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THE ECONOMIC IMPACT OLE MISS ATHLETICS HAS ON THE CITY OF OXFORD, MISSISSIPPI: AN ANALYSIS OF HOME FOOTBALL GAMES IN THE FALL OF 2012

By

Joseph Zegel

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

Oxford
May 2013

Approved by

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ABSTRACT

JOSEPH ZEGEL: The Economic Impact Ole Miss Athletics has on the City of Oxford, Mississippi:

An Analysis of Ole Miss Home Football Games in the fall of 2012

(Under the direction of Dr. William R. Rhodes)

This thesis looks to examine whether or not Ole Miss Football games have a significant impact on the City of Oxford. Since the topic of economic impact analysis concerning sports is so vast, containing thousands of elements, this study highlights only six weekends from the fall of 2012, three of which were home football weekends. The purpose of the particular study was to examine the economic activity and spending behavior during football weekends and compare them to non-football weekends to determine significant differences, if any. A portion of this thesis contains a review of previous economic impact analyses. The proper methods and principles of research used for my project are attributable to these particular works, establishing a framework on which this thesis is built.

Acknowledgements

I am thankful for a handful of people who, because of their help, made this thesis happen.

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TABLE OF CONTENTS

LIST OF FIGURES & TABLES

The Economic Impact Ole Miss Athletics has on the City of Oxford, Mississippi: An Analysis of Ole Miss Home Football Games in the Fall of 2012

Introduction

Sports and economics are two categories that seemingly go hand-in-hand in today's culture. People are curious and wonder how much sports can actually help society and if there are practical and accurate means to measure such impacts. Additionally, many Americans adore their athletic clubs, yielding considerable amounts of time and resources to watch and support their teams. Oxford, Mississippi, home of the Ole Miss Rebels, has been the recipient of similar adoration from fans across the state and throughout the country for numerous decades. This fact caused me to consider one question in particular, along with many others: do Ole Miss Football games have a positive economic impact on the Oxford/Lafayette County community?

The question itself brings with it a multitude of responses and issues. First, a study like this cannot be done without adequate and thorough research of other studies that are similar in nature, mainly those dealing with the economic impact of sports. Such an absence would render this study void of key principles and concepts necessary for sufficient economic research. Therefore, in conjunction with the analysis of economic behavior in Oxford, Mississippi during weekends in the fall of 2012, this paper first analyzes previous economic impact research, providing an appropriate framework and foundation on which the rest of this project stands. Second, I must mention that, specifically concerning the city of Oxford, there are certainly additional factors that were

not considered or included in this study. For instance, this study only highlights specific weekends from the fall of 2012 and does not include previous years' information, except for a small comparison between population growth and gross sales data between 2000 and 2010. Also, this study excludes from it any data concerning real estate figures or other housing trends in Oxford.

Finally, in comparison to past impact analyses, appropriate factors were taken into consideration and measured to determine the economic impact Ole Miss football games have on the City of Oxford. From these measurements, I concluded that Ole Miss Football weekends yield different results than non-football fall weekends, generating more economic activity to the city. This thesis identifies the methods for research that were used and presents evidence to support this claim.

Chapter 1: Review of Economic Impact Studies

Studies of the economic impact of college athletics on a community have taken place to not only determine whether or not there is a correlation between athletics and economic growth in local communities, but also whether or not these events actually foster economic growth and prosperity. The interest of economists in this facet of economic development is limited to a select few, seemingly a small fraternity of men who have dedicated time and energy to this type of research. John Siegfried, Robert Baade, Victor Matheson, and Andrew Zimbalist are the standout leaders of this small group and have published some of their research in the *Journal of Sports Economic, Journal of Sport Management, Journal of Economic Perspectives*, as well as *The Australian Economic Review*. Working collaboratively and individually, these men have provided some evidence for the questions concerning the connection between sports and economic prosperity. Surprisingly, the conclusions in this literary review are found to be very cynical towards the thought that college athletics and major sporting events actually contribute significantly to the economic growth of a metropolitan statistical area (MSA). It is important and necessary to understand the context surrounding these economic impact studies rather than making generalizations on the economic achievements and/or failures of sports facilities or academic programs. Likewise, as Santo (2006) concluded, it is more effective to "examine the context in which sports related variables show a significant impact, because the importance of context is the

impetus for this [or any] study" (Santo, 2006, p. 188). Santo argued that communities experiencing economic growth simultaneous to an arrival of a major sports team is more synonymous, rather than causal. In fact, he proposed an argument could be made that a major sports team chooses to move to a metropolitan area due to substantial already occurring economic growth (Santo 2006).

In order to understand why context is key, we must look at situations in which generalizations are not applicable due to the event. For example, an economic impact study concerning sporting events, like Super Bowl XXXVIII, which took place in Houston, Texas, cannot assume similar conclusions for a study of a sporting event, like a home football game, taking place in Huntsville, Texas. Coates and Depken (2006) claim the ratio between an area's population and football game attendances can contribute to significant impact factors, which indicates positive assumptions that small towns, in fact, benefit from sporting events such as football. Their claims support the argument for context by suggesting that out of town visitors and city size are considerable factors in determining whether an event benefits a community. Other sources of research provide key principles that are integral in developing proper economic impact analyses, discussed later in this chapter. Crompton and Lee (2000) claim that many community research studies merely provide, "best guesses rather than inviolable accuracy" (Crompton and Lee, 2000, p. 107). It is more important to recognize the invaluable motivator that sports and, more importantly, sports politics play in determining big league organizational and front office development. Siegfried and Zimbalist (2006) identify the significance of discovering the specific return that a sports team and/or

facility will provide the local residents. They argue that lobbyist inflate and dramatize proposals for sports development initiatives, promising incredible returns to the city and its residents.

The following elements: proper context in respect to a local area, principles for conducting adequate research, the impact of politics and dramatization with regard to sports proposals, as well as studies done specifically in the context of college athletics will be discussed in this literature review.

Proper Context

In order to conduct a successful approach in evaluating a region's economic activity, it is imperative for the researcher to define the specific region's physical radius. McHenry, Sanderson, and Siegfried (2005) call this "defining the 'local area.'" In their words, one "must delineate geographic boundaries" (McHenry, Sanderson, and Siegfried, 2005, p. 550). The local area should fit the purpose of the study and remain consistent throughout the research. Their study is on the impact universities as a whole have on local communities. Also, it is important to note that nearly all impact studies look at consumer spending because it begins the financial cycle and stimulates economic activity. Rather than approach the concept of spending in the context of sporting events, they broadened their topic of research, instead choosing to focus on universities and colleges. However, the logic used in their conclusions can be used in reference to sporting events, the subject of our research. On the other hand, Siegfried

and Zimbalist study the impact of sports facilities on economic areas and use similar approaches as well and remain consistent throughout their research.

Both researches claim that in order to generate economic growth, money must be brought from outside the local area. Each refers to this as "new money" or "new spending." The concept behind new spending is what Siegfried and Zimbalist call the "substitution effect." In their words, a new sports facility partnered by a new team is not going to necessarily attract new money to its MSA. If a new team comes to town, the money used to go to a ball game is money usually spent for leisure activities, and thus not spent at the local theater, recreation center, restaurants, etc., a substitution occurs. "While sports teams may rearrange the spending and economic activity in an urban area, they are not likely to add much to it." The local residents, they argue, do not generate new money, hence substitution (Siegfried and Zimbalist, 2000). Likewise, McHenry, Sanderson, and Siegfried (2007) ask if an area is better off with the presence of a specific institution, similar to that of a sports team and/or facility. They state that colleges do not necessarily add value to a local area because of their mere existence. For this, they deny any claims that colleges simply make local areas "better off" as long as there are other institutions that provide similar academic services, what Siegfried and Zimbalist would call substitution. In the end, it is irrelevant where a student spends their time studying, at either college A or B, because the overall effect on the local area is the same. Alternative methods for spending resources for local residents or students are important indicators in determining whether a certain facility or institution actually benefits or "adds to" a community.

Each article states crucial, yet important concessions, in their arguments. Siegfried and Zimbalist propose that a pivotal exception to the substitution effect is this idea of new consumption. If in fact, a sports team attracts "out-of-town guests," bringing in new revenues from outside the local area, then a case can be made for the local impact of a sports team, because this new money, "does not substitute for other local spending" (Siegfried and Zimbalist, 2006, p. 422). However, they argue that most of these out-of-town visitors are not visiting because of the game, but rather, go to the game because of their visit. So, the argument can be made that if the sports team did not exist, then these visitors would spend their vacation money at other local attractions, again substitution. The important factor in determining whether or not a sports team can contribute to a local area is if the sporting event is the reason for the visit. Santo provides evidence that affirms that context matters. He states that his research, "conflicts with the broad generalization that sports facilities have insignificant or negative impacts on metropolitan areas economies." He argues that sporting events coupled with new stadiums in downtown areas provide more ancillary (additional) spending before and after the game than in suburban areas (Santo, 2005, p. 188).

As for colleges and universities, McHenry, Sanderson, and Siegfried make a case for rural or isolated institutions. They say that these types of schools may actually claim credit for all or most of the impact attributed to a local community via student expenditures, because the students would not have otherwise lived in the area without the presence of the specific institution. These economists analyze institutions' abilities to draw out-of-town students to their local areas, much like a sports team's motivation

for attracting out-of-town guests. So, what can be said about the impact college sports in local areas?

The logic used in these articles can be applied in evaluating the level of impact of an institution's athletic program. If a school's sports program attracts out-of-town guests to the local area for the sole purpose of attending the specified event, then any revenue generated by the local community through ancillary spending made by these visitors can be attributed to the school and athletic department. The question must be asked, "Would these guests visit this local area regardless of the college sporting event?" Coates and Depken draw conclusions based on area population and game attendance. They used Texas cities in their study and said that college football games that took place in Dallas or Houston held attendances that were mere fractions of the cities' populations and did not create sufficient increases in sales tax revenue. However, games that took place in smaller communities, such as Huntsville or Prairie View, generated more revenue because attendances were a much larger percentage of the towns' populations. Along with their conclusions, they said, "We suspect the difference is related to out of town visitors and city size" (Coates and Depken, 2006). Although it is necessary to understand the specific context of a local area and not make broad generalizations, certain inferences can be applied across areas of research, assuming definite conclusions to be true elsewhere. This is truer concerning the issue of politics and the motives behind stadium and sports development. I will discuss later why Cincinnati's struggle to appease multiple groups in its attempts to retain the Reds and Bengals teams can be relevant across sporting communities. Therefore, the logistical

conclusion is that the more unique and isolated a college sporting event is, the stronger the evidence for an actual significant, positive impact on a local community.

Principles for Research

Economic fluctuations occur frequently between fiscal periods. The highs and lows economies experience naturally occur; it is a cycle, so to speak, in which some regions of the world prosper while others struggle, and vice versa. Any economic downturn is invaded with reasons for decline and opinions on how to respond to such unfortunate events. Likewise, growth and prosperity arise out of progress and economic stimulation. Anyone can pull from a laundry list of factors and say with certainty if a specific area is financial or economically "better off" or not due to those factors. Sure, anecdotal evidence is an important indicator, a catalyst even, in determining whether or not economic impact studies are necessitated. However, any evidence of this type should warrant appropriate methods in evaluating factual proof, especially with regard to governmental subsidies and policymakers' decision to use public funds to finance new stadium development. These personal testimonies should neither be assumed as doctrinal truths nor should they be dismissed as naïve proclamations. So, it is vital for researchers to conduct their study appropriately and avoid carelessness. Santo discusses in his work the importance of avoiding overgeneralization. He stressed the importance of context, mentioned before, which indicates two things. First, is a tendency to take a true conclusion for one factor and apply it to all other factors resulting in overgeneralization. Second, since economists

spend a lot of their time using algorithms and formulas as mere projections, specific factors get overlooked. Granted, it is also important to note a multitude of routes can be taken when conducting economic impact studies, yet it is crucial for researchers to remain consistent in their methods.

The Economic Impact of Colleges and Universities suggests that the, "portion of an institution's economic activity that would remain in the local area even if the institution were not there is not a contribution to the local economy," meaning what does a community look like without the presence of a college or university (McHenry, Sanderson, and Siegfried, 2007, p. 548)? Crompton and Lee (2000) offer some key principles for conducting adequate research. The first is the exclusion of local residents. This parallels the studies already introduced in this review concerning the concept of substitution.

> *Economic impact attributable to a sports tournament, festival, event, or facility relates only to new money injected into an economy by visitors, media, vendors, external government entities, or banks and investors from outside the community. Only those visitors who reside outside the jurisdiction and whose primary motivation for visiting is to attend the event, or who stay longer and spend more because of the event, should be included in an economic impact study* (Crompton and Lee, 2000, p.112).

The statement summarizes who qualifies as appropriate sources of contribution. Only those whose sole purpose of visiting an area is to attend the specified event should be

used in impact studies. Any factor that could contribute to the "recycling of money," as they would put it, should be eliminated from the impact study. Visitor spending does not result in recycled dollars; it is new money injected into the local economy. In their minds, isolating visitor spending is vital to research. Crompton (1995) continues this idea arguing that expenditures made by local residents do not properly indicate the flow of new money to the target area. Other researchers such, as Baade and Dye (1990), suggest local spending is the same regardless of sports events; rather, the money spent on a sports ticket is less money spent at other entertainment venues (movie theater, bowling alley, etc.). However, Crompton suggests that some local events could cause residents to spend money that would otherwise go toward a vacation or out of town activity.

> There is some evidence to suggest that major events do keep some residents at home who otherwise would leave the area for a trip. And it is also probable that a community with attractive events encourages more local spending for entertainment and merchandise (quoted in Crompton, 1995, p. 27).

Crompton goes on to say, "Such expenditures could legitimately be considered new money in the sense that it is money retained in the host community that otherwise would have been lost" (Crompton, 1995, p. 27). For college towns, researchers could assess ancillary spending per student for weekends hosting sporting events verses vacant sports weekends; that is, researchers could gather evidence suggesting that students spending is higher on sports weekends than non-sports weekends. Only then is

it appropriate to include local spending in economic impact analyses. As a result, in order to create accurate, consistent economic analyses, researchers must eliminate local residents from their data, unless methods for capturing ancillary spending of locals are conducted. Crompton is not the only economist with this point of view. McHenry, Sanderson, and Siegfried (2007) introduce the substitution effect mentioned earlier in this review, which indicates that local families maintain limited entertainment budgets, as expenditures are merely substitutes for one another. Siegfried and Zimbalist (2006) re-affirm this point as well.

It is not only important to remove residents when evaluating an economic impact from an event but also to remove those who are visiting the local area for reasons other than attending the event. Crompton and Lee call these visitors "time-switchers" and "casuals," the second group necessitating exclusion. Some visitors may have intended to visit the community for a while and decided to switch their time to correspond with the specific event. In this case, the community is not drawing these visitors to their area because of the event; the event rather, is merely causing the visitors to specify their direct time of visiting. So, it cannot be assumed that the spending generating from these "time-switchers" is attributed to the hosted event. Casuals are out-of-town visitors who were already in town visiting and decided to go to the event instead of spending their money for other forms of entertainment. Bigger cities suffer from this fact because they draw visitors for a various number of reasons other than the specific, directed purpose of attending an event. This re-enforces Coates and Depken's analysis of college football games hosted by big cities such as Houston and

Dallas verses those hosted by smaller towns like Huntsville and Prairie View. It is highly unlikely that these smaller towns attract visitors for reasons other than attending the specified sporting event. In fact, many college football games are hosted by relatively small towns rather than larger metropolitan cities (Coates and Depken, 2006). Crompton (1995) exposes the simple mistake of allowing *all* outside expenditures as new money directly credited to the hosted event, rather than separating the net expenditures from those visiting due to the event. In essence, it is easy for people to misconstrued evidence that indicates economic impact but merely to a lesser degree than actually reported.

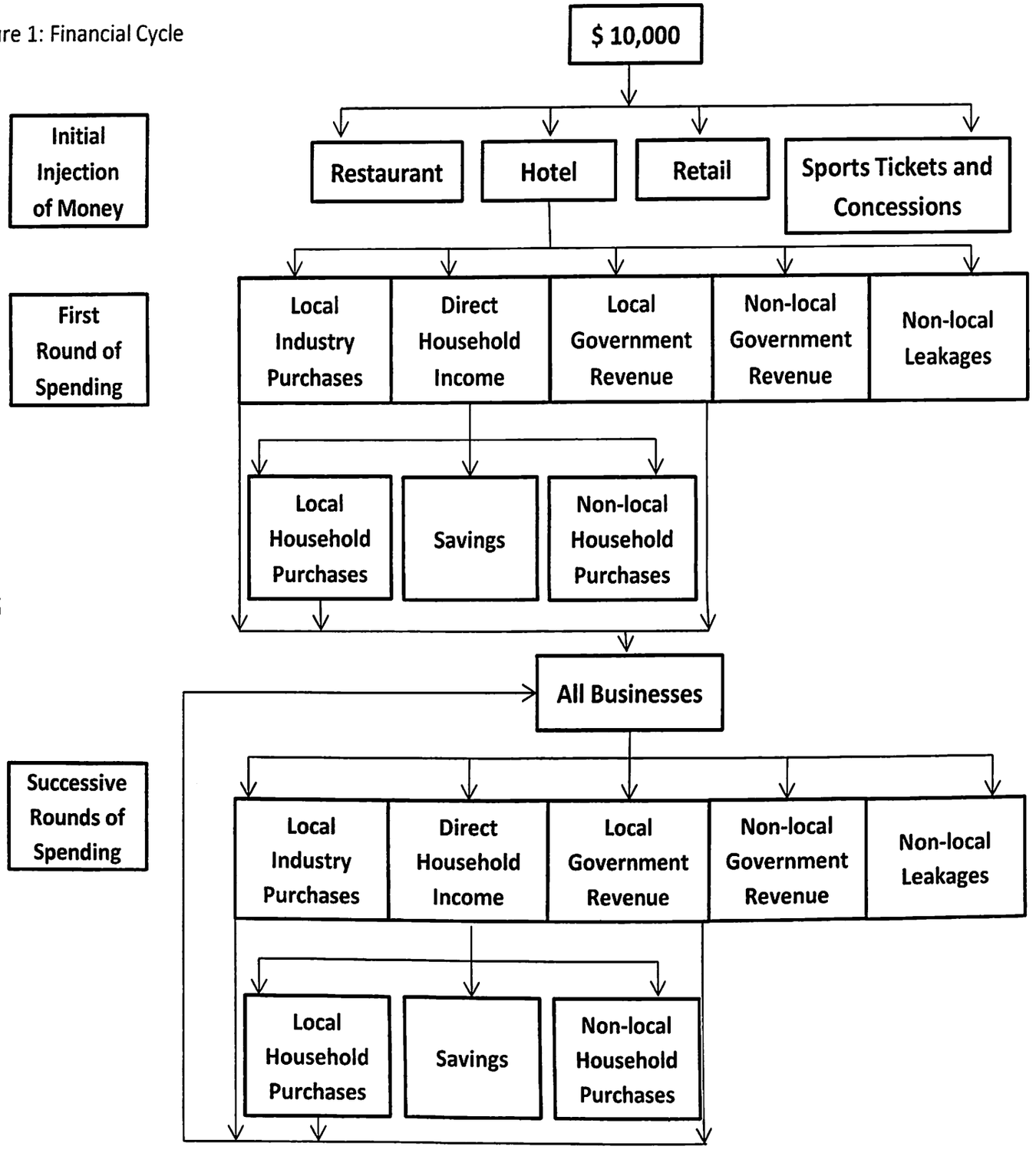
The use of multipliers is important and nearly all economists use them when evaluating economic impact studies. Essentially, the idea of a multiplier, or the multiplier effect, is such that as money is directly injected into an economy, each new dollar spent enters into a cycle and spent indirectly during second or third time expenditures. If a group of visitors come to a local area and spends money, then those direct expenditures stimulate economic activity for local businesses that turnaround and use secondary expenditures as a result, creating employment, household income, and government revenue (Crompton, 1995, p. 18). Crompton states five different ways this initial spending is recirculated throughout the economy:

1. *Local industry purchases* to restock inventories, maintenance on buildings, or insurance premiums.
2. *Direct household income* to employees who are residents to local community.

3. *Local government revenue* via sales taxes, property taxes, and license fees.
4. *Nonlocal government revenues*.
5. *Nonlocal leakages* to employees, businesses, or organizations that exist outside the local area.

Only the dollars remaining in the local community are attributed to having any impact on economic activity and development; therefore, the latter two categories reflect dollars lost to other areas outside the area of study, which we call "leakages." The first three categories, recirculated throughout the local area, extend further economic activity. The financial cycle shown in Figure 1, created by Liu and Var (1982), offers a pictorial process of the monetary flow of dollars throughout a local community. It includes the five ways money is successively spent after initial, new expenditures. The first three listed are dollars that do not leak outside the economy and recycle consecutively in the same pattern until all initial expenditures are fully recycled and used. Economists refer to these successive rounds of spending as "indirect impacts."

Figure 1: Financial Cycle



Revenue generated from local government taxes and fees is vital to local communities, because it is instantly paid disbursed back into the economy, serving as a stimulus for economic activity. Local industry purchases recycle businesses' dollars throughout the economy for inventories, supplies, etc. Direct household income has three outlets in which its money goes. Only local household purchases recirculate throughout the economy. Savings, Crompton states, "Contributes nothing further to local economic stimulus... and is similar to spending [money] outside the community. The effect is the same in that the economic stimulus potential is lost" (Crompton, 1995, p. 20). In essence, residents "save" part of their income in order to spend money elsewhere (vacation, travel, etc.).

Three "impacts" are used in determining multipliers. Direct impacts are first round effects of visitor spending. These impacts are the dollars directly spent from hotels, retailers, restaurants, etc. on employee wages and other purchases in the specific region. It is how much of the initial spending, the $ 10,000 in Figure 1, is used by these local vendors. Indirect (inter-industry) impacts are successive recirculation, consisting of goods and services spent by the businesses, which support inputs obtained in the direct activity. Induced impacts are those linked to employee wages and salaries and the amount spent on other local businesses in the city (i.e. household purchases).

The Issue of Politics

In last several decades, America has seen some of its cities continue to rise and expand, while others diverge further from the frontier of progress. As a result, city

planners have looked for ways to regenerate activity, jobs, and life within the cities limits. Predictably, the rise of suburban boom has caused activity to shift away from the city. Austrian and Rosentraub (2002) attempted to address the decisions and reasons behind the city regeneration in the 1990s, intending to determine whether or not sports were or still are a good means through which city regrowth should occur. The general consensus by most, if not all, economists, within this field of study, is that sports facilities do not necessarily correlate with regional economic growth, yet major cities, over the past decades, have relied on this means as a primary catalyst for development.

Unfortunately, the issue of personal political agendas can all too often interfere with the overall goal of urban development. "To convince voters of the worthiness of sports subsidies, city officials and private sector beneficiaries of the subsidies may commission studies with the intent to show that the subsidy will inject many millions of dollars a year into the local economy" (Crompton, 1995, p. 16). For this, Crompton addressed important misapplications frequently made during these economic development studies. Since economic projections are merely estimates, city officials are easily tempted to choose the opinion that rests best in their favor. Also, there is always some beneficiary lurking in the background, expecting large gains as well. Those making projections use heavy terms, such as "economic surge" or "economic activity," while proposing any urban development strategy. Usually, these terms coincide with *all* expenditures received by a local area, which does not indicate economic progress at all, an issue already addressed in this review (Crompton and Lee, 2000).

In 1996, the city of Cincinnati voted for a sales tax to finance a large percentage of a $544 million cost to create two new sports-specified stadiums for its NFL and MLB teams. The exhaustive three year debate leading up to this decision experienced a political tug-of-war, including emotionally charged threats, grass roots referendum campaigns, and poorly projected economic estimates. This process was instigated by the issue concerning Riverfront Stadium, home to both the Reds and Bengals. At this point, this facility had reached nearly 25 years since its opening in 1970 and was the source of complaint of both team owners, who emphasized the stadium's lack of amenities (luxury boxes and club seating), which, in turn, had caused serious declines in revenue. Simply, they felt that Riverfront Stadium was outdated and alternative plans of redevelopment were necessary (Noll and Zimbalist, 1997). This story illustrates that when it comes to economic sustainability, sports market power, politics, and emotional connections influence and rationalize a city's decision to keep or add a sports franchise, regardless of its negative or positive impact.

Once Marge Schott, principal owner of the Reds, and Mike Brown, principal owner of the Bengals, expressed their discontent, it appeared that any "needs" they considered were important could be demanded, not simply requested (Noll and Zimbalist, 1997, p. 283). From the beginning, the power was in the hands of the sports franchises and its owners. Soon, city officials were catering to the demands of two determined, unmovable subjects. Both Schott and Brown independently made requests for their own new sports-specific facility, with no intention of renovating the former Riverfront venue. The Reds threatened to break their Riverfront lease. Shortly after, the

National League actually approved of the Reds relocation. When this happened, "The possibility of losing the team became real" (Noll and Zimbalist, 1997, p. 289), and the city council, Cincinnati Business Committee, and county commissioners began to seriously consider how to finance two new sports-specific facilities. They had six weeks to determine how to finance projects that totaled about $500 million (Noll and Zimbalist, 1997, p. 291).

A solution finally arose suggesting a raise in the county sales tax by one percent, to 6.5 percent for twenty years. $100 million would be collected annually, of which, $35 million would be used to finance both stadiums (Noll and Zimbalist, 1997, p. 292). Prior to this proposal, Bengals owner, Mike Brown, received an offer to move his team to the city of Baltimore. This proposition placed unnecessary pressure on the Hamilton County commissioners to make a decision. Predictably, the vote passed and the Baltimore deal rescinded.

Tax-repeal groups surfaced in the wake of the county's decision to increase the county sale tax and petitioned to leave the decision to the public. By the end of three weeks, with more than 700 volunteers, nearly 160,000 signatures were turned in to the county commissioners' office. "It was to be official: the people would get to vote on the tax" (Noll and Zimbalist, 1997, p. 296). Politics, fueled by professional sports monopolism, sent the city of Cincinnati into a whirlwind of debates; everyone had a voice.

As the date of the vote grew closer and closer, pro-tax advocacy commercials aired, and, "It was obvious from the start that the public relations campaign was to be fought primarily on emotional grounds, and secondarily on economic grounds." In the public's eye, the debate to retain these professional franchises became less about economic growth and prosperity and more about image. Cincinnati Mayor, Roxanne Qualls, was quoted saying, "It's not about sports. It's about Cincinnati" (quoted by Noll and Zimbalist, 1997, p.313). On March 19, voters cast their votes; they did not have any official stadium plans to evaluate, since there were no real plans. Also, many voters were clueless on the economic benefits and *costs* that would go into such large projects. Nevertheless, voters believed that by not passing the tax vote and giving into the demands of greedy owners to finance the build of two new sports-specific facilities, "They would lose their home teams and become a less respected American city" (Noll and Zimbalist, 1997, p. 314). The vote passed with 61.4 percent in favor of taxing sales to finance the stadiums' build.

This story shows that decisions concerning any professional franchise, or collegiate program for that matter, cannot be made apart from political influences and emotional attachments. Economists and city planners and developers want to account for numbers objectively, in a matter-of-fact kind of way. However, it is impossible to ignore the connections made by the local public and the political implications for mayors, commissioners, or even university presidents. There are works to human emotions for which these planners cannot account. Collegiate athletic programs and professional sports franchises have the potential to impact communities in ways that

surpass monetary values by simply connecting with individuals. These emotions can be compared to anything, transcending sports, economic sustainability, and even the human condition. An individual will always respond to a situation or occurrence; his or her response always falls into any of the three categories: positive, negative, or neutral. A presidential election evokes a national response as does a win or loss by a resident sports program. The topic of emotions is the only common denominator exempt from Santo's claim for proper context. Santo emphasized the importance of creating a proper context for economic sports analysis by not assuming conclusions for one city to be the same for another (Santo, 2005, p. 188). However, regardless of city size and sports specification (college /professional or football/baseball), human emotion is the same. "Ironically, it is the sports team that is likely to be more popular politically because its contribution to the host community's quality of life is likely to be more obvious to most residents" (Crompton, 1995, p.31). Local residents attest to this, visitors see it first hand, and shop owners understand the value that sports can bring to a community.

Specific Collegiate Research

The Universities of Arkansas and Nebraska conducted studies that measured the economic impact its respective athletic departments make on the communities of Fayetteville and Lincoln. These universities' athletic departments employed its economics departments within the schools of business (the College of Business Administration at Nebraska and the Sam W. Walton College of Business at Arkansas) to facilitate a full-scale study that would, "increase the understanding of economic impacts

within the Department and provide a useful communication tool for interactions with alumni, faculty and staff, taxpayers, business owners and other" (Deck, 2012, p. 2). These studies consider factors that contribute to economic activity produced due to sporting events. These factors include: direct expenditures of the athletic department, indirect measurements from visitor spending at hotels and restaurants, as well as stadium renovation and construction. Collectively, both studies use IMPLAN software to determine appropriate multipliers, which allow for proper projection of the impact of expenditures. The higher the multiplier, the higher the ability to, "retain new spending that is drawn into the area;" retained money re-spent and re-circulated throughout the local economy creates more jobs and earning opportunities (Thompson, 2005, p. 1). Also, surveys were conducted, providing specific visitor spending patterns. Based on their outcomes, both universities attracted more than 300,000 visitors for home football games, resulting in roughly $25 million in visitors spending. This portion of the review will offer a brief outline of research methods and patterns used for these studies.

The University of Arkansas, located in the northwest corner of the state, hosted over 700,000 visitors between fall 2011 and spring 2012, generating around $30 million in visitor spending. Their Center for Business and Economic Research examined three broad categories of activity that created economic influence: direct athletic department expenditures, indirect visitor spending, and construction. Since this study provides a great framework for research and formatting as a model for my project in which I am conducting a similar study on a much smaller scale.

My study will only highlight three specific home football weekends alongside three consecutive away football games as opposed to the full-scale, three-sport economic impact. Thus, I will only include direct athletic department expenditures and revenues from those particular home weekends, attempting to remain consistent in our data. Since Arkansas ran a full year study, its researchers recorded the total direct economic impact from athletic expenditures and revenues. Athletic expenditures result from payroll, event expenses, marketing and promotion, and facility expenses (Deck, 2012, p. 3). The study breaks down each of these categories, detailing total expenses incurred. For the purpose of our study, we will only reference revenue and sales tax from ticket sales and concessions, as well as personnel from contractual, part-time services to full-time staff. Using IMPLAN, researchers were able to determine economic impact estimates for total athletic expenditures.

> *The basic data sources for the current edition of the IMPLAN database and the model used in this study are the Input-Output Accounts of the United States, developed by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA), and county income and employment data published by BEA and the Bureau of Labor Statistics (BLS)* (Deck, 2012, p.10)

Basically, the model reflects industrial structure and technology and measures the three types of impacts: direct, indirect, and induced, referenced previously in this chapter. As a result, based on expenditures of the athletic department, the direct change of employment magnifies indirect and induced effects, creating a total impact. In this case,

the ratio between direct effect and total impact is over 1:2, where employment of 260 full-time staff, coupled with indirect and induced effects, creates 583 jobs in the state economy (Deck, 2012, p. 10). As far as revenue generated by the athletic department, Arkansas includes all revenue for the entire year, whereas we are only highlighting three weekends from the fall, from which I will only look at ticket sales and concessions.

Even though expenditures made by athletic departments, as well as revenue directly received from sports events, create certain economic implications, surrounding communities typically feel a larger impact from visitors' spending during home games. Researchers at the University of Arkansas saw increases in revenue at local restaurants, hotels, retail, and gas stations due to substantial expenditures made by visiting fans, creating a valuable stimulus to Fayetteville and its surrounding towns (Deck, 2012, p. 14). In order to properly estimate the impact of visitor spending, the Center for Business and Economics Research developed a survey tool for home football, basketball, and baseball games. These survey responses allowed researchers to extrapolate spending patterns for visitors during home games. Since researchers at Arkansas evaluated all three major sports within a one year period, as well as multiple games within each sport, they reported survey numbers on an entire level. In addition, each game used in the research released separate survey information; this was to show similarity between numbers amongst events within the same sport. Also, this section of visitor spending includes sales tax collections from restaurants and hotels and hotel occupancies and rates. At the end of this section, the researchers provide the reader hotel occupancy comparisons from the last five years between the fall semesters and yearly averages.

Included in this comparison are the four major towns in the Northwest Arkansas area: Fayetteville, Springdale, Rogers, and Bentonville.

For football games, roughly 67.0 percent travelled from outside the Northwest Arkansas area and spent, on average, $102 per person, which totaled $24.5 million or $4.9 million per game in visitor spending (Deck, 2012 p. 42). Using the aforementioned visitor spending information previously mentioned, researchers were able to estimate state and local sales taxes paid by those staying in the Northwest Arkansas region during home football weekends. This estimate determined state and local sales taxes of $1.4 million and $0.74 million, totaling $2.2 million (estimates were based on the 6.0 percent state tax and 3.0 percent local government tax). They also determined that sales taxes of $0.24 million were generated from concessions and merchandise at football games. Hotels registered 28,870 rooms occupied in the Northwest Arkansas region, averaging to 5,774 per game weekend (Deck, 2012, p. 44).

In the final section of their report, the Center of Business and Economic Research included charts to compare hotel occupancy rates and tax collections for the four major towns in the Northwest Arkansas region between the months of September through November using the annual average. On average, the fall tax collections were 13.8 percent higher than the rest of the year. Also, occupancy rates were used as well with an average of 9.5 percent higher for the fall compared to the rest of the year (Deck, 2012, p. 47-51).

The University of Nebraska's Bureau of Business Research evaluated the economic impact of its athletic department for the 2004-2005 fiscal year. This study contains four parts: total athletic department expenditures and revenue, economic impact of athletic department and visitor spending, stadium construction, and athletic department on the rest of the state. For the purpose of my study, I will only outline the first two parts.

The University employs roughly 1,800 workers through its athletic department, resulting in $1.7 million in state and local taxes (Thompson, 2005, p. 2). The direct impact for football from $25.8 million output results in $10.8 million in labor income for 950 jobs. The total economic impact related to football is $51.7 million in output, $20.8 million in labor income, and 1,530 in employment. This means that due to the multiplier effect, the $25.8 million spent from the athletic department for football results in a total output of $51.7 million, of that, $20.8 million is used for labor income, creating 580 jobs (1,530 minus 950). Researchers used a multiplier of 2.0 for earnings and 1.6 for employment, meaning that there are three additional jobs to every five jobs in the athletic department (Thompson, 2005, p. 11).

As for visitor spending, researchers did not employ surveys to record average spending per person; instead, they used fan spending data from four completed studies from the University of Tennessee, Louisiana State University, Penn State University, and Ohio State University. They determined that the average spending per person for fans outside the local metropolitan area was $85.29. Researchers also noted that nearly 75

percent of all fan expenditures were from non-locals (Thompson, 2005, p. 5). The total expenditures from visitor spending of non-locals was $24.4 million; this figure is found by multiplying 302,000, for total non-locals, and $85.29 for per person spending and subtracted from concessions of $1.4 million (Thompson, 2005, p. 6). The IMPLAN software determined multipliers of 1.5 for earning and 1.25 for employment. As a result, the $24.4 million of visitor spending had a total impact of $35.4 million and the direct impact on employment of 470 had a total impact of 600, creating 130 new jobs (Thompson, 2005, p. 13).

These studies not only show the financial impact university athletic departments may have on local areas, the researchers also noted the substantial impact on the quality of life of town residents, saying, "the excitement of competition and the accomplishments of university teams contribute to the quality of life in the community" (Thompson, 2005, p. 1). A genuine sense of pride is instilled in local residents as these college towns become temporary metropolises for a small period of time, namely, home football weekends. I am using parts of these studies as a model through which to employ our research for the economic impact of college athletics on the city of Oxford.

Generally, most economists claim that sports do not typically drive economic development, or at least they do not grow economic activity at the most effective cost. However, these economists admit "exceptions" that exist in linking these subjects (athletics, universities, etc.) to economic prosperity. Despite the overall cynicism toward sports development in major U.S. cities, a case can be made for small towns that host

college athletics, like Oxford, Mississippi. The "concessions" reported by these researchers above, the concepts of "new spending" and "rural attraction," apply directly to Oxford's Ole Miss Football program. Visitor spending occurs frequently each fall in Oxford because of football events that occur through the months of September and November. Oxford hosts numerous visitors each year, and it is important to determine the reason for peoples' visits. Mentioned before, Coates and Depken claim that smaller towns actually benefit from hosting sporting events, as the reasons for visiting are limited to sports and nothing else. Rural location is equally important because outside of hosting football events, which attracts thousands of guests each year, Oxford has little to offer in terms of generating substantial economic activity. Also, it could be said that without Oxford's home football event reputation, then all other smaller, non-athletic events would hold less weight, and would draw less attention.

Visitor spending and rural location are both vital in making an argument for the economic impact, of a college athletic program, on a local community. The two cannot exist separately as a stand-alone argument without each other. It is unlikely that the all forms of overnight stay would be occupied in Oxford and surrounding towns were it not for a football weekend, meaning that most people who visit Oxford in the fall come to watch football. Anecdotal evidence is important because it indicates the human emotions which are not necessarily accountable. People see Oxford as a small town that flourishes in large part because of its college football program. This chapter helps identify what factors are important to evaluate when determining the level of impact

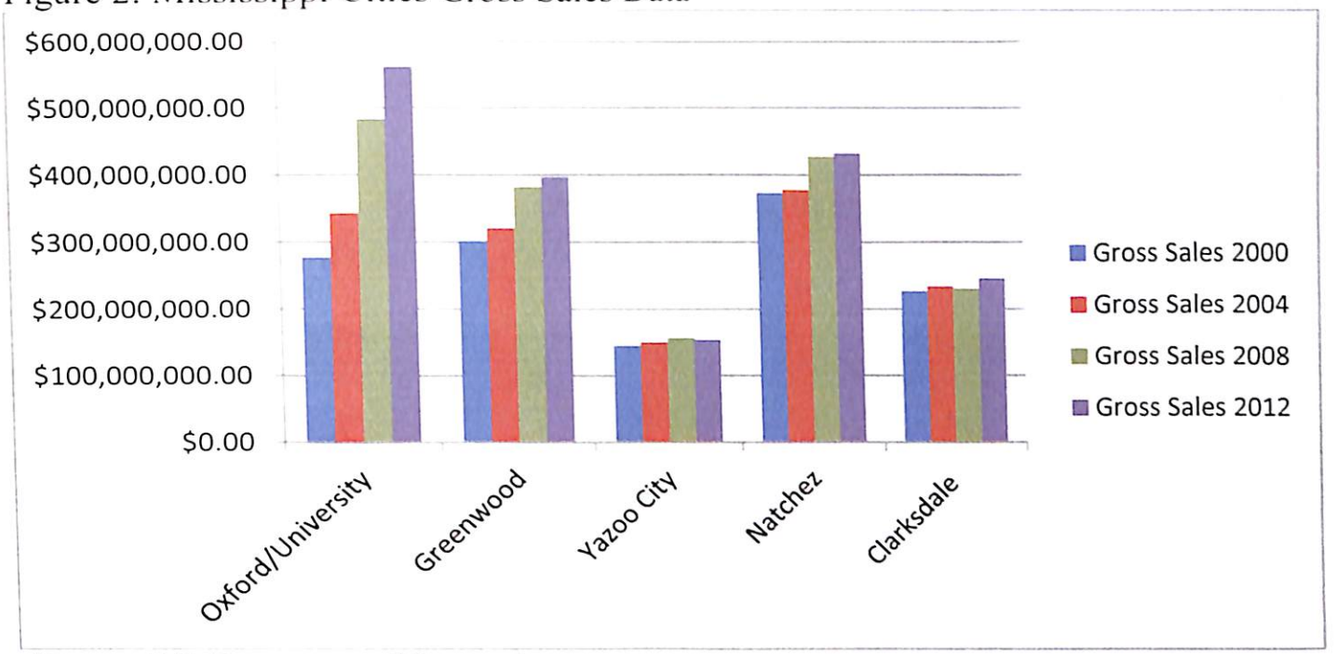
sports can have on a local community. The following chapter will discuss how those factors apply to the town of Oxford, Mississippi and its football program.

Chapter 2: An Economic Impact Analysis of College Football on Oxford, Mississippi

Introduction

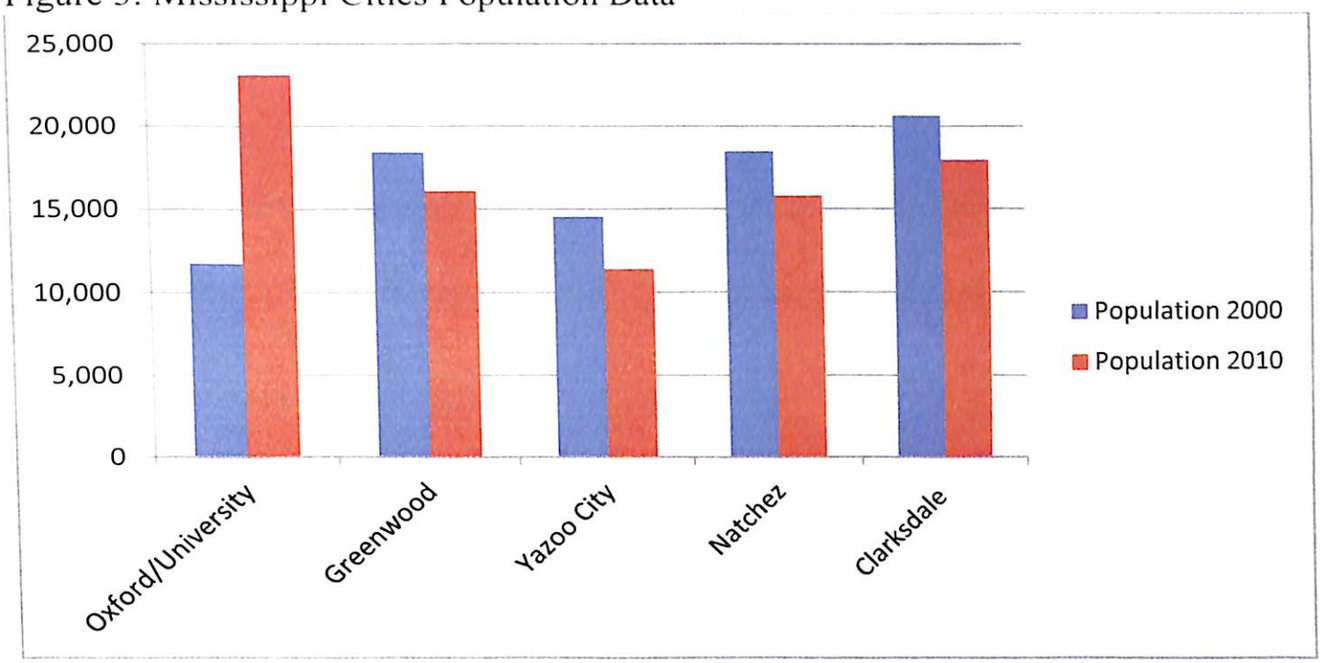
Oxford, a small Mississippi town has been a breeding ground for economic activity for the North Mississippi region over the last several decades. With a population of roughly 24,000 people (Census), Oxford would appear to be a common, ordinary Mississippi town; however, since it is home to the University of Mississippi and Ole Miss Athletics program, it distinguishes itself from other, normal Mississippi towns. Oxford welcomes thousands of visitors each year generating millions of dollars in traveler revenue, including $105 million in 2012, a 14.1 percent increase from the previous year (Department of Revenue). Oxford's slow paced lifestyle, vibrant downtown atmosphere, and deep literary tradition, offer a leisure destination for many. According to the Yellow Pages, Oxford houses 112 restaurants, 104 percent more than other small Mississippi towns like Greenwood, Yazoo City, Natchez, and Clarksdale, whose average is 53 restaurants per town (Yellow Pages). Unlike these towns, Oxford has grown in population, a 110 percent increase, and has experienced significant rises in gross sales each year for the past decade, a total increase of 102 percent increase (U.S. Census Bureau).

Figure 2: Mississippi Cities Gross Sales Data



(Source: U.S. Department of Revenue)

Figure 3: Mississippi Cities Population Data



(Source: U.S. Census)

These important facts sparked my interest to evaluate specific causes for such a disparity depicted in figures 2 and 3. How is it possible to connect differences like these and attribute them to one or more specific causes? Obviously, something must be

different that causes Oxford to differentiate itself from other small towns in Mississippi; these other four towns represent hundreds of towns that reflect similar percentages of growth in population and sales. Public education, which is not a focus in this writing, also reflects a similar pattern, as Oxford maintains a strong public school system. The main difference is that Oxford hosts a major public university and collegiate athletic program. It is clear in my mind that significant anecdotal evidence and personal testimonies suggest that the presence of a major public academic institution and premier collegiate athletics program must account for a majority of such disparities, yet no real analysis has taken place. The goal of this thesis is to analyze the impact Ole Miss Football has on the town of Oxford, while maintaining the knowledge that its impact can only be partially responsible for the growth of Oxford's economy. The objective of this particular study is to highlight six specific weeks from three months in the fall of 2012, three of which hosted home football games, while three others did not, and to compare weekly sales and hotel figures to determine significant, positive differences, if any.

The six weeks appear in figure 4 as follows:

Figure 4: Schedule for Economic Analysis

Date:	**Event:**
September 10 – 16	Home: Texas (Sept. 15)
September 17 – 23	Non-Football Week
October 8 – 14	Home: Auburn (Oct. 13)
October 15 – 21	Non-Football Week
November 5 – 11	Home: Vanderbilt (Nov. 10
November 12 – 18	Non-Football Week

The research used in developing this thesis is done at a smaller level with the intention to potentially build upon this model in future studies. The hope is that this study can be used to illustrate the impact the Ole Miss Athletic Department has on Oxford, specifically through football. An understanding of such an impact and provision of useful evidence can be used to effectively communicate to alumni, faculty, and local businesses the value of college athletics to a town like Oxford. This study divides the economic impact of football in Oxford into two categories, highlighting each component and identifying specific reasons for my approach. The first category looks at the direct economic impacts of the Ole Miss Athletic Department through its revenues and sales tax figures from ticket sales and concessions as well as expenditures for part-time and full-time contractual agreements of personnel. The second category evaluates the impact visitor spending and student ancillary spending have on Oxford during home football games.[1] A comparison between retail weekly sales data between consecutive home football and non-football weeks will provide evidence, if any, that proves increases in spending in Oxford. Individual survey responses will be administered, indicating average spending per person during each football weekend; this includes visitor spending as well as extra student spending. This category will also look at hotel occupancy figures and rates between weekends. The two categories are presented in Table 1.

[1] Evidence collected from surveys was gathered from a sample with the assumption that it represented the spending of the population as a whole.

Table 1

Outline of Chapter 2 Analysis	
Athletic Department Direct Expenditures	**Visitor/Student Spending**
• Ticket Revenue	• Retail Sales Comparisons
• Concessions Revenue	• Hotel Occupancies and Rates Differences
• Sales Tax on Tickets	• Visitor Spending
• Sales Tax on Concessions	• Student Ancillary Spending
• Contractual Services	

With the help of faculty, who have licensing rights, I employed the same IMPLAN software used in the Arkansas and Nebraska reports to adequately measure the impact of the Ole Miss Athletic Department and visitor/student spending during the three home football weeks and non-football weeks. The difference of the total effects between these weeks will indicate whether or not football weekends are a factor in Oxford's economic activity. Of course, this type of study contains information excluded from the research that was not available. It is also important to note that there are certainly many elements that could have been contributable to this study that were not highlighted in detail due to time restrictions and limitations (compliance with third party vendors, especially). Nonetheless, certain assumptions must be made when dealing with any economic impact analysis. For instance, the surveys administered to students and

visitors to capture spending during football weekends are assumed to reflect similar behavior for all, if not, for most of the students and visitors in Oxford. Similarly, the statistics on hotel sales are from more than half of the hotels in the local area, which I believe certainly reflects the standard occupancies and sales for weekends in the fall of 2012. Gathering retail sales information was by far the most difficult challenge during this project, slowing its progress at times. Most Oxford locals were more willing to disclose confidential sales information than others, which was something I knew before beginning my research. However, the information received from local retailers is diverse and represents most of the industries that serve the Oxford/Lafayette County community (i.e. restaurants, retail, groceries, etc.). Again, this is another assumption that was necessary to make, along with per capita spending and hotel figures, in order to determine conclusions concerning the impact of college football on Oxford.

Overall, the goal of this chapter is to identify if a college home football in a small town like Oxford stimulates positive economic activity, offering some evidence for why it is not like other small towns, which have stagnant economies.

Direct Economic Impact Data

This section highlights the direct economic impact of the Ole Miss Athletics Department by specifying its expenditures and revenues for the Texas, Auburn, and Vanderbilt home football games. This study only uses revenues and sales taxes from ticket sales and concessions and expenditures for contractual services for full-time and part-time employees for the three football weekends previously mentioned.

Table 1 represents total sales revenue from ticket sales and game day concessions. During these three home football weekends, the Ole Miss Athletic Department earned total revenue of $6,676,844 from ticket sales and $629,063 from concessions.

Table 2

Sales Revenue from Ticket Sales and Concessions				
Revenue	**Texas**	**Auburn**	**Vanderbilt**	**Total**
Tickets	$2,679,311	$2,301,779	$1,695,754	$6,676,844
Concessions	$282,388	$153,361	$193,314	$629,063

(Source: University of Mississippi Athletic Department)

Table 3 represents sales tax data for these ticket sales and concessions figures. As a result, the sales taxes generated totaled $436,803 from ticket sales and $70,650 from concessions.

Table 3

Sales Tax Figures for Ticket Sales and Concessions				
Sales Tax	**Texas**	**Auburn**	**Vanderbilt**	**Total**
Tickets	$175,282	$150,584	$110,937	$436,803
Concessions	$27,125	$21,875	$21,650	$70,650

(Source: University of Mississippi Athletic Department)

As for contractual services, the Ole Miss Athletic Department contracts out certain services required for adequate home football operations. The services include: post-game sanitation, rental sound equipment, any facility repairs or grounds

maintenance, garbage clean up and disposal, and game day security. Table 4 shows the different services divided separately and the expenditures made for each service by the athletic department during each weekend. As a result, for the three weekends selected, the Ole Miss Athletic Department made a total of $135,453.18 on contractual services, spending which would not have occurred if it were not for hosting such a large events such as football games.

Table 4

Contractual Service Charges for Home Football Games				
Contractual Services	**Texas**	**Auburn**	**Vanderbilt**	**Total**
Sanitation - Post Game	$1,820.00	$1,560.00	$520.00	$3,900
Other Rental - Sound Equipment	$7,221.25	$7,175.00	$9,175.00	$23,571.25
Repairs and Service Bldgs. & Grounds - Washing	-	$2,400.00	$2,400.00	$4,800
Other Professional Fees - Game day Garbage	$10,075.00	$10,075.00	$10,075.00	$30,250
Game Security	$24,650.78	$22,750.26	$25,530.89	$72,931.93
Totals	**$43,767.03**	**$43,960.26**	**$47,700.89**	**$135,453.18**

(Source: University of Mississippi Athletic Department)

Impact of Visitor and Student Spending

Each fall, thousands of people travel to Oxford to watch the Rebels play. A major effect of operation of the University of Mississippi and the Oxford local community is felt from the economic impact created by visitors to the Oxford/Lafayette County area

during home football games. Visiting fans and Ole Miss students generate significant expenditures at restaurants, hotels, retails stores, as well as other local vendors, producing economic activity in this area. This section highlights the off-campus spending from visitors and Ole Miss students during football weekends, excluding spending on the purchasing of tickets and concessions during games. Estimating spending was accomplished through primary sources from issuing surveys. One survey was administered to students mainly during class lectures. Visitor surveys were administered through two main mediums. The first form was at tailgates in the Grove during home football games, and the second was through the Ole Miss Alumni Association. I used the Ole Miss Alumni Association during home weekends to handout surveys to people who had access to the Triplett Alumni Center on game days. Also, members of the alumni association administered these surveys during club its meetings throughout Mississippi. Copies of the two surveys are included in the appendix. For the purpose of this study, I only evaluated the three football weekends listed in Figure 5.

Figure 5[2]

Attendance Numbers	
Game	**Attendance**
Texas	61,797
Auburn	57,068
Vanderbilt	60,572
Total	179,437

(Source: University of Mississippi Athletic Department)

[2] Attendance numbers do not fully account for total game day participation, not capturing fans that remained in the Grove during the game.

Tables 5 and 6 present the breakdowns of student ancillary spending and visitor spending per person for football weekends. The student surveys asked participants to estimate the amount of extra money they spent that they otherwise would not have spent if it were not a football weekend. The survey then provides a list to breakdown spending for food, entertainment, gas and transportation, and other miscellaneous expenses. These results indicate that students spend, on average, $56.60 more than they normally would on a non-football weekend, per person.

Table 5[3]

Student Ancillary Spending per person	
Food	$28.55
Entertainment	$16.01
Gas/Transportation	$3.05
Other	$8.75
Total	**$56.60**

(Source: Primary Data Survey Responses)

As for visitor spending, the survey administered to out-of-town guests was practically identical to the student survey, except that it simply asked partakers to include spending for the entire weekend, not ancillary spending as a result of a football weekend. This survey was only given to non-residents. Also, the survey included in its breakdown the amount spent on housing. From the surveys received, on average, spending for out-of-town fans was $223.57 per person.

[3] Totals from Tables 5 and 6 are subject to minor rounding differences.

Table 6[4]

Visitor Spending per person	
Food	$72.37
Entertainment	$26.74
Housing	$65.18
Gas/Transportation	$37.52
Other	$20.18
Total	**$223.57**

(Source: Primary Data Survey Responses)

Hotels were greatly impacted as a result of football weekends. I surveyed hotels in the Oxford area to compare the six weekends previously mentioned for the fall of 2012. Included in this survey are the occupancies for Thursday, Friday, and Saturday night, weekend or nightly room rate, if different, and total sales for each weekend. A complete and specific breakdown of each weekend, including percent occupied, nightly rates, and total sales for each of the six weekends is included in Figure A-1 in the Appendix. Tables 7 and 8 only show the averages of room rates, percentage of hotels occupied, total sales, and sales tax figures for football and non-football weekends. Table 7 indicates that there were considerable differences in the room rates for football weekends and non-football weekends as Thursday nights were, on average, $53.13

[4] The figure calculated for housing is most likely a result from visitors who only traveled to Oxford for the day or who stayed as a guest or have real estate property in Oxford. Thus, the housing number is smaller, on average.

more expensive. Likewise, the data shows that Friday and Saturday nights were a stagger $111.80 more expensive.

Table 7

Hotel Rates and Occupancy Figures for 2012 Fall Weekends				
Weekend	**Thu. Rate**	**Thur. Occupied**	**Fri./Sat. Rate**	**Fri./Sat. Occupied**
Football	$192.59	59%	$255.26	99%
Non-Football	$139.46	58%	$143.46	84%
Difference	**$53.13**	**1%**	**$111.80**	**15%**

(Source: Primary Data Survey Responses)

Table 8

Hotel Sales Revenue and Sales Tax Figures for 2012 Fall Weekends		
Weekend	**Sales**	**Sales Tax**
Football Weekend	$303,601.33	$21,252.00
Non-Football Weekend	$165,074.33	$11,555.00
Difference per Weekend	**$138,527.00**	**$9,697.00**
Total for Three Football Weekends	$910,804.00	$63,756.00
Total for Non-Football	$495,223.00	$34,665.00
Differences in Totals	**$415,581.00**	**$29,091.00**

(Source: Primary Data Survey Responses)

The biggest indicator for these differences is the room rates for football weekends compared to non-football weekends. For the most part, on non-football

weekends, hotels still contained a high percentage of rooms occupied; they were just charged at a much lower rate than football weekends. This generated a major difference in sales figures. Table 8 shows that the hotel industry earned nearly $140,000 more in revenue per weekend when Ole Miss played home football games compared to non-football weekends for the fall of 2012. This created a total sales tax difference of $29,091 that would not have been collected if it were not for these three football games. On average, hotels earned an 84% increase in sales each football weekend.

Retail sales data, displayed in Table 9, shows the percentage increases and decreases between weeks having no football games and those having games. The total increase or decrease is the aggregated sales amount from the three non-football weeks compared to the football weeks. Clothing retail indicated the largest increase between due to football, with a 308 percent increase. Grocery sales percent increases were lower because the non-football week recorded in the month of November preceded the week of Thanksgiving, the highest sales of any week. Auto parts retailers represented an industry group that I assumed to have no effect due to college football. The negative 1 percent decrease indicates this assumption. Bookstores, coffee shops, and restaurants had relative increases.

Table 9

Retail Sales Data	
Industry	**Percent Increase (Decrease)**
Auto Parts Retail	(1%)
Grocery	3%
Retail – Clothing	308%
Bookstore/Coffee	9%
Restaurant	30%

(Source: Primary Data Survey Responses)

Application of the IMPLAN Software

The IMPLAN Software essentially runs on and input-output system, which evaluates the economic impact certain expenditures and revenues have on a local economy. It creates a localized model that estimates the impact economic transactions have on a geographic area. Through this software, users are able to specifically assign inputs to different sectors within the industry (i.e. retail, restaurants, hotels, amusement, etc.). Users assign these economic transactions (expenditures made and revenues earned) to a specific region, like Oxford, Mississippi. The software captures the actual dollar amounts of all business transactions occurring in a local region as reported by business and government entities each year. Once users assign the direct inputs for each sector, the system measures the total effects made because of the change in the economic activity. The model generates three effects or changes, within the economy, as a result of the specific inputs: direct, indirect, and induced. From these effects or

changes, IMPLAN calculates the value the specific inputs bring to the local economy. After working with the professors licensed to use this program, we concluded that it was permissible to simply combine the indirect and induced impacts, because they merely represent the ripple effect the direct inputs make on the local economy (i.e. money re-spent throughout the region as a result of the direct event). The program is able to estimate the number of jobs that will be created due to the initial economic transactions that take place and project the total output that is generated as a result of the economic event. The inputs used for this study were derived from hotel sales, local vendor sales, athletic department concessions, and contractual service expenditures.

Table 10 shows the impact of weeks having football games have on the economy of Oxford. Essentially this table estimates that, based on my research, the three weeks having football in 2012 generated a combined direct output of $2,855,370 of revenue and a total of $3,925,148 of revenue added to the economy, after including indirect rippling effect of spending as a result of the direct amount received (i.e. second and third round spending). As a result of the specific economic transactions recorded in this study, the IMPLAN software projected the total economic output of $3,925,148 added to the Oxford economy. This projection is based on the industry's financial structure, the framework in which the IMPLAN software works. Also, it is estimated that 71 jobs were created as a result of these weekends. This table does not account for total revenue earned from ticket sales, because those sales were made throughout the year, and this table only contains data that was directly derived as a result of the three specific weeks having football games. Further, the number of tickets sold on game day itself was

minimal because most ticket purchases were made in advance by season ticket holders. This study isolates and evaluates the economic activity specifically generated and expended during the six weeks. Only expenditures made and revenues earned during those precise weeks was included in the IMPLAN software.

Table 10

Economic Impact of Sept., Oct., and Nov. Football Weeks				
Impact Type	**Employment**	**Labor Income**	**Value Added**	**Output**
Direct Effect	60.9	$931,255	$1,641,217	$2,855,370
Indirect Effect	10.3	$308,824	$622,393	$1,069,778
Total Effect	71.2	$1,240,079	$2,263,611	$3,925,148
Seven Week Projection	166.13	$2,893,518	$5,281,759	$9,158,679

(Source: IMPLAN Software)

These weekends merely represent a sample of economic activity that was studied. Since the football season spanned across seven football weekends, it is permissible to project the total economic output for the entire season based on the results of these three weekends. Therefore, as a result of the data gained from these weekends, an estimated total economic output for seven weekends is $9,158,679.[5] Again, this is less accurate and only a projection/estimate of actual economic output.

Table 11 shows the impact non-football weekend have on the economy of Oxford. Based on the inputs used, it is estimated that the direct amount of revenue generated was $1,182,569 and the total effect on the Oxford area was $1,642,958.

[5] $3,925,148 x (7/3) = $9,158,679

increase.[8] Also, 1.34 more jobs were estimated to be created as a result of these football weekends.[9] Again, the differences between the economic activity of football and non-football weekends prove the positive effect Ole Miss football has on the Oxford economy, from a financial perspective. This difference is the centerpiece on which the thesis rests. The objective of the thesis was to analyze the economic activity generated during football weeks and non-football weeks and to compare differences, if any. Table 12 clearly evidences the difference football weeks have on the Oxford economy.

Table 12

Difference Between Impacts				
Impact Type	**Employment**	**Labor Income**	**Value Added**	**Output**
Direct Effect	35	$526,041	$916,988	$1,672,801
Indirect Effect	5.8	$176,126	$354,286	$609,389
Total Effect	40.8	$702,167	$1,271,276	$2,282,190

(Source: IMPLAN Software)

As for the Ole Miss Athletic Department, based on ticket revenue, concessions sales, and contractual service expenditures, a total output of $10,536,943 was added to the Oxford economy. Of course, a large part of this amount is due to the $6,676,844 received from ticket sales, which were made throughout the year, making this impact much larger than those expressed in tables 10 through 12. This study excludes direct expenditures of the athletic department for: salaries, scholarships, recruiting, or any non-game day related expenditures. It only examined game-day related activity.

[8] $3,925,148 - $1,642,958 = $2,282,190
[9] 40.8/30.4 = 1.34

Table 13

Athletic Department Economic Impact				
Impact Type	**Employment**	**Labor Income**	**Value Added**	**Output**
Direct Effect	113.2	$1,774,992	$3,364,053	$7,441,337
Indirect Effect	27.6	$867,588	$1,672,144	$3,095,606
Total Effect	140.9	$2,642,579	$5,036,198	$10,536,943
Seven Week Projection	328.77	$6,166,018	$11,751,129	$24,586,200

(Source: IMPLAN Software)

The $10,536,943 generated is true reflection of revenue and expenditures related to game day operations alone. If this output is projected for the entire football season (seven games), an estimated $24,586,200 is added to the local Oxford economy.[10] Around 141 jobs were created as a result of these three weekends, and a projected 329 jobs for the entire season.[11] Of those, 98 jobs were in related to ticket sales, the athletic department's largest source of revenue.

Unfortunately, the spending surveys were not used in the IMPLAN model. The student spending survey only accounted for ancillary spending during each football weekend and did not ask students to give a base, budgeted amount spent on non-football weekends. Since the model compared football and non-football weekend activity, using $56 per student on football weekends and zero on non-football weekends would only give an accurate account for the direct impact but not the indirect impact, since the non-football weekends direct impact would be zero. If in fact, a base amount

[10] $10,536,943 x (7/3) = $24,586,200
[11] 141 x (7/3) = 329

of student spending was known, say $100, then the model could estimate the impact such spending, plus the ancillary amounts used during football weekends, made on the Oxford economy. However, the $56 amount of extra student spending, as a result of a home football weekend, is still significant evidence for this research, and is therefore not disregarded. The visitor surveys could not be used in the model because the number for total visitors from outside the local Oxford area could not be gathered. Again, this number is still not irrelevant and is useful evidence in determining the estimated amount of money out-of-town visitors typically spend in Oxford.

Conclusion

The purpose of this study was to determine the economic impact college football games have on the economy of Oxford, Mississippi. Before approaching any financial data or information regarding Oxford or Ole Miss Athletics, it was necessary to review previous methods of research concerning the field of economics and the impact of sports on local economies. With the essential tools and principles for adequate academic research, it was then permissible to apply these approaches to Oxford and the effect of Ole Miss football on its economy. Obviously, there are a myriad amount of elements, with regard to any economic impact analysis, that are overlooked and unnoticed. In any economic work, best estimates or close approximations are used to determine conclusions or implications. The important part in analyzing the financial state of a local economy and the factors that contribute to its well-being is to remain consistent throughout the breadth of the research. The clearest and most realistic way to analyze the impact of college athletics on Oxford was to compare economic activity generated during football and non-football weekends. In doing so, the data and analysis remained consistent; I compared the specific economic activity generated during three home football weekends to the activity generated during three non-football weekends. This study only evaluated the economic action during those six week periods. By doing so, it allowed for a narrower field of research and reduced the risk concerning estimates and conclusions.

Overall, the data shows that college football game weekends do have a larger projected economic output than non-football game weekends. This is mainly due to the direct game day expenditures made by the Ole Miss Athletic Department, extra student ancillary spending, increased rates and occupancies of hotels, visitor spending, and increased sales amounts of local vendors. All these factors contribute to the overall economic output estimated for the football and non-football weekends. By comparing these differences, it is apparent that Ole Miss football game weekends do have a considerable impact on the local economy of Oxford. Some of the economic success produced by college athletics, in this case football, is due to the rural location of Oxford, Mississippi. I conclude that the reason Oxford benefits so greatly from college football is that it is located in rural Mississippi. The University of Mississippi and city of Oxford have used college football as a crucial element for economic activity and support. The anecdotal testimonies all indicate that football is beneficial to Oxford. After a narrow economic analysis of these six weeks, this study proves that the three weeks having Ole Miss home football games generated more economic activity than other three non-sports-related weeks for the fall of 2012.

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APPENDIX

Primary Data and Survey Responses[12]

When representative of the Ole Miss Alumni Association or I administered the spending surveys to visitors or students, we assured each participant that the survey was voluntary, and that they were afforded the opportunity to cancel their participation at any time. Also, we implored them that these surveys were confidential and that no personal information would be disclosed during this study. We did not have any issues with regard to these surveys.

For the hotel and vendor forms, Dr. Rhodes and I personally presented the forms to the owners and managers of the specific institutions. We explained the purpose and intent of the study and emphasized the importance of not disseminating any financial information that would be disclosed to us. We ensured the owners and managers that all information would be pooled together, removing any possibility of releasing private information.

[12] I partnered with the Ole Miss Alumni Association to administer most of the visitor surveys.

Oxford Economic Survey for Student Spending

Lafayette County resident _____ Non-Lafayette County resident _____

Gender _____ Age _____

Ole Miss Event _____ Date _____

(Please only include money spent in Oxford/Lafayette County area)

How much did you spend which you would not have spent otherwise due to football event which you attended? $ _____

Distribution of expenses to come to this event:

Food _____

Entertainment (other than ticket expense) _____

Housing _____

Gasoline/Transportation _____

Other _____

In your opinion, does a home football weekend help the economy of Oxford?

Yes ☐

No ☐

Other Comments: _____

Survey is being conducted and used by a Senior Accountancy student for his Honors Thesis.

Oxford Economic Survey for Visitor Spending

Non-Lafayette County resident _____

Gender _____ Age _____ Number of dependent family members _____

Ole Miss Event _____Date _____

(Please only include money spent in Oxford/Lafayette County area)

Total spending for weekend: $ _____

Distribution of expenses to come to this event:

Food _____

Entertainment (other than ticket expense) _____

Housing _____

Gasoline/Transportation _____

Other _____

In your opinion, does a home football weekend help the economy of Oxford?

Yes ☐

No ☐

Other Comments: _____

Survey is being conducted and used by a Senior Accountancy student for his Honors Thesis.

Retail Sales Information Form

The Economic Impact Sports has on the City of Oxford.

Abstract:

This study will examine whether or not Ole Miss Athletics has an economic impact on the City of Oxford. In this study, research will be made by gathering evidence of weekly sales data from a multitude of service and good-providing companies. This data will be matched alongside home football games and compared to data collected from games not in Oxford. Hopefully the study will give a clearer answer to the already assumed conclusion, by many, that home football games do in fact positively help stimulate economic action in Oxford. Information and data collected will not be disseminated in any form that would cause any one particular company's financial dealings to be exposed to the common public, including competitors. In other words, sales data of a specific company disclosed to the research will not be separately presented to the readers of this study; rather, the information will be presented within a pool containing other companies in similar industries.

By releasing weekly sales data to this study, companies in Oxford are helping answer the question that many have wondered before; do sports have an impact on the economic activity in Oxford? This study is being made with the clear intention to answer that question, and that question alone. This study is in no way intended to expose or investigate the success or failure of one specific company by reviewing sales information. If weekly sales data cannot be offered due to any reason, percentage change between weeks of home and non-home football games can be used to calculate the rise and fall of economic activity, if any.

Continue on second page.

Oxford Economic Impact Sales Disclosure Agreement Form

We agree to use weekly sales with the full knowledge that we have no intention of using this information outside the parameters specifically set for this study. Also, we understand that if you are unwilling to release weekly sales data, disclosure of percentage change amounts between home and non-home football weekends for the 2012 Ole Miss Football season will suffice. No individual retail establishment's name will be used.

Signature of researcher: _____ Date: _____

Signature of researcher: _____ Date: _____

Instructions:

Please write in the spaces below sales data for each week indicated. If not, then please indicate the percentage change between sequential weeks, those that pair with one another. For instance the week of September 10-16 pairs with September 17-23.

Dates of data:

Week: 9/10-9/16 _____ Week: 10/8-10/14 _____ Week: 11/5-11/11 _____

Week: 9/17-9/23 _____ Week: 10/15-10/21 _____ Week: 11/12-11/18 _____

Please check box to indicate service/goods provider:

Restaurant/food ☐ Grocery store ☐

Clothing ☐ Other retail ☐

Service station ☐

Hotel Information Form

The Economic Impact Sports has on the City of Oxford.

Abstract:

This study will examine whether or not Ole Miss Athletics has an economic impact on the City of Oxford. In this study, research will be made by gathering evidence of weekly sales data from a multitude of service and good-providing companies. This data will be matched alongside home football games and compared to data collected from games not in Oxford. Hopefully the study will give a clearer answer to the already assumed conclusion, by many, that home football games do in fact positively help stimulate economic action in Oxford. Information and data collected will not be disseminated in any form that would cause any one particular company's financial dealings to be exposed to the common public, including competitors. In other words, sales, sales tax, occupancy, and room rate data of a specific company disclosed to the research will not be separately presented to the readers of this study; rather, the information will be presented within a pool containing other companies in similar industries.

By releasing data to this study, companies in Oxford are helping answer the question that many have wondered before; do sports have an impact on the economic activity in Oxford? This study is being made with the clear intention to answer that question, and that question alone. This study is in no way intended to expose or investigate the success or failure of one specific company by reviewing sales information.

Continue on second page.

Oxford Economic Impact Sales Disclosure Agreement Form

We agree to use weekly sales, sales tax, occupancy, and room rate data with the full knowledge that we have no intention of using this information outside the parameters specifically set for this study. No individual hotel establishment's name will be used.

Signature of researcher: _____ Date: _____

Signature of researcher: _____ Date: _____

Instructions:

Please write in the spaces below sales, sales tax, occupancy, and room rate data for each weekend indicated.

Hotel Capacity _____

Dates of data:

Weekend: 9/13-9/15

A) Occupancy _____
1) Thursday _____
2) Friday _____
3) Saturday _____
B) Room Rate _____
C) Total Sales _____
D) Sales Tax _____

Weekend: 10/11-10/13

A) _____
1) _____
2) _____
3) _____
B) _____
C) _____
D) _____

Weekend: 11/8-

A) _____
1) _____
2) _____
3) _____
B) _____
C) _____
D) _____

Weekend: 9/20-9/22

A) Occupancy _____
1) Thursday _____
2) Friday _____
3) Saturday _____
B) Room Rate _____
C) Total Sales _____
D) Sales Tax _____

Weekend: 10/18-10/20

A) _____
1) _____
2) _____
3) _____
B) _____
C) _____
D) _____

Weekend: 11/15-

A) _____
1) _____
2) _____
3) _____
B) _____
C) _____
D) _____

Oxford Hotels

Weekend	Thu. Rate	Thur. Occupancy	Friday Rate	Fri. Occupancy	Sat. Rate	Sat. Occupancy	Total Sales	Sales Tax
Sept 13-15 (Texas)	$183.27	60%	$251.27	99.4%	$251.27	99.0%	$293,346	$20,534.00
Oct 11-13 (Auburn)	$198.38	58%	$258.38	99%	$258.38	98.0%	$317,804	$22,246.00
Nov 8-10 (Vanderbilt)	$196.13	59%	$256.13	99%	$256.13	99.5%	$299,654	$20,976.00
Totals	$577.78	177%	$765.78	298%	$765.78	296.5%	$910,804	$63,756.00
Averages per weekend	$192.59	59%	$255.26	99%	$255.26	99.0%	$303,601.3	$21,252.00
Sept 20-22	$150.19	64%	$154.19	88.9%	$154.19	95.6%	$189,277	$13,249.00
Oct 18-20	$136.27	63%	$140.27	92.9%	$140.27	95.2%	$182,023	$12,741.00
Nov 15-17	$131.92	48%	$135.92	67.3%	$135.92	65.9%	$123,923	$8,675.00
Totals	$418.38	175%	$430.38	249.1%	$430.38	256.6%	$495,223	$34,665.00
Averages per weekend	$139.46	58%	$143.46	83.0%	$143.46	85.0%	$165,074.3	$11,555.00