2016 VALERO ALAMO BOWL
ECONOMIC & FISCAL IMPACT ANALYSIS
(A PRIMARY STUDY)

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1.0 EXECUTIVE SUMMARY

Strategic Marketing Services and SportsEconomics, LLC ("Research Team") were retained to evaluate the economic and fiscal benefits to the City of San Antonio ("City") and State of Texas ("State") associated with the operations of the 2016 Valero Alamo Bowl, hosted at the Alamodome on December 29, 2016. The study's key findings are presented in this Executive Summary. The full Report must be read in its entirety, including the limiting conditions provided at the end of the Report, to understand the background, methods and assumptions underlying the study's findings.

A total of 59,815 attended the event or brought parties with them while attending the event, 21 percent of whom were residents of the City of San Antonio and 55 percent were residents of the State of Texas.[1] Of these attendees, 46,820 represented "incremental visitors" to the City who spent an average of just over $611 dollars outside of the Alamodome during their stay. If incremental local residents are included, the total number of incremental attendees rises to 49,620.

The events studied generated considerable economic impacts for the City and the State. Moreover, substantial tax revenues were also generated. Specifically, the total economic impact on the City of San Antonio from the game and from the event operations was approximately $50.1 million (not including spending inside of the Alamodome), with 570 FTE jobs created, and $1.8 million in new local tax revenues. The details are shown in Exhibit 1-1 below.

Exhibit 1-1

FINDING # 1 :	The 2016 Valero Alamo Bowl generated substantial economic impacts on the City of San Antonio.
FINDING # 2 :	Direct Economic Impacts[2]: $28.6 million
FINDING # 3 :	Total Economic Impacts: $50.1 million
FINDING # 4 :	Induced Economic Impacts: $17.8 million in personal earnings and 570 jobs
FINDING # 5 :	Incremental Tax Impacts: City = $1.5 million County = $0.3 million State[3]=$1.9 million

[1] In addition to the 59,815 attendees, there were 5,150 persons who travelled to San Antonio with an incremental visitor party who attended the game, but themselves did not attend the Valero Alamo Bowl.
[2] This includes non-spectator spending.
[3] Fiscal impacts to the State of Texas are not inclusive of impacts to the City of San Antonio or Bexar County.

The economic impact portion of this study evaluates the areas described as follows:

- **Direct Spending** – This represents dollars spent within the City related to the events that otherwise would be spent outside the City's economy (e.g., non-local fan spending outside the venue, and event-related spending and revenues that are incremental to the City).
- **Indirect Spending** – Indirect Spending results from the re-spending of those "direct" dollars as they circulate through the local economy (commonly referred to as the "multiplier effect", which is discussed in a subsequent section).
- **Total Economic Impact**– Total Economic Impact (Output) is equal to the sum of direct and indirect spending.

  Direct spending also increases economic activity, which increases resident income levels (associated with new and existing jobs), resulting in additional spending within the local economy, referred to as the induced effect. The Total Economic Impact is inclusive of the induced impacts.

  - **Induced Economic Impact Affecting Earnings** – The direct and indirect increase in resident income levels resulting from direct spending activity related to the event hosted at the Alamodome.
  - **Induced Economic Impact Affecting Employment** – The number of direct and indirect full-time equivalent (FTE) jobs that are supported in the local economy as a result of direct spending activity related to the event hosted at the Alamodome.
- **Fiscal Impact** – The annual taxes collected as a result of the events' operations and non-local visitors traveling to the City that would not have accrued to the region if it were not for the presence of the event being measured.

Measurements of the economic impact of the event on the State of Texas are measured in a similar way, first defining "incremental visitors", and then determining their spending.

The operations of such events can benefit a community in a variety of ways. Initial rounds of spending are generated by spectators on tickets, concessions, merchandise and parking, as well as before and after the events at local hotel, restaurant, entertainment, retail and other establishments. For events hosted at facilities such as the Alamodome, spending is also generated by the operation of the facility itself, which contributes through its direct expenditures within the community as well as through the taxes paid to the local government.[4] Further, the operations of a facility can generate venue-related spending in areas such as advertising and sponsorships. Although spending originates from local spectators or other local sources, as well as from spectators and sources outside the area ("visitors"), for purposes of this Report, only those sources of initial direct spending that are generated from outside the area or by organizations within the area that would not have spent the money locally otherwise are considered "net new" to the community. Spending by visitors inside of an event may be considered economic impact if the vendors inside of the

[4] The degree to which spending inside of a facility is considered economic impact depends on the tax policy regarding the facility and who is the recipient of the spending (i.e., local business or an out-of-area business).

event are local businesses. Care is taken to avoid double-counting expenditures by visitors that are then re-spent by event organizers in the local community.

Spending by local spectators and revenue generated by local sources is assumed to be entirely displaced. In other words, it is assumed that this spending would have occurred in the local economy (the City of San Antonio) in some other form if it were not spent before, during, and after the event. For example, if a local resident did not spend money at this event, it is assumed that he would have spent that money on another form of purchase in the local economy, such as for concert or theater tickets, shopping, dining, etc. Therefore, since such spending is not considered new to the local economy, it has not been included in the estimates of economic and fiscal impacts presented in this Report. Similarly, the indirect spending estimates are based on the "adjusted" direct spending figures. Explanations of all findings are contained within the relevant sections of the Report.

As described in Section 5.0 of this Report, there are aspects of economic impact that are difficult to quantify. For instance, sports and cultural events can provide free media coverage for a local region (known as media impact) that can lead to future tourism in the community. Measurements of media impact are beyond the scope of this analysis. Additionally, local events can provide an emotional benefit to residents above and beyond any tangible financial benefit. This is known as psychic impact or public consumption benefit. Valuing this is beyond the scope of this study. However, even though the amount of local spending is not counted as part of economic impact, it does provide information on the entertainment value to local residents of an event. Therefore, local spending estimates are measured for each event.

Section 2.0 of this Report describes economic impact concepts and the methodology used. Section 3.0 provides the specific findings of economic and fiscal impacts on the City of San Antonio. Section 4.0 presents the other insights from the survey analysis. Section 5.0 discusses limitations of the study, including sources of economic impact that are not accounted for, thus making the estimates here conservative.

2.0 ECONOMIC IMPACT METHODOLOGIES & CONCEPTS

One purpose of economic impact analysis is to provide the public with relevant information regarding the return on an investment in a project or event. The management of financial resources is decided directly by government officials or indirectly by citizen voting. Economic impact provides a metric for comparison to other possible investment projects or events.

Economic impact is based on the theory that a dollar flowing into a local economy from outside of the local economy is a benefit to the locality. In order to measure economic impact, the cause of the impact must first be identified. The most important underlying principle in evaluating economic impact is to measure new economic benefits that accrue to the region that would not have otherwise occurred. While this sounds simple, part of the difficulty lays in measuring what would have happened to the region without the event having taken place, considering that the situation is purely hypothetical.

The financial return for citizens is in the form of new jobs, new earnings, and new tax revenues that occur because of the occurrence of the sporting event.[5] These new earnings, for instance, are generated for citizens who are not directly associated with the sporting event, but who are the beneficiaries of the positive externalities that sports events can provide to communities. Positive externalities, or overflow benefits, are those benefits that are produced by an event, but are not captured by the event owners or sports facility being used. When a visitor comes to San Antonio to watch the Valero Alamo Bowl, they may spend money at local food establishments, gas stations, retail stores, etc. This spending benefits the owners and employees of those establishments thereby creating a positive direct economic impact.

An important concept that is determined early in a study is the geographic area of impact. Generally, the geographic region upon which the economic impact is measured is the region that is considering funding part of the sporting event costs. In this way, the proper cost-benefit analysis is performed. If the local government partially funds a sporting event, then the citizens of the San Antonio area pay for the investment. The correct comparison is to determine the benefits that San Antonio receives, not some other city, county, or state or combination thereof.

The area of impact is a significant factor in determining the amount of economic impact that occurs. As an example, imagine a resident of Comal County who typically spends his entertainment dollars attending the movies near home. If a sporting event comes to town and the resident spends money at the event and in the surrounding areas, but does not attend the movies that same weekend, then the spending that has occurred may not be new spending in the San Antonio MSA (which contains Comal County), but rather substituted, displaced, or redirected spending. However, it will be new spending in the City of San Antonio.

[5] Additionally, having local major sporting events enhances community and civic pride. This is known as psychic impact and is discussed in Section 5.0.

A resident of Comal County, for instance, may decide to attend the Valero Alamo Bowl and related events instead of her usual entertainment habits near home. In this case, she is adding new money to the City of San Antonio and providing a positive economic impact. However, she is not adding new money to the San Antonio MSA because it includes Comal County, and this spending is therefore considered substituted, displaced, or redirected spending in the Base Case. On the other hand, a resident of Austin would provide economic impact for the City, County, and MSA since Austin lies outside of the San Antonio MSA, but not for the State of Texas.

However, if she would have taken those dollars and spent them outside of the State instead, then her spending ought to be counted toward economic impact. Rather than spending their money attending the game in another state, many of those athletes and spectators from Texas would "vacation at home" and attend the game in San Antonio, and that money won't leave the State. This concept is measured in the Alternative Case. Recent research by Steven Cobb and Douglas Olberding provides evidence that, for some events, spending by local residents ought to be counted toward economic impact because these residents would have spent that money outside of the geographic area attending some other event.[6] In fact, the article states that somewhere close to 20 percent of locals ought to be counted as incremental spenders for larger profile events. Previous bowl/championship game studies hosted in Texas have found a significant portion of Texas residents would have attended the game in some other state.[7] Given these findings, the proper treatment of incremental spending by residents of Texas is warranted. Nearly 11 percent of City residents indicated they were likely to have attended the event outside of Texas, as would 24 percent of State residents.[8]

Since the event was hosted in the City of San Antonio, for the purposes of this Report the relevant geographic area will be the City of San Antonio. The impacts to the State of Texas will also be described. Moreover, local respondents were surveyed to determine whether their participation in the event was displacing participation in an event outside of the City in an effort to measure "incremental" locals, or those whose spending would not be considered displaced and should be counted towards economic impact. These results are also provided as a point of comparison.

To be conservative, most spending by local residents is considered to be displaced spending and is not counted as part of economic impact. For this reason, it is very important to be able to delineate attendees into visitors and local residents. There is a further delineation of visitors into: (1) visitors who were already in town for another reason, but decided to attend the event anyway ("casual" visitors), (2) visitors who would have come to town during another nearby time period, but instead opted to attend the event during

[6] "The Importance of Import Substitution in Marathon Economic Impact Analysis" in the *International Journal of Sport Finance*, Vol. 2, No. 2, 2007.

[7] Irwin, D., and Rascher, D. (2015). "Economic Impact of the 2015 Valero Alamo Bowl on the City of San Antonio."
Irwin, D., and Rascher, D. (2013). "Economic Impact of the 2013 Meineke Car Care Bowl on the City of Houston."
Irwin, D., and Rascher, D. (2013). "Economic Impact of the 2013 SWAC Football Championship on Houston."

[8] This was measured by *Q7: "If this Bowl Game were held outside of the State of Texas, would you have attended?"* Those residents who indicated they would attend the event if hosted outside of Texas were counted as incremental locals.

this time period forgoing coming to town another time ("time-switchers"), and (3) visitors who are in town because of the event and would not have come to town otherwise. This latter group constitutes visitors whose spending is fully counted as being part of direct spending economic impact. The spending by "casual" visitors and "time-switchers" is not fully counted as new spending, only the incremental spending is counted (if it can be measured).

Economic benefit is measured through direct spending, which has two different components. The first component is visitor spending. For example, how much did people spend at this event and during the course of their entire stay on restaurants, retail, transportation, etc. Another component is organizational spending. How much is spent by event organizers to run this event, accounting for the source of funding for the event? If the City is partially funding a local event, than those expenditures should not be counted as part of economic impact since the City could have spent that money elsewhere within the City. Care is taken to avoid double-counting of spending by spectators inside of an event coupled with the event organizers spending in town (see Section 2.1 for more details). Some vendors within an event are local businesses and thus spending by visitors on those vendors provides economic impact. However, spending by visitors on vendors who are not local does not necessarily provide local economic impact. To account for this issue economic impact is measured in two ways, one counting all visitors spending inside of an event and another not counting it at all. This provides the upper and lower bounds for economic impact.

For the purposes of this Report, quantifiable impacts are in the form of *economic impacts* which are subdivided into three stages of impact: *direct*, *indirect*, and *induced* impacts. Each of these is further sub-divided into *total output*, *earnings* or *income*, *employment*, and *fiscal* effects. Descriptions of each term follow.

2.1 DIRECT SPENDING METHODOLOGY

Direct spending is measured for spending in the City that would not otherwise occur without the presence of and the events it hosts. This spending will be derived from:

- Visiting spectator spending outside of the events (at local restaurants, retail stores, etc.); and
- Visiting teams/corporations/sponsors and other event participants' spending.

Each of these expenditure categories are adjusted for spending that occurs outside of the City. This Report utilizes ***primary research*** (surveys and direct data gathering during the events) to estimate spending. Many economic impact studies double-count the spending of the event organizers locally in order to produce the event and the spending by event spectators inside of the event. However, some of the spending inside of an event may go to locally-based vendors (thus providing economic impact).

2.2 INDIRECT AND INDUCED SPENDING METHODOLOGY

The economic output that results from the direct spending during an event subsequently affects many other industries and workers. For instance, when a group of visitors attends an event at the Alamodome, they may spend money in a local restaurant before the event. The restaurant will disburse some of this money to pay employees, to purchase food, to pay utilities, and so on. The food wholesaler will pay the farmer who then purchases clothing at the local retail store. These additional expenditures continue through the successive rounds until the money either leaks out of the local economy or is saved within the local economy for a significant period of time.

The *indirect* economic impacts are those that occur in the local region or area of impact (City of San Antonio) that is the re-spending of the initial visitor expenditures. Indirect spending arises from the need of one industry to purchase goods or services from other industries to produce its output. When one business that is a direct recipient of event-related spending purchases goods from another business within the City in order to produce its output, the second business also realizes economic benefit through the "ripple" (or indirect effect) of the initial expenditure. For example, when attendees purchase food at the Alamodome, the concessionaire must purchase goods from producers/manufacturers in order to maintain inventory levels. To the extent this "re-spending" occurs in the City economy, the initial dollars spent with the concessionaire have secondary effects on the local economy. Indirect impacts occur in various industries including: the wholesale industry as purchases of food and merchandise products are made; the transportation industry as the products are shipped from purchaser to buyer; and the manufacturing industry as products used to service the venue and teams are produced. The summation of each successive round of re-spending constitutes the indirect impact estimate.

In this study, expenditures made by vendors to offer concessions and merchandise during the event are included as indirect spending. Some of the direct spending by spectators and participants on food sold by vendors is then re-spent by the vendor to participate in the event. In other words, the cause for the vendor's spending is based on the direct revenues it generates from spectators and participants. The round of spending by the event organizer is the second round, and is thus indirect spending.

The *induced* economic impact is the effect of the direct and indirect economic impact on earnings and employment. Induced effects occur when the income levels of residents rise as a result of increased economic activity and a portion of the increased income is re-spent with in the local economy. As the initial spending and subsequent re-spending occurs, a portion is retained as income to local residents and employees, and as City taxes. This indirect spending results in increased economic activity, which leads to increases in employment and which increases household income levels and allows for additional household spending (the "induced effect"). These impacts will be reported in terms of employment and earnings impacts.

Some economists choose not to count indirect impacts because other uses of funds would also produce events or development that would lead to indirect impacts. Thus, in comparing across multiple investments, it seems useless to add in indirect impacts. However, the amount of indirect impact varies considerably across the types of industries that are affected. Tourism-related industries typically have higher indirect impacts than manufacturing industries, for instance.

2.3 Multiplier Effect to Measure Indirect and Induced Impacts

As previously noted, direct spending stimulates additional spending, referred to as the indirect effect. Direct spending also increases economic activity, which increases resident income levels (associated with new and existing jobs), resulting in additional spending within the local economies, referred to as the induced effect. These secondary indirect and induced effects are referred to as the "multiplier effects" of the initial direct spending. These effects are measured through the application of economic multipliers, which quantify the extent that dollars introduced to a local or regional economy are re-spent on goods and services within the local economy.

The concept of multipliers is based on the theory that part of a dollar injected into a local economy will be re-spent locally, thereby affecting more than the original recipient of the dollar. Multipliers are derived by tracing the interrelationships of industries within a specified economy to understand the impact that a dollar spent in a given industry has on other industries in that economy. A business that is an initial recipient of new spending will purchase goods and services from other producers. These purchases comprise the indirect effect of the initial expenditure. This process is repeated until subsequent purchases are made from producers that are not a part of the San Antonio economy (i.e., a producer imports an input from another city, state, or country) and the flow of money within the San Antonio economy ceases (or "leakage" occurs). The businesses, hotels, and organizations that receive the initial direct spending generally re-spend it in five ways:

- With other private sector businesses in the same local economy on inventory, maintenance, etc.;
- With employees who reside in the same local economy as wages, tips, etc.;
- With local government as sales taxes or property taxes;
- With non-local governments as sales taxes or taxes on profits;
- With employees, business, or organizations who reside outside of the local economy.

The first three items are types of spending that re-circulate throughout the local economy. These last two categories of spending are considered "leakages" outside of the geographic region and reflect the notion that a region is not economically isolated, but engages in commerce with other regions. The larger and more diverse the geographic region, the less leakage there is, all else equal.

Using the above five scenarios, input-output tables are created that disaggregate an economy into industries and examine the flow of goods and services among them. Multipliers are then mathematically

derived which uniquely describe the change in output for each and every industry as a result of the injection of one dollar of direct impact into any of those industries. The process allows a separate multiplier to be applied for each of the 528 industry groups.

The size of a given economy's multiplier is directly related to its geographic size, population and diversity of its industrial and commercial base. A larger population is generally able to support a more diverse economic base and more products are likely to be manufactured and purchased locally. Therefore, money injected into an economy with a larger population is re-spent more often, causing greater changes in local business volume. Conversely, a smaller defined local geographic region implies that more event attendees are visitors, as described above. However, smaller geographic areas suffer from a greater degree of "leakage" because a smaller geographic region is less self-sufficient than a larger region.

In this Report, direct spending is used to estimate indirect spending by using multipliers from a regional economic impact model based on the USDA Forest Service IMPLAN (IMpact Analysis for PLANning), now supplied by MIG (Minnesota IMPLAN Group).[9] IMPLAN produces a report that provides multipliers for over 500 sectors of economic activity at the county, region, and state level, using data provided by the U.S. Bureau of Economic Analysis.

IMPLAN's Regional Economic Accounts and the Social Accounting Matrices are used to construct region-level multipliers that describe the response of the relevant regional economy to a change in demand or production as a result of the activities and expenditures related to the Valero Alamo Bowl. Each industry that produces goods or services generates demand for other goods and services and this demand is multiplied through a particular economy until it dissipates through "leakage" to economies outside the specified area. IMPLAN models discern and calculate leakage from local, regional, and state economic areas based on workforce configuration, the inputs required by specific types of businesses, and the availability of both inputs in the economic area.

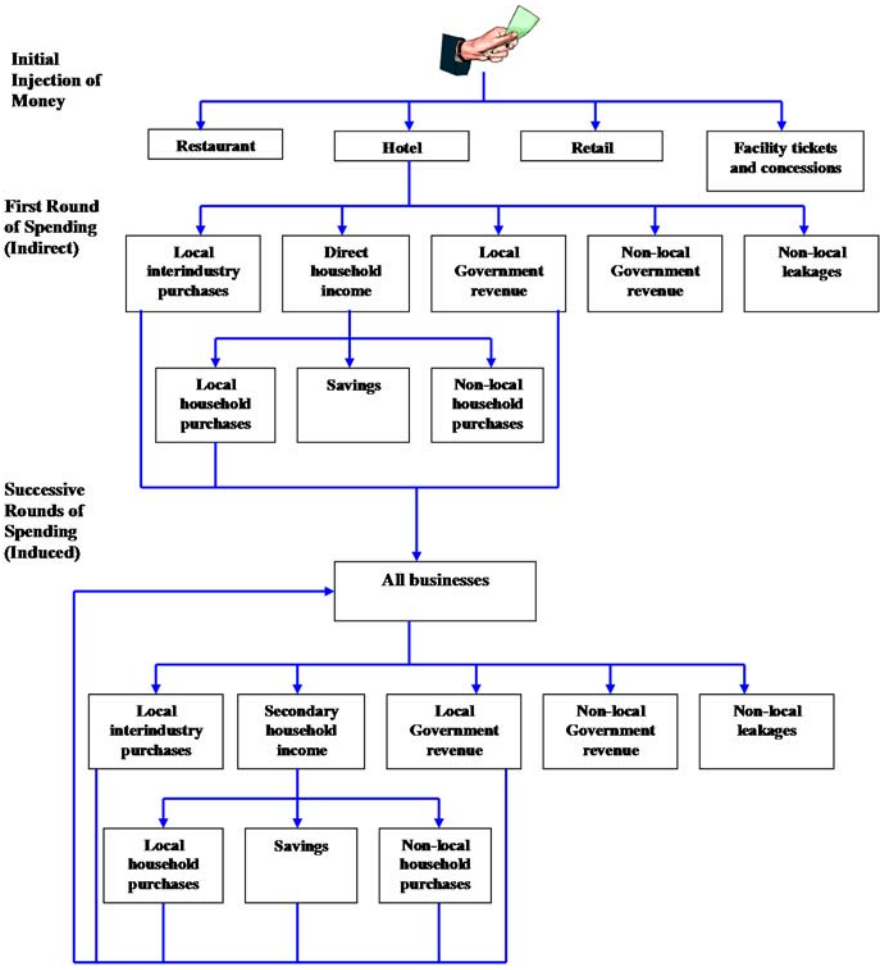
The following represents an example of multiplier effects within a locality. If a group of spectators from outside of the City visits San Antonio because of an event and spends $1,000 in the community, or if this money is spent by one of the exhibitors affiliated with the event that is headquartered outside of the City (e.g., ESPN), then this initial direct expenditure stimulates economic activity and creates additional business spending, employment, household income, and government revenue in the City. The initial spending (by the visitor or exhibitor) is called the *direct impact* and the ripple effect is termed the *multiplier effect*.[10]

[9] Once estimates of direct spending are calculated, these estimates are entered into IMPLAN to obtain the total economic impact estimates. IMPLAN is a statistical software package that helps to calculate the total economic impact of various phenomena by utilizing a detailed matrix of imbedded multipliers to calculate the various spin-off impacts that originate from an initial direct injection of non-local money into a given region. Specifically, IMPLAN generates the following gross economic impact estimates: the short-term impact upon local spending and the long-term impact upon value-added. This long-term impact is comprised of additional local income; additional business taxes; and additional property-type income.

[10] To be clear, the multiplier effect leads to the calculation of the indirect and induced impacts.

The local theatre, restaurants, retail stores, transportation, and others who receive the initial $1,000 will spend it in one of the five ways listed above. The remaining portion of the initial spending that does not leak out of the economy is then spent in one of the same five ways and the chain of events continues. The subsequent rounds of spending are termed *indirect impacts* and stem from the *multiplier effect*. Exhibit 2-1 shows the direct and indirect effects.

Exhibit 2-1



As illustrated, direct spending that occurs from spectators in the venue, spectators out of the venue, and for team/exhibitor-related activities fosters additional spending in various industries. This indirect spending results in increased economic activity, which increases household income levels and allows for additional household spending (the "income effect").

There are different types of multipliers and each has a specific purpose. *The multipliers are complementary, not additive*.

The first type of multiplier is called an *output*, sales, or transaction multiplier. It measures the direct, indirect, and induced effect of an extra unit of visitor spending on economic activity within a local economy. This multiplier relates tourism expenditure to the increase in business financial turnover that is created. There are 528 industries, each having its own multiplier. In the analysis that follows, the multipliers have been reduced to 39 aggregated industry sectors with the relevant tourism sectors analyzed.

The appropriate multipliers to be used are dependent upon certain regional characteristics and also the nature of the expenditure. We selected multipliers for the following industries, as these industries provide the best representation of initial spending associated with the operations of events the City may host: commercial sports, hotels, eating and drinking places, entertainment, retail trade, local transportation, and miscellaneous spending. Three different sets of multipliers are generated by IMPLAN corresponding to measures of regional economic activity, including: total sales, personal income, and jobs. Multipliers for total sales, personal income, and jobs were identified for each of the industries listed above.

An *earnings* (also known as an *income)* multiplier, the second type, measures the direct, indirect, and induced effects of an extra unit of visitor spending on the level of household income in the local economy. It is operationalized as the ratio of change in income to the initial autonomous change in expenditure that brings it about. It is the clearest indicator of the effect of economic impact on residents of the host community.

The third type of multiplier is called an *employment* multiplier. Employment multipliers measure the direct, indirect, and induced effects of an extra unit of visitor spending on employment in the local economy. It measures how many full-time equivalent (FTE) jobs are supported in the local economy as a result of visitor expenditures.

It is important to note that the size of the area of impact also affects the size of the multiplier. Larger areas of impact, such as a State, have larger multipliers given the larger region for the circulation of spending. Therefore, when looking at impacts to the City of San Antonio versus that to the State of Texas, the amount of indirect spending will be proportionally larger for the State given its larger multiplier size.

2.4 FISCAL IMPACT METHODOLOGY

In addition to economic impacts, the government of the City, County and the State benefit from the operations of these events in the form of tax revenues.[11] Further, the City, County, and State will also receive tax revenues due to the operation of the facility itself. Fiscal impacts are calculated by analyzing the marginal tax rates for each category in relation to direct impacts. Indirect impacts are measured by using recent historical aggregate average tax rates collected by the local government, accounting for the share that pertains to the tax categories listed below.

Fiscal information used in this analysis was obtained from the Office of Economic Development, Bureau of Economic Analysis, State GSP, the State Department of Finance, www.economy.com, and other governmental resources. The primary taxes affected by event-related expenditures include the City of San Antonio Sales and Use tax, Innkeepers (Hotel Occupancy) tax, and mixed beverage tax. The following is a brief discussion of these taxes.

Sales Tax

The City of San Antonio levies various sales taxes that total 2.00%. Specifically, "San Antonio's current sales tax rate is 8.250% and is distributed as follows: 1.000% City of San Antonio; 0.125% dedicated to the City of San Antonio Edwards Aquifer Protection and Parks Development and Expansion Venue Projects; 0.125% dedicated to the City of San Antonio Pre-K 4 SA initiative; 0.250% San Antonio ATD (Advanced Transportation District); 0.500% San Antonio MTA (Metropolitan Transit Authority)."[12]

The sales tax is applied to prepared food items, retail products, auto rental, gasoline, and business services, and not applied to local transportation services (taxi, bus, etc.), and admissions to amusement establishments (movie theaters, golf, football, baseball, etc.). It is applied to merchandise and concessions sold inside of an event that charges an admission fee. For events that do not charge an admission fee, it is applied to alcohol and merchandise sales, but not food sales.

Innkeepers (Hotel Occupancy) Tax

In addition to sales tax, the State of Texas levies a 6.0 percent Transit Occupancy Tax on hotel room sales. Additional taxes of 1.75 percent go to Bexar County, 9.0 percent goes to the City of San Antonio, totaling 16.75 percent of the gross receipts.[13]

[11] To reiterate, only fiscal impacts to the City and State are measured in this report. Fiscal impacts to the County are generated by these events and operations, but are not detailed in this report.

[12] The State receives 6.25 percent, making the total tax 8.250 percent. See http://www.sanantonio.gov/Finance/bfi/Tax-Rate-Summary.

[13] See http://www.sanantonio.gov/Finance/bfi/Tax-Rate-Summary. The fiscal estimates for the City are based upon the 9.0 percent the City retains; the State fiscal tax is based upon the entire 16.75 percent.

Title 5 Alcohol Beverage Code Tax

A tax on 100 percent of alcohol expenditures at 0.4 percent is used as an equivalent calculation for the Title 5 Alcohol Beverage Code tax consisting of taxes on first-sale of certain alcohols by volume.[14]

Mixed Beverage Tax:

The State of Texas levies a separate tax of 6.7 percent on the gross receipts of the amount received from the sale, preparation or service of mixed beverages, as well as an 8.25 percent mixed beverage sales tax, from which 1.5 percent is allocated to the County and another 1.5 percent is remitted to the City of San Antonio.[15]

Motor Vehicle Rental Tax

The City of San Antonio does not levy a rental car tax; however a tax of 5.0 percent of gross rental receipts is directed Bexar County and another 10.0 percent is directed to the State of Texas.

Other Taxes

In addition to the above major taxes affected by venue events noted above, the Counties and State may realize additional event-related tax revenues such as gasoline tax and others.

These taxes and corresponding tax rates provide the basis to calculate fiscal impact for the City of San Antonio from direct and indirect revenues as a result of event-operations. Indirect fiscal impact is based on the average (not marginal) taxes collected for each dollar spent within San Antonio due to this event.

[14] http://www.sao.state.tx.us/reports/main/10-010.pdf, http://www.texastrustfunds.com/5.html

[15] Effective January 1, 2014, the gross receipts tax was lowered to 6.7% and an 8.25% mixed beverage sales tax was added to the price of each mixed beverage sold. The mixed beverage tax is imposed on the person or organization holding the mixed beverage permit and not the customer. See https://www.comptroller.texas.gov/taxes/mixed-beverage/sales.php; https://www.comptroller.texas.gov/taxes/mixed-beverage/receipts.php.

3.0 MEASUREMENT OF ECONOMIC AND FISCAL IMPACT FROM THE 2016 VALERO ALAMO BOWL

The analysis described in this section is primarily based on the surveys administered before, during, and after the 2016 Valero Alamo Bowl in San Antonio. An intercept survey was administered to visitors and local residents in and around the Alamodome prior to and during the event (December 29, 2016). The preponderance of the surveys was filled out via direct interviews with respondents. A copy of this survey may be seen upon request. There were 405 usable surveys representing 925 people based on the size of each party represented in the survey responses. The measurement error in the results that follow is 3.2%.[16] Hence, the quantity of usable surveys is more than sufficient to estimate the actual economic impact. The economic impact measurements based on this survey are described in this section. Additionally, information on sponsor spending, team spending, and media spending came from the Valero Alamo Bowl staff, event hotel staff, and staff from teams involved in the game. Other analyses of the attending population, such as demographics, are contained in Section 4.0.

As noted, an important component of direct spending includes fan expenditures outside event venues at local establishments such as restaurants, retail shops and other such places. Survey respondents were asked their location of residence, reason for their visit, and about the level and types of activities for which they spend their money in order to develop an estimate regarding the level of fan spending before and after events. As discussed previously, economic impact is generated only when "new" money is injected into the local economy. In other words, only the spending that would not have occurred was it not for the events the City hosted is considered economic impact. To quantify this amount, spending was only included for attendees who met three conditions:

- Attendees must live outside the City of San Antonio in order to generate "new" spending for the City;
- Attending the event must have been the primary purpose for traveling to the area; and
- Attending the event must not replace a future visit to the City of San Antonio.

As described in Section 2.0, the economic impact of the event is derived from new spending in the local region, mostly due to from visitors to the community. Corporate and team expenditures related to the event also provide economic impact. These sources of revenue are new to the community and do not come from local residents, but from those outside of the community.[17] Impacts are in the form of total output, earnings, and employment and begin with direct spending, followed by indirect and fiscal impacts.

Finally, the operations of these events also generate spending within the area of impact. The expenditures by event organizers that are captured within the City are included in the total economic impact. Impacts are

[16] The measurement error is defined at the 95 percent confidence level.

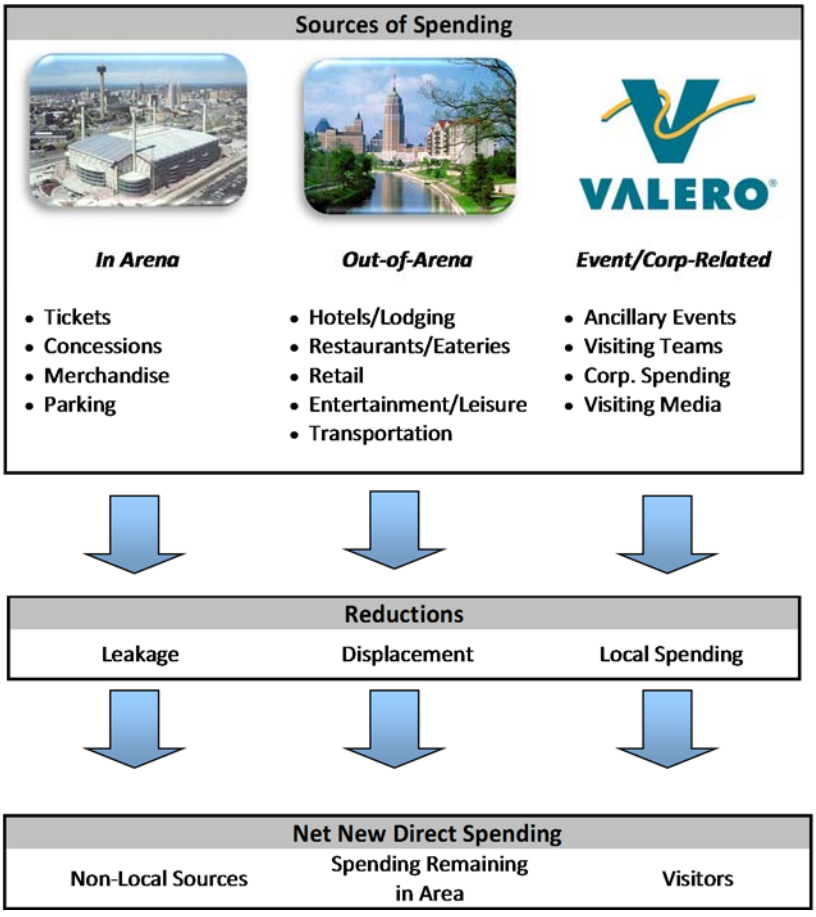
[17] Spending by local residents due to the events was measured for all event types, but to be conservative this spending is excluded from the impact figures given for the events.

in the form of total output, earnings, and employment and begin with direct spending, followed by indirect and fiscal impacts.

3.1 DIRECT AND INDIRECT SPENDING

Organizational spending and visitor spending at local restaurants, retail stores, and other relevant establishments constitute the direct impacts in this Report. Exhibit 3-1 shows the sources of direct operations impact and various adjustments made to account for re-directed spending, as opposed to new spending, and leakages outside of the area of impact.

Exhibit 3-1



For each of the main participant groups under analysis (incremental visitors, non-incremental visitors, and local residents), we have per day, per group data on how much they spent on lodging, transportation, dining, event-related merchandise, retail, and miscellaneous items.

Each set of sample data is extrapolated up to its corresponding population in order to obtain direct spending estimates for each of the primary spending categories listed above. The amount of incremental visitor spending is calculated by determining the total number of incremental visitors in the population (not local residents, time-switchers or casual visitors), and then taking a weighted average of those individuals' spending, per person, per day. From this, we can determine the proportions of spending that were allocated to each of the spending categories, such as lodging, transportation, dining, etc. These relative proportional spending figures can be used to extrapolate the amount of spending that occurred in each of these spending categories during the events being measured.[18]

3.2 DIRECT AND INDIRECT SPENDING: CITY OF SAN ANTONIO

The 2016 Valero Alamo Bowl was a post-season game held on December 29, 2016 at the Alamodome in San Antonio. The game was telecast on ESPN and featured 10th-ranked University of Colorado (Pac-12) and 12th-ranked Oklahoma State University (Big 12).

Visitor Survey. Of the spectators represented by the surveys administered during the game, 21 percent were local residents of the City of San Antonio and 27 percent were residents of Bexar County.

The average size of the paying party represented in each survey is 2.3 for incremental visitors and 1.3 for local residents.[19] As shown in Exhibit 3-2 below, the average number of days that each incremental visitor stayed in the City was 2.9 days; non-incremental visitors stayed an average of 2.3 days. The typical incremental visitor spent $211 per day, not including event-specific spending inside of the Alamodome, leading to $611 in spending for the entire trip to San Antonio.

The number of visitors who came to San Antonio and participated in the Valero Alamo Bowl activities was approximately 59,815. Of these visitors, about 7 percent were "time-switchers", meaning that they would have come to San Antonio during some other nearby time period, but instead chose to come during the Valero Alamo Bowl. Similarly, 5 percent were "casual" visitors. These visitors were in town for other reasons, but chose to take part in bowl-related activities as part of their stay. To be conservative, expenditures by "time-switchers" and "casual" visitors are not included in the economic impact calculations because at least some of this spending would have occurred in San Antonio anyway. An additional 5,150 persons traveled with an incremental visiting party, paying respondent but did not attend the game.[20] Moreover, nearly 355 persons were estimated to be athletes, staff, sponsors or officials, and 905 were

[18] This calculation is slightly modified for hotel expenditures since not all non-local groups stayed in a hotel. The modification is that the calculation is weighted to account for the number of parties that, separately, used a local hotel.

[19] The size of the party, as described in the survey, relates to the number of persons in their party that the survey respondent traveled with to attend the Valero Alamo Bowl.

[20] Question 4 asked the respondent to state the total number of people in the visiting party being paid for, including their self, who attended the bowl game. There were an additional 9.8 percent of the incremental visiting population who came to San Antonio with a party that attended the game, but did not go to the game. Non-incremental visitors were deducted.

either visiting media or from a participating high school band.[21] Accounting for these individuals after subtracting non-incremental visitors brings the number of visitors to San Antonio for which expenditures are counted to 46,820 (hereafter referred to as "incremental" or "relevant" visitors).

It is believed that not all residents of the City of San Antonio would have attended another in-State event instead to make their spending "displaced". For those individuals who indicated they would have traveled outside of the State to attend the event, it can be argued that these individuals are residents whose spending is incremental.[22] In total, 23 percent of City resident respondents and 27 percent of Texas residents indicated a willingness to attend the event if it were hosted outside of Texas.[23] Accounting for these local residents in the economic impact brings the total number of incremental visitors that count towards economic impact to 49,620 (column (b) in Ex. 3-2).[24] This represents an increase of 6 percent over the estimates of incremental visitors only.

Based on these findings from the survey analysis, the total direct expenditures by incremental visitors to the City are $28.6 million outside of the Alamodome.[25] If also accounting for incremental local spending, this figure would increase to $30.3 million.

[21] The estimates were approximated by the event host. Using the Events Trust Fund methodology, the measures for economic impact should include all attending athletes, officials, media, sponsors, and staff and *not* deduct those who are State residents or non-incremental visitors.

[22] See Cobb, S., & Olberding, D. J. (2007). "The importance of import substitution in marathon economic impact analysis," *International Journal of Sport Finance*, 2, 108-118.

[23] This was measured by *Q7: "If this Bowl Game were held outside of the State of Texas, would you have attended?"* Residents of San Antonio and the State of Texas were counted separately. Those residents who indicated they would attend the event if hosted outside of Texas were counted as incremental locals.

[24] This excludes expenditures by "time-switchers" and "casual" visitors.

[25] This does not include lodging expenditures for teams, bands, sponsors and corporations or university affiliates. These figures are separately reported in the Non-Spectator Spending estimates.

Exhibit 3-2

2016 Valero Alamo Bowl Findings: Direct Spending in San Antonio

Category	(a) Base Case Visitor Impact	(b) Alternate Case Visitor and Incremental Local Impact[1]
Total Attendance	59,815	59,815
Number of Unique Attendees (individual people attending event)	59,815	59,815
Local Residents (not Visitors, from within San Antonio)	13,720	10,521
Incremental Local Residents from within San Antonio	0	3,199
Number of "Incremental" Visitors that did not attend Alamo Bowl[2]	5,150	5,150
Number of Attending Athletes, Coaches and Staff[3]	1,260	1,260
Number of "Incremental" Visitors: Count Towards Economic Impact[4]	**46,820**	**49,620**
Average Expenditure Estimates		
Spending by City Residents		
Average Number of Days Stayed Per City Resident	1.3	1.3
Average Daily Expenditure Per City Resident Outside of Alamodome	$128	$128
Average Expenditure Per Trip Per City Resident Outside of Alamodome	$165	$165
Total Direct Spending of Locals Outside of Alamodome[5]	**$2,263,180**	**$1,735,430**
Visitor Spending		
Average Number of Days Stayed Per "Incremental" Visitor	2.9	2.9
Average Daily Expenditure Per "Incremental" Visitor Outside of Alamodome	$211	$211
Average Expenditure for Entire Trip Per "Incremental" Visitor Outside of Alamodome	$611	$611
Total Direct Spending of "Incremental" Visitors Outside of Alamodome[2]	**$28,627,470**	**$30,342,340**

[1] Accounts for the 23 percent of San Antonio residents that would be likely to travel outside of the State if the event were not hosted in Texas. Spending per person and per trip represent the weighted average of the total visitors.

[2] Question 4 asked the respondent to state the total number of people in the visiting party being paid for which attended the Valero Alamo Bowl. In addition to the party attending the game (2.3 persons) there were an additional 0.2 incremental visitors (10 percent of the incremental visiting population) that should be included in the spending outside of the facility.

[3] As per Event Trust Fund guidelines, Athletes, Coaches and Team Staff were all considered to be incremental visitors.

[4] Incremental visitors, or those in town for the primary purpose of attending the Valero Alamo Bowl are used in the economic impact analysis. Spending by "time-switchers", and "casual" visitors was not included. These non-incremental visitors accounted for 12 percent of the visiting population.

[5] Spending by local residents is calculated for informational purposes only, and is not included in the direct spending economic impact calculations.

It is important to note that even though the attendance fell versus the prior year, the out-of-state attendance was much higher for this game given neither team was in-state and last year one of the teams was in close proximity.[26] Having a higher number of out-of-state visitors impacted the visitor spending, which grew as did the duration of the trip compared to the previous Valero Alamo Bowl. These factors offset the lower game attendance (7 percent higher in the January 2016 game versus the December 2016 game). These comparisons are shown in Exhibit 3-3.

[26] Texas Christian University is approximately 230 miles from the Alamodome. Texas Christian University played in the prior Valero Alamo Bowl, which did not impact the economic benefit to the City, but significantly diminished the economic benefit to the State. The number of in-state residents was a third lower than the previous Valero Alamo Bowl. See Irwin, D., and Rascher, D. (2016). "Economic Impact of the 2016 Valero Alamo Bowl on the City of San Antonio." (Please note that there were two Valero Alamo Bowl games played during 2016, one during January 2016 and one during December 2016.)

Exhibit 3-3

Economic Impact of 2016 Valero Alamo Bowl Game

	Base Case			Alternate Case: With Incremental Residents[1]		
	2016	2015	2014	2016	2015	2014
Number of "Incremental" Visitors	46,820	51,990	49,580	49,620	55,150	50,380
Incremental Visitor Spending Outside of the Alamodome[2]						
Average Stay Per "Incremental" Visitor	2.9	2.7	2.5	2.9	2.7	2.5
Average Daily Expenditure	$211	$176	$199	$211	$176	$199
Average Expenditure for Entire Trip	$611	$483	$503	$611	$480	$503
Total Direct Spending by Spectators	$28,627,470	$24,942,340	$24,914,540	$30,342,340	$26,610,110	$25,317,710

[1] Accounts for the City residents that would be likely to travel outside of the State if the event were not hosted in Texas. Spending per person and per trip represent the weighted average of the total visitors.

[2] Incremental visitors, or those in town for the primary purpose of attending the Valero Alamo Bowl are used in the economic impact analysis. Spending by "time-switchers", and "casual" visitors was not included. Only spending outside of Alamodome is counted in this analysis.

Overall, spending per capita grew 20 percent, and, coupled with a longer duration of stay, total expenditures per trip grew 25 percent compared to the event last year. Thus, despite having the lowest total attendance in five years, the direct spending grew by 15 percent compared to the previous two years' studies.

Incremental spending by corporations, teams and other groups that resulted from the event should also be included in addition to spectator spending. As shown in Exhibit 3-4, total business spending used in this measurement of economic impact is nearly $2.2 million.[27]

[27] Figures for Team, Corporate and Organizer spending provided are from the January 2016 Valero Alamo Bowl study. A 2 percent growth rate was applied to all expenditures except the High School Band, which dropped relative to the drop in participation.

Exhibit 3-4

Non-Spectator Expenditures by Organizations Affiliated with the Event	
Institution/Team Expenditures[1]	$1,026,795
Media Expenditures[2]	$228,149
Corporate/Sponsor Expenditures[3]	$334,536
Event Organizer Expenditures[4]	$639,419
High School Band Expenditures[5]	$42,264
Total	**$2,271,162**

[1] Team Spending based on information from the event organizer, the facility, and from organizations related to the participating universities. This estimate includes spending by both teams for their lodging, catering, events, Winter Meetings and local transportation (cars and buses).

[2] Estimates include ESPN truck power and parking. Additional costs for lodging, production costs, hiring of additional staff, and broadcast expenditures were not provided, but should be included.

[3] Estimates include corporate and sponsor spending at the event based on estimates provided by event organizers and sponsors. This includes expenditures on lodging, ancillary events such as hosting corporate and pregame parties.

[4] Estimates provided by event organizers and is based on incremental spending on operational expenses that is not reflected in the other data and that would not have otherwise incurred if not hosting the game, including extra game staffing, printing/signage, and ancillary event spending such as catering and evening events.

[5] Accounts for expenditures by High School bands to rent and cater an event at the Convention Center. Estimates adjusted from 2015 study given lower high school band participation (850 persons).

A measure of direct visitor spending in each category is shown below in Exhibit 3-5. Given that it is unclear to what extent spending within the Alamodome goes to the City of San Antonio, this spending is not included in the calculations. The total new incremental direct spending in the City of San Antonio due to the 2016 Valero Alamo Bowl is nearly $30.3 million. This figure increases by $1.7 million in the Alternate Case (see column (b) in Ex. 3-5).

New incremental indirect spending is about $19.9 million. Total economic impact, in terms of output, is about $50.1 million on the City of San Antonio because of the 2016 Valero Alamo Bowl and related activities, nearly flat from the prior Valero Alamo Bowl.[28] In the Alternate Case, total economic impact was $53.0 million. All measurements account for incremental visitor spending, not local resident spending that is above and beyond what they would have spent if not for these events taking place in San Antonio.

[28] Significant increases in spending on lodging offset declines in spending on entertainment, transportation and food.

Exhibit 3-5

Economic Impact of 2016 Valero Alamo Bowl on the City of San Antonio - Output		
	(a)	(b)
	Base Case	Alternate Case
Projected Direct Spending [1]	Visitor Impact	Visitor and Incremental Local Impact[2]
Transportation	$2,402,410	$2,546,320
Rental Car	$495,160	$524,820
Retail	$4,232,730	$4,486,290
Lodging	$6,917,480	$7,331,860
Entertainment	$2,461,380	$2,608,820
Mixed Beverage	$1,794,380	$1,901,860
Beer & Wine	$1,344,980	$1,425,540
Food & Beverage	$6,856,990	$7,267,750
Miscellaneous	$2,121,960	$2,249,070
Total Relevant Visitor Spending Outside of Event	$28,627,470	$30,342,330
Business Spending	$1,631,740	$1,631,740
Total Direct Spending (Outside of Event)	$30,259,210	$31,974,070
Indirect Spending (+ Organizer Spending)	$19,888,700	$20,992,450
Total Economic Impact	**$50,147,910**	**$52,966,520**

[1] Does not include impacts from spending within Alamodome.

[2] Accounts for the 23 percent of San Antonio residents that would be likely to travel outside of the State if the event were not hosted in Texas.

[3] Business spending includes all incremental spending by non-local corporations, media, and by the teams. This does not include spending by event organizers, which is accounted for separately in the Indirect Spending. See Methodology section for details.

Impacts to the State of Texas[29]

The number of incremental visitors who came to Texas and participated in the Valero Alamo Bowl activities was approximately 27,060. In addition, approximately 27 percent of Texas residents indicated a willingness to attend the event if it were hosted outside of Texas.[30] Accounting for these in-State residents in the Alternate Case brings the total number of incremental visitors to 29,435.[31] This represents an increase of 9 percent over the estimates of incremental visitors only.

The average number of days that each incremental visitor stayed in the City was 3.2 days. The typical incremental visitor spent $241 per day, not including event-specific spending inside of the Alamodome, leading to $767 in spending for the entire trip to San Antonio. This amounts to $20.8 million in direct spending. Accounting for spending by businesses and indirect spending brings the total economic impact on the State of Texas, in terms of output, to $40.1 million. This figure grows to $43.5 million In the Alternate Case.

[29] These statistics are stated for informational purposes only, and are not included in the calculations of economic impact.

[30] This was measured by *Q7: "If this Bowl Game were held outside of the State of Texas, would you have attended?"* Residents of San Antonio and the State of Texas were counted separately. Those residents who indicated they would attend the event if hosted outside of Texas were counted as incremental locals.

[31] This excludes expenditures by "time-switchers" and "casual" visitors.

***Spending by Local Residents*[32]**

An estimate of direct spending from non-incremental visitors outside of the Alamodome because of the events is about $1.8 million. Spending by residents of the City of San Antonio outside of the facility would result in an impact of nearly $2.2 million. On average, spending by these groups was approximately 40 percent lower (per capita) than incremental visitors.

Estimates of spending inside of the facility were also calculated. Each incremental spectator spent an additional $66.5 inside of the Alamodome on concessions and merchandise.[33] Local and non-incremental attendees spent about 23 percent less per capita inside the facility than incremental visitors.

3.3 INDUCED SPENDING: CITY OF SAN ANTONIO

Induced economic impacts on San Antonio are shown in Exhibit 3-6. Personal earnings in San Antonio total nearly $17.8 million, and approximately 570 full-time equivalent jobs are generated from the direct and indirect spending.[34]

Exhibit 3-6

Impact of 2016 Valero Alamo Bowl on San Antonio-Earnings & Employment

	(a) Base Case	(b) Alternate Case Visitor and Incremental
Type of Impact[1]	Visitor Impact	Local Impact[2]
Earnings	$17,841,290	$18,860,630
Employment	570	600

[1] Does not include impacts from spending within Alamodome.

[2] Accounts for the 23 percent of San Antonio residents that would be likely to travel outside of the State if the event were not hosted in Texas.

3.4 FISCAL/TAX IMPACTS

The new incremental direct tax impact of the 2016 Valero Alamo Bowl on the City of San Antonio and the State of Texas is based on the various tax rates described in Section 2.4. Information sources for these calculations came from documents and discussions with the Office of the Texas Comptroller, City of San Antonio, other economic impact studies, City of San Antonio forecasts, the local convention and visitor's

[32] These statistics are stated for informational purposes only, and are not included in the calculations of economic impact.

[33] This excludes ticket costs. Survey estimates show an average of $142 per capita on ticket expenditures by incremental visitors.

[34] Total jobs fell slightly compared to the prior game given the sectors with the biggest declines had the highest employment multipliers.

bureau, and reports on the economic outlook of Bexar County and the City of San Antonio. The figures stated here include the tax benefit to the City of San Antonio, to Bexar County, and to the State of Texas for the relevant spending categories listed.

The fiscal implications of economic impact are often complex. For the purposes of this Report, tax effects relevant to the Events Trust Fund (Texas Civil Statutes, Title 83, Article 5190.6) will be investigated. In particular, these include the Sales and Use, Mixed Beverage, Hotel Occupancy, and Rental Car taxes for the City of San Antonio, Bexar County, and the State of Texas. To be clear, total tax impacts will not be analyzed, only those that pertain to the Events Trust Fund, and only new incremental impacts.[35]

Exhibit 3-7 shows the various local and statewide taxes relevant for this analysis. Though other fiscal impacts were generated as a result of this spending only the five tax categories detailed below are measured in this report.

Exhibit 3-7

Tax Rates Used to Estimate the Fiscal Impact of the 2016 Valero Alamo Bowl

Tax Category	City	County	State
Sales and Use	2.00%	0.00%	6.25%
Hotel Occupancy	9.00%	1.75%	6.00%
Rental Car	0.00%	5.00%	10.00%
Alcoholic Beverage (Title 5 ABC State Tax)	0.00%	0.00%	0.40%
Mixed Beverage	1.50%	1.50%	6.70%
Beer & Wine	0.00%	0.00%	8.25%

As Exhibit 3-8 shows, the total new incremental tax impact measurement for the 2016 Valero Alamo Bowl is $1.5 million on the City of San Antonio, $0.3 million on Bexar County, and $1.9 million on the State of Texas because of the game and related activities.[36] Overall, the total fiscal impact is $3.7 million.[37] In the Alternate Case, total fiscal impact increases by nearly $0.2 million, driven by growth in the state impacts due to incremental visitors.

[35] It is important to note that the State Fiscal impacts reported here differ from that in the Event Trust Fund Report. This is because the fiscal impacts stated here are based on spending by incremental visitors to San Antonio, whereas the Event Trust Fund analysis is based on incremental visitors to Texas.

[36] Fiscal impacts reported differ from the Event Trust Analysis as the basis of this report is spending by Incremental visitors to San Antonio, and the Event Trust Analysis focuses on incremental visitors to the State.

[37] These fiscal impacts do not include the costs related to facility rental, for which a facility tax may have been captured.

Exhibit 3-8

Projected Net New Incremental Tax Impacts from Direct Spending of 2016 Valero Alamo Bowl

Tax Category	Base Case: Without City Residents			Alternate Case: With Incremental City Residents[1]		
	City	County	State	City	County	State
Sales and Use[2]	$221,790	$0	$696,833	$235,080	$0	$736,000
Hotel Occupancy[3]	$622,570	$121,060	$26,808	$659,870	$128,310	$28,320
Rental Car[4]	$0	$24,760	$0	$0	$26,240	$0
Alcoholic Beverage (Title 5 ABC State Tax)[5]	$0	$0	$172,476	$0	$0	$182,170
Mixed Beverage Tax[6]	$26,920	$26,920	$78,058	$28,530	$28,530	$82,450
Direct Fiscal Impact	$871,280	$172,740	$974,175	$923,480	$183,080	$1,028,940
Indirect Fiscal Impact (Incl. Business Spend)	$636,810	$126,250	$891,010	$674,960	$133,810	$940,460
Total Tax Increment	$1,508,090	$298,990	$1,865,185	$1,598,440	$316,890	$1,969,400

[1] Accounts for the 23% of City residents that would be likely to travel outside of the State if the event were not hosted in Texas.

[2] Does not include impacts from spending inside of event areas. Includes taxable impacts from business spending (excluding spending by the event organizer).

[3] Hotel Tax (Tax Code, Ch.156). Includes taxes collected on lodging expenditures by spectators, visiting athletes, officials, and corporations. Non-spectator expenditures on lodging provided by the event organizers.

[4] Motor Vehicle Rental (Tax Code, Ch.152). Includes rental car taxes for all rental car expenditures by Incremental visitors.

[5] Title 5 Alcoholic Bev. Code

[6] Mixed Beverage (Tax Code, Ch.183).

4.0 OTHER FINDINGS FROM THE SURVEY ANALYSIS

Attendance estimates were provided by the event organizer. The survey was utilized to partition each attendee type by day based on their responses to questions asking them to classify their affiliation with the event and the days they were in the City for the purpose of attending the event.[38] Out of State Family and Friends were calculated utilizing the zip codes to portion each attendee type into visitors and locals to the State of Texas.[39] See Exhibit 4-1 for detailed break-outs of attendance by attendee type per day.[40]

Exhibit 4-1

Estimated Athlete, Coach, Fan and Other Attendance
University of Colorado vs. Oklahoma State University
Alamodome, San Antonio, Texas

Day	Date	Fan/Spectator	Participating Athlete/Coach /Staff	OOS HS Band Block	Event Staff/Official	Media	Sponsor	OOS Family, Fans	OOS Family, Fans, Media and Sponsors + All Athletes
Tuesday	27-Dec	2,883	150	0	290	0	20	1,830	2,120
Wednesday	28-Dec	39,540	300	638	10	41	23	24,220	25,190
Thursday	**29-Dec**	65,693	**300**	**850**	30	**55**	**30**	29,430	**30,630**
Friday	30-Dec	53,131	300	638	20	55	15	27,960	28,940
Saturday	31-Dec	12,150	150	319	10	14	8	7,850	8,330
Sunday	1-Jan	4,737	0	159	0	0	0	3,670	3,830
Monday	2-Jan	2,471	0	0	0	0	0	2,050	2,050
	Total Attendees	**65,693**	**300**	**850**	**25**	55	**30**	**29,430**	**30,630**

Of the survey respondents, 84 percent were visitors to the City of San Antonio. Approximately 27 percent of the sample were residents of Bexar County, and 55 percent were residents of the State of Texas. Of those visiting from other states, the highest percentage of attendees traveled from Colorado (17 percent), followed by Oklahoma (15 percent).

The lower number of in-state visitors compared to the previous Alamo Bowl is also reflected by those who indicated support for a team. Approximately 20 percent indicated that they attended the 2016 Valero Alamo Bowl but did not support a particular team. Nearly 39 percent said they supported University of Colorado and 42 percent said that they supported Oklahoma State University. Not surprisingly, the majority (91 percent) of those not supporting a team were in-State residents. Nearly two-thirds of Colorado fans were from out of state, compared to 45 percent of Oklahoma State University fans travelling

[38] *Q4: "For each person in your party referenced in Item #3, please select the response which best indicates their affiliation with the event."* Options included: Fan/Spectator, Participating Athlete/Coach/Staff, Event Staff/Official, Media, and Sponsor. Additional headcount on athletes, coaches, and those participating in the High School Band Block were provided by the event organizers.
Q17: "What day did you arrive in San Antonio?"
Q18: "What day did you depart San Antonio?"

[39] This was determined by referencing all zip codes provided in Q3 that are located in the State. The respondent sample is based on the number of surveys administered during the event, multiplied by the number of persons in the respondent's traveling party. As noted, these figures include non-incremental visitors to the State of Texas.

[40] For consistency, the same figures are used as that in the Event Trust Analysis, which reflects visitors from out-of-state and does not deduct non-incremental visitors.

from outside of Texas. Overall, Colorado fans spent nearly 20 percent more per trip than fans of Oklahoma State.[41]

Nearly 19 percent of attendees indicated they were day trippers. Exhibit 4-2 shows the total number of visitors by the duration of nights spent in Texas while attending the 2016 Valero Alamo Bowl.[42] The average number of days that each incremental visitor stayed in the City was 2.9 days; non-incremental visitors spent an average of 2.1 days. Visitors to the state stayed 3.2 days.

Exhibit 4-2

Duration of Stay by Visiting Attendee

Duration of Stay	Attendee
Number of Day Trippers	10,098
Number Staying One Night	8,958
Number Staying Two Nights	23,465
Number Staying Three Nights	6,190
Number Staying Four Nights	1,470
Number Staying Five Nights	1,790
Number Staying Six Nights or More	0
Total Visitors	**51,970**

Of those visitors who lodged overnight, 24 percent indicated they did not utilize hotel rooms for their party. Of those booking a hotel, they booked an average of 1.2 rooms per night for their average party of 2.3 persons. These visiting fans listed an average hotel rate of approximately $161 per night for each of the 2.1 nights they stayed in the City.[43] This equates to an average expenditure of $85 per person per night.[44] Utilizing the duration of stay for overnight visitors, the total number of visitors to San Antonio, the percent utilizing a hotel during their visit, and the size of the party per room leads to a total of 48,003 room nights booked because of the 2016 Valero Alamo Bowl.[45] Of those who stayed in a hotel, 91 percent indicated that they stayed in a hotel that was located in the City of San Antonio.[46]

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[41] Colorado fans spent $229 per day for an average of 2.8 days in San Antonio, leading to an average spend per trip of $649 per incremental visitor. This compared to Oklahoma State fans, who spent an average of $202 per day for 2.7 days ($541 per trip).

[42] These figures do not deduct for those who did not lodge in hotels but lodged overnight, nor does it exclude non-incremental visitors.

[43] Respondents were asked in Q8 to indicate their type of lodging and the number of rooms per night they were using for their travelling party. The paid room rate per night is calculated for those fans who indicated spending more than $0 on Lodging in Q8b, and who selected they lodged in a Hotel/Motel in Q8. The party per room was calculated using the paying party in Q3 and dividing by the number of rooms per night they indicated using for their party in Q8b.

[44] This was calculated by examining spending on Lodging in Q8b for those who selected they lodged in a Hotel/Motel and multiplying by the number of rooms per night they indicated using for their party in Q8, and dividing by their party per room. The allocation by day utilized the lodging nights implied via Q17/18 and the allocation by attendee type was based on Q5.

[45] This includes the rooms booked by all teams, media and VIPs (including those who are Texas residents). This calculation also includes all out of City visitors and does not exclude those who are not incremental visitors. This is different than that reported in the Event Trust analysis, which measures visitors from out of state

[46] This was captured via Q9. For the City of San Antonio impact calculations, only lodging expenditures at hotels located in the City of San Antonio was counted towards economic impact.

As expected, the event was primarily attended by incremental spectators, with 92 percent of visiting respondents choosing to travel to San Antonio for the purpose of attending the event, with the remainder in town for Business, Pleasure/Vacation or another reason and included the event as part of their activities. Nearly half of out-of-state visitors and a 4 percent of Texas residents indicated that this was their first trip to San Antonio.

Approximately 12 percent of visitors indicated they rented a car during their visit. Those who rented a car spent $57 per day on the rental car for their party.[47] The average transportation cost within the city (e.g., gas, parking) for out-of-city visitor groups was $18 per capita (excluding costs of car rental).

Nearly 44 percent indicated travelling to the city by airplane. Of those, 24 percent indicated that their flight was a direct flight.

The majority of attendees purchased their tickets through their University. Nearly 14 percent indicated purchasing through the University of Colorado, and another 24 percent purchased directly through the Oklahoma State University.[48] The remainder purchased through Alamodome Box Office (24 percent), Valero Alamo Bowl (8 percent), Ticketmaster (10 percent), a Secondary Seller (5 percent) or "Other" source (21 percent). For those providing open-ended responses for Secondary Seller or "Other", the most common responses were StubHub and through a friend.

The average attendee was 42 years old, with a sizeable portion of attendees between the ages of 40 and 55 (44 percent) and 15 percent above age 55.[49]

The event also drew a higher income attendee, with an average stated household income of $111,000.[50] Nearly the same portion of attendees earned less than $75,000 per year (36 percent) as those who earned more than $120,000 in income (37 percent).

The majority of attendees were educated: 61 percent) indicated they had a college or technical school degree, and another 21 percent indicated having an advanced college degree.[51]

[47] This is equivalent to $25 per day per capita for parties renting a car.
[48] This was measured through Q10 of the survey.
[49] This was measured through Q11 of the survey.
[50] This was measured through Q13 of the survey. The average is calculated by taking a weighted average of responses.
[51] This was measured through Q12 of the survey.

5.0 LIMITATIONS OF THE STUDY

This portion of the Report provides a brief analysis of the limitations of the study. There are a number of areas where the authors were conservative in the analysis, and a few areas where the authors were liberal. The overall goal was to come up with a proper, but conservative, estimate of economic impact related to the 2016 Valero Alamo Bowl.

5.1 LIMITATIONS THAT MAKE THE ESTIMATE AN UNDERESTIMATE OF TRUE ECONOMIC IMPACT

Expenditures by the media on local businesses to produce their coverage of the Valero Alamo Bowl are not accounted for in this Report. Also, any business expenditures above what were reported are not counted in the measurement of economic impact, but they should be.

As with all survey analysis, the treatment of blank responses to certain questions can affect the final results. In the Visitor Survey, there were blanks on some of the spending categories. Treating them as zero lowers the overall estimate economic impact. Treating them as the average of other responses on the same question creates an unbiased estimate (unless the respondent meant for the answer to be zero, but left it blank). In this Report, blank responses were only treated as zero if the categories were left blank but other spending categories were completed. This method results in a lower measure of economic impact than if any of those categories were treated as not being equal to zero.

Similarly, event-related spending was accounted for as if the respondents' answers on that question were the total spending at event-related sites (not the daily spending as the question indirectly states).

As described in Section 2.0, it is properly conservative to count spending by local residents and by "casual" visitors and "time-switchers" as not counting towards economic impact because it is assumed that their spending would have occurred even without the event having taken place. Where possible, estimates of incremental spending by these parties were generated, but are not stated in the economic impact figures.

Only fiscal impacts related to the tax categories detailed in Section 2.4 are calculated in this Report. There are other types of taxes and fees that are not included in this measurement of tax revenues generated by the City, County, and State.

One shortcoming of standard economic impact analysis is that most measurements only account for the current new spending because of an event, team, etc., but ignore the possibility that an event might cause an increase in the number of future visitors to the community.[52] These future visits should at least partially be attributed to the 2016 Valero Alamo Bowl economic impact, yet the impacts of the future visits are not

[52] For instance, the 2004 NCAA Men's Final Four basketball tournament economic impact analysis reported that approximately 20 percent of visitors said that coming to San Antonio for the Final Four would make them come some other time during the future.

part of the measurement in this Report. Another way in which this occurs is through the media coverage of an event.

Communities which support sporting and cultural events are believed to derive significant benefit from the national and international focus and media attention created by such events. During televised events, for instance, the announcers mention the name of the City, often increasing awareness about it. Additionally, television viewers saw many images of people enjoying themselves in City, creating an enhanced image of the area. The City is exposed to millions of people through appearances in many media forums such as newspapers, radio, and the Internet. The benefits derived are similar to those of companies who advertise their company name as opposed to a specific product. The advertising or media attention creates "awareness" and "goodwill" toward that company, or in this case, the City. Increased awareness is translated into economic benefits in subtle, but meaningful ways. It is extremely difficult to measure the translation of media coverage into actual new visitor expenditures. This media impact is not part of the economic impact measured in Section 3.0.

One role of government is to aid in the provision of cultural, civic, and entertainment goods and services that residents enjoy, but that no private firm is willing to provide because the goods or services are “public goods”.[53] Major sports and cultural events add to the quality of life in a region in a manner similar to that of zoos, museums, aquariums, parks, arts institutions, and other public goods, but in significantly different ways. Cultural events of all types provide an entertainment option for some, especially those who value attending or viewing the events. Moreover, many of these events may be perceived by local residents as helping to portray San Antonio as a cosmopolitan, ‘major-league’ city.

Psychic Impact

Psychic impact is the emotional impact that is generated by hosting significant regional, national or international events. Cultural events often are part of the fabric of a community. They add to civic pride and increase community spirit. Emotional benefits that are received by members of a community who are not directly involved with managing an event, but who still strongly identify with the event, are part of the overall psychic impact. Sports or other cultural events are often a common connection that provides entertainment and conversation at the office or in the neighborhood, for instance. Most other industries do not provide the same degree of emotional impact.

As an example, when Atlanta was awarded the 1996 Summer Olympics, locals were moved by the announcement. Many people cried with joy. They felt that Atlanta had now proved itself as a “real” international city. Newspaper reports described the city as a sea of honking horns and cheers as people were swept up with jubilation. If it were possible to quantify in financial terms the collective emotional

[53] Much of the value of psychic impact is a “public good” meaning that its consumption is non-excludable and non-rival. In general, public goods are funded by governments in the appropriate jurisdiction (e.g., parks, national defense). Because these benefits derive from externalities, no private investor could hope to capture enough of the benefits to justify privately financed construction.

upswing of Atlantans, what would it have been? The new psychic impact techniques focus on measuring this value. Proper decision-making on how the public should invest its tax dollars requires knowledge of economic impact *plus* psychic and image impact.

A more recent example comes from Minnesota where the former governor, Arne Carlson, feels that "If you were to make a list of 10 or 15 of the most prized possessions of the state, [the Twins] would probably be one of them, and you never want to lose one of your prized possessions. Never."

Event owners are able to capture part of the value of psychic impact through ticket sales, merchandise sales, etc. However, much of the impact, as discussed above, is provided free to the residents through sheer knowledge of the event. This is one of the reasons for the public-private partnerships that build sports venues.

A few estimates of the psychic impact of sports teams have been generated. For instance, the Pittsburgh Penguins of the NHL are worth approximately $16 million per year to the residents of Pittsburgh solely in terms of emotional impact. This works out to an average of about $7.27 per person in the Pittsburgh MSA. The Indiana Pacers have an annual psychic impact on the Indianapolis community of about $35 million per year. The Minnesota Vikings are worth approximately $10 per resident of the state. There are not any current measures of psychic impact of cultural events such as the ones examined in this Report. Estimates of psychic impact are not included in this Report.

The field of economic impact analysis is ripe for the inclusion of psychic impact measurement. There are methods, such as Contingent Valuation Method, that can help quantify these important aspects of sports and cultural events.

5.2 Limitations that make the Estimate an Overestimate of True Economic Impact

This analysis does not account for "reverse time-switchers", those local residents who leave town during the event period *because* of the event. To the extent that there are any "reverse time-switchers", the expenditures that would have been spent by them in town are now spent outside of the local area. There is not any anecdotal evidence that leads the authors to believe that there is any significant loss in local spending due to "reverse time-switchers".

Opportunity Costs

Economic impact analysis often neglects to account for important opportunity costs. For instance, if the City of San Antonio had to turn down a major event (that would have generated its own economic impact) because of a time conflict with any of the events measured in this Report, then the total net new incremental gain from hosting the event should account for the lost economic impact that would have occurred had the other event been hosted. The authors are unaware of any such situation in this particular case.

Other potentially important opportunity costs are the impacts from visitors who would have come to town under normal circumstances, but were unable to because the event filled all of the hotels to capacity. If these would-be visitors came anyway and stayed outside of town, then it isn't a loss in revenue. However, if there were people who did not come to the City of San Antonio because of an event hosted within the City, then any economic impact from the event being measured should take that loss into account. The authors are unaware of any hotel capacity constraints caused by any event hosted in the city.

Finally, all of the event attendance figures and operational and corporate expenditures were provided by the event organizers. Where possible, attempts were made to discount for non-unique visitors. However, since it is in the best interest of events to have larger economic impact, the possibility exists that these figures may have been inflated by organizers for this purpose. SportsEconomics is not responsible for auditing these figures. However, guidelines were provided and discussions with event organizers took place to ensure that they were aware of issues which may cause them to overstate these figures. Moreover, if alternate information was provided by the media, the events did need to verify which figures they wanted to use, and to explain the rationale for the difference in the estimates.

5.3 Other Limiting Conditions

Information, estimates and opinions furnished to us and contained in the Report were obtained from sources considered reliable and believed to be true and correct. However, no representation, liability or warranty for the accuracy of such items is assumed by or imposed on us, and is subject to corrections, errors, omissions and withdrawals without notice. Information from all sources not generated by SportsEconomics or Strategic Marketing Services was taken without verification or audit. Our analyses are

based on estimates and assumptions provided by various governmental authorities, event organizers, and surveys developed in connection with this engagement.

The analyses were based on the work plan described in our contract, estimates and assumptions provided by the event organizers, estimates and assumptions from previous studies, information developed from primary and supplemental research, knowledge of the industry and other sources, including certain information that the City of San Antonio and event organizers provided. These sources of information and bases of significant estimates and assumptions are stated in the Report.