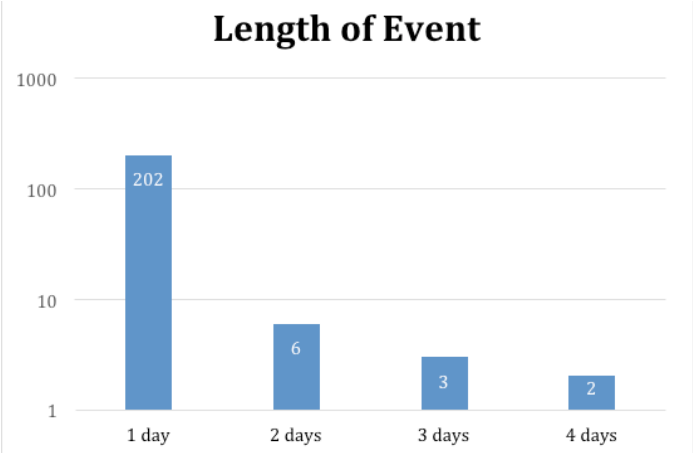

Figure 4: Length of Event

Distance From Each State's Largest City to Bloomington									
Alabama	613	Georgia	667	Maryland	749	New Jersey	886	South Carolina	793
Alaska	3620	Hawaii	4182	Massachusetts	1089	New Mexico	1201	South Dakota	567
Arizona	1619	Idaho	1668	Michigan	387	New York	896	Tennessee	444
Arkansas	507	Illinois	134	Minnesota	460	North Carolin	743	Texas	937
California	1984	Indiana	175	Mississippi	652	North Dakota	693	Utah	1366
Colorado	973	Iowa	301	Missouri	376	Ohio	346	Vermont	1009
Connecticu	956	Kansas	573	Montana	1227	Oklahoma	660	Virginia	902
DC	807	Kentucky	285	Nebraska	440	Oregon	2088	Washington	2043
Delaware	746	Louisiana	837	Nevada	1717	Pennsylvania	813	West Virginia	902
Florida	1012	Maine	1188	New Hampshir	1124	Phode Island	1083	Wisconsin	210
								Wyoming	929

Table 1: Estimated Distance from Each State's Most Populated City to Bloomington

Industry	Multiplier					
	Final Demand				Direct effect	
	Output/1/(dollars)	Earnings/2/ (dollars)	Employment /3/ (jobs)	Value-added/4/ (dollars)	Earnings/5/ (dollars)	Employment/ 6/ (jobs)
711A00 Promoters of performing arts and sports and agents for public figures	1.2496	0.3446	22.6132	0.6075	1.2778	1.0989
7211A0 Hotels and motels, including casino hotels	1.2327	0.3619	10.2191	0.7885	1.2475	1.1912
722000 Food services and drinking places	1.2421	0.3502	16.6527	0.6656	1.2465	1.0959

Table 2: RIMS II Multipliers

Dependent Variable: Attendance(thousands) N= 124	
Constant	1.692***
	(3.586)
Length	0.195***
	(3.508)
Performance	1.325*
	(1.858)
Sports	-0.872*
	(-1.693)
Summer	2.264***
	(3.497)
Non-Ticketed	-1.358**
	(3.497)
Meeting	-2.420***
	(-2.985)
Adj. R-Squared	0.254
F-Statistic	7.982***
s.e equation	1.755
Residual Diagnostics Tests	
Autocorrelation (Breusch-Godfrey)	1.657
Normality (Jarque Bera)	3.078***
Heteroscedasticity (White's test)	1513.78***

Note: The numbers in parentheses are the coefficients corresponding t-stat values
Note: * Denotes the degree of significance of the t-statistic: *** = 99%, ** = 95%, * = 90%
Note: All figures are presented with four digits – adjusting the number of decimal values as needed
Table 3: Tabulation of Regression Results

Event Goers From Each State

Alabama	30	Georgia	89	Maryland	265	New Jersey	603	South Carolina	38
Alaska	17	Hawaii	16	Massachusetts	282	New Mexico	56	South Dakota	1
Arizona	190	Idaho	2	Michigan	279	New York	1183	Tennessee	144
Arkansas	33	Illinois	39445	Minnesota	423	North Carolin	475	Texas	333
California	1320	Indiana	779	Mississippi	12	North Dakota	9	Utah	23
Colorado	226	Iowa	464	Missouri	469	Ohio	481	Vermont	0
Connecticu	44	Kansas	61	Montana	26	Oklahoma	121	Virginia	449
DC	21	Kentucky	251	Nebraska	139	Oregon	28	Washington	461
Delaware	43	Louisiana	39	Nevada	271	Pennsylvania	521	West Virginia	19
Florida	499	Maine	13	New Hampshir	22	Phode Island	42	Wisconsin	442
							38	Wyoming	15

Table 4: Event Goers from Each State to the Coliseum

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