

ECONOMIC IMPACT OF A REGIONAL SPORTS COMPLEX IN SHAWNEE, OKLAHOMA

2011

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OKLAHOMA STATE UNIVERSITY



December 2011

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ABSTRACT

This report assesses the anticipated economic impact from a proposed regional sports complex in Shawnee, Oklahoma. In addition to the construction and operation cost estimates, which were provided by the City of Shawnee, a combination of actual visitor data from similar facilities elsewhere in the state and state generated tourism data is used to construct a range of visitor impact values. It is the task of the readers and/or city officials to determine which set of values will best represent activity associated with the sports complex.

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Table of Contents

Introduction.....	1
Methodology: An Overview of Economic Impact Analysis	2
<i>Figure 1: Overview of Community Economic System.....</i>	<i>5</i>
Assumptions and Data: Direct Impacts of the Regional Sports Park.....	6
<i>Park Construction.....</i>	<i>6</i>
<i>Park Maintenance and Operations</i>	<i>7</i>
<i>Out-of-Town Visitors</i>	<i>8</i>
Community-based Spending Estimates	9
State Travel Data Estimates	11
Federal Government Travel Reimbursement Rates.....	11
<i>Summary of Direct Impacts.....</i>	<i>12</i>
Economic Impact Analysis Results.....	15
<i>Park Construction.....</i>	<i>15</i>
<i>Park Maintenance and Operations</i>	<i>16</i>
<i>Out-of-Town Visitors</i>	<i>16</i>
Sales Tax Analysis.....	22
Conclusions.....	26
References.....	28
Appendix A: Determining Weights for Local and Out-of-State Expenditures.....	30

Introduction

In 2009, the City of Shawnee purchased 160 acres of land located one-half mile west of the intersection of Westech Road and Kickapoo Street, on the north side of Westech Road with the intention of building a multi-use sports complex. One motivation, though not the sole motivation, for building a regional sports complex is the opportunity to host youth sports tournaments. Such events often bring numerous out-of-town visitors, and these visitors purchase goods and services provided in Shawnee. The expenditures by these visitors can create jobs at local businesses and generate retail sales tax revenue. The analysis in this report was requested by the City of Shawnee to estimate the magnitude of these impacts as it considers how to move forward with this project.

This report will define the direct and secondary effects associated with the regional sports complex. The direct effects involve the construction, operation and maintenance of the facilities, and the visitor spending that could occur if tournaments were held at the complex. The secondary effects associated with the regional sports park include the purchase of materials to build and maintain the facilities and provide goods and services to visitors, as well as the additional household spending induced by new income earned by Shawnee residents as a result of the direct effects.

This report describes the methodology and results of an economic impact analysis on the proposed sports complex. An economic impact analysis describes how activities at the sports complex will affect the local economy of Shawnee and Pottawatomie County. It does not address the feasibility of the complex; that is to say, this report assumes that people will travel to Shawnee and participate in tournaments if the regional sports park is built. The validity of such

an assumption depends upon the city building suitable facilities, ensuring they are maintained appropriately, and marketing them effectively. Additionally, this report does not attempt to calculate the benefits that may accrue to Shawnee residents, such as higher quality of life due to new recreational opportunities. Lastly, one should not confuse this report with a benefit-cost analysis, as this report makes no attempt to compare the investment of public resources into the sports complex with alternative uses of those funds.

The report is broken into five additional sections. The next section will describe conceptually the methodology used in economic impact analysis. The third section will document the assumptions and data used in the analysis. And the fourth section will present the results of the analysis in terms of the direct and secondary impacts, and the fifth section presents estimates of the retail sales tax collections that could be generated based upon the study's results. The final section summarizes the potential economic effects of the regional sports complex on the city of Shawnee.

Methodology: An Overview of Economic Impact Analysis

Economic impact analysis is a methodology used to measure growth or decline of a local economy due to changes in basic industries. Industries or businesses that produce goods primarily for sale outside the economy are called basic industries. They are important components of all economic systems because they bring new income into a community, which allows the community to grow economically. Two other major components of economic systems are service firms and households. Figure 1 illustrates the major flows of these three components within any economy with respect to the basic industries in the community.

When a basic industry operates, it purchases labor from households and reimburses them with wages and benefits. This industry may also purchase other inputs from local manufacturing and service firms. Whatever the industry cannot purchase locally, or produce in-house, is imported into the community. The value of output produced (or the level employment needed to produce a given amount of output) by the basic industry is called the direct impact on the local economy. In the context of the proposed regional sports complex, the “basic industry” comprises the goods and services sold to out-of-town visitors brought to Shawnee to attend a sporting event at the park. (Since the construction and operations categories do not produce goods that are sold outside of the community¹, these will be considered contributions to the local economy and not impacts. The distinction between contributions and impacts will be described in more detail in the next section.)

The increase in demand for products from existing manufacturing and service firms due to the basic industry causes a secondary effect in the local economy. In order to meet the demand of the visitors, the existing hotels, restaurants and stores must increase their own employment and purchase of other inputs to increase their output and satisfy the visitors’ demand. Thus, a basic industry causes an indirect effect by increasing the production/employment of existing firms in the local economy.

There is a third effect that could result from the park. Employees of firms affected by the direct impact spend their wages to purchase goods and services from retail and service businesses in the community. This increase in household consumption could cause new retail

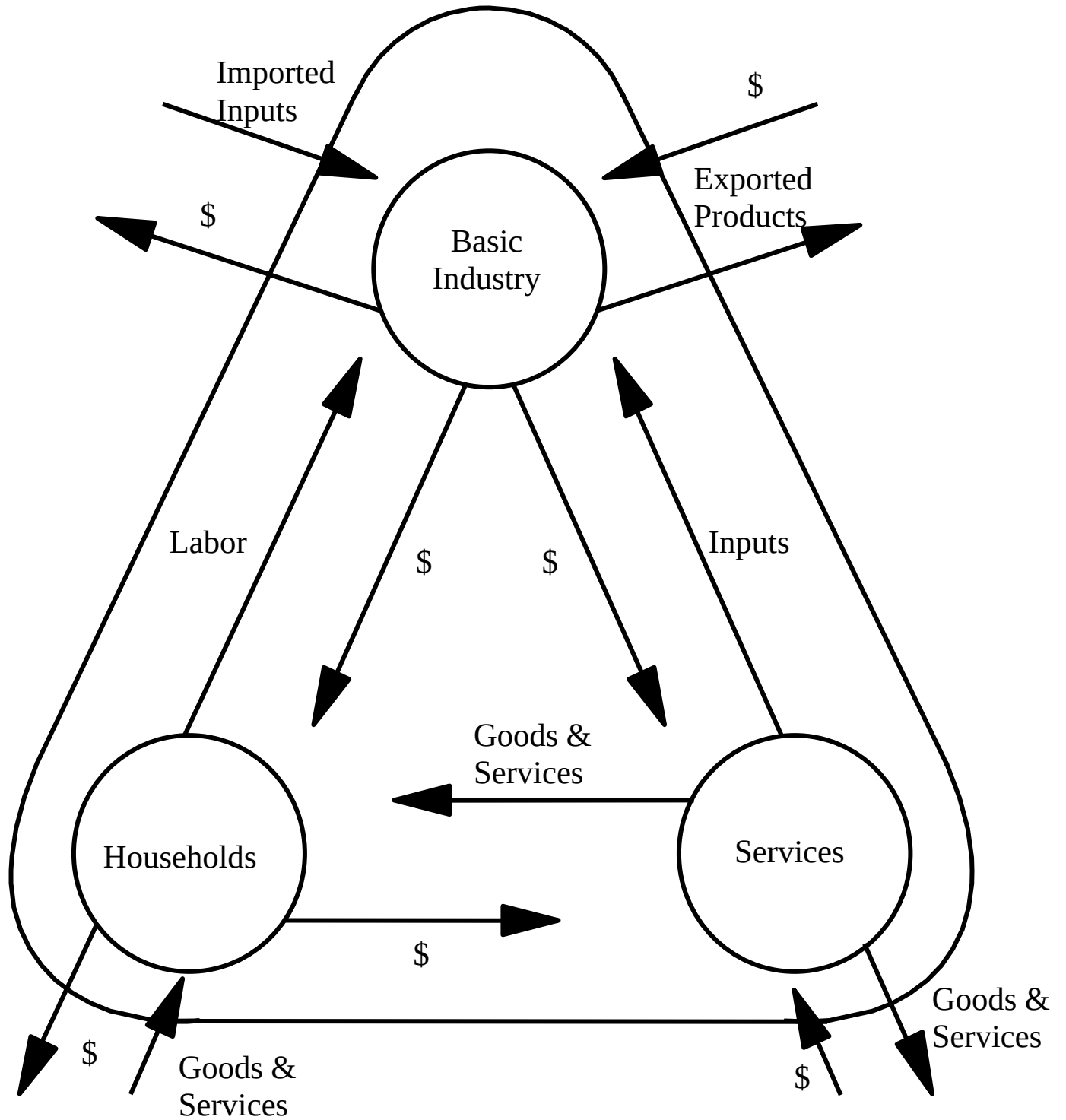
¹ Parks, such as the one proposed, are by nature public goods, which means that they are non-rival and non-excludable in consumption. Non-rival means that one individual’s enjoyment of the park is not affected by another, while non-excludable refers to the relatively high cost of excluding one individual from enjoying the park. The combination of these attributes implies that no one individual would build a park or pay his or her full value to enjoy it. So, while the park’s existence is necessary to attract visitors, the goods that are being consumed by the visitors are the lodging, food, fuel and other items they purchase while in town.

establishments to open and existing retailers to expand by hiring more employees and buying more inventory. Increasing employment induces increased household consumption, so the third effect is known as the induced effect.

The above discussion indicates how basic industries serve as the foundation of an economy and how households and service firms are necessary to make the economy function. Service industries account for a substantial part of the outputs of most economies. But, as Figure 1 shows, much of the service industries' output supports the local basic industries and households. Mathematical techniques can be used to measure the relationships between basic industries, households, and services.

A measure used in economics to describe the effects of an increase or decrease in economic activity is called a multiplier. A Social Account Matrix (SAM) multiplier is used for this study. A SAM multiplier is defined as the ratio between direct employment (or output) and the sum of the direct, indirect, and induced employment (or output). A SAM output multiplier of 1.5, for example, indicates that if one dollar of output is generated by the direct activity, then 0.50 additional dollars of output are generated due to business (indirect) and household (induced) spending. IMPLAN is a computerized database and economic model produced by Minnesota IMPLAN Group, Inc., and the 2008 data set for Pottawatomie County is used to generate multipliers for this analysis. For further details regarding this methodology, see MIG, Inc. (2010).

Figure 1: Overview of Community Economic System



Assumptions and Data: Direct Impacts of the Regional Sports Park

To adequately assess the impact of the proposed regional sports complex, the analysis is broken into three categories related to the source of the impact. The first category focuses on the temporary contribution that could result from the construction of the park. The second category identifies the contribution that operating and maintaining the park could have in the local economy. The final category describes the impact of out-of-town visitors' expenditures in the local economy. Because each category requires a slightly different approach, the methodology for each category will be discussed separately in the following sub-sections.

Park Construction

The City of Shawnee provided the construction costs associated with the development of the regional sports park. These construction costs were provided by JACOBS Engineering Group, Inc. (hereafter, JACOBS) as part of the master development plan they developed. Though the development plan is presented in two phases, Shawnee's city council has stated that they want to construct the entire park as one project. The final park will include twelve youth baseball fields, eight youth soccer fields, three multi-use fields (for football, lacrosse and/or rugby), two community pavilions, a grand lawn, adventure zone activity areas near the lake, a multi-use trail system, and a disc golf course. Total cost of the park is estimated to be \$19.5 million in 2010 dollars.

A project of this magnitude is likely to require local inputs. As mentioned previously, however, this project is not considered an impact but a contribution. Goods and services consumed by local residents do not increase the level of income coming into the community. There are two reasons for this treatment. First, it is possible that a local construction firm is

contracted to build the facility, in which case no new jobs would be created. Second, it is assumed that Shawnee has the capacity to finance a (any) project for \$19.5 million, so the economic impact analysis presumes the money will be spent on something, so any effect the money could have on Shawnee is not unique to the regional sports complex. The magnitude of contribution, or portion of local production that might be associated with park construction, is described in the next section.

Park Maintenance and Operations

Park maintenance and operations has two critical components: equipment and supplies, and labor. There will be a one-time purchase of equipment worth \$188,000, according to JACOBS' estimates. Annually, the park will require an additional \$80,000 to cover operating expenses, equipment maintenance, etc. The second component regards staffing. JACOBS estimates that the park will require six full-time equivalent employees to operate and maintain the regional sports park. Of these employees, four will be crew members, one will be a supervisor, and one will be a park manager. Based upon JACOBS' numbers, the six employees together will earn wages of \$171,840; benefits are assumed to be 35% of payroll, for an additional \$60,144. Therefore, total payroll will be approximately \$231,984. Table 1 summarizes these values.

The park maintenance and operations impacts are unique in that the operations and payroll, along with the one-time purchase of equipment, represent new expenditures in the community; however, the ability to pay for these jobs and equipment fundamentally lie with the city's capacity to generate revenue via taxes, which are driven by the existing resources in the community. Therefore, these expenditures will also be classified as contributions instead of impacts.

Out-of-Town Visitors

The ability to draw out-of-town visitors into Shawnee represents the true economic impact of the proposed park. However, this is also the most difficult dimension of the study to estimate given that no data exists for the park itself. The estimates of out-of-town visitor expenditures consist of two components: the number of visitors and the level of expenditures per player (as representative of the travel group). Out-of-town visitors are estimated using participation information provided by communities across the state, while expenditures are calculated using three different methods; this approach provides the city of Shawnee with a range of spending within which the true level of expected spending is likely to occur. The first estimate of direct impacts uses expenditure data provided from peer communities with similar facilities. The second estimate of direct impacts relies upon expenditure data provided by the Oklahoma Tourism and Recreation Department (OTRD). The final estimates use federal government travel reimbursement rates to estimate out-of-town visitor impacts. Since it is beyond the scope of analysis for this report to estimate the demand for the proposed facilities, this section will conclude with a discussion of the potential annual impact associated with various numbers of tournaments hosted at the proposed regional sports park.

The city of Shawnee provided contact information for five peer communities which have baseball facilities similar to that proposed in the JACOBS master plan: Ardmore, Bixby, Broken Arrow, Chickasha, and Muskogee. All five communities provided participation data regarding baseball tournaments. This information is summarized in the left hand portion of Table 2. Based upon this data, there are 12 players per team, an average of 13 tournaments per year, and an average of 35 teams per baseball tournament (16.6 of which are from out-of-town). Additional information on soccer tournaments was solicited from member soccer associations of the

Oklahoma Frontier Country Soccer Association or acquired from their websites; only four clubs responded as hosting tournaments and provided data regarding participation (no expenditure data was provided by the soccer associations). The soccer participation data is presented in right hand portion of Table 2. One will notice that soccer tournaments tend to attract many more teams than baseball tournaments, with an average of 120 teams per tournament; of these, 68.8 are from out-of-town. However, soccer tournaments occur much less frequently, with only 1.25 tournaments occurring per year on average. Also the average soccer team size is 13. The average reported team size and out-of-town teams per tournament for each sport will be used to generate estimates of out-of-town visitor spending for the economic impact analysis.

As with the other two components of the impact, expenditures of teams from within Pottawatomie County should not be included in the multiplier effect of the sports complex. While it is true that these households will spend money attending events at the complex, these expenditures are not generating new income in the community; they are simply spending income that was earned producing goods and services sold to non-county residents. As a result, the expenditures by residents are captured already in the local economy and not subject to a multiplier effect. Another way of thinking of this is that locals would spend their income anyway – if not at a baseball or soccer tournament, at another local venue.

Community-based Spending Estimates

In order to make comparisons across communities and useful data for this analysis, the spending data across the four communities providing spending data needs to be made consistent. Broken Arrow, Chickasha and Muskogee reported spending per player as reported in Table 2. Bixby, instead, reported total spending by visitors in the amount of \$1,010,880. So, total spending for Bixby in Table 3 was decomposed into local team expenditures and out-of-town

team expenditures. To do this, one would need to know how the expenditures of locals compared to those of non-locals. The Oklahoma Tourism and Recreation Department commissioned a study by the U.S. Travel Association which provides such information (US Travel Association, 2011). As reported in this study, the average expenditure for overnight travel in Oklahoma was \$608 per trip, while the average expenditure for day trips was \$172 per trip. (The average group size in the US Travel Association study was 2.7, which is very similar to the roughly 3 persons per player reported by Bixby. Another study commissioned by the Oklahoma Tourism and Recreation Department [Center for Hospitality and Tourism Research, 2010] notes that almost 27% of trips taken to Oklahoma do not involve an overnight stay, while the second largest trip length, two nights, represents 24% of trips to Oklahoma; these values also correspond well to the nature of sports tournaments, which are typically held Friday to Sunday.) Taking the ratio of these average trip costs reveals that, on average, overnight trips cost 3.5 times those of day trips. For Bixby, one can use this ratio to weight the expenditures of out-of-town teams and solve for the average expenditure for local and out-of-town teams. See Appendix A for a step-by-step demonstration of this calculation. The spending values for Broken Arrow are estimates generated by Broken Arrow Youth Baseball to reflect the local hotel rates, mix of restaurants and distances traveled. Similarly, Chickasha provided a per player expenditure value, but they could not provide data on the number of out-of-town teams. Muskogee also only provided a per player amount.

Table 3 also presents per team and per tournament spending across the communities. Per team values were calculated by multiplying \$257, the per player average across the four communities reporting expenditure data, by 11.8 players for baseball or 13.3 for soccer (the average number of players per team). Out-of-town teams are estimated to spend \$3,038, while

out-of-town soccer teams spend \$3,411. The average per tournament values were generated by multiplying the per team estimate by the average number of out-of-town teams per tournament for the respective sports (16.62 for baseball, 68.8 for soccer). The resulting per tournament values are \$51,317 and \$233,297 for baseball and soccer, respectively.

State Travel Data Estimates

Generating estimates for the out-of-state visitors using the OTRD expenditures is more straightforward than when using the community provided data. The OTRD (Center for Hospitality and Tourism Research, 2010) reports that average expenditures for trips lasting two nights were \$363 per group. (While soccer tournaments often last three days, the first day typically comprises matches between local teams, so we will assume the impact of out-of-town visitors will only be two days.) Furthermore, assume that each player represents a group of travelers, so the estimated per tournament spending using these values would be \$72,366 ($16.62 \times 11.8 \times \$363$ per group) for baseball and \$328,987 ($68.8 \times 13.3 \times \$363$). (Per team spending would be \$4,283 and \$4,810 for baseball and soccer, respectfully.) These values are also reported in Table 3.

Federal Government Travel Reimbursement Rates

The General Services Administration determines travel reimbursement rates for federal and state government employees based upon the destination's average hotel rate, meal and incidental costs, and mileage reimbursement rates based upon the average cost of operating a vehicle. For 2011, the Pottawatomie County rates were \$77 per night for lodging, \$46 per day per traveler for meals and incidentals, and \$0.51 per mile driven in a personal vehicle. Assuming 3 persons per player (including the player) traveling as a group, and 2 nights lodging per group, and each group of out-of-town visitors drove an average of 300 miles roundtrip to the

tournament, the expenses of the trip would be \$583 per player. Therefore, the total tournament expense by out-of-town teams would be \$6,879 multiplied by 16.62 baseball teams from out-of-town, or \$116,224. For soccer tournaments, the amount is \$528,373 (68.8 out-of-town teams x \$7,725). These values are also in Table 3 for comparison to the other two methods of calculating expenditures by visitors.

Summary of Direct Impacts

Based upon the assumptions described above, the direct impact of the Shawnee regional sports park is defined as the spending by out-of-town visitors. Construction of the complex, operations and maintenance costs, equipment purchases, and local team spending contribute to local economic activity that would have occurred otherwise in the county; therefore, these impacts are called contributions. The effects on the local economy are summarized in Table 4.

Table 1: Park Maintenance and Operations Estimates (as provided by JACOBS)

Equipment and Supplies		\$268,000
-- One-time Purchases	\$188,000	
-- Annual Expenses	\$80,000	
Labor (Annual)		\$231,984
-- 4 FTE Crew Members	\$92,160	
-- 1 Supervisor	\$34,560	
-- 1 Park Manager	\$45,120	
-- Benefits (35% of wages)	\$60,144	
Total Maintenance and Operations		\$499,984
Annual Maintenance and Operations		\$311,984

Table 2: Visitor Data Provided by Peer Communities

	Baseball						Soccer				
	Ardmore	Bixby	Broken Arrow	Chickasha	Muskogee	Average	Edmond	Logan	Midwest City	North OKC*	Average
Number of Fields in Complex	8	8	16	12	10	11					
Number of Tournaments	13	17	7	10	17	13	2	1	1	1	1.25
Local Teams Participating	82	547	315		62	252	178			99	139
Out of Town Teams Participating	243	101	105		416	216	108			63	86
Total Number of Teams	325	648	420	356	478	445	286	24	128	162	150
Total Number of Players		7,776				7,776					
Total Number of Fans		16,200				16,200					
Average Players per Team	12	12	11	12	12	12	16	14	10	13	13
Average Teams per Tournament	25	38	60	36	28	35	143	24	128	162	120
Spending per Out-of-Town Player		\$327	\$300	\$300	\$103	\$257					

* North OKC Soccer Association sponsors two tournaments per year, though data on out-of-town teams was only available for one.

Table 3: Per Team and Per Tournament Spending of Out-of-Town Visitors

Visitor Spending Method	Baseball		Soccer	
	Per Team	Per Tournament	Per Team	Per Tournament
Community-Based Data	\$3,038	\$51,317	\$3,411	\$233,297
State Travel Data	\$4,283	\$72,366	\$4,810	\$328,987
Federal Government Travel Reimbursement Rates	\$6,879	\$116,224	\$7,725	\$528,373

Table 4: Summary of Effects from the Shawnee Regional Sports Park

Type of Effect	Amount
Impacts:	
-- Out-of-Town Visitor Spending (per tournament) Based on:	
-- Community-Provided Data	
-- Baseball	\$51,317
-- Soccer	\$233,297
-- State Travel Data	
-- Baseball	\$72,366
-- Soccer	\$328,987
-- Federal Government Reimbursement Rates	
-- Baseball	\$116,224
-- Soccer	\$528,373
Contributions:	
-- Construction	\$19,535,167
-- Operations and Maintenance	\$311,984
-- One-time Equipment Purchase	\$188,000
-- Local Team Spending (per tournament)	
-- Baseball	\$27,403
-- Soccer	\$137,785

Economic Impact Analysis Results

As described previously, economic impact analysis models growth or decline in the local economy based upon changes in the production of goods and services stimulated by a change in export-oriented production. The activities at the regional sports park will generate sales by local residents as well as out-of-town visitors, but the local income spent is excluded from the analysis because it does not represent new income in the community. Local spending, regardless of the source, reflects existing resources; economic growth in a community only occurs when money from outside the region is brought into the region. To differentiate the effects generated by the regional sports park, spending of local income will be called a contribution; new income/spending from outside the community is called an impact. The analysis will be presented in similar order as the previous section. Also, the reader should keep in mind that the results presented can be interpreted as annual values (unless noted otherwise), and they are presented in 2010 dollars to be consistent with the data used in the analysis.

Park Construction

The direct contribution of the regional sports park's construction is \$19.5 million. Though construction will take several years to complete, the construction costs associated with the park are considered a one-time expenditure, so the contribution from the project will also be a one-time contribution. Construction of the park is likely to purchase about \$2.26 million in inputs; this translates into 23.8 jobs and almost \$767,000 in labor income. These purchases will occur regardless of whether the city builds a park or installs infrastructure; therefore, they are not considered to grow the local economy. Furthermore, the payroll-induced spending associated with the park construction employment of approximately 164 jobs, about \$2.54 million, likely

represents spending by individuals already employed in the construction sector that will be allocated to this project for a temporary period of time. Because no timeline was provided for the construction of the park, there is no way to break these figures down into annual amounts. Table 5 summarizes the contribution made by the construction of the Shawnee regional sports park.

Park Maintenance and Operations

Park maintenance and operations will also contribute to the local economy, in that employment will be generated. However, because these expenditures represent money spent by the local government, which primarily come from the residents of the community, they also represent a reallocation of existing income rather than a growth in the local economy. The annual operating costs of \$311,984 would be responsible for approximately \$136,000 and 1.3 jobs annually in the local economy. The one-time equipment purchase of \$188,000 is associated with 0.5 jobs, \$60,000 in output, and almost \$18,000 in labor income in the year of purchase only.

Out-of-Town Visitors

As was discussed previously, out-of-town visitors represent the true impact of the proposed regional sports park since their spending is new money being introduced into the local economy. Because no real data exists on the number of visitors, nor their spending patterns, at the proposed park, three sets of expenditure estimates were generated. Furthermore, the number of tournaments that will be hosted in Shawnee is unknown; therefore, the results presented are per tournament so they can be easily scaled to the appropriate number of tournaments. Each will be discussed in turn below. This sub-section will conclude with several examples of the potential impact of a season (i.e., several tournaments) occurring at the park. The reader is reminded that the impacts presented here are annual impacts, which is to say that as long as the events occur the impacts are likely to be realized. When reviewing these results, the reader must choose which

direct impact best characterizes reality and select the impact results associated with that scenario. Results should not determine which scenario is most useful.

The first panel in Table 6 contains the impact results per tournament based upon the average participation and expenditure data provided by communities. The direct impact of \$51,317 per baseball tournament could create an additional \$17,000 dollars in output, 0.13 jobs, and \$4,800 in payroll. The total impact of a baseball tournament is \$68,490 of output, 0.85 jobs, and \$24,428 in labor income per tournament. For a soccer tournament, using the average spending per player of \$257, \$78,000 additional output, 0.6 jobs, and \$22,000 in labor income could be generated. The total impact of a soccer tournament is \$311,369 in output, 3.88 jobs, and \$111,056 in labor income.

The second panel in Table 6 contains the impact results per tournament based upon the OTRD visitor data of \$72,366 for baseball and \$328,987 for soccer; using these spending patterns, baseball visitors could create as much as \$24,000 in additional output, an additional 0.2 jobs and almost \$6,500 in additional payroll. Soccer visitors could generate additional output, employment and labor of \$110,000, 1, and \$29,000, respectively. Because the direct impact was larger, it is not surprising that these secondary effects are larger. The total impact for the baseball scenario is \$96,583 in output, 1.5 jobs, and \$32,883 in labor income per tournament; total impact of a soccer tournament for the OTRD visitor data is \$439,082 in output, 6.63 jobs, and \$149,492 in labor income.

The final baseball scenario, based upon the federal government's travel reimbursement amounts, had a direct impact of \$116,224. It could generate an additional \$39,000 in output locally, 0.36 jobs, and almost \$10,500 in labor income. The total impacts for this baseball scenario are \$155,118 in output, 2.34 jobs, and \$52,812 in labor income per tournament. Total

impacts for this soccer scenario are output of \$705,192, 10.65 jobs, and labor income of \$240,094. Having the largest direct impact, it is not surprising that this scenario also has the largest secondary effects.

It is worth noting, that while the magnitude of the impacts gets larger as one moves down Table 6, the set of multipliers upon which the results rely are the same across all three scenarios. Since each scenario impacts the same industries of retail sales, lodging, and restaurants, the resulting impacts will be of the same proportion across all three of them. For output, the implied multiplier is 1.33, meaning that for every dollar an out-of-town visitor spends in Shawnee an additional 0.33 dollars of output is generated. Similarly, the employment multiplier is 1.18, meaning that for every job created by visitor spending, an additional 0.18 jobs is created in Shawnee. Alternatively, one could say that for every \$10,000 of out-of-town visitor spending, 0.15 jobs could be created in Shawnee. Lastly, every additional dollar of labor income due to out-of-town visitors increases labor income in Shawnee by 0.25 dollars; in terms of out-of-town visitor spending, for every \$10,000 in visitor spending, \$3,404 of labor income is generated in Shawnee.

Placing these values into a context of an annual impact, or based upon a season of tournaments; one simply needs to multiply the respective values in Table 7 by the number of tournaments anticipated. Table 7 contains three sets of total impacts for each of the scenarios described above, assuming 7, 13 and 17 baseball tournaments (to correspond with the minimum, average and maximum values in Table 2) and 1 or 2 soccer tournaments. While there is some arbitrariness to these values, they might be illustrative of the first, fifth and seventh year of the complex hosting tournaments, recognizing that it will take a few years for the park to become recognized and contracted as a tournament destination. Seventeen is the maximum number of

tournaments a community could host, given the limited number of weekends available for travel games during the usual summer baseball season. Based upon the results in Table 7, it is apparent that the total impact of tournaments could be substantial, ranging from under \$1.8 million to over \$4 million in output, 22.3 to 61.1 jobs, and \$637,400 to \$1,378,000 in labor income for 17 baseball and 2 soccer tournaments.

Table 5: Park Construction's Contribution to Pottawatomie County's Economy

	Output	Employment	Labor Income
Direct Contribution	\$19,535,167	164.2	\$5,124,326
Indirect Contribution	\$2,262,398	23.8	\$766,710
Induced Contribution	\$2,540,641	26	\$723,735
Total Contribution	\$24,338,206	214.1	\$6,614,770

Table 6: Out-of-Town Visitor Spending per Tournament Impacts

Community-based Spending Estimates						
	Baseball			Soccer		
	Output	Employment	Labor Income	Output	Employment	Labor Income
Direct Contribution	\$51,317	0.73	\$19,581	\$233,297	3.30	\$89,019
Indirect Contribution	\$8,283	0.05	\$2,209	\$37,655	0.22	\$10,042
Induced Contribution	\$8,890	0.08	\$2,638	\$40,417	0.36	\$11,995
Total Contribution	\$68,490	0.85	\$24,428	\$311,369	3.88	\$111,056
State Data Estimates						
	Output	Employment	Labor Income	Output	Employment	Labor Income
Direct Contribution	\$72,366	1.24	\$26,358	\$328,987	5.64	\$119,829
Indirect Contribution	\$11,680	0.09	\$2,973	\$53,100	0.40	\$13,517
Induced Contribution	\$12,537	0.13	\$3,552	\$56,995	0.59	\$16,146
Total Contribution	\$96,583	1.46	\$32,883	\$439,082	6.63	\$149,492
Federal Government Travel Reimbursement Estimates						
	Output	Employment	Labor Income	Output	Employment	Labor Income
Direct Contribution	\$116,224	1.99	\$42,333	\$528,373	9.06	\$192,453
Indirect Contribution	\$18,759	0.15	\$4,775	\$85,282	0.65	\$21,710
Induced Contribution	\$20,135	0.21	\$5,704	\$91,537	0.94	\$25,932
Total Contribution	\$155,118	2.34	\$52,812	\$705,192	10.65	\$240,094
Implied Multipliers	1.33	1.18	1.25	1.33	1.18	1.25

Table 7: Example Impacts Based Upon Multiple Tournaments

	Number of Tournaments		
Output	7 BB, 1 Soccer	13 BB, 1 Soccer	17 BB, 2 Soccer
Community-based Data Estimates	\$790,800	\$1,201,741	\$1,787,071
State Data Estimates	\$1,115,164	\$1,694,662	\$2,520,076
Federal Reimb Rate Estimates	\$1,791,018	\$2,721,727	\$4,047,391
Employment			
Community-based Data Estimates	9.8	15.0	22.3
State Data Estimates	16.8	25.6	38.1
Federal Reimb Rate Estimates	27.1	41.1	61.1
Labor Income			
Community-based Data Estimates	\$282,054	\$428,625	\$637,394
State Data Estimates	\$379,675	\$576,975	\$858,000
Federal Reimb Rate Estimates	\$609,781	\$926,655	\$1,377,998

Sales Tax Analysis

Because sales taxes provide a significant portion of municipal and county governments' revenue, it is important to consider how the proposed regional sports park might impact Shawnee's and Pottawatomie County's sales tax collections. Shawnee currently has a sales tax rate of 3%, while Pottawatomie County levies a sales tax of 1%. In addition, Shawnee imposes a lodging tax of 5% on the nightly rate for hotel rooms. Using these rates and the economic impact results above, one can estimate sales and lodging tax collections for Shawnee and Pottawatomie County.

In order to compute the estimated sales tax collections in Shawnee and Pottawatomie County due to the economic impacts presented in Table 6, one must make a few assumptions. First, one will assume that all of the direct impact (i.e., out-of-town visitor spending) per tournament in Table 6 is taxable. Second, the indirect impact is not taxable, as it represents business to business purchases. Third, only a portion of the induced impact is taxable. Specifically, this component of the impact captures household spending induced by employment created from the direct and indirect impacts; the analysis accounts for the fact that some household spending will occur outside of Shawnee, but since the analysis is conducted at the county level one must adjust the induced impact to reflect spending in Shawnee versus the rest of the county. As an approximation, one can determine the level of personal income spent in Shawnee by computing the ratio of retail sales in Shawnee to total personal income in Pottawatomie County. This ratio is 0.25; this means that approximately 25% of personal income in Pottawatomie County became retail sales in Shawnee. Thus, the assumption is that 25% of the induced impact represents taxable sales in Shawnee; all of the induced impact will be taxable for

Pottawatomie County. (Retail sales were calculated using Oklahoma Tax Commission Ledger Reports for the city of Shawnee in fiscal year 2009, to match the personal income data from the US Department of Commerce, Bureau of Economic Analysis.)

Based upon these assumptions, the numbers in Table 8 contain the estimates of retail sales tax collections due to the proposed sports complex. On a per tournament basis, and depending on which spending estimates one uses, retail sales subject to tax range from \$53,540 to \$121,258. That translates into \$1,600 to \$3,600 in additional retail sales tax collections for Shawnee, and \$535 to \$1,213 in additional sales tax revenue for Pottawatomie County. These numbers may be overstated, since they include gasoline sales that are not subject to sales tax. Without additional data to determine the percentage of visitor sales that is gasoline, these estimates are the most accurate one can obtain. Following the scenarios presented in Table 7, the city could receive between \$18,545 and \$42,002 in retail sales tax collections, while the county could receive an additional \$6,182 to \$14,001 in sales tax collections from the visitors to 7 baseball and 1 soccer tournaments. If it secured 17 baseball and 2 soccer tournaments, the city could collect between \$41,909 and \$94,917 in sales tax collections, while the county could receive \$13,970 to \$31,639 in sales tax collections.

Figuring the lodging tax revenue is more difficult, since we do not have data on hotel rooms specifically. From Table 2, an average of 16.62 teams per baseball tournament were from out-of-town; if one assumes that each team has an average of 12 players, and each player requires a hotel room, that means 199 hotel rooms per baseball tournament. With Shawnee's current vacancy rate of 65%, there are sufficient available rooms in Shawnee to accommodate these travelers. Since most tournaments last two nights, and assuming an average nightly lodging rate of \$66.29 (as provided by the Shawnee Convention and Visitors Bureau), total lodging

revenue would be \$26,383 per baseball tournament. At 5%, the lodging tax collections on this level of revenue would be \$1,319 per baseball tournament.

Since soccer tournaments attract more out-of-town teams, and the teams are generally larger, one might anticipate a need for 915 rooms; however, Shawnee only has 232 rooms available with a 65% occupancy rate. Therefore, only 232 rooms will be rented for a soccer tournament, and \$30,759 in lodging revenue would be generated over the two nights. This translates into \$1,538 in additional lodging tax revenue per soccer tournament. This amount is likely overstated, since many of the out-of-town teams may be drawn from the Oklahoma City metropolitan region and may not spend the night in Shawnee; or conversely, groups may choose to lodge closer to Oklahoma City to shop or take advantage of the city's other amenities. But without better data, it is difficult to generate a more accurate estimate.

Table 8: Retail Sales Tax Estimates for Shawnee and Pottawatomie County

	Per Baseball Tournament			Per Soccer Tournament		
	Total Sales Subject to Tax	Shawnee	Pottawatomie County	Total Sales Subject to Tax	Shawnee	Pottawatomie County
Community-based Spending Estimates	\$53,540	\$1,606	\$535	\$243,401	\$7,302	\$2,434
State Data Estimates	\$75,500	\$2,265	\$755	\$343,236	\$10,297	\$3,432
Federal Government Travel Reimb. Estimates	\$121,258	\$3,638	\$1,213	\$551,257	\$16,538	\$5,513

Table 9: Estimated Retail Sales Tax Estimates for Shawnee and Pottawatomie County for Selected Numbers of Tournaments

	Number of Tournaments		
	7 BB, 1 Soccer	13 BB, 1 Soccer	17 BB, 2 Soccer
Shawnee			
Community-based Spending Estimates	\$18,545	\$28,182	\$41,909
State Data Estimates	\$26,152	\$39,742	\$59,099
Federal Government Travel Reimbursement Estimates	\$42,002	\$63,828	\$94,917
Pottawatomie County			
Community-based Spending Estimates	\$6,182	\$9,394	\$13,970
State Data Estimates	\$8,717	\$13,247	\$19,700
Federal Government Travel Reimbursement Estimates	\$14,001	\$21,276	\$31,639

Conclusions

Though the proposed regional sports park represents a significant investment in the community of nearly \$20 million in one-time expenses plus additional, annual investments of personnel and operating costs of over \$300,000, the economic impact of the park is limited to the spending by out-of-town visitors to the park. In this report, a range of visitor spending values were presented based upon observed spending in peer communities, state average spending levels on travel provided by OTRD, and federal government travel reimbursement rates. It is up to the reader to determine which of these estimates most accurately reflects the potential spending that would occur if the park were built, and then that selection should determine which impact results are most valid. The total output impact of visitors' spending ranges between \$68,490 to \$155,118 per baseball tournament, and \$311,369 to \$705,192 per soccer tournament. The total employment impact of out-of-town visitors ranges between 0.85 to 2.34 per baseball tournament and 3.88 to 10.65 per soccer tournament. The total labor income impacts range from \$24,428 to \$52,812 per baseball tournament and \$111,056 to \$240,094 per soccer tournament. The retail sales tax collections associated with these impacts range between \$1,606 to \$3,638 for Shawnee, and \$535 to \$1,215 for Pottawatomie County per baseball tournament. Soccer tournaments, because they attract more out-of-town teams, and teams are larger, generate additional sales tax revenue: \$7,302 to \$16,538 for Shawnee and \$2,434 to \$5,513 for Pottawatomie County.

The reader is reminded that the success of the regional sports park lies in its management and marketing, not just in its construction. The City of Shawnee is encouraged to consult with the peer communities regarding these aspects to ensure the greatest level of impact and

utilization of the park. One should also note that state and national championship events will draw more out-of-town visitors to the community who will stay for longer periods of time (e.g., a national championship baseball tournament lasts about six days), which would increase the economic impact of the proposed sports park.

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Appendix A: Determining Weights for Local and Out-of-State Expenditures

Total spending at a tournament equals the sum of spending by local teams and out-of-town teams. Using the data provided by Bixby, one can calculate these values as follows:

1. Let local team spending equal S ;
2. Out-of-town team spending then equals $3.5S$;
3. Total local team spending equals the number of local teams times S ;
4. Similarly, out-of-town team spending equals the number of out-of-town times $3.5S$;
5. Summing these values, and setting them equal to total spending as reported by the communities, allows us to solve for local team spending.

$$\text{Total Spending} = (\text{Number of Local Teams} \times S) + (\text{Number of Out-of-Town Teams} \times 3.5S)$$

The calculations used to calculate per team spending for Bixby are below.

Bixby

$$\$1,010,880 = 101 \times 3.5S + 547 \times S$$

$$\$1,010,880 = 353.5S + 547S$$

$$\$1,010,880 = 900.5S$$

Dividing both sides by 900.5 yields

$$S = \$1,122.58, \text{ so } 3.5S = \$3,929.02$$

$$\text{Per player, out-of-town estimate} = 3.5S/12 = \$327.42$$