The University of Southern Mississippi
The Aquila Digital Community

Honors Theses

Honors College

Spring 2016

The Economic Impact of the 2015 Conference USA Baseball Tournament in Hattiesburg, Mississippi

Kyle A. Stoner
University of Southern Mississippi

Follow this and additional works at: https://aquila.usm.edu/honors_theses

Part of the Growth and Development Commons, and the Tourism and Travel Commons

Recommended Citation
https://aquila.usm.edu/honors_theses/364

This Honors College Thesis is brought to you for free and open access by the Honors College at The Aquila Digital Community. It has been accepted for inclusion in Honors Theses by an authorized administrator of The Aquila Digital Community. For more information, please contact Joshua.Cromwell@usm.edu.
The University of Southern Mississippi

The Economic Impact of the 2015 Conference USA Baseball Tournament in Hattiesburg, Mississippi

by

Kyle Austin Stoner

A Thesis
Submitted to the Honors College of
The University of Southern Mississippi
in Partial Fulfillment
of the Requirements for the Degree of
Bachelor of Science of Business Administration
in the School of Accountancy

May 2016
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

Abstract

This study aims to measure the economic impact of the 2015 Conference USA Baseball Tournament hosted by The University of Southern Mississippi in Hattiesburg, Mississippi. Attendees of the event were selected at random to participate in an intercept survey to gauge financial data spent within the Forrest and Lamar County, Mississippi area. An Economic Modeling Systems International Input-Output analysis was used to process the data. This processed data was analyzed and results were determined based on the estimated multiplier and tax effect at the local and state level. These multiplier figures yielded a change in earnings in the local area of $648,211. Additionally, it was estimated that this tournament added a total of $9,757 to the General Fund for the State of Mississippi and generated approximately $59,694 worth sales tax numbers. Due to restrictions in the accessibility of further data, the research was limited to just the benefit of the tournament as opposed to a cost-benefit analysis. Because research regarding small-scale sporting event tourism is limited, implications of this study could aid in the decision of similar sized communities to host sporting events for the purpose of tourism.

Keywords: collegiate sporting events, sports tourism, economic impact, Conference USA, baseball tournament,
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

Acknowledgements

This culmination of my Honors College Career would not be possible without the help, guidance, and much more patience than I deserve from my Dr. Sungsoo Kim and Dr. Chad Miller. Through all of the struggles, and my moments of incompetence you remained patient with me, and for that I thank you.

To my wonderful girlfriend, Alexis- thank you for pushing me through this journey, even when I did not want to. I wouldn’t have done this without you.

To all honors students reading, don’t give up. This will be tough at moments, but in the end it will all be worth it- trust me.
# Table of Contents

List of Tables .................................................................................................................... vii  
Introduction ......................................................................................................................... 8  
  Statement of Problem .............................................................................................. 9  
  Purpose of the Study ............................................................................................... 9  
  Research Question ................................................................................................ 11  
Literature Review .............................................................................................................. 12  
  Economic Impact .................................................................................................. 12  
  Sports Tourism ...................................................................................................... 14  
  Collegiate Sporting Events ................................................................................... 15  
  Conference USA Baseball Tournament ............................................................. 16  
  Collegiate Economic Impact ................................................................................. 17  
  Visitor Impact- The Multiplier Effect ................................................................... 18  
Methodology ..................................................................................................................... 21  
  Survey Development ............................................................................................. 21  
  Sample Size ........................................................................................................... 24  
  Data Collection ..................................................................................................... 26  
  Regional Purchasing Coefficient .......................................................................... 27  
  EMSI Software ...................................................................................................... 27  
  Data Analysis Summary ....................................................................................... 29  
Results ............................................................................................................................... 31  
Discussion ......................................................................................................................... 40  
  Findings and Discussions ...................................................................................... 40  
Conclusion and Limitations .............................................................................................. 43  
Bibliography ..................................................................................................................... 45  
Appendices ........................................................................................................................ 49  
  Appendix A: Surveys ............................................................................................ 49  
  Appendix B: IRB Approval ..................................................................................... 54
List of Tables

Table 1.0: NAICS Category Classifications .................................................................28
Table 2.0: Expenditures of Attendees Outside of Region per NAISC Categories ..........32
Table 2.1: Expenditures of Teams per NAICS Category .............................................32
Table 3.0: Out of Town Attendees/Team Expenditures at Regional Purchasing
Coefficient ................................................................................................................34
Table 3.1: Summary of EMSI Input-Output Analysis of Out of Town Attendee/Team
Data ...........................................................................................................................35
Table 3.2 EMSI Input-Output Analysis Earnings Impact .............................................36
Table 4.0: Expenditures of Attendees Outside of Mississippi per NAICS Category .......37
Table 4.1: Outside of Mississippi Expenditures at Regional Purchasing Coefficient ......38
Table 4.2: Outside of Mississippi EMSI Input-Output Analysis Aggregate Results .......38
Table 4.3: Outside of Mississippi EMSI Input-Output Analysis Earnings Impact ...........39
Collegiate athletics plays an important role in the culture of the United States. Historically, the purpose of collegiate athletics was to boost the morale, pride, diversity, and self-awareness throughout the university community (Chung, 2013). As the landscape of collegiate athletics has evolved over time, so has the purpose of these athletic events to the university. Collegiate athletic departments today can serve as a catalyst to the local economy as well as a boost in the local and regional morale (Chung, 2013).

Today, economic impact research related to collegiate sporting events has not received as much attention as professional sporting events and venues (Holmberg, 2016; Russo & Zarick, 2011). Because of the increased popularity of collegiate sporting events, ticket sales, merchandise sales, advertising, and television contracts have steadily driven the monetary gain of collegiate athletic departments in figures comparable to some professional sports teams (Chung, 2013). With this increased popularity, there is an incentive for local areas to harness the effects of these collegiate events and boost the local economy. While there are multiple studies regarding the economic impact of professional and international sporting events, there seems to be a gap in the knowledge regarding sporting events of a smaller magnitude.
Statement of Problem

The vast majority of economic impact studies regarding sports tourism relate to larger sporting events which produce impacts on an international and national level (Horne & Manzenreiter, 2006; Li et al., 2013; Stephenson, 2014). It is difficult to find many studies which relate to the individual impact of smaller or regional events such as a regional collegiate baseball tournament. Based on the existing and expansive infrastructure of colleges and universities, it would be beneficial to college towns and cities to determine comparative impacts of the university on the local economy in terms of events hosted at the university. In addition, there is a lack of statistical data to support the justification of investing in additional capital and infrastructure to universities for the purpose of hosting events. Finally, this knowledge could help communities and universities to better understanding the potential economic impact and effect of hosting events.

Purpose of the Study

Economic impact studies are commissioned by cities and organizations in order to determine the feasibility and benefits of investing in a new event in the hopes of tourism. However, these studies have not focused on the specific effects of small-scale sports tourism on a smaller-sized local area. For these reasons, this study focuses on the economic impact of the 2015 Conference USA Baseball Tournament at Pete Taylor Park hosted by The University of Southern Mississippi on the City of Hattiesburg, Mississippi.

Known as the “Hub City”, Hattiesburg is located approximately one hour from the Gulf of Mexico and one and a half hours from the metropolitan areas of New Orleans, Louisiana, Mobile, Alabama, and Jackson, Mississippi. According to the American
Census trends as of 2014, the total population of Hattiesburg, Mississippi is approximately 46,629 (Hattiesburg Population, 2015). According to the local Area Development Partnership (ADP), this population expands to 228,646 within a thirty mile radius of the city (Greater Hattiesburg at a Glance, 2011). The city’s largest employers include Forrest General Hospital, the Hattiesburg Clinic, Camp Shelby Military Base, and the Lamar County School District (Greater Hattiesburg at a Glance, 2011).

The University of Southern Mississippi has been selected to host the Conference USA Baseball Tournament more than any other current or former member of Conference USA (CUSA Tournament Notes, 2016). The City of Hattiesburg has hosted the Conference USA Baseball Tournament a total of five times, including the 2015 season. This experience in hosting the tournament provides the facilities with years of experience in the organization, establishment, and marketing of this sporting event.

This research can be summarized by the following objectives:

Research Objective 1: – collect relevant data on the 2015 Conference USA Baseball Tournament, hosted by The University of Southern Mississippi in Hattiesburg, Mississippi.

Research Objective 2: – use the data collected to conduct an economic impact analysis using the Economic Modeling Specialists International (EMSI) software.

Research Objective 3: – develop a conclusion, regarding the benefits of hosting the Conference USA Baseball Tournament for Hattiesburg, Mississippi.
Research Question

The purpose of my study is to determine the economic impact of a sporting event from a mid-level NCAA Conference on a medium-sized city. Specifically, my study will address the following question:

1. Is it beneficial for a medium sized collegiate market, such as Hattiesburg, Mississippi, to host an eight-team collegiate championship event?

2. Will the impact justify the investment into the university to improve various other facilities for the purpose of increasing tourism, specifically sports tourism?

The City of Hattiesburg is well equipped to host the Conference USA tournament and will benefit by the increase of fans, athletes, and media attention to the area. The city has ample infrastructure in regards to hotels, restaurants, and entertainment to make the location comfortable and accessible for visitors to visit and invest in the local economy. This includes 269 restaurants and a supply of 305,255 available hotel rooms in the local Hattiesburg MSA (EMSI, 2016; Smith and Travel Research, 2016). Additionally, the revenues gained from the event should result in a significant impact on the City of Hattiesburg as well as result in positive tax implications for the State of Mississippi.
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

Literature Review

Economic Impact

Economic impact is defined as the change in a community’s economy resulting from spending due to a specific event or service occurring within the specified community (Crompton & Howard, 2003). The thought behind economic impact is an outside dollar which enters into a community results in a compounding increase to the local economy (Behunin, 2010). This dollar benefit then remains within the local economy and continues to circulate throughout the region until the dollar is taken into another economy through various methods.

Cities invest local tax dollars in support of an event in order to yield economic growth within the community therefore creating additional revenue for the local area to reinvest in the community’s facilities, services, infrastructure, or any other use the local government deems necessary. The economic impact of an event results in the creation of jobs and incomes for individuals within the local community. This new economic stimulus creates an opportunity to reinvest and reinvigorate the surrounding area (Crompton & Lee, 2000). The results of these events serve as a multiplication of economic inflow of new revenue dollars to be used within a community.

Often, cities and tourism departments utilize the economic impact of an event to supplement the financial statements of certain events to determine the overall contribution to the local economy (Crompton & Lee, 2000). An economic impact analysis aims to measure the amount of outside dollars flowing into a local economy attributable to an event or service (Behunin, 2010). The results of an economic impact analysis can then be used by a municipality to determine the estimated return on
investment made by the taxes paid by local residents of an area via a fiscal analysis (Crompton, Lee, & Shuster, 2001).

This combination of economic impact studies and financial statements allows the elected officials to make an informed and consistent decision regarding the allocation and appropriation of federal, state, and municipal funding regarding future infrastructure or events; thus remaining transparent as the spending of citizen’s tax dollars is communicated (Behunin, 2010). This adds to the ability of a government to clearly communicate the benefit of the investment of public funding to the residents of the community. Therefore, local city councils may find the decision to utilize an economic impact study in order to determine if it is beneficial to support a local event (Dwyer, 2005).

For example, Crompton (1995) asserts that the utilization of economic reports gives convention and visitors bureaus the incentive needed to persuade local decision makers that the contribution of local event tourism is vital to the success of the local economy. The reasoning behind this is the event can provide a much needed inflow of new money to the economy through visitors, media, vendors, external entities, or any other investor from outside the community area (Crompton & Lee, 2000). The more outside revenue an event brings into the community, the more beneficial the event is economically to the area.

The analysis of the economic impact of an event is more often than not inexact and subject to measurement and variable error (Crompton, 2006). The demand for these studies results from the need to understand how events can benefit the cash inflow of a metropolitan area (Jones, 2013). It is beneficial for local governments to understand the
implications of a potential event before taxpayer dollars are allocated to fund the infrastructure or support efforts to host new events within the community. The output of these studies should be described as a “best guess” instead of a comprehensive representation of the economic impact when used to predict the potential impact of facilities or events on the local economy (Crompton, Lee, & Shuster, 2001).

The revenue generated by the event is not the only benefit felt by the community. An economic impact analysis also takes into account the amount of estimated visitor expenditures in the local area outside of the specific event (Harris, et. al., 2009). The investment in area businesses can result in a positive influence for the community as a whole through the increase of local business revenues, increase in local taxes collected, and the increase of dollars flowing throughout the community (Crompton, Lee, & Shuster, 2001). The visitors and other accompanying guests influence an increase in revenue to the local area by the use of outside dollars on lodging, restaurants, entertainment, fuel, and other non-event expenditures (Dwyer, 2005).

**Sports Tourism**

In order for tourists to visit an area or region, there must be a distinct intention present which motivates someone to travel to an area. This can include hotels and resorts, entertainment such as amusement parks and museums, and events including concerts, conferences, and sporting contests (Getz, 2008). Each year thousands of sporting events occur in communities all across the world. These events range in sizes and levels of complexity including both large scale national and international events such as the Olympics and World Cup and regional and local events such as city championships and regional tournaments.
According to Kurtzman (2005), sports tourism can be defined as the utilization of sports or sporting related events for the purpose of drawing people to a specific area. Kurtzman (2005) expands this definition by stating that the sporting event must be the primary motivating factor for patrons to travel to a specific area to be considered sports tourism. In other words, the reasoning for most tourists to be brought to a location is to attend an event. In the case of sports tourism, this is driven by a sporting event.

Many cities have initiatives to increase tourism throughout the area via sports tourism. These cities participate in regional, national, and sometimes global competitions to have the opportunity to host different events (Getz, 2008). Subsequently cities believe that these events can attract visitors and bring an inflow of outside dollars to the area.

Due to the existing facilities at universities, cities which contain collegiate areas have an enhanced potential for sports tourism development. These universities often have the infrastructure to host larger scale events for organizations outside of the university’s influence. This development could be harnessed by the area and result in an additional economic influence in the area (Gibson, Willming, & Holdnak, 2003). Additionally, every new outsider brought into a local economy by an event has the potential to entice city leaders to increase financing and aid to future events (Jones, 2013). The potential to increase tourism to an area and therefore increase the dollar amounts flowing within a local economy increase the potential tourism value which the university could add to the city.

**Collegiate Sporting Events**

Each year, universities throughout the United States host ticketed sporting events which are attended by students, alumni, and local fans in the area. These events can draw
amounts of attendees from all over the region and nation. According to the National Collegiate Athletics Association (NCAA), total attendance for the 125 Division I-Football Bowl Subdivision (FBS) teams totaled 37,913,238 for the 2014 football season (NCAA Football Attendance, 2015). Coates and Depken (2010) found the effects of college football on a community included revenues generated from sales tax; however, the extent and magnitude of these effects depended on the location of the visiting team and the qualitative implications of the game including rivalry, playoff, etc.

In addition to seasonal sporting events such as football, it is common for the individual conferences within the NCAA to host tournaments for other conference sports such as basketball, soccer, and baseball. These sporting events are hosted by either a university within the conference or at other locations determined by the conference officials. The locations of these tournaments are dependent on the officials of the respective conference or NCAA governing body. For purposes of this study we will focus on the Conference USA (C-USA) baseball tournament.

**Conference USA Baseball Tournament**

Conference USA was founded in 1995 and consists of 14 teams located predominately within the Southeastern United States. Each year, the conference sponsors a baseball tournament consisting of the top 8 teams in the league competing in a double elimination tournament. Each university, as well as various communities near the universities, has the opportunity to submit bids to Conference USA to host the tournament. For example, Trustmark Park, home of the AA Atlanta Braves affiliate Mississippi Braves, Zephyr Field, home of the AAA Miami Marlins affiliate New Orleans Zephyrs, Rice University, and Tulane University are among the multiple
locations around the southeast to have hosted the conference tournament in prior years (Conference USA Tournament Notes, 2016). These bids are reviewed and voted upon by the conference’s Athletic Directors to select a host site for the tournament.

**Collegiate Economic Impact**

Cities and towns with local public and private universities experience an ebb and flow of population sizes throughout the year. As the semesters begin in the fall, the local area population expands as students enter into the surrounding area. This local population increase remains constant throughout the academic year, only dipping during holidays when the campus is not in operation. The city population experiences a sharp decrease in total population as classes end and the universities close for breaks. This yearly expansion and contraction of population in an area affects the normal economic structure of the city or town because of the dollars spent by the students within the area. These dollars affect the local tax structure of the community and can create a tax-inflow affecting the local community as well as the state (Sanderson et al., 2007).

Though this study will not focus on the effects of the improvement of human capital, it is of note higher education is believed to be a key development strategy in most countries throughout the world (Hanushek, 2013). Additionally, local colleges produce the indirect benefit of economic boosts to a community through the enhancement of the human capital. The return on investment to students who participate in higher education potentially enhance the quality of the labor force resulting in incremental earnings increases of the local community (Sanderson, et. al., 2007).

Furthermore, the events hosted by the university aid in creating a larger draw to outside visitor and patrons to enter into the city’s limits therefore brining in additional
economic revenue. Sports tourism is a great example of this draw to the area. An event drawing a significant amount of sports tourists to the local community can increase the amounts spent by the visitors to the area which, in turn, contributes to the economy of the area (Dixon, Henry, & Martinez, 2013). This creates a recurring benefit to the community via tourism dollars brought with each visit in addition to an increased relationship between the community and the visitor.

Though there is a lack of economic impact studies based on collegiate sports tourism, existing studies suggest collegiate sporting events prove to have the potential to have economic impacts on the communities they serve (Holmberg, 2016). Holmberg (2016) found there was a positive impact on the state economy due to local collegiate athletics through creating jobs and stimulating the economic activity on the state and local level. In the example of the ACHA Division II National Championship, the mid-sized community of Fort Collins, Colorado hosted the small-scale club hockey championship where it was determined lodging, entertainment, and shopping visitor expenditures were responsible for the nearly $2 million of new money injected into the local community as a result of this tournament (Harris, et al., 2009).

**Visitor Impact– The Multiplier Effect**

Visitor spending in an area is further defined as the expenses of visitors to a community due to the occurrence of a specific event or reason for which they would not have visited the area otherwise (Frechtling & Horvath, 1999). These out of town attendees often incur costs related to items such as but not limited to hotels, restaurants, automobiles, shopping, and entertainment and can be measured in terms of items such as jobs, labor income, tax benefit, and total economic output (Angelou, Bean, Mellor, &
Visitor spending creates an additional inflow of revenue exceeding the normal spending from the community’s residents. This revenue serves as an economic benefit to the community as a whole and is the basis for the economic impact due to the visitor spending while in the community (Behunin, 2010). This can serve as an incentive to a community to invest in their own area in order to create more spending options for visitors and therefore increase revenues within a city. Economic impact studies supply local governments with the knowledge of tourists’ expenditures in order to provide a better experience for visitors to the area. For example, Crompton asserted that the money introduced into the Ocean City, New Jersey community by outside visitors can increase with the more options to spend money in the area also known as visitor spending (2001).

As stated previously, money spent within an area on various goods and services often remains in the area as revenue for local businesses or taxes collected by the local government (Angelou, et al., 2015). This revenue is then spent on items needed to execute the business including employees and goods. This execution of business expenses allows the new money to circulate within the local economy. This circulation compounds within the economy and multiplies. This compounding of revenues circulating within an economy is known as the “multiplier effect” (Angelou, et al., 2015).

This multiplier effect consists of a direct impact, an indirect impact, and an induced or inherent impact. The direct economic impact is determined by the total amount of attendees to an event, the number of days each attendee is expected to stay in the community, and the amount spent by each attendee each day. The direct economic impact is then compared to a multiplier in order to determine the compounding of additional spending, also known as the indirect economic impact. (McHenry, Sanderson,
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

& Siegfried, 2007). This indirect economic impact can also be considered a ripple effect of the re-introduction of revenues brought in by visitors (Crompton & Howard, 2003).

To further elaborate, the direct economic impact inputs can include expenditures on lodging, restaurant/fast food, retail, entertainment, amenities, and fuel (Behunin, 2010). Behunin (2010) implies the economic impact of an event can be increased with the need of overnight stay in an area. Many patrons, when traveling overnight, desire other forms of entertainment within an area other than the specified event. An area, such as a small community, which lacks adequate lodging, tourist attractions, and other entertainment options, may struggle to bring enough visitors to an area to have a significant impact (Behunin, 2010).

Finally, the induced or inherent impact is the impact caused by the multiplication of the direct and indirect impacts throughout the local economy. This is where the multiplication effect comes into full force within a local area. In other words, the induced impact is the further circulation of the revenues throughout the local economy (Frechtling and Horvath, 1999). To illustrate this effect, the initial revenues gained by the local businesses continue to affect the local economy in a ripple effect. The induced impact is a result of the money spent by employees on unrelated costs as a result of the additional income to the area. The money in the local economy is spent, re-spent and the initial revenues is multiplied throughout the economy (Crompton et. al, 2015).
Methodology

The goal of this study was to determine the economic impact of the Conference USA Baseball Tournament on the City of Hattiesburg, Mississippi. This study introduced the use of local economic impact to the visitor economic impact model. The impact of the tournament was determined utilizing the Economic Modeling Specialist International (EMSI) software provided by the Department of Economic Development and Tourism at The University of Southern Mississippi. The inputs to the software were produced from two separate surveys. One survey conducted at Pete Taylor Park using Qualtrics software while the other survey was conducted via a link to the Qualtrics software survey through electronic mail.

Survey Development

This economic impact study aimed to determine the impact of the Conference USA Baseball Tournament on the City of Hattiesburg via a survey method. During the data collection, two separate surveys were utilized (Appendix A and Appendix B). The first survey was used to determine the impact of the non-participating patrons of the event while the second survey was used to determine the impact of the participating universities, including players, coaches, and administrators. Prior to the beginning of the tournament, this research was approved by the Institutional Review Board of The University of Southern Mississippi and can be found in IRB number 15040607 located in Appendix C.

While each survey was structured and administered differently, the data collected by each survey remained consistent between both. The basis for data collection in each survey was derived from various surveys including the survey utilized by Jones (2014),
the Art in the Pass arts festival in Pass Christian Mississippi (Arts, 2013), and the methods specified by Crompton (1999). Both surveys included questions regarding financial and locational data in order to determine the location of visitors to the Petal, Mississippi and Pass Christian, Mississippi areas respectively. Financial data requested was in regards to the estimated location of spending- lodging, amenities, food, and drink, admission, entertainment, laundry, souvenirs, and fuel.

In addition to the above information requested, the first survey utilized the methods specified by Crompton (1999) to determine the difference between the local and non-local survey participants. This survey requested the home zip-code of the participant as an indicator of the area of residence. All surveys with Hattiesburg zip-codes, 39402 or 39401, were separated from all other zip-codes. These zip-codes are located within the counties of Forrest and Lamar in the Pine Belt Region of the State of Mississippi. While the zip codes do not contain the entire counties of Forrest and Lamar, they do contain the City of Hattiesburg located within these two counties.

Because this survey aimed to capture the financial data spent within the Hattiesburg community by patrons, both local and visiting, at the event, the survey contained questions that were to only be answered by certain groups separated by zip code. The first section of the survey requested the estimated normal expenditures of patrons who lived within the 39401 and 39402 zip-codes. This was in an attempt to determine if there was an inherent additional economic impact of residents of the Hattiesburg area. The second section of the survey included information regarding lodging and opinion decisions. These questions did not ask for quantitative data to be used in the economic impact analysis; however the answers received were useful to
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

tournament and event officials for the purposes of determining the use of hotels in the local area. These surveys would ultimately serve as the basis for the sample size selected.

The aim of the research was to survey as many attendees as possible via in-person survey distribution. The survey was administered within 100 feet of the only entrance gate inside Pete Taylor Park in Hattiesburg, Mississippi during each day of the five-day tournament. The location of the survey administration took place at a table located next to the information booth. An effort was made to remain under the bleachers as to not interfere with individuals watching their respective teams. This consideration was made out of respect for the experience of the patron at the event and to best respect the motives of the patron for attending the event.

The surveys were given to adults at or above the age of eighteen only. All participants were instructed to factor in all spending made for the group as a whole in order to include the impact of younger attendees and participants which were provided for within the group. In an effort to curb duplicate surveys, the participants were instructed to complete one survey per group. The subjects were surveyed randomly during all games played at the tournament. Upon completion of the survey, the patron was informed any questions regarding the survey should be directed to the surveyor. The survey held no categories which were traceable to the specific patron, therefore the survey was considered completely anonymous. An informed consent form was attached to each survey. All surveys were shredded by the researcher upon completion.

Unlike youth tournaments where family members are responsible for the attendance of the athlete of the tournament, the Conference USA Baseball Tournament consisted of teams sponsored by eight universities from around the southeastern United
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

States. Each university assumed responsibility for most, if not all, expenses of the athletes, coaches, and administrators of each team to, during, and from the tournament. In order to capture this economic data, an electronic survey was distributed via a Qualtrics software link directly to a contact from each university. Because of the use of the software, all survey responses were returned anonymously. These contacts were provided by The University of Southern Mississippi’s Athletics Department.

Sample Size

As stated previously, all patrons participating in the survey were instructed to list all members of their party they were fiscally responsible for. This was done in order to accurately capture all attendees. These groups would allow for a more accurate inclusion of the impact of entire families, including patrons under the ages of 18 and who were unavailable to be surveyed at the time.

Each tournament is divided into seven distinct ticketed sessions and a ticketed championship session bringing the total to 8 sessions per tournament. As the tournament is double elimination, the seventh session is available as on an as need basis. The University of Southern Mississippi had previously hosted the same tournament the prior year, 2014. The attendance figures from the 2014 tournament were used in an attempt to estimate a desired sample size. The 2014 included attendance figures for seven sessions and a championship session for a total attendance of 15,934. Unfortunately, these attendance figures reflect repeat patrons as teams play multiple times in multiple different sessions throughout the tournament. At best, the prior year figures reflect an extremely rough estimate of true attendance of the tournament. In addition, these attendance figures do not include the coaches, players, and administrators of all universities. Because of the
factors listed above, it would be difficult to determine a true approximate attendance figure prior to the 2015 tournament.

As stated previously, the Conference USA Baseball Tournament is a double elimination tournament separated into seven distinct sessions and a championship session. Each team is guaranteed to participate in at least two games throughout the tournament with the second loss eliminating the team. Two games were played during both session one and session two with all eight participating teams participating in one game. Therefore, in order to diminish the potential for duplicate attendee counts, the attendance for session one and two of 2014 were used to estimate a potential sample size for this year’s research. Attendance figures for 2014 were obtained from Kent Hegenauer, Senior Associate Athletic Director for the University of Southern Mississippi. The attendance figures for sessions one and two of 2014 were 1,658 and 2,467 individual ticketed patrons respectively. In order to determine a confidence level of 95% with a confidence interval of plus or minus 5.5 and an approximate estimated population of 4,000, well over the amount provided by the first two sessions of the prior year, it was determined a sample size of 295 patrons would be appropriate for this study (Sample Size Calculator, 2016).

Again, because true attendance of the event could not be determined prior to the beginning of the event, this sample selection served as a best estimate. This sample size did not include coaches, players, and administrators paid for by the participating universities. Following the conclusion of the event, attendance figures for the 2015 tournament were obtained from Kent Hegenauer, Senior Associate Athletic Director for The University of Southern Mississippi. It was determined the total attendance for six
sessions and one championship session was 12,508. The total attendance for the first two sessions was 1,446 and 2,359 respectively. Retrospectively the sample size of 295 was appropriate to achieve the same confidence interval and confidence level for the population present.

**Data Collection**

All patron data was collected using an intercept survey throughout the four days of the tournament. The survey was conducted at all times throughout each of the six sessions and championship game throughout the tournament in order to obtain the most accurate representation of the total population. In addition, a systematic random sampling method was utilized throughout the surveying period. In total, one hundred and thirty seven survey responses were collected. A copy of the intercept survey is provided in Appendix A.

In regards to the team data, all data was collected utilizing an electronic survey to target the seven participating out of town universities. These surveys were sent via e-mail to the participating universities via the Qualtrics software in order to ensure confidentiality. All but two team surveys were returned to the researcher totaling five surveys. Note because it is unlikely that the local university would have any new economic impact on the Hattiesburg area, the local university was excluded from the survey. A text copy of the electronic survey is provided in Appendix B.

As previously stated, all participants of both surveys were instructed to provide their zip code, size of their group, and amount spent within the City of Hattiesburg during the tournament. In addition, the survey requested non-essential information regarding gender, age, and level of education. While this information is not directly useful for the
purposes of this study, this information could be used by host universities and organizations for advertising, promotion, and marketing of future collegiate sporting events.

**Regional Purchasing Coefficient**

Because the raw survey data does not take into account the amount of dollars which will not remain within the local community, these figures must be calculated against a Regional Purchasing Coefficient (RPC). These RPCs are used with input-output models in order to control for the regional economy and the interaction with areas outside of the local region (Morse et. al., 1999). For the purposes of this study, we used a regional purchasing coefficient of .65 or 65%. This figure is based on the common practice of assuming import proportions will remain the same between all industries in an area (Lazarus, Morse, & Platas, 2002). This means we believe that 65% of each dollar has come from an outside source and will remain to circulate within the community through indirect and inherent impacts.

**EMSI Software**

Because the study focuses on the analysis of a calculated economic impact of the Conference USA Baseball tournament, the estimated financial data provided by these surveys was the most essential data collected. Each category specified within the survey was specifically tied to an industry code within the Economic Modeling Specialists International Analyst (EMSI Analyst) software provided by The University of Southern Mississippi. This software allows for calculated insights of local, national, and international labor markets. These insights include labor growth projections, wages, and demographics to name a few. Additionally, EMSI provides calculations of the direct,
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

indirect, and induced impact to an area. The software was chosen based on availability, accessibility, and the user-friendly nature of the software.

Each code within the EMSI Analyst software related to a code specified by the North American Industrial Classification System (NAICS). According to the United States Census Bureau (2016), the NAICS is used by Federal agencies to classify businesses for statistical data collection, analysis, and publication related to the economy of the United States. The NAICS codes and the corresponding expenditures from the survey can be found in the table below.

*Table 1.0: NAICS Category Classifications*

<table>
<thead>
<tr>
<th>Survey Category</th>
<th>NAICS Code</th>
<th>NAICS Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>447110</td>
<td>Gasoline Stations with Convenience Stores</td>
</tr>
<tr>
<td>Sports Equipment</td>
<td>451110</td>
<td>Sporting Goods Stores</td>
</tr>
<tr>
<td>Souvenirs</td>
<td>453220</td>
<td>Gift, Novelty, and Souvenir Stores</td>
</tr>
<tr>
<td>Miscellaneous Spending</td>
<td>453998</td>
<td>All Other Miscellaneous Store Retailers (except Tobacco Stores)</td>
</tr>
<tr>
<td>Recreation</td>
<td>713990</td>
<td>All Other Amusement and Recreation Industries</td>
</tr>
<tr>
<td>Lodging</td>
<td>721110</td>
<td>Hotels (except Casino Hotels) and Motels</td>
</tr>
<tr>
<td>Food and Drink</td>
<td>722513</td>
<td>Limited-Service Restaurants</td>
</tr>
<tr>
<td>Laundry</td>
<td>812310</td>
<td>Coin-Operated Laundries and Drycleaners</td>
</tr>
<tr>
<td>Admission and Parking</td>
<td>903612</td>
<td>Colleges, Universities, and Professional Schools (Local Government)</td>
</tr>
</tbody>
</table>

The EMSI Analyst software determines multipliers for each code corresponding to the expenditure input by the user. These multipliers are appropriate based on a state or county expectation. Because the software was limited by the calculation of multipliers on a state and county basis, the counties in which 39401 and 39402, Forrest and Lamar Counties, were used in this study. As stated previously, the counties of Lamar and Forrest
contain the zip-codes of 39401 and 39402 as well as the entirety of the City of Hattiesburg. Though the zip-codes of 39401 and 39402 do not include the entirety of Forrest and Lamar County, the impacts of these variances were viewed as minimal regarding the City of Hattiesburg. In fact, because the language of the survey does not specify where the spending likely took place, it is likely the inclusion of the entire county would more accurately reflect the total economic impact on the area as a whole.

**Data Analysis Summary**

As stated previously, the financial data collected via the survey methods was collected and analyzed according to attendance numbers aligning with Jones (2014) research regarding the Dixie Youth Softball World Series. The number of ticketed attendees was received from The University of Southern Mississippi Athletics Department and an average expenditure per attendee was determined for each spending category.

For each spending category, a spending per patron figure was calculated by summing the total amounts in each category and then dividing the figure by the amount of patrons listed in the survey. In addition, a separate spending per university official figure was calculated for each category through the same method- summarizing the total amounts per category and dividing by amount of university officials.

Because ticketed sales were not categorized between out of region and in region sales, the amount of tickets sold outside of the region was calculated proportionally using the amount of patrons provided by the survey. Of the 306 ticketed patrons reported by the surveys, 217, or 71%, were from outside of the local area. Of those 217 outside of the
local area, 72, or 24% of the total ticketed patrons reported, were from outside of the State of Mississippi.

The spending per patron amount was then multiplied by the percentage of total attendance determined to come from outside of the region. Based on the reported figures of surveys received, this correlated to 71% of the population or 8,881 tickets sold out of a total of 12,508. Additionally, the spending per patron amount was also multiplied by the percentage of total attendance determined to come from outside the state of Mississippi. This correlated to 2,943 tickets or 24% of tickets sold.

The amount for each NAISC category was then multiplied by 65% in order to account for the Regional Purchasing Coefficient estimate. For the purposes of comparison, these figures were arranged by out of region attendee, out of region team, and outside of Mississippi attendee. These regional purchasing coefficient figures were then input into the EMSI Analyst software’s Input-Output model on a two county basis rather than a city basis to determine the economic impact of the tournament. The potential economic impact figures calculated by the EMSI Analyst Input-Output model reflects the monetary impact on the area and estimated jobs supported by the event as well as an estimated multiplier effect on the economy.
Results

The purpose of this study was to determine the amount of economic impact a regional collegiate baseball tournament had on the City of Hattiesburg, Mississippi. Because the survey was dependent on the willingness of attendees and participating universities to participate in the survey, the inclusion of all attendees was paramount. As stated previously, the survey included space to list the amount of members in a group a person or family was financially responsible for. This figure was important in determining the amount of spending per person. Each survey where a local zip-code, 39401 or 39402, was listed was properly discarded and was not used for the purposes of this study. Based on the data collected via 137 non-local surveys, 306 patrons were listed as part of the sample of the greater population. Of these 306 patrons, it was determined that 71% were located from outside of the 39401 and 39402 areas and 24% were located from outside of the state of Mississippi. These figures were determined based on the zip codes provided. The results of these surveys and the corresponding calculations, prior to EMSI Input-Output analysis, listed in the methods section above can be found in Table 2.0 and Table 2.1.
Table 2.0: Expenditures of Attendees outside of Region per NAICS Category

<table>
<thead>
<tr>
<th>Survey Category</th>
<th>Average Expenditure per Attendee</th>
<th>Total Number of Ticketed Sales</th>
<th>Total Expenditures of All Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>$65.43</td>
<td>8,881</td>
<td>$581,075</td>
</tr>
<tr>
<td>Sports Equipment</td>
<td>$.93</td>
<td>8,881</td>
<td>$8,271</td>
</tr>
<tr>
<td>Souvenirs</td>
<td>$9.56</td>
<td>8,881</td>
<td>$84,889</td>
</tr>
<tr>
<td>Miscellaneous Spending</td>
<td>$20.98</td>
<td>8,881</td>
<td>$186,320</td>
</tr>
<tr>
<td>Recreation</td>
<td>$9.41</td>
<td>8,881</td>
<td>$83,583</td>
</tr>
<tr>
<td>Lodging</td>
<td>$104.31</td>
<td>8,881</td>
<td>$926,348</td>
</tr>
<tr>
<td>Food and Drink</td>
<td>$76.81</td>
<td>8,881</td>
<td>$682,158</td>
</tr>
<tr>
<td>Laundry</td>
<td>$.29</td>
<td>8,881</td>
<td>$2,612</td>
</tr>
<tr>
<td>Admission and Parking</td>
<td>$19.92</td>
<td>8,881</td>
<td>$176,888</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$2,732,144</td>
</tr>
</tbody>
</table>

Table 2.1: Expenditures of Teams per NAICS Category

<table>
<thead>
<tr>
<th>Survey Category</th>
<th>Average Expenditure per Team</th>
<th>Total Amount of Teams</th>
<th>Total Expenditures of All Teams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>$6,750</td>
<td>7</td>
<td>$47,250</td>
</tr>
<tr>
<td>Sports Equipment</td>
<td>$21</td>
<td>7</td>
<td>$147</td>
</tr>
<tr>
<td>Souvenirs</td>
<td>$324</td>
<td>7</td>
<td>$2,266</td>
</tr>
<tr>
<td>Miscellaneous Spending</td>
<td>$300</td>
<td>7</td>
<td>$2,100</td>
</tr>
<tr>
<td>Recreation</td>
<td>$175</td>
<td>7</td>
<td>$1,225</td>
</tr>
<tr>
<td>Lodging</td>
<td>$14,245</td>
<td>7</td>
<td>$99,715</td>
</tr>
<tr>
<td>Food and Drink</td>
<td>$7,875</td>
<td>7</td>
<td>$55,125</td>
</tr>
<tr>
<td>Laundry</td>
<td>$432</td>
<td>7</td>
<td>$3,024</td>
</tr>
<tr>
<td>Admission and Parking</td>
<td>$1,600</td>
<td>7</td>
<td>$11,200</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$222,052</td>
</tr>
</tbody>
</table>

Table 2.0 and Table 2.1 depict the raw results of the survey data. In Table 2.0, the NAICS Categories have been split out to show the average expenditure per attendee according to the received survey data, the amount of estimated tickets sold to patrons.
from outside of the region, and the product of the two categories resulting in the estimated expenditures of the entire tournament from those out of region patrons. These figures have been added up to calculate a total estimated amount of spending of $2,732,144 from out of region attendees.

Table 2.1 depicts the same NAICS Categories according to the surveys distributed to the teams. Additionally, this table includes the same categories of financial data as Table 2.0. The average of the team respondents were then multiplied by the seven out of region teams to total the estimated spending by the teams. This resulted in $222,052 of spending within the area. It is of note that the survey was not distributed to The University of Southern Mississippi because of the proximity to the local region.

As one would reasonably expect, the lodging amount estimated results in the highest amount of expenditures for both the recalculated patron spending and the surveyed university spending. This is the result of the higher costs of lodging per night, the amount of rooms required per team, and the multiple nights stayed within the City of Hattiesburg. Conversely, the laundry expense and sports equipment expense is lesser based on lower demand and demonstrated need of both the patrons and the teams to spend money within each of the categories.

The total expenditures per category as illustrated by the survey data above was multiplied by 65% in order to control for the amount of financial influx in a region that may not remain within the specified area due to various taxes, fees, and expenditures of the company organization. The calculated figures can be found illustrated in the table below. The tables below illustrate these changes based on the Regional Purchasing Coefficient calculations of 65%.


<table>
<thead>
<tr>
<th>EMSI Classification Code</th>
<th>EMSI Classification Description</th>
<th>Out of Town Attendee at 65%</th>
<th>Out of Town Team at 65%</th>
</tr>
</thead>
<tbody>
<tr>
<td>447110</td>
<td>Gasoline Stations with Convenience Stores</td>
<td>$377,699</td>
<td>$30,713</td>
</tr>
<tr>
<td>451110</td>
<td>Sporting Goods Stores</td>
<td>$5,376</td>
<td>$96</td>
</tr>
<tr>
<td>453220</td>
<td>Gift, Novelty, and Souvenir Stores</td>
<td>$55,178</td>
<td>$1,473</td>
</tr>
<tr>
<td>453998</td>
<td>All other Miscellaneous Store Retailers (except Tobacco Stores)</td>
<td>$121,108</td>
<td>$1,136</td>
</tr>
<tr>
<td>713990</td>
<td>All other Amusement and Recreation Industries</td>
<td>$54,329</td>
<td>$796</td>
</tr>
<tr>
<td>721110</td>
<td>Hotels (except Casino Hotels) and Motels</td>
<td>$602,126</td>
<td>$64,815</td>
</tr>
<tr>
<td>722513</td>
<td>Limited-Service Restaurants</td>
<td>$443,403</td>
<td>$35,831</td>
</tr>
<tr>
<td>812310</td>
<td>Coin-Operated Laundries and Drycleaners</td>
<td>$1,698</td>
<td>$1,966</td>
</tr>
<tr>
<td>903612</td>
<td>Colleges, Universities, and Professional Schools (Local Government)</td>
<td>$114,977</td>
<td>$7,280</td>
</tr>
</tbody>
</table>

Table 3.0 contains the figures presented in Table 2.0 and Table 2.1 adjusted for the Regional Purchasing Coefficient. Because this is a calculation of a proportion of the overall raw survey data, the amounts remained in the same order in regards to amounts spent with lodging, food and beverage, and travel expenses containing the largest amount of expenditures. Following the calculation and control for the Regional Purchasing Coefficients, the data was then entered into the EMSI Input-Output model in order to calculate the estimated change in earnings and jobs based on a determined multiplier.
Table 3.1: Summary of EMSI Input-Output Analysis of Out of Town Attendee/Team Data

<table>
<thead>
<tr>
<th></th>
<th>Aggregate Change in Earnings</th>
<th>Aggregate Change in Jobs*</th>
<th>Average Earnings Per Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendee Data Impact Scenario</td>
<td>$600,816</td>
<td>38</td>
<td>$15,759</td>
</tr>
<tr>
<td>Team Data Impact Scenario</td>
<td>$47,395</td>
<td>3</td>
<td>$15,203</td>
</tr>
</tbody>
</table>

*Note each of the Regional Purchasing Coefficient amounts resulted in a 1.26 multiplier in the changes in earnings and a 1.15 multiplier in change in part-time jobs.

All of the NAISC Categories aggregated resulted in an overall change in earnings of $648,211 in the Forrest and Lamar county area with approximately $600,816 coming from attendees and $47,395 from the teams. Because this event was a one-time event and is not the result of a sustainable increase in funds within the area, the jobs supported are likely to be part-time or even jobs which will only emerge during similar events in the local area. Note that this data resulted in a 1.26 multiplier in the changes in earnings and a 1.15 multiplier in the changes of part-time jobs for both the attendee and team data.

Table 3.2 expands on the summary in Table 3.1. These figures depict the individual NAICS Categories, controlled by the Regional Purchasing Coefficient, and analyzed by the EMSI Input-Output model. This resulted in an increase in a significant amount of part-time or one-time jobs for the hotel, food service, and gasoline service industries. Additionally, this resulted in a significant increase in earnings in each of these three categories.
### Table 3.2: EMSI Input-Output Analysis Earnings Impact

<table>
<thead>
<tr>
<th>EMSI Classification Code</th>
<th>EMSI Classification Description</th>
<th>Attendee Earnings Impact</th>
<th>Team Earnings Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>447110</td>
<td>Gasoline Stations with Convenience Stores</td>
<td>$177,783</td>
<td>$13,953¹</td>
</tr>
<tr>
<td>451110</td>
<td>Sporting Goods Stores</td>
<td>$2,472</td>
<td>$43</td>
</tr>
<tr>
<td>453220</td>
<td>Gift, Novelty, and Souvenir Stores</td>
<td>$22,986</td>
<td>$635</td>
</tr>
<tr>
<td>453998</td>
<td>All other Miscellaneous Store Retailers (except Tobacco Stores)</td>
<td>$54,892</td>
<td>$595¹</td>
</tr>
<tr>
<td>713990</td>
<td>All other Amusement and Recreation Industries</td>
<td>$19,491</td>
<td>$273</td>
</tr>
<tr>
<td>721110</td>
<td>Hotels (except Casino Hotels) and Motels</td>
<td>$205,286</td>
<td>$21,762</td>
</tr>
<tr>
<td>722513</td>
<td>Limited-Service Restaurants</td>
<td>$117,198</td>
<td>$9,336</td>
</tr>
<tr>
<td>812310</td>
<td>Coin-Operated Laundries and Drycleaners</td>
<td>$707</td>
<td>$798</td>
</tr>
<tr>
<td>903612</td>
<td>Colleges, Universities, and Professional Schools (Local Government)</td>
<td>$0</td>
<td>0</td>
</tr>
</tbody>
</table>

¹ Note that the team figures in regards to travel and miscellaneous spending may not be accurate as it pertains to the impact on the local area due to spending reported that may have occurred outside of the 39401 and 39402 areas.

Table 3.2 shows the amount of spending per category remained proportional to the raw data input into the EMSI Input-Output Analysis. The amount spent on lodging and travel resulted in the largest change in earnings while the amount spent on laundry services and sporting goods stores resulted in the least amount of change in earnings and jobs. It is of note that spending outside of the local 39401 and 39402 area must be taken into account when considering the team travel and miscellaneous spending.

Additionally, it was determined based on the number of surveys completed that approximately 24% of attendees were from outside of the State of Mississippi. The following tables illustrate the calculated amounts, amounts adjusted for RPC, and EMSI
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

Input-Output Analysis data for expenses from those outside of the State of Mississippi.

The following tables illustrate the analysis of the data collected calculated to the proportion of attendees outside of the State of Mississippi. These tables have followed the same presentation of the total expenditures.

Table 4.0: Expenditures of Attendees Outside of Mississippi per NAISC Category

<table>
<thead>
<tr>
<th>Survey Category</th>
<th>Average Expenditure per Non-Mississippi Resident</th>
<th>Total Number of Ticketed Sales</th>
<th>Total Expenditures of All Non-Mississippi Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>$65.43</td>
<td>2,943</td>
<td>$192,565</td>
</tr>
<tr>
<td>Sports Equipment</td>
<td>$.93</td>
<td>2,943</td>
<td>$2,741</td>
</tr>
<tr>
<td>Souvenirs</td>
<td>$9.56</td>
<td>2,943</td>
<td>$28,132</td>
</tr>
<tr>
<td>Miscellaneous Spending</td>
<td>$20.98</td>
<td>2,943</td>
<td>$61,745</td>
</tr>
<tr>
<td>Recreation</td>
<td>$9.41</td>
<td>2,943</td>
<td>$27,699</td>
</tr>
<tr>
<td>Lodging</td>
<td>$104.31</td>
<td>2,943</td>
<td>$306,986</td>
</tr>
<tr>
<td>Food and Drink</td>
<td>$76.81</td>
<td>2,943</td>
<td>$266,063</td>
</tr>
<tr>
<td>Laundry</td>
<td>$.29</td>
<td>2,943</td>
<td>$866</td>
</tr>
<tr>
<td>Admission and Parking</td>
<td>$19.92</td>
<td>2,943</td>
<td>$58,620</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$905,415</td>
</tr>
</tbody>
</table>

The outside of Mississippi figures have been calculated by multiplying the average expenditures by the calculated number of ticketed sales to those outside of the State of Mississippi. As shown above, the total number of ticketed sales to attendees outside of the State of Mississippi were 2,943 or 24% of the total tickets sold throughout the event. These out of state visitors combined for approximately $905,000 spent within the local area. Table 4.1 below shows the above figures from Table 4.0 adjusted for the RPC of 65%.
Table 4.1: Outside of Mississippi Expenditures at Regional Purchasing Coefficient

<table>
<thead>
<tr>
<th>EMSI Classification Code</th>
<th>EMSI Classification Description</th>
<th>Non-Mississippi Resident at 65%</th>
</tr>
</thead>
<tbody>
<tr>
<td>447110</td>
<td>Gasoline Stations with Convenience Stores</td>
<td>$125,167</td>
</tr>
<tr>
<td>451110</td>
<td>Sporting Goods Stores</td>
<td>$1,782</td>
</tr>
<tr>
<td>453220</td>
<td>Gift, Novelty, and Souvenir Stores</td>
<td>$18,286</td>
</tr>
<tr>
<td>453998</td>
<td>All other Miscellaneous Store Retailers (except Tobacco Stores)</td>
<td>$40,134</td>
</tr>
<tr>
<td>713990</td>
<td>All other Amusement and Recreation Industries</td>
<td>$18,004</td>
</tr>
<tr>
<td>721110</td>
<td>Hotels (except Casino Hotels) and Motels</td>
<td>$199,541</td>
</tr>
<tr>
<td>722513</td>
<td>Limited-Service Restaurants</td>
<td>$146,941</td>
</tr>
<tr>
<td>812310</td>
<td>Coin-Operated Laundries and Drycleaners</td>
<td>$563</td>
</tr>
<tr>
<td>903612</td>
<td>Colleges, Universities, and Professional Schools (Local Government)</td>
<td>$38,103</td>
</tr>
</tbody>
</table>

As shown by Table 4.1 the top spending categories remained consistent between the outside of region and outside of state attendees to the tournament. The top categories for attendees from outside of Mississippi were lodging, food service, and travel while the lowest category was laundry services. These RPC figures were analyzed using the EMSI Analyst software and resulted in the data found in Table 4.2 and Table 4.3

Table 4.2: Outside of Mississippi EMSI Input-Output Analysis Aggregate Results

<table>
<thead>
<tr>
<th>Outside of Mississippi Attendee Data Impact Scenario</th>
<th>Aggregate Change in Earnings</th>
<th>Aggregate Change in Jobs*</th>
<th>Average Earnings Per Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside of Mississippi Attendee Data Impact Scenario</td>
<td>$194,742</td>
<td>13</td>
<td>$15,422</td>
</tr>
</tbody>
</table>
### Table 4.3: Outside of Mississippi EMSI Input-Output Analysis Earnings Impact

<table>
<thead>
<tr>
<th>EMSI Classification Code</th>
<th>EMSI Classification Description</th>
<th>Attendee Earnings Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>447110</td>
<td>Gasoline Stations with Convenience Stores</td>
<td>$56,863</td>
</tr>
<tr>
<td>451110</td>
<td>Sporting Goods Stores</td>
<td>$800</td>
</tr>
<tr>
<td>453220</td>
<td>Gift, Novelty, and Souvenir Stores</td>
<td>$7,888</td>
</tr>
<tr>
<td>453998</td>
<td>All other Miscellaneous Store Retailers (except Tobacco Stores)</td>
<td>$17,506</td>
</tr>
<tr>
<td>713990</td>
<td>All other Amusement and Recreation Industries</td>
<td>$6,174</td>
</tr>
<tr>
<td>721110</td>
<td>Hotels (except Casino Hotels) and Motels</td>
<td>$66,998</td>
</tr>
<tr>
<td>722513</td>
<td>Limited-Service Restaurants</td>
<td>$38,284</td>
</tr>
<tr>
<td>812310</td>
<td>Coin-Operated Laundries and Drycleaners</td>
<td>$228</td>
</tr>
<tr>
<td>903612</td>
<td>Colleges, Universities, and Professional Schools (Local Government)</td>
<td>$0</td>
</tr>
</tbody>
</table>

Tables 4.2 and 4.3 show the out of state data after being analyzed through the EMSI Analyst Software. The spending from these patrons resulted in a change of earnings of $194,742 in the local area. This earnings figure was used to determine an estimate of the impact to the State of Mississippi generated from the tournament spending. This impact was estimated based on personal income and sales tax. For personal income, this event generated an estimated earnings average of $15,422 per job created and generated a total of $194,742 in personal income. This figure can be multiplied by the General Fund ratio for the State of Mississippi of 5.01% and totaled an additional $9,757 in additional General Fund Revenue. For sales tax, sales tax collected (average of 6.593% for 2014) totaled $59,694 based upon the estimated spending of $905,415.
Discussion

Findings and Discussions

Events which affect economic development in particular sports tourism differs from area to area and event to event. Because of these differences, it is difficult to determine an exact formula for capturing the impact of these non-large scale events. Research regarding smaller scale events is scarce which adds to the difficulty of capturing and analyzing these events from a comparison standpoint.

The City of Hattiesburg is well equipped to host events in comparable or greater size to the Conference USA Baseball Tournament based on the availability of lodging, restaurants, and entertainment and shopping opportunities throughout the city. This event increased earnings throughout the Forrest and Lamar County area and, based on the infrastructure in the area, it can be inferred the majority of this impact was felt within the Hattiesburg area.

As far as this study is concerned the City of Hattiesburg, in particular the community surrounding The University of Southern Mississippi is properly equipped to become and continue to be a center of sports tourism. Much of the impact brought in by the Conference USA Baseball Tournament was retained by the infrastructure presented by the city in the form of hotels, restaurants, and gasoline stations and facilities.

This study has determined the majority of jobs supported by this event come within the lodging industry followed by the gasoline station and limited service restaurants within minimal change in the other categories studied. This correlates with the change in earnings per year in the local area. This is a result of the abundance of lodging and restaurant facilities catering to out of town travelers within the counties of Forrest
and Lamar within and near the City of Hattiesburg. Based on the survey methods listed above, it is likely an event of similar size would have a similar positive impact on the City of Hattiesburg in the future.

Because few economic impact studies related to sports tourism have been completed on smaller and regional sized events, the results of this study is important to determine the feasibility and benefit of smaller mid-major universities on hosting events. The largest economic boost found within this study came from the monies spent on lodging within the City of Hattiesburg. These lodging costs are often the highest costs per day per person and are dependent on the total attendance number of the tournament within the city. This has the largest overall impact on the local community from a visitor perspective.

In future considerations of hosting events of greater size, it is of consideration for the City of Hattiesburg to invest in bringing in more options for lodging to increase the amount of available rooms for larger sporting events such as football games. However, according historical occupancy data hotels have experienced an average occupancy rate of 47.8% over four years (Smith and Travel Research, 2016). During 2015, the occupancy rate was slightly above average at 51.6%. This means that of the available rooms in the area, only half of the rooms are being utilized on average. Based on these occupancy rates, the City of Hattiesburg is dependent on events such as the Conference USA Baseball Tournament to fill the available rooms. If rooms are not filled consistently, it will become increasingly difficult for hotels to cover expenses of operation and remain open. If more hotels are constructed, the market runs the risk of oversaturation of supply without enough demand.
In addition, the success of this tournament has implications regarding the decision of The University of Southern Mississippi administrators to pursue hosting this and other similar events in the future. Additionally, because the City of Hattiesburg experiences average hotel occupancy rates of around 50%, the City of Hattiesburg has a demonstrated need of bringing more events to meet the supply of hotel rooms. Before the decisions should be made to construct more lodging space, this study serves as an opportunity for city officials and agencies to promote events hosted by the local university in order to boost tourism.

This study adds to the existing knowledge regarding the economic impact of small-scale sporting events on cities of comparable size to that of Hattiesburg. This aids in the research available for city officials who are looking to host events, especially regional or local sporting events. This research has an impact on decision whether to invest in the infrastructure to host visitors to the local area, the potential benefits from investing in these facilities, hotels, and restaurants, and the decision to place a bid for such tournaments.
Conclusion and Limitations

Due to the lack of related studies, future considerations could include studying sporting events of similar size and location to determine the impact on those host cities. This would serve as further comparison or contrast regarding the success of this tournament. In addition, studies could be completed on other University of Southern Mississippi events throughout a calendar year to determine the overall impact of sporting events on the City of Hattiesburg- similar to the studies such as the Angelou study regarding the University of Texas- Austin (Angelou, et al., 2015). It is highly unlikely a single economic analysis on a single tournament would yield any response from a municipality. However, it is more likely a demonstrated year round significant economic impact on a city could serve as reason for a city’s further investment into the university and stimulating the local economy further.

The research regarding this tournament included several limitations to the study as a whole. This includes the inherent measurement error present in research. This study was completed as a first-time research thesis by an undergraduate student where methods may not be as refined as with a researcher with multiple years of experience in survey methods and data analysis. In addition, with survey method the human error involved with partaking in a survey is present any time an intercept survey is used in a quick span of time. This means the participant in the survey may not have fully understood how to answer each question as accurately as possible. This includes the accuracy of estimated financial data provided by the survey participant at the time of survey.

In addition, this study does not take into account the costs of the tournament to the host university and host city. This is because, at the time of the study, the financial data
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

regarding the expenditures of the tournament were not immediately available. This limits the study on a cost-benefit analysis basis by eliminating a comparison of the investment made by the city regarding the event.

In regards to the survey data collected, it is difficult to assess the amount of financial figures reported by patrons which were actually spent outside of the 39401 or 39402 area. This particularly limits the data reported in transportation and miscellaneous spending. Because it was evident to the researcher that the figures reported covered costs of travel that were not spent within the specified area such as airfare and bus rental, this hinders the ability to use these figures.
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

Bibliography


ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT


ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT


ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

Russo, Billy, and Zarick, James. (2011) "The Trends in Dining, Lodging, Entertainment, and Recreation among Virginia Youth Travel Soccer Participants, Their Family, and Friends When Traveling for Youth Travel Soccer Tournaments." *Journal of Tourism Insights, 1.1*: 89-97


Appendices
Appendix A: Surveys

Patrons at the Conference USA Baseball Tournament
Survey Questions

Please take a few minutes to complete the following questions. Your participation is voluntary. All information that you provide will be anonymous, confidential, and reported only in the aggregate. If you have any questions or concerns regarding your inputs for this survey, please contact Kyle Stoner (kyle.stoner@eagles.usm.edu) or faculty advisers: Dr. Sungsoo Kim (sungsoo.kim@usm.edu) or Dr. Chad Miller (chad.miller@usm.edu).

1. Including yourself, how many people are in your group today?
   1a. Your group consists of:
        ☐ Your spouse/partner
        ☐ Your children
        ☐ Friends/Relatives
        ☐ Other (Please Specify: ______________________)

2. How many hours do you plan on spending at the event today?
   ___________________

3. How many days do you plan to attend this event this year?
   ___________________

4. Would you attend this event again if it was hosted at this same location?
   ☐ Yes      ☐ No

5. What was the primary method of transportation used to get to this tournament?
   ☐ Automobile ☐ Bike/Walk ☐ Bus/Public Transportation
   ☐ Airplane    ☐ Other (Please Specify: ______________________)

6. What is your estimated household income?
   $_________________

7. Please estimate and list how much you and the group you monetarily support will spend in each category in Hattiesburg during this visit
   Transportation (gas, vehicle repairs, vehicle rental, etc.) $________________
   Admission and Parking $________________
   Food and Drink $________________
   Lodging $________________
   Laundry Services $________________
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

Sports Equipment $________________

Recreation (other entertainment) $________________

Souvenirs $________________

All other area spending $________________

8. What is your zip code?
   □ 39401
   □ 39402
   □ Other (Please list) ______________

Complete this section if you selected 39401 or 39402 for question 8, otherwise please continue to the next section.

The following questions will help determine the economic impact of the baseball tournament from patrons within the Hattiesburg Metro area.

9. If the tournament did not happen in this area at this time, would you have spent your money (i.e. same amount of money) on something else in the local area (Hattiesburg)?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Possibly</th>
<th>Neutral</th>
<th>Probably</th>
<th>Definitely</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

10. If the tournament did not happen in this area at this time, what would be the total estimated spending related to your daily life during the tournament? (Please list)

$___________________________

Complete this section if you selected “Other” for question 8.

The following questions will help determine the economic impact of the baseball tournament from patrons outside of the Hattiesburg Metro area.

11. If you marked “other” for the zip code.

   11a. How many nights will you stay in the area? □

   11b. Where are you staying?

      □ At a Hotel □ With Friends or Relatives □ Other (Please Specify: __________________)

   11c. Is this your:
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

☐ First time visiting the area  ☐ Visited area before (How many times: __________________)

11d. Is this your:
☐ First time to attend the tournament  ☐ Attended the tournament in a different location
☐ Attended the tournament at this location

12. How important was the event in your decision to come to the area?

<table>
<thead>
<tr>
<th>Not at all Important</th>
<th>Slightly Important</th>
<th>Moderately Important</th>
<th>Very Important</th>
<th>Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

13. Gender
☐ Male  ☐ Female

14. Current level of education
☐ Some High School  ☐ High School  ☐ Some College
☐ Associates Degree  ☐ Bachelor’s Degree  ☐ Masters Degree
☐ Doctoral Degree

Thank you for your time and consideration. Your responses will provide us with valuable information as to how this event impacts the Hattiesburg Community.
Teams at the Conference USA Baseball Tournament
Survey Questions

Please take a few minutes to complete the following questions. Your participation is voluntary. All information that you provide will be anonymous, confidential, and reported only in the aggregate. If you have any questions or concerns regarding your inputs for this survey, please contact Kyle Stoner (kyle.stoner@eagles.usm.edu) or faculty advisers: Dr. Sungsoo Kim (sungsoo.kim@usm.edu) or Dr. Chad Miller (chad.miller@usm.edu).

1. How many people were brought by your school to the Conference USA Baseball Tournament? (Please include coaches, players, trainers, scorekeepers, school officials, etc.)

2. What was the primary method of transportation used to get to this tournament?
   - [ ] Automobile
   - [ ] Bike/Walk
   - [ ] Bus/Public Transportation
   - [ ] Airplane
   - [ ] Other (Please Specify: __________

3. How many nights did your school stay in the Hattiesburg area?

4. Where did your team stay?
   - [ ] All members at the same hotel
   - [ ] At separate hotels
   - [ ] Other (Please Specify: __________)

5. Approximately how many hotel rooms were utilized?

6. Would you attend this event again if it was hosted at this same location?
   - [ ] Yes
   - [ ] No

7. How would you rate your overall experience at the Conference USA Baseball Tournament at The University of Southern Mississippi?

<table>
<thead>
<tr>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Above Average</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

8. Please estimate and list how much you and the group you monetarily support will spend in each category in Hattiesburg during this visit

   Transportation (gas, vehicle repairs, vehicle rental, etc.) $______________
   Admission and Parking $______________
   Food and Drink $______________
   Lodging $______________
   Laundry Services $______________
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

Sports Equipment $________________
Recreation (other entertainment) $________________
Souvenirs $________________
All other area spending $________________

9. Are there any other comments that you have regarding the Conference USA Baseball Tournament, The University of Southern Mississippi Athletics, or The City of Hattiesburg that you would like to share?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Thank you for your time and consideration. Your responses will provide us with valuable information as to how this event impacts the Hattiesburg Community.
ECONOMIC IMPACT: CUSA BASEBALL TOURNAMENT

Appendix B: IRB Approval

INSTITUTIONAL REVIEW BOARD
118 College Drive #5147 | Hattiesburg, MS 39406-0001
Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional.review.board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months.

Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 15040607
PROJECT TITLE: Economic Impact of the Conference USA Baseball Tournament on the City of Hattiesburg, Mississippi
PROJECT TYPE: New Project
RESEARCHER(S): Kyle Stoner
COLLEGE/DIVISION: College of Business
DEPARTMENT: Economic Development and Tourism
FUNDING AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 04/21/2015 to 04/20/2016

Lawrence A. Hosman, Ph.D.
Institutional Review Board