

CAMP JORDAN ECONOMIC IMPACT ANALYSIS

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EXECUTIVE SUMMARY

This study is designed to estimate the economic impact of Camp Jordan Park (“Park”) on the City of East Ridge, Tennessee (“City”).

❖ There are two approaches used to analyze Park performance and whether benefits realized justify or more than justify the “net investment” made by the City and residents. These are:

- **Financial Reporting** (Standard Accounting Data used by City now):
 - This process fails to consider positive effects of Park activity on:
 - local businesses;
 - employment;
 - income of residents;
 - City sales, hotel/motel and real estate tax base due specifically to Park operations.
- This study incorporates an assessment of Park performance based on financial reports published by the City of East Ridge followed by two economic reports.
 - One generated by the Chattanooga Sports Committee applying to the entire Chattanooga/Hamilton County region and summarized in this paper.
 - One generated on behalf of the City of East Ridge and also contained in this paper.
- **Economic Reporting** (Economic Impact Analysis):
 - Addresses the above using methods more appropriate to measuring cost/benefit relationships including survey research. The survey research is used to determine:
 - Number of visitors;
 - Why at Camp Jordan Park;
 - Where visitors were from (local or non-local);
 - Length of stay;
 - Where they lodged (if overnight);
 - How much each non-local visitor spent on average per day (food, lodging and other).
 - Data from two surveys were used to develop the two economic reports included herein. They were:
 - Survey conducted for Chattanooga Sports Committee (CSC) study of Camp Jordan Park impact on Chattanooga/Hamilton County region.
 - Survey conducted by Park personnel to be used along with parts of the CSC survey to evaluate Park economic impact on the City of East Ridge only.
- This study has three major parts:
 - Analysis of Park performance using City Financial Reports;
 - Summary of Chattanooga Sports Committee study of Park economic impact on entire Chattanooga/Hamilton County region;

- Analysis of Park economic impact on the City of East Ridge and its residents.

❖ **Camp Jordan Park Performance: East Ridge Financial Reports (FY 2012 thru FY 2015).**

- **Operation costs declined** for the Park declined by \$161,134 or 12.2% between FY 2012 and the end of FY 2015.
- **Revenues increased** each year and improved by 32% (or \$148,000) between 2012 and 2015 with a huge positive increase between 2014 and 2015 of 16.59%.
- **The operating deficit declined** for the Park from \$857,706 in FY 2012 to \$548,004 in FY 2015. For a \$309,702 (or 36%) improvement.
- **City taxes collected from lodging and retail sectors have grown** along with growth in Park activity.
 - The taxes paid by lodging and retail sectors have increased each year since 2012.
 - Park activity is directly correlated and that provides strong evidence that it has played a leading role in generating increased tax revenues for the City.
 - Population and income levels in East Ridge have been relatively stable leaving Park activity as one of the primary drivers in the creation of and maintenance of city tax revenue.
 - A substantial credit for contribution to the tax revenues should be awarded the Park as a further offset to its deficit but specific data required to determine the credit are not available given current accounting practices.
 - ◆ These numbers show that **the Park is a vibrant and growing public facility acting as an engine of growth for the East Ridge community.**

❖ **Some Basic Principles Of Economic Impact Analysis**

- Measures benefit versus cost associated with an investment in development of an entity or provision of a service. To begin the process requires for a recreation oriented service like the Park requires determination of:
 - Definition of a study area (in this case, the City of East Ridge);
 - The “net investment” by the City;
 - The number of non-local visitors;
 - The reason or activity drawing them to the area;
 - The length of stay;
 - Whether, if overnight, the stay is in the defined study area;
 - The estimated expenditure per day per non-local visitor (referred to as initial “new money” injected into the local study area);
 - ◆ For lodging;
 - ◆ For other retail (including food, fuel, entertainment and other miscellaneous items);
 - Estimated leakage: How much of the “new money” is re-spent in the local area versus transferred out by such things as:

- ◆ as local retailers purchasing goods to be sold from companies located outside the defined local study area;
- ◆ or labor and vendors working in the area but living elsewhere.
- Determination of appropriate sales, income and job multipliers for “new money” expenditures in the study area. These measure the ripple effects or expansion of “new money” in the study area to determine its “economic impact”.
 - These multipliers are to be adjusted for leakage and;
 - embody the direct, indirect and induced effects of “new money” turnover in the area of interest.
- Upon completion of the above, the economic impact of the Park on the City can be determined.

❖ ***Chattanooga Sports Committee: Camp Jordan Economic Analysis***

- **\$9,451,200** was, according to CSC, the Park impact on the entire Chattanooga/Hamilton County region (including East Ridge) during the defined period of January through November of 2015. Other findings of their study were:
 - The region being impacted included Chattanooga, East Ridge and Hamilton County.
 - 69 events (or 71 when December is included) were recorded (combines information from CSC and Camp Jordan);
 - The events through November drew 139,812 visitors and players.
 - When estimated December visitors are included, then the **2015 visitors to the Park totaled 231,312.**
 - 32,050 visitors spent at least one night of which 3,060 or 9.5% spent the nights in East Ridge.
 - \$100 per day was the estimated expenditure of each non-local visitor;
 - \$294 per day was determined to be the economic impact of each overnight visitor.
- **\$899,640 would be the economic impact directly on the City** generated by the estimated 3,050 overnight visitors that CSC data indicate stayed in East Ridge if the visitors spend \$294 per day.
- **This impact is 1.64 times the \$548,000 “net investment” made by the City** to subsidize the Park where “Net Investment” equals Total Park Revenue minus Total Park Expenditures.
- Thus, **CSC numbers provide further evidence that the Park more than pays for itself in terms of economic benefit generated versus the net costs of operation to the City.**

❖ ***The Economic Impact Of Camp Jordan On East Ridge, Tennessee***

- **In 2015, the city of East Ridge provided a net investment of \$548,000 to Camp Jordan Park.** With this investment:
 - **71 activities** were hosted by the Park (including the Christmas Night of Lights and Santa's Village).
 - **231,312** visitors from outside the city of East Ridge were drawn to the activities. This count was derived from the CSC and the Park surveys.
 - **10,742** visitor nights were generated within East Ridge by about 30% of the visitors who stayed overnight due to Park activities.
 - **\$644,541** was spent by the overnight visitors for lodging specifically in East Ridge.
 - **\$429,680** was spent by the overnight visitors for food and other retail items in East Ridge (average of \$40.00 per day per overnighther).
 - **\$2,391,108** spent by 199,259 day visitors at an average of \$12 per visitor before 20% deducted for Cost of Goods Sold.
 - **\$2,256,630** was spent by all visitors (including overnighthers) on food and other retail items after adjusting for Cost of Goods Sold. This number excludes dollars spent on lodging.
 - **\$2,901,171** estimated "new money" dollars spent by all visitors (including overnighthers) on food, other retail and lodging in East Ridge.

- **When appropriate multipliers are applied to this data, the economic impact of the Park on the City can be assessed.** Multipliers applicable to East Ridge were derived by lowering the base multipliers for a small city of 90,000. These were adjusted downward because:
 - The smaller the geographic study area, the greater the leakage and smaller the multiplier.
 - The smaller the population of the study area, the greater the leakage and smaller the multiplier. The City of East Ridge is 21,000 as compared to the base city which was 90,000.

- The following multipliers were derived for East Ridge:
 - The Sales Multiplier used is $0.92/.8 = 1.15$ for East Ridge as compared to 1.55 for a city of 90,000;
 - The Income Multiplier is $0.42/.8 = .53$ for East Ridge as compared to 0.72 for the larger town.
 - The Jobs Multiplier is 22 jobs per million dollars of sales as compared to 31 for the city of 90,000. Using these multipliers:

- ***The economic impact of Camp Jordan Park on the City of East Ridge follows:***
 - **Sales Impact: \$3,188,102** which covers the \$548,000 City investment by nearly 6 times.

- **Income Impact: \$1,608,894** (about \$76.61 per year of added income for each of the 21,000 residents of East Ridge. This covers the \$548,000 City investment by over 2.9 times.
 - **Jobs Impact: 64**
 - **Tax Impact: \$33,101** is the estimated City tax revenue generated by Park activities in 2015.
 - **The sales and income multipliers could be reduced by 82% and 72%** respectively and still cover the “net investment” of the City.
- **The findings presented above show that City of East Ridge and its residents gain substantial benefit from the investment made in Camp Jordan Park.**
-
- It is a significant driver of economic activity and growth in the City.
 - The Park, as indicated by the Chattanooga Sports Committee study, also contributes extensively to the economic well being of the entire Chattanooga/Hamilton County region.

INTRODUCTION, OBJECTIVE and OVERVIEW

The primary objective of this analysis is to estimate the economic impact of Camp Jordan Park (“Park”) on the City of East Ridge, Tennessee (“City”). Accomplishing this will determine whether the Park generates an annual benefit to the citizens of the City exceeding the annual costs of its operation. The benefits derived from the Park result from annual visitation levels that translate into

- A. Operating revenues from Park events accruing to the City,
- B. Various tax revenues accruing to the City
- C. Enhanced local employment and income levels for City residents (taxpayers).

There are two methods of assessing the benefits versus costs of the Park. The first is through **Financial Reporting** generated by standard accounting methodology. Currently this is the method used to assess the value of the Park to the City residents and, as part of this analysis; the data from City Financial Reports will be examined and commented upon.

This method, however, has some serious flaws when assessing total benefit of the Park to the residents of East Ridge. It does not consider:

- A. Positive effects on local businesses and employment;
- B. Positive effects on the income of residents;
- C. Positive effects on the tax base estimated to result specifically from the Park operations.

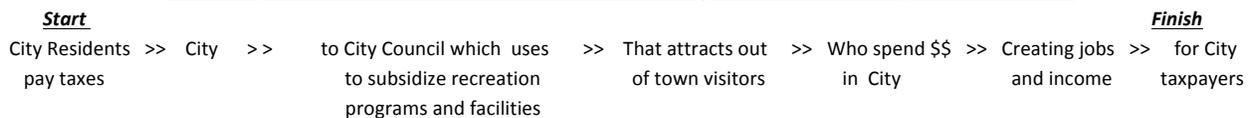
Leaving these effects out of the benefit assessment causes serious understatement of the value of the Park to citizens of the City.

This leads to the second method that can be used for assessing benefit versus costs of the Park: **Economic Reporting** (also called Economic Impact Analysis). This tool incorporates a more appropriate methodology for measuring the net benefit or costs derived from the operation of any particular entity or activity.

The conceptual difference between the two types of reporting methods is significant. To understand the difference, examine Exhibits 1 and 2 below.

Exhibit 1 shows that public sector (City) investment of tax funds in the Park and its programs serve as seed money that translates into substantial economic gains for the community. Obviously, without the investment the consequent economic benefits to the local community will not accrue.

Exhibit 1
Conceptual Rational for Understanding Economic Impact Studies



The traditional financial balance sheet presented by Park assumes that the cycle shown in Exhibit 1 starts and ends with the city council, rather than with a community’s residents.

Moreover, it includes only the taxes and revenues that directly accrue to the City from Park activities.

It is immediately apparent that this is a narrow definition in that it fails to include several financial benefits to the City and its residents. For the City this includes the portion of sales taxes, hotel/motel taxes and increased real estate taxes attributable to Park operations. For City residents/taxpayers, this method of assessing the benefit of the Park fails to estimate the value they realize in the form of current/future employment and current/future income. This is generated by the spending of non-local visitors attending Park activities. That spending, in turn stimulates the local economy including food and auto services, hotel/motel services and other types of economic entities located in the City...

To see the difference between the traditional financial balance sheet method of assessing economic value and an economic impact study, examine the hypothetical example presented in Exhibit 2 provided by the National Recreation and Park Association.

See: Crompton, John L., Measuring the Economic Impact of Park and Recreation Services, Research Series 2010, National Recreation and Park Association, pgs 6 and 7 or see:
http://www.nrpa.org/uploadedFiles/nrpa.org/Publications_and_Research/Research/Papers/Crompton-Research-Paper.pdf:

Exhibit 2

A Comparison of the Financial and Economic Returns to a City from an Amateur Softball Association Girls8 & Under Class A National Softball Championship Tournament

Context:

1,810 players on 133 teams participated in the tournament. All were from out of town. Because it was an elimination tournament the length of time the teams stayed in the community varied from 4 to 7 nights. 697 players' parents were interviewed.

Financial Data

	\$
Income: Entry fees \$300 x 133	39,900
Gate Admission Fees'	74,843
Concessions/souvenirs % of gross	32,395
Hotel rebate	4,650
Social fee	5,683
Programs	1,440
Total	158,911
Tournament costs and staff time	197,258
Net loss	(38,347)

Economic Data

Total expenditures in the local area by the 1,810 players and their family/friends	2,039,000
Economic impact on sales	3,731,000
Economic impact on income	1,162,000

Return on investment

For each dollar invested, residents' income increased by \$30.30 (1,162,000/38,347)
 Facility cost \$12 million; payback period to residents is approximately 10 tournaments of this size.

The hypothetical park department's financial balance sheet shows a net loss of \$38,347 from the tournament. However, if the agency used an economic balance sheet it would show a net return of \$2.0 million, \$3.69 million, or \$1.12 million depending on whether economic impact was reported in terms of direct expenditures, sales impact, or impact on personal incomes. (These figures were calculated by taking the gross amounts shown and subtracting from them the \$38,347 net cost to the city for hosting the event.) The capital cost of the softball complex was approximately \$12 million, which means that, if the personal income measurement of economic impact was used then the investment would pay for itself after approximately 10 similar tournaments.

Given these introductory comments, the economic impact of Camp Jordan operations can be more easily explained. To accomplish this, the study will have three sections.

- A. First, there is a review of the standard annual financial reports prepared by the City and what they imply regarding the performance of the Park.
- B. Second, there will be a brief presentation of the economic impact of the Park on the Chattanooga region as determined by the Chattanooga Sports Committee.
- C. Third, the economic impact of the Park specifically on the City of East Ridge, Tennessee and its residents will be estimated.

These three different analyses should act to corroborate the economic value (or possible lack thereof) of Camp Jordan Park to the residents of the City of East Ridge and to the broader region (including Chattanooga and Hamilton County).

CAMP JORDAN PARK PERFORMANCE: EAST RIDGE FINANCIAL REPORTS
(FY 2012 THRU FY 2015)

Exhibit 3 provides the financial information related to Camp Jordan Park derived from the City of East Ridge financial reports. Examination of this exhibit indicates that since the 2012-13 fiscal year, the Park, even given the restricted financial information provided, has significantly improved its operating position as regards expenses and direct revenue generation. As a direct result, its operating deficit has declined very significantly. Examine the table and note the comments found below.

Exhibit 3
Financial Performance of Camp Jordan Park (FY 2012 thru FY 2015)

<u>Time Period</u>	<u>FY</u> <u>2012</u>	<u>FY</u> <u>2013</u>	<u>%Chg</u> <u>'12-'13</u>	<u>FY</u> <u>2014</u>	<u>%Chg</u> <u>'13-'14</u>	<u>FY</u> <u>2015</u>	<u>%Chg</u> <u>'14-'15</u>
Total Cost of Park/Recreation:	\$1,321,986	\$1,265,648	-4.26%	\$1,237,287	-2.24%	\$1,160,852	-6.18%
Total Revenues from Park & Recreation:	\$464,280	\$487,324	4.96%	\$525,617	7.86%	\$612,848 ¹	16.59%
Revenue minus Expenses:	(\$ 857,706)	(\$778,324)	-9.26%	(\$711,670)	-8.56%	(\$548,004)	-23.00%

Source: City of East Ridge General Fund Schedule of Revenues and Expenditures – FY Ended June 30, 2012 thru June 30, 2015

¹**Note:** The Total Revenue includes \$34,000 that Santa's Village raised and contributed to needy children of East Ridge. That money should accrue to the credit of the revenue that the Park generated for the benefit of the community. If it did not, the total revenue generated by the Park (without including its positive impact on various tax revenues) would be \$578,848. That being the case the deficit would be increased to \$582,000 from \$548,000.

- A. The total operation costs associated with Parks and Recreation declined by \$161,134 or 12.2% between FY 2012 and the end of FY 2015. Indeed, there was a decline each of the 4 years.
- B. Revenues increased each year with a huge positive increase between 2014 and 2015 of 16.59%. Looking at the four year history, revenues improved significantly each and every year. In fact, revenues improved by \$148,568 or by 32% between 2012 and 2015. The 2015 revenue includes a \$34,000 credit for Santa's Village operated by the Park and Fire Department.
- C. The decline in costs plus the increase in revenues meant that the operating deficit of the Park declined from \$857,706 in FY 2012 to \$548,004 in FY 2015. Thus, the decline between 2012 and 2015 totaled \$309,702 or 36%. The deficit decline between 2014 and 2015 alone was 23.00%.

These numbers indicate that, even with the narrowest definition used to assess Park benefit, it is a vibrant and growing public facility which is making significant strides toward becoming self sufficient. This also means that the requirement for net public investment in the Park by the City for its citizens is declining since the investment (or monetary injection required) is equal to deficit incurred.

In addition to direct revenues generated by the Park to offset its operating expenses, the activities of the Park generate part of the annual Hotel/Motel taxes, Local Area Sales Taxes and

the East Ridge contribution to the Hamilton County School System for education of East Ridge children.

That portion of those taxes generated by the Park activities should be counted as an additional offset to the current deficit balance of \$548,004 (or \$582,004 if Santa's Village revenue is not attributed to the Park). This analysis is further enhanced by examining Exhibits 4 and 5 below:

Activity	Exhibit 4			
	FY 2012	FY 2013	FY 2014	FY 2015
Park Revenue:	\$464,280	\$487,324	\$525,617	\$612,848 ¹
Hotel/Motel Taxes:	\$157,074	\$266,449	\$284,419	\$321,439
Share Local Area Sales Tax paid to East Ridge:	\$2,103,483	\$1,983,042	\$1,987,649	\$2,266,750
Traffic Count (daily):				
I-75 North of Exit 1:	108,433	107,567	108,372	--
I-75 South of Exit 1:	91,591	92,517	93,442	--
US 41 at Exit 1	28,070	29,721	27,399	--
	Source: Tennessee Department of Transportation: Count taken once a year.			
East Ridge Population:	2010 - 20,979			
	2014 - 21,317			
	Source: U.S. Census Bureau			
East Ridge per Capita Income:	2000 - \$20,346			
	2013 - \$20,787			
	Source: U.S. Census Bureau			

¹ **NOTE:** Park Revenue for 2015 includes \$34,000 generated by Park activity (Santa's Village) and donated to East Ridge Children.

When examining Exhibits 4 and 5, it is seen that Camp Jordan Park plays a significant role in the local economy. Park performance has greatly improved since 2012 and, indeed, it is acting as an engine of growth for the East Ridge community.

This is made clear when observing that as the Park activities and revenues increase, hotel/motel and other retail business revenues have risen. The associated taxes they pay have increased each year since 2012. It follows that Park activity has played a leading role in generating increased tax revenues for the City.

Certainly some other factors might have played some role in improvement in hotel/motel plus retail activity. However examination of Exhibit 5 indicate that population and income growth were negligible in East Ridge in the recent past. Thus, it is logical to assume that these factors contributed little to the positive change in the retail and hotel/motel revenues that drove the increase in City tax revenues. One can logically assume that much of the gain is due to the draw of non-local visitors and their money to the City as a result of Park activity. Thus, a substantial portion of these taxes should be allocated to the Park as an offset to its deficit.

Exhibit 5
Change in Park Revenue vs Change in Other Growth Indicators (FY 2012 thru FY 2015)

Activity	Chg	%Chg	Chg	%Chg	Chg	%Chg
	'12-'13	'12-'13	'13-'14	'13-'14	'14-'15	'14-'15
Chg in Park Revenue:	\$23,044	4.96%	\$38,293	7.86%	\$87,231	16.59%
Hotel/Motel Tax:	\$109,375	69.60%	\$17,969	6.70%	\$37,020	13.00%
Local Option Sales Tax:	(\$120,441)	(5.70%)	\$4,608	0.23%	\$279,100	14.00%
Traffic Count (daily):						
I-75 North of Exit 1:	(866)	-0.08%	805	0.07%	--	--
I-75 South of Exit 1:	926	1.00%	925	1.00%	--	--
US 41 at Exit 1:	1,651	5.88%	(2,322)	(7.81%)		

Source: Tennessee Department of Transportation

Population percent change: Percent change 2010 to 2014: 1.6% or an average of 0.4% per annum
East Ridge per Capita Income: Average percent change 2000 to 2013: 2.1% or 0.16% average per annum.

The food/beverage sector of the local economy (like the hotel/motel sector) is positively and directly impacted by Park activity. There are a significant number of eating places within a 3 to 5 minute drive of the Park. Their sales obviously benefit from Park activities as does the City due to increased sales taxes flowing from these businesses.

Looking at the Local Option Sales Taxes (LOST) collected reveals some other interesting considerations.

First, LOST collections declined from FY 2012 to FY 2013 and rebounded very slightly in FY 2014 suggesting that the East Ridge economy as a whole was stagnant or losing ground in contrast to the Camp Jordan Park growth in activity and revenue during the same period. One can conclude that this economic slump would have been significantly worse without the positive injection of economic activity generated by the Park and the direct beneficiaries of its activities like the hotel/motel, fuel and food/beverage sectors.

The last statement is supported by the following facts shown in Exhibit 5:

- A. Population has grown in the City at a very slow rate.
- B. Per capita income of City residents has hardly improved at all over a decade.
- C. Traffic counts have been relatively constant from 2012 through 2014. (Counts would have declined due to the overall economic slowdown but the declines appear to have been offset by Park activity)

Thus, none of these factors contributed much, if anything, to the City of East Ridge economy and the tax revenues.

Two other factors should be considered before moving on. They are:

- A. The contribution of East Ridge to the Hamilton County School System for education of City children, and
- B. The impact of the Park on improvement of real estate values and taxes in its immediate vicinity.

First, the City contributes a part of sales taxes collected to the county school system. This is a benefit accruing to the City in terms of education of its resident children. As with all taxes discussed above, some proportion of the taxes used to educate City children were generated directly and indirectly by the Park activities.

Second, the Park and its visitor draw, in conjunction with I-75 traffic flow, is acting as a major positive factor in location decisions of businesses like Jordan Crossing Center and its major retail anchor: Bass Pro Shops. Both the developer of Jordan Crossing Center and the management of Bass Pro Shops counted the Park as a significant reason (along with I-75 traffic count) for locating in East Ridge. On their website, the developer of Jordan Crossing had the following written to describe the development:

“Jordan Crossing is a Bass Pro Shops anchored retail development located on Exit One of Interstate 75 at the East Ridge exit. Boasting the highest traffic counts in the Chattanooga Metropolitan area, this 50-Acre project will consist of retail, restaurants and hotels *all while positioned at the entrance to one of the largest recreation parks in Tennessee.*” (text enhancement by this author)

Obviously, the existence and operation of the Park played a major role in the location decision of these business leaders. Thus, this establishes a fact that the Park is a major contributor to economic growth of the City. It is a significant part of the base that has led to the economic take-off of the City now underway. As a result, the entire tax base for the City is being enhanced. Real estate values are also being positively impacted and this, in turn, enhances real estate tax collections over time. As with other taxes, a proportion of the increases in real estate tax base in the immediate vicinity of the Park should be credited to the Park against any deficit.

When considering all the information above, one can easily see that the Park is a major contributor to the economic well being of the East Ridge community. However, the use of the current accounting methodology (i.e. financial reporting instead of economic reporting) is flawed and understates the value of the Park to the community. The deficit shown using current financial reporting methods would likely result in a positive position if there was an allocation to the Park of part of the tax revenues it surely had a role in generating through its activities. These include hotel/motel taxes, sales taxes (particularly related to food/beverage consumption) and real estate taxes.

If such an allocation is credited to the Park revenue and against the deficit, it would still not completely account for positive community benefits flowing from the Park operation. These include expanded employment opportunities and increases in the income of residents. These flaws associated with financial reporting can be reasonably addressed using Economic Impact Analysis (economic reporting).

After that summary there will be a short discussion of the basic methodology used to generate an economic impact analysis. This includes an explanation of multipliers and leakage. A basic

grasp of these concepts will help one understand the impact analysis applied specifically to East Ridge.

SOME BASIC PRINCIPLES OF ECONOMIC IMPACT ANALYSIS

Economic Impact Analysis refers to the process of estimating the direct and indirect economic effects of an entity or event on the local, county, state or U.S. economy. This is measured by projected direct and indirect changes in sales, employment, income, tax revenues and/or economic output.

In the case of Camp Jordan Park, the changes are induced by the spending within its defined impact region of visitors coming from outside the region. This spending is considered “new money” that would not have existed without the draw of the various scheduled events offered at the Park. In turn, these events and activities would not have been possible without the “net investment” made by the City of East Ridge. The net investment is defined as Park expenditures for the year minus Park generated revenues that are returned to the City and its residents. This data is available from City financial reports.

It is immediately apparent that the subject study requires;

- a. A reasonable estimate of Park visitation by non-locals and
- b. A good estimate of visitor spending while in the East Ridge area due to Park events.

Estimates of non-local Park visitation are available due to two surveys. One was conducted by the Chattanooga Sports Committee and another by Park personnel. When conducting the surveys, data regarding visitor spending was also obtained. These data will be incorporated into this analysis.

The measured changes caused by initial visitor spending are estimated by the application of “multipliers” derived from generally accepted base multipliers. Base multipliers are developed statistically by government and academic agencies using advanced IMPLAN and RimII programs to derive economic input-output analyses. Input-Output analyses measures how all the major variables in a defined economic system interact to generate productive activity and economic benefit/costs. Based on this, the cumulative economic effect of any given stimulus or change in economic condition(s) can be estimated.

The basic multipliers derived using IMPLAN and RimII are commonly modified for use when analyzing the economic impact of smaller investments on a region or of any investment made in smaller regions. This practice has allowed the generation of multiplier estimates at very reasonable expense and is used herein.

There are suggested multipliers for large regions/cities, mid-sized regions/towns and small regions/towns. The latter have populations around 90,000. The multipliers applied to East Ridge will be smaller than the basic ones applicable to “small towns” because its population to be impacted is only about 21,000 persons.

The reason that there is a direct correlation between the size of the region in terms of population and the size of the multiplier is related to the level of new money leakage. The greater the percentage of new money retained and spent in the region, the less the leakage and vice versa.

The smaller the defined impact region, the greater the leakage out of the area of new money brought in by visitors. Businesses located in small regions and selling products/services bought by visitors are supplied by vendors and manufacturers. Some are located inside the region. Others are located outside of the region. Typically, the smaller the region, the greater the probability that local merchants must purchase inputs into their businesses from suppliers located outside the region. Thus, the smaller the region is, the smaller the actual multiplier impacting it will be as a result of leakage.

There are three types of multipliers. Type I and Type II multipliers measure direct and indirect effects respectively. Type III multipliers measure tertiary or “induced” effects.

Direct effects are the estimated economic changes directly resulting from the first round effects of visitor spending. This initial visitor spending is brought about by the “net investment” the City makes on behalf of its citizens.

The “net investment” is defined as the revenues generated by the Park minus the expenditures associated with the Park during a time period (annually). Currently, expenditures are greater than revenues creating an annual operating deficit. The resulting deficit is, thereby, the “net investment” for the year made by the City in support of the Park.

This community investment, in turn, helps sponsor the activities at the Park drawing the out of town visitors and the new dollars they inject into the local economy. The outcome results in some level of economic benefit for the East Ridge, TN community.

The non-local visitor’s initial injections of dollars are typically spent at four types of establishments in the City. They are: restaurants, motels, retail, and admission fees/concessions at various activities inside and outside of the Park.

The revenue flowing to these four types of establishments is then spent on

- a. local inter industry purchases,
- b. payment of income in the form of wages, interest and rents,
- c. Payment of taxes and fees to the local government. These benefit the local economy.

However, as discussed above, the establishments also spend some of the new money by purchasing supplies from non-local businesses, paying wages and other forms of income to non-local households and paying non-local taxes (namely state and federal taxes). *None of this non-local spending benefits the local area and is called leakage.* Leakage is further discussed below.

Indirect effects concern inter-industry transactions whereby the injection of a new economic entity or operation/expansion of an old entity will indirectly have further impact on the local economy. It will do this by maintaining and/or increasing demand for goods and services sold and/or produced in the local market. The additional wages are spent and act to enhance more

local economic activity. In turn, this leads to the indirect maintenance of, or creation of, more local jobs and an increase in the local government tax base.

Induced effects refer to the tertiary (third level) economic impact caused by the generation of the direct and indirect effects on local employment and income due to the subject City investment and the resulting initial dollars spent by non-local Park visitors.

Leakages refer to the erosion of employment, income and tax benefits possibly accruing to the City and its residents due to the “net investment” made in the Park. Leakages occur when some part of the “new money” transferred to non-local regions and spent outside of the local economy (the City of East Ridge). Thus, when measuring economic impact, the multipliers must be calculated to include the estimated leakage. *The greater the leakage (or spending of “new money” outside of the local economy) the smaller is the associated multiplier.*

When these variables - the initial level of visitor spending, multipliers and leakage estimates - are combined, the economic impact of a stimulus to a given region can be estimated. The key to accurate estimation of impact, as stated earlier, is measurement of non-local visitor spending that causes the “direct effects”. The estimates of “indirect” and “induced” effects follow from that.

Summarizing, the City makes a net investment (investment) in the Park. This stimulus acts to support those activities provided by the Park that draw non-local visitors. The non-local visitors spend new money that ripples through the economy of the subject area. The ripples are defined as direct, indirect and induced effects. The proportion of new money spent outside of the study area is defined as leakage. The greater the leakage, the smaller the multiplier and the associated benefit accruing to the “net investment”. Also, the smaller the defined study region, the greater the probable leakage and the smaller the multiplier.

Measuring these various effects will allow estimation of the overall economic benefit accruing to the region defined in this study as East Ridge, Tennessee. *The questions to be answered are:*

- a. *Do the citizens of East Ridge reap a benefit from Park operation that is greater than the cost (the net investment)?*
- b. *If so, how much more is the benefit than the cost?*

The impact of Camp Jordan Park activities are provided in the next two sections.

The next section presents a brief summary of the results of an economic impact analysis of the Park completed by the Chattanooga Sports Committee (CSC). It was designed to estimate the impact of Camp Jordan Park activities on the broader Chattanooga/Hamilton County region inclusive of East Ridge. However, it does not break out the impact directly on the City of East Ridge and its citizens.

The subsequent section of this study discusses the economic impact of the Park directly on the City of East Ridge. It will estimate the level of benefit accruing to the City versus the cost to the City of Park operations.

CHATTANOOGA SPORTS COMMITTEE: CAMP JORDAN ECONOMIC ANALYSIS

The Chattanooga Sports Committee (CSC) completed an economic impact analysis for Camp Jordan and its activities from January through November of 2015. The region being impacted included Chattanooga, East Ridge and Hamilton County. It had records involving 69 events drawing 139,812 visitors and players. This *excluded* an estimated 91,000 visitors drawn to the two major events in December: Christmas Night of Lights and Santa's Village. When these December visitors are included, then the 2015 visitors to the Park total to an estimated 231,312.

According to the Chattanooga Sports Committee study, 23% of the visitors recorded between January and November of 2015 spent at least one overnight due to Park events for an estimated total of 32,050 nights. Of these, CSC estimated that a minimum of 3,060 nights (or 9.5%) were spent in East Ridge.

The CSC data indicate that each overnight visitor had an economic impact amounting to about \$294 per day per visitor. Thus, according to CSC, the Park had an impact on the entire Chattanooga region (including East Ridge) of \$9,451,200.

Using these CSC estimates of impact then suggests that *those spending nights in East Ridge* (3,060 or 9.5% of the total overnights) *would have had a beneficial impact of \$899,640 specifically on the City*. This impact is a very conservative estimate in that it includes no estimated impact of visitors who do not stay overnight but spend money in the area (such as on meals and fuel).

Still, when proportionately applying the CSC logic, *the impact of Park activities exceeds the \$548,000 "net investment" by the City in the Park by 1.65 times or by \$354,361*. Furthermore, it pays a huge dividend in terms of financial impact on the broader region (Chattanooga and Hamilton County (nearly 9.5 million dollars).

Having now examined two sets of data regarding Park performance (City Financial Reports and the CSC study), it is clear that both show that the Park provides benefit to the City and the surrounding region. Now, the benefit versus cost of the Park must be examined as it relates directly to the city of East Ridge. Again, the process of economic impact analysis is employed but to a smaller defined region (East Ridge) rather than the broad region defined in the CSC study.

THE ECONOMIC IMPACT OF CAMP JORDAN ON EAST RIDGE, TENNESSEE

The following analysis of the economic impact of Park activities on the City primarily relies on data derived from two surveys which can be obtained from the East Ridge Department of Parks and Recreation in Excel format along with modifications made by Dr. William E. Legg designed to enhance the analytical process and clarify data definitions.

The first was conducted by the Chattanooga Sports Committee and covered January, 2015 through November, 2015. It contained a list of 69 activities held at the Park this time with estimates of visitors to each event, whether they stayed overnight, how many nights they stayed and where they stayed. Two December events were added to the 69 to make a total of 71. These were the Christmas Nights of Lights and Santa's Village. The CSC survey estimated the economic impact of the initial 69 events on the Chattanooga area (including East Ridge) but did not specifically break out the economic impact on the city of East Ridge. Some of the data, though, related directly to East Ridge (particularly as regards the number of overnight visitors staying in East Ridge lodging establishments).

The second survey was conducted by Park personnel using a questionnaire designed to elicit much the same information generated by the CSC but designed to extract more information related to the economic impact of the Park specifically on East Ridge. The following summarizes the findings:

In 2015, the city of East Ridge provided a net investment of \$548,000 to Camp Jordan Park. With this investment:

- A. **71 activities** were hosted by the Park (including the Christmas Night of Lights and Santa's Village).
- B. **231,312** visitors from outside the city of East Ridge were drawn to the activities. This count was derived from the CSC and the Park surveys.
- C. **10,742** visitor nights were generated within East Ridge by about 30% of the visitors who stayed overnight due to Park activities. The other 70% of the overnight visitors spent an estimated 25,066 visitor nights in facilities located outside the city of East Ridge.

The estimate of East Ridge visitor nights was derived as follows: The CSC data indicated that about 16% of all visitors stayed overnight in East Ridge while the Park data suggests that the number was about 42%. Given these disparate findings and reconciling them required deeper analysis which resulted in finding that:

First, the definition of overnight was confusing because sometimes it referred to room nights and other times to visitor nights. To standardize this, it was assumed that, a room night could be transformed into a visitor night by assuming that each room would host 1.75 persons per night. Thus, 1.75 times the room nights would give visitor nights.

The solution: For this study it is assumed that 30% of overnight visitors obtained lodging in East Ridge. That is thought to be a reasonable reconciliation of the difference between the two surveys.

- D. **\$644,541** was spent by the overnight visitors for lodging specifically in East Ridge.

This was derived by using the findings of both surveys where The CSC assumes that every overnight visitor spends an average of \$100 per day and the survey conducted by the Park determined that the average expenditure was \$106. Given these numbers, this study used \$100 spent by each overnight visitor per day. It is further assumed that each overnight visitor paid an average of \$60 per day for lodging (or half the price of a double occupancy room priced at \$120 per day). The balance of \$40 was spent on other items such as food, fuel, other retail and fees. \$

- E. **\$429,680** was spent by the overnight visitors for food and other retail items in East Ridge (average of \$40.00 per day per overnighter).

- F. **\$2,391,108** spent by 199,259 day visitors at an average of \$12 per visitor before 20% deducted for Cost of Goods Sold.

Logic dictates that day visitors will spend something at or near the Park. Thus it is assumed that every day visitor to the Park spends an average of \$12 in East Ridge (perhaps on fast food or dinner and some fuel as examples). Obviously some visitors may spend nothing but others might purchase several fast food meals for a family or other impulse items associated with a recreational outing.

- G. **\$2,256,630** was spent by all visitors (including overnighters) on food and other retail items after adjusting for Cost of Goods Sold. This number excludes dollars spent on lodging.

At least part of the Cost of Goods sold to retailers to maintain their inventory must be deducted because some of it is leakage. Here it is assumed that the Cost of Goods leakage is 20%. Thus, 80% of retail dollars spent in East Ridge benefits the City and its residents.

- H. **\$2,901,171** estimated to be dollars spent by all visitors (including overnighters) on food, other retail and lodging. : This is the estimated total dollars spent in East Ridge after all adjustments (including deducting 20% from gross sales the leakage related to cost of goods sold). This is new money that impacts as an economic benefit on the city of East Ridge.

See Data Notes on page 23 and 24 of the Appendix.

Typically there are four areas of the local economy within which visitors to the Park are most likely to spend new money. These are:

- A. Motel/Hotel services;
- B. Restaurant/Fast Food;

- C. Retail (including fuel, groceries and some types of clothing);
- D. Admission fees and Concessions.

The initial injection of new money into these sectors caused by the City investment creates the direct economic impact on the community and initiates the ripple (multiplier) effect. To estimate the intensity of the effect, multipliers for the local area must be derived. This process is started with the use of base multipliers.

The Appendix contains a discussion of the multipliers used for a city of 90,000, how to interpret them and the necessity of adjusting them for use with small cities of different size. See the page 25 of the Appendix: **Base Multipliers for a city of 90,000 and how to interpret.**

The basic multipliers used to derive those applicable to East Ridge were used for a city of 90,000. They applied to a recreation oriented impact analyses and were:

1. The Sales Multiplier adjusted for leakage including Cost of Goods Sold: $1.24/.8 = 1.55$;
2. The Income Multiplier: $0.57/.8 = .71$; and
3. The Jobs Multiplier: **31.07** jobs per million dollars of total sales (new money).

To correctly use any multipliers for sales and income, the Cost of Goods Adjustment must be accounted for. Remember that was 20% for this study or 20 cents per dollar spent. To do this, each of the sales and income multipliers must be divided by 0.80 to show what a \$1.00 of injected new money creates in terms of gross sales dollars or additional income.

Thus, for every dollar of visitor spending, the gross sales generated by the injection of that dollar equals $1.24/.80$ or 1.55 and shows that for every \$1.00 of new money spent then \$1.55 is generated in gross sales. The same process is used to derive the impact of the Personal Income Multiplier where $0.57/.8 = 0.71$

For the purpose of this study the basic multipliers shown above were adjusted downward. Remember that the smaller the study area, the greater the leakage and smaller the multiplier. The population of the City of East Ridge is 21,000 as compared to the base city which was 90,000. Therefore, after applying the estimated adjustment, the following multipliers apply to East Ridge:

1. The Sales Multiplier used is $0.92/.8 = 1.15$ for East Ridge as compared to 1.55 for a city of 90,000;
2. The Income Multiplier is $0.42/.8 = .53$ for East Ridge as compared to 0.72 for the larger town.
3. The Jobs Multiplier is 22 jobs per million dollars of sales as compared to 31 for the city of 90,000.

Given these multipliers, the following is estimated to be the impact of Camp Jordan Park on the City of East Ridge:

1. Sales Impact: **\$3,188,102** which covers the \$548,000 City investment by nearly 6 times.
2. Income Impact: **\$1,608,894** or about \$76.61 per year in additional income for each of the 21,000 residents of East Ridge. It also covers the \$548,000 City investment by over 2.9 times.
3. Jobs Impact: **64**

It is interesting to note that the multiplier for sales could be reduced to 0.2 (or to about 83% of 1.15) and the income multiplier could be reduced to 0.15 (or about 72% of 0.53) and the “net investment” by the city would still be covered. These might be considered the break-even multipliers and indicate that the “net investment” of the City would still be covered using much smaller multipliers to account for leakage and the city size.

In addition to understanding the economic impact of the Park on the City and its’ residents, there is an accompanying interest in the likely expansion of City tax revenues generated by Park activities. That is presented below:

Estimated tax revenues to the City increase as shown below:

1. Local Option Sales Tax: **\$6,188** before application of sales multiplier.
\$7,319 if applied to total sales after impact.
2. Hotel/Motel Tax: **\$25,782.**
3. **City Tax Gains from Park: \$33,101 per year.**

The various tax revenues were estimated as follows:

- a. Hotel/motel revenue was multiplied by 4%. That result is then added to the tax revenue accruing to the city.
- b. For sales tax, the total estimated dollar sales by local retailers to non-local visitors are determined. This estimated level of gross sales is not adjusted for cost of goods sold since the sales tax applies to the gross dollars involved in the sale. This number is then multiplied by 9.75% to derive the total sales tax accrued. This is then multiplied by 2.25% (City’s sales tax)/9.75% = 0.23 to determine the City’s share of the total sales tax revenue generated.

The findings presented above show that City of East Ridge and its residents gain substantial benefit from the investment made in Camp Jordan Park. Indeed, it is a significant driver of economic activity and growth in the City. Moreover, the Park, as indicated by the Chattanooga Sports Committee study, also contributes extensively to the economic well being of the entire Chattanooga/Hamilton County region.

CONCLUSIONS AND RECOMMENDATIONS

The three analyses presented herein show that Camp Jordan Park provides a substantial economic driver for the City of East Ridge, TN and presents the community with a significant return on investment. As such, then, the Park should continue to operate.

Additional investment in support of operations, activities and infrastructure ought to be considered. Such investment would further enhance the Park growth and its potential economic impact on the City as well as the larger region.

Financial Reports related to the Park should be more analyzed in more detail by:

1. Completing a standard ratio analysis to assess, amongst other things, which activities offered by the Park are most profitable and the rate at which each activity is growing.
2. Examining the absolute and percentage changes in various revenues, expenses and activities.

Processes should immediately be implemented to formalize survey activity and record keeping as relates to:

1. Visitor count,
2. What activity is drawing the visitor;
3. Where the visitor is from;
4. How long the visitor is staying;
5. Where the visitor is staying in the Hamilton County region (if staying overnight);
6. How much the visitor spending per day on Lodging, Meals and other Activities.

This data is essential if the economic contribution of the Park to the region is going to be adequately determined. It is also critical to development of a very good marketing program and strategy for both the Park and the City.

BIBLIOGRAPHY

Brewer, R.M. and Freeman, K.M., "Inexpensively Estimating the Economic Impact of Sports Tourism Programs in Small American Cities", *Indiana Business Review*, Spring 2015. Indiana Business Research Center, Kelley School of Business, Indiana University.

<http://www.ibrc.indiana.edu/ibr/2015/spring/article1.html>

Chang, Wen-Huei, "Estimating Economic Impacts of Corps of Engineers Visitors on Corps on Regional Economies", US Army Corps of Engineers Recreation Economic Assessment System, U.S. Army Corps of Engineers.

<http://corpslakes.usace.army.mil/employees/economic/pdfs/reas.pdf>

Coughlin, Cletus C. and Mandelbaum, Thomas B., "A Consumer's Guide to Regional Economic Multipliers," *Federal Reserve Bank of St. Louis Review*, January/February 1991, pp. 19-32.

<https://research.stlouisfed.org/publications/review/1991/01/01/a-consumers-guide-to-regional-economic-multipliers/>

Crompton, John L., "Measuring the Economic Impact of Park and Recreation Services", *Research Series*, 2010; National Recreation and Park Association.

http://www.nrpa.org/uploadedFiles/nrpa.org/Publications_and_Research/Research/Papers/Crompton-Research-Paper.pdf

Economic Impact Multipliers for Kansas, "Kansas Business Review" Spring , 1989

<http://www.ipsr.ku.edu/publicat/multipliers/multipliers.htm>

Fui Ting Phang, L. Moore and L. Theissen, "The Economic Impact of the Oklahoma Manufacturing Sector", Southwestern Oklahoma State, University Center for Economic & Business Development.

Miller, Wayne, "Economic Multipliers: How Communities can use them for Planning". University of Arkansas, Division of Agriculture.

<https://uaex.edu/business-communities/economic-development/Economic%20Multipliers.pdf>

"THE IMPACT OF YOUTH SPORTS ON A REGIONAL ECONOMY", SEPTEMBER 18, 2012, Traverse City Area Chamber of Commerce and Traverse Bay Area Youth Soccer (TBAYS).

<http://tcchamber.org/wp-content/uploads/2012/10/YouthSportsReport.pdf>

The U.S. Bureau of Economic Research

The U.S. Bureau of Labor Statistics

The U.S. Census

APPENDIX

Data Notes for items A through H on pages 15 and 16:

Data used to derive the information presented in items A. to H. were generated based on two surveys which can be obtained from the East Ridge Department of Parks and Recreation in Excel format along with modifications made by Dr. William E. Legg designed to enhance the analytical process and clarify data definitions.

The first was conducted by the Chattanooga Sports Committee. It contained a list of 69 activities held at the Park with estimates of visitors to each event, whether they stayed overnight, how many nights and where they stayed. The survey also estimated the economic impact of many events on the Chattanooga area (including East Ridge) but did not specifically break out the city of East Ridge.

The second survey was conducted by Park personnel using a questionnaire designed to elicit much the same information generated by the CSC but designed to elicit more information directly related to the economic impact of the Park specifically on East Ridge.

Item A.: There were 69 events included in the CSC document. To complete the 12 month period, two events were along with estimates of their attendance. These were Christmas Nights of Lights and Santa's Village. Thus, during the year, there were 71 activities at the Park.

Item B: Included a count of non-local visitors or participants in Park activities found in the surveys.

Item C: The CSC data indicated that about 16% of all visitors stayed overnight in East Ridge. But, examination of the data suggests that number is suspect. *First*, the definition of overnight was confusing because sometimes it referred to room nights and other times to visitor nights. To standardize this, it was assumed that, a room night could be transformed into a visitor night by assuming that each room would host 1.75 persons per night. Thus, 1.75 times the room nights would give visitor nights. *Second*, there was a question as to the booking process and whether more emphasis was given by the CSC to guiding visitors to Chattanooga lodging places over those located in East Ridge. *Third*, when examining both surveys, it was clear that there was a very significant discrepancy as to the percentage of visitors staying in East Ridge versus other areas in the Chattanooga region. The survey conducted by Park personnel indicated that about 42% of visitors staying overnight did so in lodging facilities located in East Ridge. *The solution:* For this study it is assumed that 30% of overnight visitors obtain lodging in East Ridge. That splits the difference between the two surveys.

Items D and E: The CSC assumes that every overnight visitor spends an average of \$100 per day. The survey conducted by the Park determined that the average expenditure was \$106. Thereby, for this study, the \$100 per day was used. It was assumed that the \$100 was split such that \$60 was spent on lodging and \$40 spent on other items such as food, fuel, other retail and fees.

Items F: Logic dictates that day visitors will spend something at or near the Park. Thus it is assumed that every day visitor to the Park spends an average of \$12 in East Ridge (perhaps on fast food or dinner and some fuel as examples). Obviously some visitors

may spend nothing but others might purchase several fast food meals for a family or other impulse items associated with a recreational outing.

Item G: At least some of the cost of the goods to retailers and sold by them to final customers must be estimated and deducted from consideration as having economic impact on any region because it must be considered as leakage to vendors located outside the subject region. In this study, the cost of goods adjustment is 20% (80% of retail dollars spent in East Ridge benefits the City and its residents).

Item H: This is the estimated total dollars spent in East Ridge after all adjustments. This is new money that impacts as an economic benefit on the city of East Ridge.

Base Multipliers for a city of 90,000 and how to interpret: The base multipliers were applicable to cities with populations of about 90,000. These were:

1. Sales: Direct = 0.08; Direct + Indirect = 1.06; Direct+Indirect+Induced = 1.24. This is interpreted as follows:
\$1.00 injected new money creates a direct effect of 80 cents to benefit the local economy (after deducting 20 cents for Cost of Goods Sold) + another 26 cents of positive indirect effect + an additional 18 cents of positive induced effect. Thus, for every dollar of visitor spending, the sales multiplier is equal to $1.24 / .80$ or \$1.55 cents which means that for every \$1.00 spent then \$1.55 is generated in sales. This process basically shows what a \$1.00 injected into the economy creates in terms of Gross Sales and before subtracting 20% as cost. The same process is used to derive the Personal Income Multiplier.
2. Personal Income: Direct = .29; Direct+Indirect = .37; Direct+Indirect+Induced = .21 = .58. Where the personal income multiplier is $.58 / .80$ which equals .72 cents of personal income created for residents of the city for every dollar of new money injected.
3. Jobs Created per Million Dollars in Sales: Direct = 18.71; Direct+Indirect = 22.36; Direct+Indirect+Induced = 31.07. This means that 19 jobs were created by the Direct Effect of Sales, 3 indirect jobs (22.36 minus 18.71); 9 induced effect jobs (or 31.07 - 22.36)
Several caveats are important as relates to the Jobs multiplier. First, there is no differentiation between full-time and part-time jobs. Second, the assumption is made that all existing employees are working at a full time level. Third, it is assumed that all hiring of new employees will be from within the local study region.

Now, these multipliers were adjusted downward for this study because East Ridge population is 21,000 as compared to about 90,000 for the city to which the above multipliers were applied.

