The Economic Viability of Heritage Festivals

by

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ABSTRACT

Many scholars agree that heritage tourism has grown in recent years. It has become a unique way for communities to diversify their economies while preserving local culture and heritage. One unique way communities are doing this is through heritage festivals. These festivals have a significant impact on local communities and are multifaceted as they do not just provide economic impact to host communities, but also positive or potentially negative social and environmental impacts.

In recent years, a more sustainable approach integrating economic, socio-cultural and environmental impacts has been suggested when analyzing short term event such as festivals. It is important for event managers and scholars alike to understand these potential impacts as heritage festivals continue to evolve and prevalent part of heritage tourism.

This study aims to measure and quantify the economic, social and environmental impacts of two heritage festivals – Gold Rush Days and Bluegrass Festival, closely following Andersson and Lundberg’s 2013 study on commensurability and sustainability utilizing willingness to pay (WTP) and willingness to accept (WTA). Both are annual heritage festivals and take place in Wickenburg, Arizona. Primary data collection methods are used to gather information regarding economic and social impacts. Paper questionnaires distributed via stratified random sample to festival attendees and town residents is the survey instrument used in the study. To determine environmental impacts, secondary data in the form of stakeholder interviews are conducted.
Findings suggest a positive economic impact to the town of Wickenburg. Visitor expenditures, retained local spending and direct, indirect, and induced impacts are presented. Social impacts show a generally positive attitude toward the festival from a resident perspective. Environmental impacts show that collaboration among town stakeholders is needed to better determine festival environmental impact as no formal measures of impact are currently being recorded. Further empirical research is needed to better determine these impacts.
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INTRODUCTION

Heritage Tourism

Heritage tourism has increased exponentially in recent years (Chhabra, 2010 p.1; Garrod & Fyall, 2000 p. 684; Poria, Butler and Airey, 2003 p. 239). It has risen as a unique part of many communities allowing for greater economic diversification among them. It is important to understand the meaning of heritage as it relates to tourism. A 2003 study by Poria, Butler, and Airey names heritage tourism as the most significant and fastest growing component of tourism; this emphasizes the importance of understanding heritage tourism.

Several definitions of heritage tourism exist and are discussed in literature. Chhabra (2010) explains that core elements of heritage tourism center on economics, emotion/motivation, inheritance, the past, authenticity and participation. It is driven by monetary motivations and is used to surpass competition (Chhabra, 2010 p.3; Garrod & Fyall, 2000 p.683), and is sometimes seen as a “double edged sword” as host communities experience positive economic impacts such as an increased tax base and conservation of local landscapes along with negative impacts such as overuse and commodification of heritage (Chhabra, 2010 p.3).

Nuryanti (1996) also explains heritage as an “inheritance” in which something is transferred from one generation to the next and explains that heritage tourism offers the opportunity to experience the past in the present. The author presents a perspective of built heritage in the form of preserved monuments and historic buildings; as well as a cultural context in the form of art, artifacts and traditions; and a natural context in the form landscapes, national parks and wilderness. Extra emphasis is placed on perception
and interpretation, stating that interpretation is important in the marketing, planning and managing of heritage tourism (Nuryanti, 1996 pgs. 252-253). Weaver (2011) cites the definition of “a visited space deemed, usually by an expert, to constitute or contain the heritage of a destination”. However, he mentions that there is a desire among visitors to have a connection with their personal heritage and explains that heritage tourism maybe whatever the visitor perceives as heritage. This is reiterated in other studies as they question whether heritage tourism is a search for education and knowledge or emotional experience (Poria, Butler, & Airey, 2011 p. 19). Poria et al’s (2011) study determines that the most common reason for visiting a heritage site is for education and entertainment; however, it may also be related to one’s own heritage. Therefore, it is found that visitor behavior at a heritage site is determined by the perception of the site in relation to personal heritage or one’s connection to the site and not just the attributes of the site itself (Poria, Butler, & Airey, 2011 p26). Poria, Butler, and Airey’s (2003) study defines heritage tourism as “a subgroup of tourism in which the main motivation for visiting a heritage site is based on place characteristics as they relate to the tourists’ perception of their own heritage”. Along with this are several previous definitions of heritage tourism such as “an activity by tourists in space where historic artifacts are present” and “the presence of tourists at a historic place where cultural artifacts are presented” (Poria, Butler, & Airey, 2011 p. 20).

Timothy (2011) provides examples of heritage attractions and explains their importance in the tourism system. Unlike traditional tourism, supply precedes demand in heritage tourism in which two types of product are presented: tangible and intangible.
Tangible attractions include cultural objects such as historic towns, archeological sites and cultural landscapes (Chhabra, 2010 p.1). Intangible attractions include folklore, arts, languages and festivals and pageants (Timothy, 2011 p.49). Intangible attractions such as festivals are an important way for communities to share a piece of themselves with the outside world; a way to reflect cultural characteristics of the past (Timothy, 2011 p.59). Characteristics of heritage festivals include food, music, dance, art work and dress (Timothy, 2011p.59). Based on the several definitions provided, heritage tourism can be defined as an economic motivator, tangible or intangible, that includes the visitation or participation of historic buildings, art, festivals or natural landscapes which can be perceived by the visitor as belonging to or being part of their own heritage, while being entertained and gaining knowledge of the site or event.

The popularity of heritage festivals as part of heritage tourism has quickly become a significant subject area for study. Its impacts on host communities should be improved upon to gain a better understanding of their role in community development. Therefore this study will focus on the impacts of two heritage festivals to a rural American Southwest community.

A review of literature explains the impacts of festivals and events on community development and offers insight into the chosen model and methods used to determine the impacts of these two festivals. Heritage festival impacts are multifaceted in that they may not just focus on one aspect but may include several impacts such as economic, social, and environmental. As part of heritage tourism, it is pertinent to understand the importance of festivals to local regions, particularly as economic boosters. Alves, Cerro,
and Martins (2010) mention that events are being used in place marketing to attract
visitors and preserve spaces, while at the same time increasing economic diversification.
The profitability of events also contributes to an increase in employment, improves basic
services and increases economic equity within regions (Alves, Cerros and Martins, 2010
p.23). Festivals, sporting events and temporary attractions are all utilized in this way.
Pan and Huan (2011) state two main reasons why festivals and events play an important
role in heritage tourism. One is the importance of bestowing special meaning to one’s
life, giving deeper meaning to our existence through the creation of memories through
special occasions. Second are the economic benefits festivals and events contribute to
host communities, such as money spent by visitors on accommodations, dining, activities
and shopping all contribute to the local economy including the addition of jobs to local
regions. Krammer and Hiejman (2014) refer to events as powerful economic boosters,
which are of increasing importance for destination competiveness. Their study refers to
events as economic boosters in the form of increased jobs to the region of study and
found that the event analyzed in their study increased tourist visitation number
significantly during the time the event occurred. Ap and Crompton, (1998) mention
positive benefits such as the improvement of local utility and transportation
infrastructure. Along with these positive impacts are negative impacts such as increased
prices and shortages of goods and services (Ap and Crompton, 1998, p.121). There is
also the subject of gentrification as local communities may face an increase in the price
In their 2004 study, Lee and Taylor used the example of mega events as economic boosters, stating that these events resulted in an increase in domestic and international visitors while increasing local pride. Mega events assist to market a destination on a global scale, and their economic value justifies the use of public funding by decision makers to support the event and their bid processes (Lee & Talyor, 2004, p. 596). The authors found that event tourists to mega events spent 1.8 times as much as regular tourists. On the other side of the spectrum, small area events are also important and provide many economic benefits to regional areas (Alves, Cerros, & Martins, 2010 p. 33). They found that the event they studied resulted in double the capacity at hotels and restaurants, during the festival period. The authors also mention the importance of justifying the use of public funds by touting the economic benefits of festivals and events.

Lee and Goldblatt (2012) mention the importance of festivals and events through the attention they receive from local government and media as a source for economic revenue, as their study focused on the impact of the recession on the festival and event industry. While most of the event industry suffered, it was able to prevail and emerge as a way to diversify local economies and enhance destination image.

Events as economic boosters are a significant way for communities to survive and thrive. They are diverse and occur for many different reasons, with their size and magnitude being just as diverse. Despite this diversity most have a strong positive economic contribution to local economies. Along with this, it is important to understand other impacts of festivals and events as positive economic impacts are not the only outcome of festivals and events.
Sustainability of Heritage Festivals

Research reveals that there is a wider range of impacts of tourism to local community systems, (Tyrrell, Paris, & Biaett, 2012 p. 279), including social and environmental impacts. From a sustainability perspective, festivals and events produce impacts in these dimensions. Scholars have attempted to measure these impacts many times and has resulted in frameworks that have been labeled with many different terms. These include the terms integrated assessment, sustainability assessment, 3-E, extended impact assessment, ecological footprint, and triple bottom line (TBL), (Tyrrell, Paris, & Biaett, 2012, p. 281). This is supported by Gibson, Kaplanidou, & Kang (2012) wherein they mention that sustainable development encompasses economic, social and environmental dimensions and also refer to this as TBL or corporate social responsibility (CSR). Choi and Sirakaya (2005) produced indicators for sustainable community development, which are shown in the context of six dimensions that will later be presented in the literature review.

Andersson and Lundberg (2013) also mention the measurement of economic, socio-cultural and environmental impacts to ensure a sustainable perspective for events. They also utilize a triple bottom line approach as a holistic reporting tool that adds the social and environmental bottom lines to the traditional bottom line (Andersson and Lundberg, 2013 p.100). Therefore, a comprehensive examination of the impacts should be considered when determining the economic viability of heritage festivals to maximize positive impacts while minimizing negative impacts to host communities.
Economic Impact

A large amount of literature exists that defines economic impact. One definition as presented by Warnick, Bojanic and Xu, (2013 p. 2) is “the net economic change in the incomes and expenditures of the local residents and the jobs of the local community that result from the expenditure attributed to tourists associated with tourist policy, events, facilities, or destinations”. Frechtling (2006) explains a more complex way to define economic impact, as he explains that economic impact attributable to an event relates only to new money injected into the economy by visitors from the outside. Thus, economic impact can be defined as the expenditures injected into the local economy from outside visitors (tourists).

Throughout recent years, economic impact has become a popular way to determine the success of festivals and events. Getz (2007) mentions the importance of the significance of the publicity an event provides to the host venue, community or destination as a competitive advantage”. Lucia (2013) explains that economic impact analyses are an important consideration among policy makers when making investment decisions in event planning. Festivals and events also bring in new money to the local economy where visitor expenditures increase sales, jobs, and enhance resident quality of life as impacts multiply throughout the community (Warnick, Bojanic and Xu, 2013 pgs. 1-2). Warnick, Bojanic and Xu (2013) also note that organizers also utilize economic impact as way to attract vendors, corporate sponsorships, volunteers and business cooperation. Crompton, Lee, and Shuster, (2001) (Figure 1) mention that economic
impact should be regarded as inexact or as a “best guess” and provide the following rationale when undertaking economic impact studies.

Figure 1: Crompton, Lee, and Shuster, (2001) “Conceptual Rationale for Undertaking Economic Impact Studies”

The figure explains the processes included in economic impact, beginning with initial monies from residents to the city council in the form of taxes and ending with income and jobs created from the monies spent by outside visitors.
To determine the economic benefits of festivals and events to host communities, the proper model must be used to determine economic impact. Frechtling (2006) presented several expenditure models, including expenditure ratio model, cost factor model, seasonal difference model, and supply-side judgmental model. Traditional models also include *ex post* econometric analysis, cost benefit analysis, input-output analysis, and computable general equilibrium analysis (Andersson & Lundberg, 2012 p.100).

Several economic impact studies focus on direct, indirect, and induced impacts produced by input output modeling (Alves, Cerro and Martin, 2010 p.25). Alves, Cerros, & Martin (2010) cite Getz’s definitions of these impacts as follows:

a) Direct impact is how much of tourists’ expenditure remains in the area after taxes, benefits and wages are paid out.

b) Indirect impact is left over money that is returned and circulated within the local economy.

c) Induced impact is the overall effect on the economy after direct and indirect impacts. Induced impacts are often expressed as multipliers or dollars that “trickle” down into the local economy before it is “leaked out”. Multipliers such as social accounting matrices (SAM), type I, and type II estimate an economy’s response to an expenditure (Chhabra, 2001 p. 100). Chhabra (2001), describes type I multipliers as those that give direct and indirect effects only and type II multipliers as those that represent the ratio of total sales impacts to direct sales impacts, by providing indirect linkages between businesses.
Breisinger, Thomas, & Thurlow (2009), explain social accounting matrices (SAM) as a representation of a local economy that captures all transfers and transactions between sectors.

Most multipliers are presented in categories such as output, labor income, and value added. These terms as defined by Lee & Taylor (2005) are as follows:

a) Output is the amount of money that is produce by one unit of change in a spending sector.

b) Labor income is the personal income representing wage and salaries paid as compensation.

c) Value added is the wages, salaries, operating surplus, depreciation of fixed capital, and indirect taxes minus subsidies.

Lucia, (2013) explained that researchers can efficiently gather economic impact data by tracking visitor demands using bottom-up input-output models. Commonly used for economic impact studies, input-output modeling shows how the output from one industry can input into another. Several scholars have presented input—output modeling as a tool for evaluating economic impact (Zhou, Yanagida, Chakravorty, & Leung 1997 p. 76). Zhou et al. explain that input- output models use the interdependence of sectors in an economic area to show how the outputs of these sectors affect other economic industries. Input-output modeling was also utilized by Lee and Taylor (2004) to determine the economic impact of the 2002 FIFA World Cup. They describe input—output modeling as a framework that consists of three major sectors: intermediate, primary input and final demand (Lee & Taylor 2004 p. 598). Findings of their models are presented in tables.
where each spending sector is listed with its respective impact. Dwyer, Forsyth, & Spurr (2004 p. 308), define input output modeling as an “estimate in the increase in economic activity associated with some tourism expenditure change, by calculating the increase in output directly, and adding the extra output in related industries, such as supplier industries.” Krammer and Heijaman (2014) also utilized input-output analysis to represent the interdependencies between different sectors of an economy. The input-output model was also used to determine the economic impact of the Scottish Highland Games in North Carolina (Chhabra, Sills and Cubbage 2003).

Many studies use IMPLAN software to produce economic models. IMPLAN is an economic analysis software that was created as a result of a need created by the Rural Development Act of 1972 (IMPLAN, 2015). Under the direction of the United States Department of Agriculture, this economic impact modeling system was created and named “IMpact Analysis for PLANning” or IMPLAN for short. It has now become a common way to calculate economic impacts by many industries in the public and private sectors. To continue to test and add to existing literature this study utilizes input-output modeling to determine the economic impact of two heritage festivals in Wickenburg, AZ.

**Wickenburg, AZ**

Founded by Henry Wickenburg in 1863, Wickenburg is a town founded along the Hassayampa River. Although the traditional economic base in Wickenburg relied heavily on farming and ranching at that time, mining soon became dominant with the discovery of gold in the late 1800s. While the gold rush lasted a short time, the town continued to depend on its ranching and mining industries for economic survival. In the past 50 years,
tourism has become a major economic base for Wickenburg. Wickenburg’s location on the primary route from Phoenix to Las Vegas has allowed its tourism industry to thrive. Today, Wickenburg relies heavily on out-of-town visitors as part of its tourism industry for economic vitality and resiliency. Various tourism attractions and festivals are an important part of Wickenburg’s economic base and assist in preserving its heritage and culture. More recently, there has been an increase in rodeo and roping events which led Wickenburg to be named the “number one roping destination in the world” (Enloe, 2014). This has also become a major tourism driver for the town and region.

Tourism in Wickenburg, AZ

Major attractions in Wickenburg, include the Hassayampa River Preserve, Desert Caballeros Western Museum, the Del E. Webb Center for Performing Arts, and the Vulture Mine at Vulture City. These attractions are rich in history and highlight the community’s heritage, Wickenburg’s tourism industry. Along with these attractions, Wickenburg hosts various heritage festivals throughout the year. Two of the most important events are Gold Rush Days and The Bluegrass Festival. Each event celebrates Wickenburg’s heritage of the “Old West” and are considered a main economic driver for the town.

Gold Rush Days

Gold Rush Days celebrates Wickenburg’s heritage of ranching and mining. Since 1947, this springtime event has grown to become one of Wickenburg’s largest events, drawing tens of thousands of visitors to town during the three–day celebration (Admin, 2014). The event is free to the public, with the exception of the Senior Pro Rodeo, and
features historical exhibits at the Desert Caballeros Museum, a carnival, an artisan fair with the opportunity to purchase handicrafts and various art pieces, a parade, a gun–slinging performance, performances at the Del E. Web Center for Performing Arts and Saguaro Theatre, and the Senior Pro Rodeo. This heritage-based event is a major tourism driver and assists to showcase the town’s heritage and local charm.

Bluegrass Festival

Another celebration of Wickenburg’s heritage is the Bluegrass Festival. The Chamber of Commerce, (2014) argues that the Bluegrass Festival is one of the oldest bluegrass festivals in the Southwest. This fall festival showcases bluegrass performances from all over the country and features contests in the areas of fiddling, mandolin playing, flat pick guitar and banjo. Along with the music are bounteous opportunities to purchase arts and crafts. The festival also includes food and beverage vendors and a children’s play area. This popular festival also attracts thousands of visitors to town, providing them opportunities to immerse themselves in Wickenburg’s heritage through music.

RESEARCH QUESTIONS

The economic impact of Wickenburg’s tourism industry, especially as regards these two festivals, is of great importance to the town’s economic well-being. These festivals also help preserve and interpret Wickenburg’s heritage and culture by allowing visitors to understand the town’s history and importance to the region. It is important to understand the degree and nature of economic impact the festivals have on the local economy. In addition, one must also consider a comprehensive impact analysis to include social and environment impacts.
Against this, the following two research questions guide this study:

1. What is the economic impact of Gold Rush Days and Blue Grass Festival to the town of Wickenburg?

2. What economic viability measures can be designed to enhance the economic sustainability of festivals in Wickenburg?

REVIEW OF LITERATURE

As the research questions indicate the main purposes of this study is to examine the economic impact of two festivals and potentially develop viability measures to enhance sustainability. With this being expressed, it is important to understand what concepts, models and methods scholars have used to determine economic impacts of festivals and events. A review of the literature will provide a solid foundation for the basis of this study.

Economic impact in itself is very complex in nature. To assist with regional economic impact studies, Jackson, Houghton, Russell and Triandos (2005) presented the development of software to conduct economic impact studies. Based upon Australia’s plethoric festivals, the software was developed there to measure economic impacts. The article explained the trouble with exaggerated benefits of festivals to attract sponsors and community support highlighted the lack of a way of evaluating economic success. This gap led to the development Do-it-Yourself (DIY) kit that has shown some success. The article evaluated seven economic impact studies that were conducted using this method.

By analyzing the literature, Jackson et al. (2005) explained the importance of festivals and noted them as an important growth area for tourism. The study also
explained festivals as being social and cultural, physical and environmental, and economic, where the “net” economic impact was highlighted. Traditional models used for economic impact, as explained in the article, include computable general equilibrium, cost-benefit analysis, and input—output models. Through the examination of issues related to economic impact, the article mentioned that the Do-it-Yourself kit aimed to measure the correct measure of benefit, this being gross regional product.

The DIY kit utilized questionnaire based data with questions differentiating between regional export income, import replacement, and income redistribution. Post–festival input—output analyses are used by the DIY to determine economic impact. Case study results a indicated response rate of close to 100% due to the use of the DIY kit.

This DIY kit was well received among event organizers who were impressed with its ease of use and the clearer insight provided of the actual value of their event. The kit allowed festival organizers to provide effective marketing/promotion strategies when planning and implementing events. Follow–up studies were recommended to measure social and cultural outcomes as the DIY kit does not measure these impacts. The article ended by reiterating that the DIY kit also does not measure the long–term impacts of festivals.

Crompton, Lee and Shuster, (2001) noted that economic impacts should be referred to as “best guesses”. Lucia (2013) aimed to change this to more solid estimates by utilizing new technology in data collection to obtain information at the Festival of Economics in Italy. The festival has been held annually since 2006 and at the end of
May/beginning of June. The festival is five days in length and is funded by local public institutions.

As Lucia explained, economic impact is used by policy makers to support effective decision making processes. Accurate data collection is important and with the use of passive Radio Frequency Identification (RFID), researchers can efficiently gather economic impact data by tracking visitor demand and using bottom-up input-output models. The study used cards given to visitors, which tracked objects that are then transmitted through radio waves to an electronic reader. The article found this to be more effective than questionnaires due to the fact that actual consumer behavior was tracked as opposed to intended or remembered consumer behavior.

The article then provided theoretical support for the use of this technology by explaining the role of event tourism, the models used in the assessment of economic impact, and the technologies that can be used. The economic impact models included economic base modeling, to show regional impact and input—output modeling; showing how the output from one industry can input into another. Different types of input-output modeling were presented along with their strengths and weaknesses (pg. 93). The study concluded this section by explaining that action—tracking technologies make for better accuracy than traditional questionnaires. They also gather actual, rather than intended, consumer behavior.

With support from previous literature, the research method used in the study was action tracking technology. It used bottom-up input-output modeling in phase one and an assessment of total economic impact in phase two. The study located 148 survey points
and involved 400 tourists, including same-day visitors. The study excluded residents. The survey points were strategically located throughout the town center holding the event. The cards were anonymously distributed to those who agreed to take part in the study, along with a map of the survey points and instructions on how to use the card. The results were the collection of real time consumer behavior with acquired time, date and place. With this technology, total direct, indirect and induced economic impact was produced accurately.

Although this technology provided an ideal way to gather and calculate economic data, it is not without limitations. Limitations mentioned by Lucia (2013) included the requirement of a bigger budget to afford the technology, the suspicions tourist had of the action tracking circuits of the technology, and the fact that expenditures still had to be tracked using an expenditure survey. The author suggested that more research should be conducted on the managerial implications of public and private partnerships in policy making for events.

In their 2014 study, Krammer and Heijman conducted an economic impact analysis of a Christmas festival in Limburg, Netherlands. Although they mention that there is economic value in the festival, they chose to measure its impacts on employment, as this had not been done before. Calculating a regional coefficient was a challenge due to the lack available regional input output tables (Krammer & Heijman, 2014 p. 57). To solve this dilemma they calculated coefficients through a Simple Location Quotient (SLQ) method. They utilized secondary data from national input—output tables and
primary data collection through convenience sampling. Data were collected through in—person questionnaires to gather the information needed to calculate employment impacts.

The questionnaire consisted of five spending sectors in which respondents were asked what their average spending was in each one. The sectors included retail, transportation and storage, lodging, food and beverage, information and communication, culture, sports and recreation. Average spending per sector was calculated and multiplied by the number of visitors to the festival. With this, the authors used the Leontief Equation to determine the number of jobs attributable to festival.

The findings from the Krammer and Hiejman (2014) study showed that average expenditures were 64.60 euros per person and that the festival created approximately 403 jobs, with the highest number being in retail. They concluded that SLQ may underestimate regional tendencies to import, which may overestimate multipliers (Krammer & Heijamn, 2014 p. 58). They also expressed concerns for bias due to the use of convenience sampling in their study.

Economic impacts can also be calculated in a similar fashion for large scale events such as 2002 FIFA World Cup in South Korea (Lee & Taylor 2004). This study expressed the importance of mega events as economic engines to host destinations and aimed to determine the impact of World Cup tourists from non-World Cup tourists. To do this, Lee and Taylor (2004) excluded locals, time switchers and casuals from direct expenditures as previous literature has stated that spending from these types of visitors are not attributable to an event.
Two questionnaires were administered on site at arrival and departure gates. The first questionnaire classified attendees into three categories and asked the purpose of their visit to the World Cup. The second questionnaire asked to estimate their expenditures in eight categories. These categories included accommodation, food and beverage, tours and sightseeing, transportation, shopping, entertainment, game tickets, and miscellaneous items.

Using an input—output analysis, Lee and Taylor (2004) found per capita expenditures to be $2,242 USD. This figure was multiplied by the percentage of tourists during the World Cup and found direct expenditures to be $552 million USD. Most spending was done in the categories of culture and recreation, followed by shopping and accommodation. The study was useful to South Korea as it serves as historical data for policy makers and future host countries of mega events (Krammer & Heijman, 2004 p. 602). It also reinforces the notion that festivals and events showcase destination skills, while assisting to build business contacts and invoke community excitement.

Small—scale event impacts are also measured and utilized to promote economic diversification and attract tourists to remote locations. In their (2010) study, Alves, Cerros and Martins aimed to determine both resident and event organizers’ perspective in relation to the festival. They utilized the Cherry Festival to determine these impacts for the town of Fundao, Portugal. The authors used three perspectives which included the Fundao Tourism and Town Council, suppliers such as hotels and restaurants, and local residents.
Qualitative and quantitative methods were used to calculate economic impact and social impacts by using a scale that assessed community cohesion, economic benefits, social incentives, and event costs. Economic impacts were calculated by the measurement of direct, indirect and induced impacts. Primary data collection through questionnaires to event suppliers assisted with calculating impacts. Direct effects were calculated through the town’s council and tourism budget. Indirect effects were calculated through the collection of total tourism expenditure estimates from hotels and restaurants. Induced effects were calculated by using the increase in employment in accommodations and restaurants at hotels and restaurants.

Social impact questionnaires administered to residents and suppliers asked questions in the form of Likert scales where one equaled totally disagree and five equaled totally agree. Different categories of social impacts of the festival were presented in the scale. These included “build community pride; help preserve local culture; increase traffic congestion; put pressure on local services; generate revenues for local services and other” (Alves, Cerros & Martins, 2010 p. 30). The authors of the study found a small but significant economic impact to the town and noted the importance of determining social impacts to the community, as they noted that social impacts were perceived as higher than economic impacts.

While seeking to understand the importance of other impacts beside economic, Andersson and Lundberg, (2012) conducted a study that utilized a sustainability perspective. They analyzed the “Way out West” music festival, which was initiated in 2007 and is held annually, every summer in large park in Gothenburg. The study focused
on explaining the impact of an event from an economic, social, and environmental perspective. It was explained that while these aspects have been examined by other researchers independently, there is a need for an overall assessment. The authors provided the following measurement model for describing total festival impact.

![Figure 2: Andersson and Lundberg, (2012) Measurement Model for Describing Total Impact from a Sustainability Perspective](image)

**Describing Total Impact from a Sustainability Perspective**

Andersson and Lundberg (2012) mention different theoretical frameworks for economic impact. Among these are the Sustainable Tourism Livelihood approach, which considers event impacts as investments or depreciations of capital assets. Examples include social, financial, natural and human capital. The Cost-Benefit Analysis as discussed by Andersson and Lundberg, (2012) included the consideration of event impacts in terms of tangible and intangible impacts to society. Done from a social welfare perspective, the contingent valuation method was also used as part of their methodological framework. Walker and Mondello (2007) explain that the contingent valuation method has been used by many to measure the intangible and tangible benefits of events. The contingent valuation method places value on non-market goods. Examples include placing a contingent valuation on a hypothetical scenario to a specific
service. Respondents are asked if they are willing to pay for the mentioned service and what monetary value can be placed on the particular “non-market good”. This allows researchers to place a quantifiable number in relation to a particular non-market or intangible good. Willingness to accept is explained as “the amount of compensation respondents would be willing to accept to give up a resource” (Walker and Mondello, 2012, p.151). While the contingent valuation method provides quantifiable data to intangible goods and services, it is not without criticism. Issues such as hypothetical bias, temporal bias, and validity of respondents’ knowledge of monetary value are discussed. The Triple Bottom Line Approach was also presented by Andersson and Lundberg (2012) as a framework based on economic, social and environmental impacts. They note its popularity as a holistic tool originating from the business sector.

To measure economic impact, Andersson and Lundberg (2012) used the Direct Expenditure and Opportunity Cost measurement models, where direct expenditure is the estimate of all expenditures incurred by festival attendees. They calculated the estimate of average visitor expenditures and multiplied it by the number of festival visitors. Opportunity cost was based on the question of “how much money event visitors would have spent in the host community, had the festival not taken place” (Andersson and Lundberg, 2012 p.102). Opportunity cost also assists in identifying “casuals”, who were calculated and subtracted from the direct expenditure. Casuals are defined as “visitors that are already in a study area for other reason who attend an event instead of doing something else” (Frechtling, 2006 p. 3).
Socio-cultural impacts were measured in monetary values with non-use values. These were opportunity, bequest and existence values. Environmental impacts were measured using ecological footprint and carbon calculations in the form of carbon credits.

According to this article the festival attracted 26,347 visitors over a three-day period. Data were gathered through two surveys that were distributed after the festival. The surveys were name “survey A” and “survey B”; each intended to target a different audience. Survey A contained questions referring to socio-demographics, consumption, expenditures and travel. It targeted paying festival attendees. Survey B was directed toward residents and also contained socio-demographic questions; however, it included willingness to pay and willingness to accept questions as well. The survey was distributed by trained volunteers and was distributed to every fifth attendee to maintain random sampling. The use of screening questions allowed researchers to exclude those who did not know about the festival.

While the study did not produce indirect and induce impacts, it did focus on direct economic impact. The calculation used to determine this was an average of direct gross expenditure times the number of visitors to the event. The article concluded that economic impact represented more than half of the total impact of the event.

Perceived value may also be considered when conducting economic impact analyses. A study performed at the 2008 National Cherry Blossom Festival in Washington D.C. by Deng and Peirskalla, (2011) measured perceived value by festival goers. The festival is two weeks in length and is held in late March/early April. The event features several activities through its duration and has remained the same through
the years. The article classified the National Cherry Blossom Festival as natural resource
dependent. Multipliers such as social accounting matrices (SAM), type I, and type II
estimated the impact of this cultural event. Deng and Pierskalla, (2011) noted that nearly
one million residents and visitors attended the festival in 2008.

The article revealed that there was a need to examine past experiences of festivals
as it previous exploration is vague. While the article provided different contexts of value,
such as previous economic impact studies of the festival, including direct/indirect effects
and multipliers, this study looked beyond economic impact and concluded that perceived
value would be researched. It proposed research questions in relation to past experiences
and first time attendees versus repeat attendees; overall satisfaction and its effect on
perceived value.

Data collection occurred throughout the duration of the festival and used a
convenience sampling method. The survey was filled out face to face and collected on
site. Surveys contained questions regarding trip characteristics; perceptions of the
festival; and background information. Questions with Likert scales were used to measure
perceived social and emotional value. Factor analysis, t-tests, and ANOVA were used to
analyze the data.

The study concluded by stating limitations such as the use of convenience versus
random sampling and the possibility of bias; findings were based off of one year, and the
specific nature of the festival may make inapplicable to other types of festivals.
Suggestions by the authors included future research in comparing first time and repeat
visitors for the variables used. The authors also suggested the consideration of external factors such as weather and time of visit with the variables used.

In the essence of adding social and environmental impacts to traditional economic impact, a brief overview of sustainability and sustainable development should be considered. Debates exist as to a uniform definition of sustainability however, for the purposes of this study the definition established by the World Commission on Environment and Development will be used; “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987).

Choi and Sirakaya (2005), note that sustainable development has emerged as an alternative to the traditional neo-classified model of economic development. Although tourism stimulates destination economies by increasing taxes and jobs, other impacts must be considered to provide a true economic impact. Other impacts are mentioned in literature, including environmental degradation, social and cultural effects, and habitat fragmentation of many tourism destinations (Choi and Sirakaya, 2005 p.1274).

As already mentioned, heritage festivals have both positive and negative impacts to communities. While host communities enjoy the positive economic benefits of heritage festivals, they must also consider other social and ecological impacts caused by such festivals. In this regard a sustainable approach to heritage festivals must be considered to determine the “net” economic impact to host communities. A review of literature provides several insights in how to produce measurable impacts.
To measure economic, environmental and socio-cultural impacts, Choi and Sirakaya (2005) created measurable sustainable development indicators in the economic, socio-cultural, and ecological realms. It is also important to mention the consideration of political and technological dimensions however, these will not be utilized in this study. Table 1 shows the dimensions proposed by Choi and Sirakaya, (2005) for sustainable development and the number of indicators developed from the study Choi and Sirakaya completed towards determining sustainable development.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Number of indicators (issues) developed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic dimension</td>
<td>24</td>
</tr>
<tr>
<td>Social dimension</td>
<td>28</td>
</tr>
<tr>
<td>Cultural dimension</td>
<td>13</td>
</tr>
<tr>
<td>Ecological dimension</td>
<td>25</td>
</tr>
<tr>
<td>Political dimension</td>
<td>32</td>
</tr>
<tr>
<td>Technological dimension</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
</tr>
</tbody>
</table>

*Note: Response rate—Round 1: 60.6%; Round 2: 62.5%; Round 3: 48.0%.*

**Figure 3: Choi and Sirakaya, (2005) Table Indicator Proposed from Study**

The following themes were presented by Choi and Sirakaya, (2005) for economic, socio-cultural, and ecological dimensions.

Under the economic dimension Choi and Sirakaya, (2005) presented the following themes and indicators.

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1 Pages 1279-1282 of Choi and Sirakaya (2005) provide in depth indicators to each theme with measurement scale. Each theme presented here reflects a brief description of the corresponding indicators.
1. Employment—this included indicators such as employment in tourism and the unemployment rate of the host community.

2. Income distribution/capital linkage and leakage—indicators for this theme included income leakages, linkages in tourism, multipliers, imported contents and the percent of tourism that was part of the local economy.

3. Capital formation in the community/investment—indicators in this theme considered foreign ownership, the percent of profit reinvested in the community for development, entrepreneurial opportunities for the host community, and the percent of profit reserved for natural and cultural protection.

4. Nature of demand—this accounted for repeat visitors and seasonality.

5. Economic well-being compared the ratio of wages in the tourism sector as compared to the local wage. This was also measured with gross domestic product and the stability of the local community.

6. Labor/company and job conditions were measured by indicating the social cost and benefits to the community, ensuring adequate fee structures, and providing equal opportunity employment for women and the host community.

7. Local government income was measured by the hotel tax.

Socio-cultural themes were presented as follows:

1. Host community/residents and stakeholder were indicated by measuring the host community satisfaction in regards to tourism development, the stress between visitors and residents, congruency of stakeholders, and host community involvement of tourism.
2. Social cohesion was indicated by the changes in social cohesion such as community structure, alienation, and changes in family cohesion.

3. Sex tourism was measured by analyzing the percent of employment in sex tourism, measuring the prostitution rate and community attitudes toward sex tourism.

4. Tourist satisfaction; community resource and distribution of resources and power included indicators of tourist satisfaction, the degradation of natural resources and shifts in social structure.

5. Community health and safety and quality of life included the indication of litter, pollution, congestion, crime rate, value of tourism, health policy related tourism, loss of traditional lifestyle, and the level of satisfaction with host community life.

6. Building architecture included types of building materials and décor.

7. Cultural site management was indicated by considering the maintenance levels at cultural sites, commodification and the number is designated cultural sites.

8. Socio-cultural fabric was measured with the indicators of retention of local language and customs; pride in social heritage; and loss of authenticity.

9. Cultural education was indicated by the amount of training given to tourism professional and the amount of information received by visitors.

Ecological

1. Loss of renewable resources- the issues brought up under this theme included the local air quality index, erosion at natural sites, number of environmental accidents related to tourism, and the number of contaminated sites.
2. Rate of ecosystem destruction and degradation- these were presented as the level of protection provided to local ecosystems, as well as water and energy consumption data.

3. Assessment of environmental impacts of tourism activity including the number of endangered species and life cycle analysis.

4. Reuse/recycling rates and health of human population- these were indicated by availability, size and condition of urban forests, the amount of renewable resources used, the recycling rate, use density restrictions, amount of environmental education provided to tourism professionals, discharge of waste water and solid waste, and carrying capacity.

5. Loss of non-renewable resources the indicators for these resources were the stress level and loss of endangered species, the attractiveness of sites and the level of losing vegetation (Choi and Sirkaya, 2005 pgs.1279-1282).

These indicators prove helpful when attempting to consider the potential impacts festivals and events may have on host communities. A case study by Gibson, Kaplanidou, and Kang (2012) also addressed the importance of measuring social and environmental impacts together with economic impacts. A combination of six–small scale sporting events were examined in the context of economic, social and environmental impacts.

The authors presented economic indicators by researching average days and nights event participants and spectators spent at the destination. Followed by the number of
room nights generated and calculating the expenditure patterns for participants and spectators at each event, including direct spending.

Social indicators were addressed by researching what other activities participants took part in and their motivations for attending the events. They also looked for overall satisfaction levels of the event by participants and spectators. Resident involvement was also examined.

Environmental indicators were addressed asking the types of facilities used for the event and by determine the involvement of sports commissions for the promotion of environmental quality in the community.

Online surveys were distributed and the survey instrument was in the form of a fixed choice questionnaire. Questions regarding trip purpose, residency, length of stay, accommodations, motivation, and event evaluation were asked. A portion of the questionnaire asked for spending per party in the following categories: accommodation, food and beverage and souvenirs.

Significant economic indicators were found as median expenditures varied from $95 to $207 for day trippers and $137-$216 for overnights. Results for social indicator were presented in the context of the types of sports participated in and the usage of municipal facilities. The study concluded by suggesting that future investigations place greater focus on environmental impacts of events.

The review of literature has noted that economic impact can be calculated in similar fashion adjusting slightly for the nature of the study. The studies noted here provide a similar result in that economic impact has mostly positive results for host
destinations; however, there is a need to move beyond economic impact. A consistent gap in the literature finds that more attention should be directed to social and environmental impacts as this study aims to do.

METHOD

To find answers to these research questions, primary and secondary were used. A paper questionnaire was used for both economic and social impact data collection, while interviews with town stakeholders are the secondary data collected to determine environmental impacts. Town stakeholders include representatives from the Wickenburg Chamber of Commerce and leadership from the town Public Works, Community and Economic Development, and Parks and Recreation departments.

The data for economic impact were collected from two festivals at two different times of the year; spring and fall.

Out-of-town visitors were targeted for this portion of the survey, although some local residents were included in the sample. The survey instrument was a paper questionnaire consisting of approximately 23 questions. The questionnaires were divided into the following sections:

I) Purpose of visit
   a. This section collected information regarding the main reason for the visit to the festival as well what other activities the participant planned attending during their visit.
   b. To determine the economic impact to the festivals, a question asking if the main reason for the visit were these festivals was asked. To accompany
these questions, were others such as distance traveled, destination origin, and the number of hours or nights the participant planned to spend in the town.

c. If the participant was a local resident, a screening question was included to determine retained spending.

II) Trip Motives

a. A Likert scale of 1-5, 1 being the least important and 5 being the most important, was used to gather information regarding visitor motivation. Motivational themes taken from other literature include enjoyment, curiosity, escapism, heritage, friend/family time, and shopping.

III) Travel Behavior

a. Questions regarding mode of transportation, party size, information as to where the participant heard of the event, and satisfaction were asked here.

b. Expenditures were also part of this section. This was presented in the form of a blank table in which the participants had to fill in estimated expenditures in 11 categories. Expenditures were split and asked two parts: How much the participant’s party planned to spend at the festival and how much the participant’s party plan to spend outside of the festival in the nearby town. Expenditures included lodging, visiting relatives/friends, admission fees, dining, groceries, gas, car rental, vehicle repair, shopping, and entertainment.

IV) Profile
a. Basic demographic questions were asked; these included gender, age, income, education level, and race.

Although the questionnaire was only available a paper format, an electronic version was available to send to those that preferred a digital copy. Participants were given the option to fill out the questionnaire on location, return it via mail, return it at a later time, or have an electronic copy sent via email. An incentive was used in both festival to encourage participation; this was provided by the Wickenburg Chamber of Commerce. The incentive included entry into a random drawing in which the winner would win two tickets to next year’s festival.

A stratified systematic random sample was utilized and every ninth person was approached for questionnaire administration. A screening question was asked to determine if the participant was visiting or local. Questionnaire administrators were placed throughout the corridors of the vendor areas during Gold Rush Days. All surveyors were present throughout the day to ensure data were gathered during the morning and afternoon hours.

Due to the “sprawled” nature of Gold Rush Days, a team visited the Everett Bowman Rodeo Grounds to ensure that all parts of the festival were accounted for in the sample. In the evening hours a team also went to the Saguaro theatre to gather data. Sampling at both the rodeo grounds and the theatre were a stratified random sample. Questionnaires were administered by the sections of the stands and at least two people per row were randomly approached to administer the questionnaire.
During Blue Grass Festival survey administrators were placed at the entrances, vendor corridors, and exits of the event. A stratified systematic random sample was also used as every 12\textsuperscript{th} person was selected to take the questionnaire. All survey administrators were present from the beginning of the event to the end to ensure the sample was representative of the population in attendance.

With Microsoft Excel, measures of central tendency were calculated to analyze data. To find day tripper median per person expenditures, total expenditures were divided by party size. For overnight visitors, each expenditure was divided by the total of party size multiplied by the number nights.

\textit{Day Trippers:} median expenditure/median party size = median expenditure per person

\textit{Overnight:} median expenditure/(median party size*median nights)= median expenditure per person per night

To determine total expenditures, the median expenditure category was multiplied by the total population excluding locals. To determine retained local spending the question “If <<name of festival>> was not happening, would you have traveled out of town to attend another event?” was asked. Expenditures to those who answered yes were used to calculate retained spending. Total spending in each category was entered into IMPLAN, which generated direct, indirect, and induced impacts.

A social impact questionnaire was used to collect data from local residents in Wickenburg. The paper questionnaire was administered, also using a stratified random sampling process.
Each questionnaire consisted of three sections which include questions in regards to option, bequest, and use values. Willingness to pay questions are asked in the form of proposed fee increase to support the festivals and open—ended questions regarding value and image were included. A Likert scale (strongly agree – strongly disagree) was included to determine participants’ level of agreement in local sense of pride in relation to the festival, social interaction, recreational and cultural exchange opportunities. This scale also asked level of agreement with impacts such as traffic congestion, noise pollution and strain on resources. Categories in infrastructure, economic increase and employment were also asked. A portion of the survey was replicated for one–day events and concluded with questions regarding basic user profiles.

The survey administrator stood at the entrance of the two local attractions and approached each ninth person as he/she entered. Data collection included morning and afternoon samples and a screening question was asked to determine if the participant was a Wickenburg resident. Samples in stadiums included people in the top, middle and bottom sections, from left, center and right to ensure a representative sample.

Data were also gathered through interviews of key festival stakeholders. The literature provides the framework for the following four questions regarding perceived environmental impacts.

1. What environmental impacts of festivals and events can be identified for Wickenburg?

2. What measures or indicators does the <<stakeholder>> use to determine these impacts
3. What plan is in place for the reduction of these impacts to the community’s natural environment?

4. Does the <<stakeholder>> have memberships/partnerships with local, national, or international environmental conservation groups?

FINDINGS

Gold Rush Days Visitor Profile

Gender, age, income, education, income and ethnicity are included to identify participant profile. Most Gold Rush Days attendees were females, senior citizens, with some college education and a median annual household income of $80-$99,999USD.

Age and Gender

Age was calculated by subtracting the year of birth written by the participant from the year the questionnaire was completed (Ex: 2014-1965= 49 years of age). The median age of Gold Rush Days respondents is 63 years of age with 34% of respondents being male; 66% were female.

*Figure 4: GRD Gender*
Level of Education

Approximately 2% of participants had earned some high school or less; 12% were high school graduates; 32% had some college or technical school; 16% were college graduates; and 16% had a post graduate education.

Figure 5: GRD Education Level

Income

Income is presented in the form of total annual household income and placed into categories 1-8, each with its own dollar range. 6% of respondents earned less than $20,000 per year; 15% earn $20,000-$39,000; 18% earn $40,000-$59,999; 12% earn $60,000-$79,999; 26% earn $80,000-$99,999; 20% earn $100,000-$199,999; 2% earn $200,000-$299,999; and 1% earn more than $300,000 annually. The median income of Gold Rush Days attendees was $60,000-$79,999.
Findings show that 70% of respondents are white/Caucasian. None of them were black, Asian, Hawaiian or Pacific Islander. 1% were of American Indian or Alaskan ethnicity; and 4% listed other ethnicities. This demographic is similar to that of the survey region as compared to Maricopa County US Census data, which show an ethnicity as 83% white, 6.1% black, 4.5% Asian, .7% Pacific Islander, 2.6% American Indian, and 6.4% other ethnicities.
Travel Behavior

Travel behavior was calculated with measures of central tendency (mean, median, mode and standard deviation). The median party size of travelers to Gold Rush Days 2014 is three. Mean party size was calculated at 3 with a standard deviation of 2.95. Average distance traveled to the festival was 40 miles (mean 268.50 with a 592.84 standard deviation). 52% of visitors’ primary destination was Wickenburg and 47% said that Gold Rush Days was their main reason for visiting the town.

Slightly more than half (52%) of participants visit for the day and spent an average of 5-6 hours (mean hours 5.6 with a standard deviation of 2.43) at the festival and its surrounding area. Forty eight percent of visitors stayed overnight and spent 4 nights (mean nights 28.94 with standard deviation of 53.57) in Wickenburg and/or surrounding areas. It is important to note that although mean and standard deviation are presented, mean values are used to avoid skewing due to outliers.
Table 1: GRD Travel Behavior

<table>
<thead>
<tr>
<th>Item</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party Size</td>
<td>2-3</td>
</tr>
<tr>
<td>Distance Traveled</td>
<td>40 miles</td>
</tr>
<tr>
<td>Day Visitors</td>
<td>52%</td>
</tr>
<tr>
<td>Hours spent</td>
<td>6</td>
</tr>
<tr>
<td>Overnight</td>
<td>48%</td>
</tr>
<tr>
<td>Nights spent</td>
<td>4</td>
</tr>
<tr>
<td>Locals</td>
<td>18 (28% retained / 72% non-retained)</td>
</tr>
</tbody>
</table>

Gold Rush Days Expenditures

Visitors to the 2014 Gold Rush Days numbered 66,000 according to the Wickenburg Chamber of Commerce. Spending categories were grouped into sectors: RV, motel/bb, visiting friends and family (VFR), admission, restaurants, groceries, gas, shopping, and entertainment. Results are separated into non-local day trip visitors and overnight visitors. Local retained spending is also presented.

Findings show that Gold Rush Days day tripper expenditures were largest in the VFR sector with a total of $1,355,214.00 spent for 2014. This is followed by $708,630.00 spent on entertainment, $545,351.00 on shopping, and $434,322.00 on restaurants.
Overnight visitors spent most on lodging with a total of $1,580,370.00; it is also found that the next highest spending category is the VFR with a total of $1,185,277.50 spent. The next Groceries account for $790,185.00, restaurants total $395,092.50 and

Table 2: GRD Expenditures

<table>
<thead>
<tr>
<th>Expenditure Item</th>
<th>Non local Day tripper per person (Median)</th>
<th>Overnight per person per night (Median)</th>
<th>Expenditure – Non-local Day Tripper</th>
<th>Expenditure – Overnight visitors</th>
<th>Total Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV</td>
<td>$13.30</td>
<td>$420,378.42</td>
<td>$420,391.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motel/BB</td>
<td>$50.00</td>
<td>$1,580,370.00</td>
<td>$1,580,420.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VFR</td>
<td>$41.50</td>
<td>$1,355,214.00</td>
<td>$1,185,277.50</td>
<td></td>
<td>$2,540,529.46</td>
</tr>
<tr>
<td>Admission</td>
<td>$6.70</td>
<td>$218,794.00</td>
<td>$218,091.06</td>
<td></td>
<td>$436,898.32</td>
</tr>
<tr>
<td>Restaurant</td>
<td>$13.30</td>
<td>$434,322.00</td>
<td>$395,092.50</td>
<td></td>
<td>$829,440.04</td>
</tr>
<tr>
<td>Groceries</td>
<td>$6.70</td>
<td>$218,794.00</td>
<td>$790,185.00</td>
<td></td>
<td>$1,009,010.36</td>
</tr>
<tr>
<td>Gas</td>
<td>$10.00</td>
<td>$326,558.00</td>
<td>$199,126.62</td>
<td></td>
<td>$525,700.62</td>
</tr>
<tr>
<td>Shopping-antiques</td>
<td>$16.70</td>
<td>$545,351.00</td>
<td>$395,092.50</td>
<td></td>
<td>$940,473.06</td>
</tr>
<tr>
<td>Entertainment</td>
<td>$21.70</td>
<td>$708,630.00</td>
<td>$237,055.50</td>
<td></td>
<td>$945,714.91</td>
</tr>
<tr>
<td>Total</td>
<td>$116.60</td>
<td>$3,807,662.78</td>
<td>$5,420,699.10</td>
<td></td>
<td>$9,228,578.48</td>
</tr>
</tbody>
</table>

$395,092.50 spent shopping account for the next largest expenditures. Total non-local expenditures for Gold Rush Days 2014 is $9,228,578.48.

Findings also show significant contributions from retained local spending with a total of $76,665.23 in expenditures. Shopping is among the largest spending category with $19,713.60 spent by local residents. This is followed by $16,060.01 spent at
restaurants and $8,761.60 spent on admission fees. Total Gold Rush Days expenditures including retained spending are $9,305,233.72.

**Table 3: GRD Expenditure Including Retained Spending**

<table>
<thead>
<tr>
<th>Expenditure Item</th>
<th>Total Expenditures-Non local</th>
<th>Total Expenditures-Retained local</th>
<th>Total Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV</td>
<td>$420,391.72</td>
<td></td>
<td>$420,391.72</td>
</tr>
<tr>
<td>Motel/BB</td>
<td>$1,580,420.00</td>
<td>$1,580,420.00</td>
<td></td>
</tr>
<tr>
<td>VFR</td>
<td>$2,540,529.46</td>
<td>$0.00</td>
<td>$2,540,529.46</td>
</tr>
<tr>
<td>Admission</td>
<td>$436,898.32</td>
<td>$8,761.60</td>
<td>$445,659.92</td>
</tr>
<tr>
<td>Restaurant</td>
<td>$829,440.04</td>
<td>$16,060.01</td>
<td>$845,500.05</td>
</tr>
<tr>
<td>Groceries</td>
<td>$1,009,010.36</td>
<td>$0.00</td>
<td>$1,009,010.36</td>
</tr>
<tr>
<td>Gas</td>
<td>$525,700.62</td>
<td>$2,917.61</td>
<td>$528,618.23</td>
</tr>
<tr>
<td>Shopping-antiques</td>
<td>$940,473.06</td>
<td>$29,202.41</td>
<td>$969,675.47</td>
</tr>
<tr>
<td>Entertainment</td>
<td>$945,714.91</td>
<td>$19,713.60</td>
<td>$965,428.51</td>
</tr>
<tr>
<td>Total</td>
<td>$9,228,578.48</td>
<td>$76,655.23</td>
<td>$9,305,233.72</td>
</tr>
</tbody>
</table>

Gold Rush Days Economic Impact

IMPLAN results indicate that non-local spending at Gold Rush Days has a direct impact of $5,632,425.05, an indirect impact of $939,772.69 and an induced impact of $1,170,864.93 for the town of Wickenburg. One hundred two jobs were created as a result of the festival and produced a total of $3,340,369.42 in labor income. Value added impacts in the form of wages, salaries, and operating cost minus indirect costs totaled $4,959,811.30. The table also shows that approximately $3,340,369.40 was created in wages and salaries because of Gold Rush Days.
Table 4: Impact Summary

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Employment</th>
<th>Labor Income</th>
<th>Total Value Added</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>85.2</td>
<td>2,602,993.2</td>
<td>3,645,645.1</td>
<td>5,632,425.1</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td>7.9</td>
<td>342,566.7</td>
<td>567,250.0</td>
<td>939,772.7</td>
</tr>
<tr>
<td>Induced Effect</td>
<td>9.0</td>
<td>394,809.5</td>
<td>746,916.2</td>
<td>1,170,864.9</td>
</tr>
<tr>
<td>Total Effect</td>
<td>102.1</td>
<td>3,340,369.4</td>
<td>4,959,811.3</td>
<td>7,743,062.7</td>
</tr>
</tbody>
</table>

Retained local results show a direct impact of $44,230.50, an indirect impact of $8,705.60 and an induced impact of $8,248.30. Total created jobs as a result of retained spending were .9 producing a labor income of $23,546.80. While small in impact retained local spending contributed a value added total of $35,780.50 and an additional $23,546.80 in wages and salaries.

Table 5: Impact Summary Retained Spending

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Employment</th>
<th>Labor Income</th>
<th>Total Value Added</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>0.8</td>
<td>17,686.9</td>
<td>25,207.0</td>
<td>44,230.5</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td>0.1</td>
<td>3,078.7</td>
<td>5,311.7</td>
<td>8,705.6</td>
</tr>
<tr>
<td>Induced Effect</td>
<td>0.1</td>
<td>2,781.2</td>
<td>5,261.8</td>
<td>8,248.3</td>
</tr>
<tr>
<td>Total Effect</td>
<td>0.9</td>
<td>23,546.8</td>
<td>35,780.5</td>
<td>61,184.4</td>
</tr>
</tbody>
</table>

The top employment sector created as a result of Gold Rush Days is in retail with a total of 30 jobs created. Restaurants and performing arts created 16 jobs, and the lodging sector created approximately 14 jobs in the town as a result of the festival.
Table 6: Top Ten for Employment

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total Employment</th>
<th>Total Labor Income</th>
<th>Total Value Added</th>
<th>Total Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail - Miscellaneous store retailers</td>
<td>30.1</td>
<td>1,020,884.4</td>
<td>1,177,775.3</td>
<td>1,591,329.2</td>
</tr>
<tr>
<td>Performing arts companies</td>
<td>16.8</td>
<td>227,893.0</td>
<td>476,383.6</td>
<td>948,883.1</td>
</tr>
<tr>
<td>Full-service restaurants</td>
<td>16.1</td>
<td>393,350.5</td>
<td>476,428.1</td>
<td>859,007.5</td>
</tr>
<tr>
<td>Hotels and motels, including casino hotels</td>
<td>14.6</td>
<td>609,154.2</td>
<td>1,019,748.3</td>
<td>1,551,396.8</td>
</tr>
<tr>
<td>Other accommodations</td>
<td>4.4</td>
<td>221,975.7</td>
<td>296,831.0</td>
<td>408,392.8</td>
</tr>
<tr>
<td>Food and beverage stores</td>
<td>4.1</td>
<td>149,232.0</td>
<td>225,231.0</td>
<td>318,978.9</td>
</tr>
<tr>
<td>Real estate</td>
<td>2.4</td>
<td>44,561.5</td>
<td>226,631.7</td>
<td>312,872.6</td>
</tr>
<tr>
<td>Gasoline stores</td>
<td>0.8</td>
<td>35,065.6</td>
<td>49,421.7</td>
<td>70,488.5</td>
</tr>
<tr>
<td>Employment services</td>
<td>0.7</td>
<td>24,622.2</td>
<td>29,665.5</td>
<td>35,515.1</td>
</tr>
<tr>
<td>Limited-service restaurants</td>
<td>0.6</td>
<td>16,021.8</td>
<td>24,531.8</td>
<td>36,411.9</td>
</tr>
</tbody>
</table>

While jobs created through local retained spending was minimal, it is still
important to note that the performing arts sector produced .3 jobs with a total of
$4,646.80 in labor income. Full service restaurants also contributed .3 jobs with a higher
labor income of $7,304.50.

Table 7: Top Ten for Employment Retained

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total Employment</th>
<th>Total Labor Income</th>
<th>Total Value Added</th>
<th>Total Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performing arts companies</td>
<td>0.3</td>
<td>4,646.8</td>
<td>9,713.6</td>
<td>19,347.9</td>
</tr>
<tr>
<td>Full-service restaurants</td>
<td>0.3</td>
<td>7,304.5</td>
<td>8,847.2</td>
<td>15,951.6</td>
</tr>
<tr>
<td>Miscellaneous store retailers</td>
<td>0.2</td>
<td>5,739.2</td>
<td>6,621.2</td>
<td>8,946.1</td>
</tr>
<tr>
<td>Industry</td>
<td>2021</td>
<td>2022</td>
<td>2023</td>
<td>2024</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Real estate</td>
<td>0.0</td>
<td>423.6</td>
<td>2,154.4</td>
<td>2,974.2</td>
</tr>
<tr>
<td>Promoters of performing arts and sports and agents for public figures</td>
<td>0.0</td>
<td>106.0</td>
<td>176.5</td>
<td>465.7</td>
</tr>
<tr>
<td>Employment services</td>
<td>0.0</td>
<td>252.1</td>
<td>303.8</td>
<td>363.7</td>
</tr>
<tr>
<td>Gasoline stores</td>
<td>0.0</td>
<td>201.1</td>
<td>283.5</td>
<td>404.3</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>0.0</td>
<td>421.3</td>
<td>499.1</td>
<td>902.9</td>
</tr>
<tr>
<td>Limited-service restaurants</td>
<td>0.0</td>
<td>112.3</td>
<td>172.0</td>
<td>255.3</td>
</tr>
<tr>
<td>Retail - Food and beverage stores</td>
<td>0.0</td>
<td>124.8</td>
<td>188.3</td>
<td>266.7</td>
</tr>
</tbody>
</table>

Blue Grass Festival Visitor Profile

Similar to the Gold Rush Days’ visitor profile, most Blue Grass Festival attendees were females, senior citizens, having some college education and a median annual household income of either $40-$59,999 or $100-$199,999USD.

Age and Gender

The average age of Blue Grass Festival respondents was 62 years. Male respondents accounted for 45% of the survey population, while 55% were female.

**Figure 8: BGF Gender**
**Education Level**

Findings show that 2% of respondents possessed some high school or less; 11% were high school graduates; 35% had some college or technical school; 28% were college graduates; and 25% had a post graduate education level. The median level of education of survey respondents was some college or technical school.

**Figure 9: BGF Education Level**

![Pie chart showing education levels]

**Income**

Finding indicate that 8% of respondents earn less than $20,000 per year; 11% earn $20,000-$39,000; 22% earn $40,000-$59,999; 21% earn $60,000-$79,999; 16% earn $80,000-$99,999; 22% earn $100,000-$199,999; 0% earn $200,000-$299,999; and 3% earn above $300,000 annually. Median income of Blue Grass Festival respondents was $60,000-$79,999.
Similar to Gold Rush Days, 96% of Blue Grass Festival respondents were white/Caucasian; none were black or Asian, 1% were Hawaiian or Pacific Islander; 1% were of American Indian or Alaskan ethnicity; and 2% listed other ethnicities. Also similar to the demographic of Gold Rush Days and the survey region as compared to Maricopa County US Census data which shows an ethnicity as 83% White, 6.1% Black, 4.5% Asian, .7% Pacific Islander, 2.6% American Indian, 6.4% of other ethnicities.
Travel Behavior

Travel behavior shows that median party size for the Blue Grass Festival 2014 was 2 with median distance traveled being 65 miles (mean 254.8 with a standard deviation of 628.03). Eighty one percent of respondents stated that their primary destination was Wickenburg and 80% claimed that Blue Grass Festival was their main reason for visiting.

Median hours spent at the festival and it surrounding areas were seven (mean seven with a standard deviation of two). Forty nine percent of respondents were overnight visitors and spent 2-3 nights (mean three with a standard deviation of two) in Wickenburg and/or surrounding areas.

Table 8: BGF Travel Behavior

<table>
<thead>
<tr>
<th>Item</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party Size</td>
<td>2</td>
</tr>
<tr>
<td>Distance Traveled</td>
<td>254.8 miles</td>
</tr>
<tr>
<td>Day Visitors</td>
<td>49.4%</td>
</tr>
<tr>
<td>Hours spent</td>
<td>7</td>
</tr>
<tr>
<td>Overnight</td>
<td>50.5%</td>
</tr>
<tr>
<td>Nights spent</td>
<td>2-3</td>
</tr>
</tbody>
</table>

Blue Grass Festival Expenditures

Total visitors to Blue Grass Festival were 3,000. This number was used to calculate visitor expenditures per person for day trippers and per person per night for overnight visitors. Expenditures in the categories of RV, motel/bb, visiting friends and
family (VFR), admission, restaurants, groceries, gas, shopping, and entertainment are shown.

**Table 9: BGF Expenditures**

<table>
<thead>
<tr>
<th>Item</th>
<th>Non local Day tripper per person (Median)</th>
<th>Overnight per person (Median)</th>
<th>Expenditure - Non-local Day Tripper</th>
<th>Expenditure - Overnight visitors</th>
<th>Total Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV</td>
<td>$16.67</td>
<td>$24,004.00</td>
<td>$24,020.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motel/BB</td>
<td>$17.00</td>
<td>$24,480.00</td>
<td>$24,497.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VFR</td>
<td>$50.00</td>
<td>$78,000.00</td>
<td>$24,004.00</td>
<td>$102,070.67</td>
<td></td>
</tr>
<tr>
<td>Admission</td>
<td>$18.00</td>
<td>$28,080.00</td>
<td>$8,640.00</td>
<td>$36,744.00</td>
<td></td>
</tr>
<tr>
<td>Restaurant</td>
<td>$20.00</td>
<td>$31,200.00</td>
<td>$11,995.00</td>
<td>$43,223.33</td>
<td></td>
</tr>
<tr>
<td>Groceries</td>
<td>$22.50</td>
<td>$35,100.00</td>
<td>$11,995.00</td>
<td>$47,125.83</td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td>$20.00</td>
<td>$31,200.00</td>
<td>$9,590.00</td>
<td>$40,816.67</td>
<td></td>
</tr>
<tr>
<td>Shopping-antiques</td>
<td>$25.00</td>
<td>$39,000.00</td>
<td>$11,995.00</td>
<td>$51,028.33</td>
<td></td>
</tr>
<tr>
<td>Entertainment</td>
<td>$37.50</td>
<td>$58,500.00</td>
<td>$9,590.00</td>
<td>$68,134.17</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$193.00</strong></td>
<td><strong>$301,080.00</strong></td>
<td><strong>$136,293.00</strong></td>
<td><strong>$437,660.67</strong></td>
<td></td>
</tr>
</tbody>
</table>

Similar to Gold Rush Days, expenditures in the visiting friends and family (VFR) sector are among the highest for day trippers with $78,000.00 being spent. This was followed by $58,000.00 spent on entertainment and $35,000.00 spent on groceries.

Overnight visitor expenditures in the RV, motel/bb, and VFR sectors reflected the highest expenditures with approximately $24,000.00 in each sector. Total expenditures for Blue Grass Festival were $437,660.67.
Blue Grass Festival Economic Impact

Models show that Blue Grass Festival has a direct impact of $242,530.70 to the local economy with approximately 4 jobs created as a result of the festival. Indirect effects, include $42,577.50 with .4 jobs created and induced effects producing $49,754.80 with .4 jobs also created. Although impacts were not as high as those shown for Gold Rush Days, there is a significant impact from Blue Grass Festival. A total output of all festival sectors shows that $334,862.90 in total was injected into the local economy. Wages and salaries of labor income totaled $141,905 while other subsides minus indirect taxes totaled $210,498.

Table 10: BGF Impact Summary

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Employment</th>
<th>Labor Income</th>
<th>Total Value Added</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>4.0</td>
<td>109,913.1</td>
<td>152,858.4</td>
<td>242,530.7</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td>0.4</td>
<td>15,214.7</td>
<td>25,900.2</td>
<td>42,577.5</td>
</tr>
<tr>
<td>Induced Effect</td>
<td>0.4</td>
<td>16,777.2</td>
<td>31,739.4</td>
<td>49,754.8</td>
</tr>
<tr>
<td>Total Effect</td>
<td>4.7</td>
<td>141,905.0</td>
<td>210,498.0</td>
<td>334,862.9</td>
</tr>
</tbody>
</table>

The top employment sector produced by Blue Grass Festival is miscellaneous store retailers with 1.3 jobs created. Performing arts companies created 1.2 jobs and restaurants created .8 jobs as a result of the festival.

Table 11: BGF Top Ten for Employment

<table>
<thead>
<tr>
<th>Description</th>
<th>Total Employment</th>
<th>Total Labor Income</th>
<th>Total Value Added</th>
<th>Total Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail - Miscellaneous store retailers</td>
<td>1.3</td>
<td>$44,492.50</td>
<td>$51,330.20</td>
<td>$69,353.80</td>
</tr>
<tr>
<td>Item</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Performing arts companies</td>
<td>1.2</td>
<td>$16,067.40</td>
<td>$33,587.00</td>
<td>$66,900.10</td>
</tr>
<tr>
<td>Full-service restaurants</td>
<td>0.8</td>
<td>$19,987.80</td>
<td>$24,209.40</td>
<td>$43,649.90</td>
</tr>
<tr>
<td>Other accommodations</td>
<td>0.2</td>
<td>$12,681.70</td>
<td>$16,958.30</td>
<td>$23,332.00</td>
</tr>
<tr>
<td>Hotels and motels, including casino hotels</td>
<td>0.2</td>
<td>$9,622.70</td>
<td>$16,108.80</td>
<td>$24,507.20</td>
</tr>
<tr>
<td>Food and beverage stores</td>
<td>0.2</td>
<td>$6,867.80</td>
<td>$10,365.40</td>
<td>$14,679.80</td>
</tr>
<tr>
<td>Real estate</td>
<td>0.1</td>
<td>$2,134.90</td>
<td>$10,857.50</td>
<td>$14,989.10</td>
</tr>
<tr>
<td>Gasoline stores</td>
<td>0.1</td>
<td>$2,449.60</td>
<td>$3,452.60</td>
<td>$4,924.30</td>
</tr>
<tr>
<td>Promoters of performing arts and sports and agents for public figures</td>
<td>0.0</td>
<td>$380.90</td>
<td>$634.50</td>
<td>$1,674.00</td>
</tr>
<tr>
<td>Employment services</td>
<td>0.0</td>
<td>$1,194.20</td>
<td>$1,438.90</td>
<td>$1,722.60</td>
</tr>
</tbody>
</table>

Social Impact of Gold Rush Days and Blue Grass Festivals

As stated in the methods chapter, local residents were surveyed to determine social festival impacts. Findings indicate a positive attitude toward the festivals with strong support from town residents. Few negative aspects were found however, some do exist.

Value

When asked the reason why Gold Rush Days and Blue Grass Festival were valued, 52% of respondents answered that the festivals boosted the image of the town and that it was good for the community because of its social and economic benefits.

**Table 12: Image of Gold Rush Days and Blue Grass Festival**

<table>
<thead>
<tr>
<th>Item</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boosts Image</td>
<td>52%</td>
</tr>
<tr>
<td>Repeat attendance</td>
<td>22%</td>
</tr>
</tbody>
</table>
Respondents were asked if they would be willing to accept an increase in taxes to support festivals, if they believe the festivals are integral to the economy, and if these festival enhance Wickenburg’s image. While many agree that the festivals do enhance the town’s image and are an integral part of its economy, as well as a tool for enhancing and preserving Wickenburg’s western image while bringing in more visitors, most were not willing to support the festivals through an increase in taxes. However, many respondents were willing to pay an increase in admission fees of $1.00 - $6.00 to support the festivals.

**Figure 12: Value of Gold Rush Days and Blue Grass Festival**
In addition to these, respondents were also asked to place a monetary value on the festivals’ opportunities for cultural enrichment and education for the community. Many struggled to answer this question as some simply felt they did not “know” how much such a value should be worth. As a result few answered this question. Three respondents indicated a value of $800,000, $100,000, and $100 dollars. It is not known how these numbers were derived.

*Social Impact Resident Profile*

Resident respondents were 65% female and 35% male with the median age being 53. Most are high school graduates with an annual household income of $20,000 - $39,999. Most participants are white.
Environmental Impacts

An interview from the Wickenburg Chamber of Commerce stated that the largest environmental impact occurs at Constellation Park during both Blue Grass Festival and Gold Rush Days. Grading of the land for RV and general parking are among the most impactful to the natural environment, although no foliage is removed or damaged in this process. There is an increase in water use during Gold Rush Days; non-potable water is used to water the rodeo grounds to reduce dust and maintain a cushion for rodeo participants.

The Chamber of Commerce does not currently utilize indicators or measurements to determine what the amount of impacts are to the natural environment, although it should be noted that the chamber mentions that they are mindful of the gallons of water used during the events. (An exact number of gallons used was not provided). As mentioned in literature, it is important to measure impacts to determine the size and magnitude of impacts to the natural environment.

Chamber of commerce staff mentioned that many of the impacts of general tourism to the area are managed through a partnership with the Bureau of Land Management (BLM). In addition to their partnership with the BLM, the Chamber of Commerce partners with the Arizona Department of Game and Fish to reduce threats to wildlife in the area. The chamber regularly meets with these organizations to ensure impacts are kept to a minimum. Memberships in the Nature Conservancy and the Wickenburg Conservation Foundation are also utilized in this manner.
After contacting department directors within town management it became apparent that collaboration among the town staff and event organizers is minimal. Responses from attempts to contact different departments revealed that department managers felt events are part of the chamber of commerce’s responsibility and they have no role in hosting festivals and events. An interview with staff from the town’s Parks and Recreation department found that it does play a significant role in assisting with the set up and take down of most of the local events, including Gold Rush Days and Blue Grass Festival. They provide both recycling and general waste bins in an attempt to divert as much waste as possible. However, the interviewee mentioned that much of the recyclable material is contaminated, as festival attendees often do not notice or realize that recycle and general waste are separate. The department does not currently utilize indicators of exactly how much waste is diverted. The department also mentions that they partner with many of the same organizations as the chamber of commerce to address potential impacts including the Wickenburg Conservation Foundation.

The Wickenburg Conservation Foundation tries to ensure the sustainable growth of the town of Wickenburg. This is done by ensuring that development will not impact the surrounding natural environment of affect the character of the historic town. Part of their duties include the repair and maintenance of trails for riders and hikers. (Wickenburg Conservation Foundation, 2015).

DISCUSSION

*Economic Impact*

The research has demonstrates the economic importance of festivals and events is for communities and organizations alike (Warnick, Bojanic & Xu, 2013; Lee & Taylor,
This study supports other studies as they show that many jobs and labor income are created as a result of Gold Rush Days and Blue Grass Festival. Along with this, is the injection of a significant amount of money into the local economy from these two festivals. This allows the town to demonstrate the importance of the festivals and can assist with the attraction of potential sponsors for future festival support and further enhance the town’s local image to the region.

Findings show that the Visiting Friends and Relatives (VFR) Sector was highest producing expenditure. Many studies have expressed the important yet under-researched role VFRs play in economic impact. Literature explains that this segment is overlooked as many because tourism planners feel that this segment cannot be influenced (Backer, 2008, p.60).

Studies mention that most research on VFR tourists is based on the demand side of tourism, rather than the supply side (Young, Corsun, and Baloglu, 2007, p.497.) Extant research also indicates that hosts may play a significant role in visitor destination selection, but are not likely the only reason in making their choices. Destination attractiveness such as a warm climate, beautiful scenery, and known location of where VFR hosts live also assist in attracting visitors (Young, Corsun, and Baloglu, 2007, p.498). Destination attractiveness may also result in a longer length of stay for VFRs (Backer, 2008, p.67). This allows hosts the opportunity to act as ambassadors or tour guides for the VFR visitors. In turn, the hosts venture into places they would not typically explore and will also spend money at places they would not normally spend in. Although
this study did not focus on spending by hosts in relation to hosting VFR visitors, it is important to note that this is potential spending that may be added as additional economic impact.

This study shows that VFRs from the Gold Rush Days and Blue Grass Festival added significant expenditures to the town of Wickenburg. Spending from this sector was entered as miscellaneous retail in IMPLAN. Although the exact spending category was not revealed, the literature supports the notion that spending most likely occurred at restaurants, attractions, and visiting cultural events/attractions and lodging (Lehto, Morrison, and O’Leary, 2001, p. 202). VFRs also tend to spend with confidence as they may be influenced by their hosts’ recommendation (Young, Corsun, and Baloglu, 2007, p.500). This may also influence the high spending results of the VFR category. In future studies VFR segments should continue to be considered an important market as regards economic impact. This study highlights the significance of their role in festival and event-related expenditures.

Socio-economic issues

Many observers have written of the positive social impacts that accompany economic impacts such as increased quality of life through the provision of local amenities, infrastructure and jobs (Tyrrell, Paris & Biaett, 2012; Gibson, Kaplanidou, & Kang, 2012; Alves, Cerros & Martins, 2010; Moscardo, 2007). This study found that residents disagreed somewhat that the festivals’ economic benefits are utilized for the purpose of improved infrastructure or increasing job opportunities. It is important to note this as future research could provide further insight into the reason why residents may
feel this way. That outside vendors dominate both Gold Rush Days and Blue Grass Festival may also add to this sense among residents.

Tourist earnings also allows for the preservation of the town’s culture, which this study shows is valued highly among to the local community, particularly Wickenburg’s Wild West image and cowboy culture. As Alves, Cerros & Martins’ (2010) study shows, building community pride was the highest ranked indicator of importance for residents as an effect of the festivals they studied. The present study also found that along with economic benefits, are potential negative impacts in the form of increased traffic congestion, overuse, pollution, and damage to the natural environment may also occur. As with the current study, a consistency in agreement with these impacts is supported by the sample of resident respondents in Wickenburg. While the current study has shown that residents agree that both festivals contribute to these social and environmental costs, this may encourage the community to develop ways of reducing these impacts.

The idea of adding social and environmental impacts for a comprehensive economic impact (or TBL) is not new. However, there should still be room to consider further research, as it is important for event managers and academics to understand the importance of social and environmental impacts to the host community to achieve the goal of maximizing positive economic benefits while minimizing negative impacts.

This study aimed to discover the socio- economic positive and/or negative effects of festivals and events in Wickenburg in an attempt to offer a new perspective into the idea of TBL, net economic impact, or commensurability. Scholars, such as Tyrrell and his colleagues (2012) utilized the TBL approach to quantify the social and
environmental impacts. They mentioned the importance of measuring social and environmental impacts for the purposes of shared responsibility and community well-being. To determine TBL Tyrell, Paris, and Biaett utilized a discrete choice experiment which utilized TBL attributes to determine a numerical value for calculating TBL. Their social attributes consisted of community charity, community health and public openness. While their environmental attributes included water, energy practices; green building; and waste management and reduction.

This study differs in that it closely followed Andersson and Lundberg’s study utilizing the contingent valuation method (CVM), featuring willingness to pay (WTP) and willingness to accept (WTA) values. The study shows residents highly regard the festival and are willing to pay significant increases in fees to support the festival, while at the same time they were not willing to accept a tax hike to support the festivals. The inquiry into resident perceptions of festival value and image preservation are also highly important to the residents of Wickenburg, as this study suggests.

Environment

This study has also attempted to gain insight into environmental impacts of the Gold Rush Days and Blue Grass Festival through the use of limited interview data. Previous research argues that sustainable development is crucial in influencing decision making, management, advocacy, consensus building and for research and analysis (Parris and Kates, 2003, p.569.). However, there are many ways it can be measured. Among those are the United Nations Commission on Sustainable Development, the Wellbeing Index, the Environmental Sustainability Index, and the Ecological Index (Parris and
Kates, 2003, pp. 562-566). Andersson and Lundberg (2013) calculated their ecological footprint with an EPA Event Calculator utilizing resource-use categories. These included energy, transport, and waste use and carbon emissions. The possibility of using these tools was beyond the scope of this study and could not be utilized in reference to the two festivals due to time and budget constraints. Parris and Kates (2003 p. 559) concluded while “there are no indicator sets that are universally accepted”, it is important to draw indicators from existing research to adapt to the study scenario. Using this insight, I was able to make to create questions in regards to resource management and environmental impacts.

While findings show that the Wickenburg Chamber of Commerce is mindful of the amount water used and take precautions to minimize damage to local plants and wildlife. They do not have a standard of measure for the use of these resources. The town staff also mentions that they are of aware of waste that is produced by the events, but the town still does not measure the amount of recycled versus non-recycled material. The town continues to face the same dilemma of contaminated waste, resulting from festival attendees not caring and not paying attention to the difference between recycle and waste. According to the literature, it is important to have waste such as these measured to determine accurately and potentially reduce the amount of ecological impact these festivals have on the host community. This study found that while collaboration exists between state agencies and the chamber and town, it is lacking between the town and the chamber of commerce. Collaboration among stakeholders is important in ensuring that event managers can produce successful and responsible events.
LIMITATIONS, RECOMMENDATIONS AND CONCLUSIONS

Economic Impact

Retained local spending was presented as part of the economic impact of Gold Rush Days. While retained local spending was minimal, it still resulted in contributions to the local economy. The economic impact literature recommends the exclusion of local spending; therefore, the study did not capture a large sample of local expenditures as they were “screened” out of the sampling process, resulting in a smaller sample of retained local spending economic impact. Other limitations in economic impact included the visiting friends and family (VFR) segment. A breakdown of expenditures was not provided, thereby limiting the knowledge of exactly how this money was spent.

It is strongly recommended that future economic impact research attempts to place a stronger emphasis on retained local spending to provide a more accurate result for economic impact. Practitioners may also benefit from emphasizing on the VFR market, as this study shows this to be the highest spending category among visitors. Future research should include VFR spending categories to provide a more accurate picture of expenditure types.

Socio-economic and Environmental

This study provides new perspective to a traditional economic impact study by providing a social and environmental perspective. Many social aspects presented in the study are positive and consistent with the impacts mentioned in research. However, the use of the contingent valuation method (CVM) with willingness to pay (WTP) and willingness to accept (WTA) are not without criticism. Some limitations mentioned in the
literature are the participant’s ability to recall information accurately as well the fact that some questions were asked under hypothetical conditions (Walker and Mondello, 2007, p. 155), meaning that questions are asked as if they were going to happen but do not actually happen. This may result in hypothetical bias, as it is difficult to determine if respondents would actually exhibit the behavior they said they were willing to do, such as willing to pay increased admission fees. Open-ended questions regarding placing a monetary value on the festivals in the social impact survey also provided challenges. It was difficult for respondents to answer this question accurately and the few who did, could not provide their reasoning behind placing this value. Walker and Mondello characterize this as a “scope effect”. Other challenges of this study include a small overall sample size of local residents.

A larger sample size is recommended to provide more accurate results of social impacts to the host community. It is also important to consider the “scope effect” during survey design and possibly leave out opened ended questions that will not yield useable results.

As previously mentioned in the study, the fact that the environmental impacts of this study utilized limited amounts of interview data collection place a noteworthy limitation on the survey. Further empirical research including primary data collection (including interviews) is needed to determine environmental impacts of festivals and events accurately. It is recommended that this study be used as a starting point if event managers and academics currently have no environmental impact measurements and are seeking to create them to determine the environmental impacts of festivals and events.
Identifying, measuring and placing goals on environmental impacts of festivals and events can be used as a basis for determining these impacts. This study also supports the notion that collaboration among stakeholders is key in sustainable community development and should be an important consideration for event managers and community leaders.

Despite it limitation, this study adds to existing literature by utilizing a holistic reporting tool for economic impact. It provides yet another perspective as to this method and leave the opportunity to provide further empirical research as to potential environmental impacts of festival and events. This study further offers a valuable perspective to practitioners who wish to take their event planning abilities to the next level while preserving their destinations for future generations.
References

http://www.wickenburgchamber.com/event_listing/65th-annual-gold-rush-days-and-senior-pro-rodeo/

Admin. (2014, July 8). *Bluegrass Festival 36th Annual*. Retrieved from Wickenburg Chamber of Commerce:
http://www.wickenburgchamber.com/event_listing/bluegrass-in-the-desert/


APPENDIX A

ECONOMIC IMPACT SURVEY
Wickenburg Chamber of Commerce
Marketing Profile and Economic Impact of Visitors to Wickenburg

Thank you for agreeing to participate in this survey. Knowing about your travel and spending behavior will help us determine marketing profile of visitors to Annual Wickenburg <<Name of Festival>> and Wickenburg and assess their economic impact. We understand that privacy is of utmost importance to you. Your participation is voluntary. You can choose not to participate or to withdraw from the study at any time. Your responses will be kept confidential and only used in an aggregate form. If you have any questions concerning the research study, please contact Deepak Chhabra, School of Community Resources and Development, Arizona State University at 602-496-0172; deepak.chhabra@asu.edu.

Sincerely
Deepak Chhabra
Associate Professor, ASU

Section I: Purpose of visit and preferred activities

1) What is the primary purpose of your visit? (Please check one or more of the following)
- <<Name of Festival>>
- Passing through
- Weekend trip
- Visiting friends and relatives
- Leisure
- Other, please describe:

2) Please check each listed activity you have participated in or plan to participate in during your visit in addition to attending the <<Name of Festival>>:
- Museum
- Horseback riding
- Entertainment
- Walking/Hiking
- Historic walking tour
- Antique shopping
- Birding
- Other, please describe:

3) Is this your first visit to the <<Name of Festival>>?
- Yes
- No

4) Was this festival the main reason for visiting Wickenburg?
- Yes
- No
  a. If no, are you extending your stay because of the <<Name of Festival>>?
    - Yes
    - No
  b. If you have been coming for more than 10 years, indicate how many: ____________

5) Where are you coming from? ____________
   a. Distance traveled to the <<Name of Festival>>: _________ (miles- one way)

6) Is Wickenburg your primary destination?
- Yes
- No
  If no, your final destination is: _______

7) How much time are you planning to spend in Wickenburg?
- Day trip
- Overnight

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a. If day trip, number of hours: _____    If overnight, number of nights: ______
b. If overnight, are you staying in Wickenburg?   Yes    No

8) How many times have you been to Wickenburg? ____________

9) If local resident, please answer this Q. (otherwise move to Q. 10): If the <<Name of Festival>> was not happening, would you have traveled out of town to attend another event?   Yes    No

Section II: Trip motives
10) Please indicate the importance of each motivation in influencing your decision to attend the festival:

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Not Important</th>
<th>Slightly Important</th>
<th>Moderately Important</th>
<th>Very Important</th>
<th>Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>To enjoy the festival mood</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>To satisfy my curiosity</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>To relieve stress</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>To escape from routine life</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>To be with friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>To spend time with family</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>To view local community/culture</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Variety of things to see and do</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>It is part of my heritage</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Be with people of same interests</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>To purchase arts &amp; crafts</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other, please describe</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Section III: Travel Behavior in Wickenburg
11) What mode of transportation did you use to arrive here? (Please check one)
   Own vehicle    Rental RV    Rental car    Own RV
   Other, please describe:

12) How many people are in your party?   Women:   Men:    Children:____________

13) Who is traveling with you? (Please check one of the following)
   Family and Friends    Friends only    Family only    Organized group
   Traveling alone    Other, please describe:

14) What sources did you use to obtain information on the <<Name of Festival>> & Wickenburg (Check all that applies to you)?
   Newspaper    Radio    Online/Website    Word-of-Mouth
   Magazine    Friends    Social networking sites
   TV    Wickenburg Chamber of Commerce
   Other, please describe:
15) During the course of your visit, what is the approximate total amount you and/or your immediate group plans to spend in each of the following categories at the festival and in Wickenburg in general (if visiting from out of town)? (Please do your best to provide an estimate. It will help us to calculate economic impact).

<table>
<thead>
<tr>
<th>Item (please answer in $)</th>
<th>Total plan to spend at the &lt;&lt;Name of Festival&gt;&gt; ($)</th>
<th>Total plan to spend in Wickenburg outside the &lt;&lt;Name of Festival&gt;&gt; ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lodging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motel</td>
<td></td>
<td></td>
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<tr>
<td>RV</td>
<td></td>
<td></td>
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<tr>
<td>B&amp;B</td>
<td></td>
<td></td>
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<tr>
<td>Visiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends/Relatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food/restaurants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grocery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car Rental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle repair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping/art/antiques</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment</td>
<td></td>
<td></td>
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<tr>
<td>Other, please specify</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16) What is your overall satisfaction level of this visit to Wickenburg?

- Very satisfied
- Satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Dissatisfied
- Very dissatisfied
- Other, please describe:

17) Will you return to Wickenburg to visit other attractions/events? Yes No

Section III: User Profile

18) What is your gender? Male Female

19) What year were you born? __________

20) Which of the following best describes the highest level of education you have completed?

- Some high school or less
- High school graduate
- Some college/technical school
- College graduate
- Post graduate school

21) What is your zip code? __________

22) What is your approximate household income before taxes?
$<20,000 \quad$ $20,000 – 39,999 \quad$ $40,000 – 59,999 \quad$ $60,000 – 79,999$  
$80,000 – 99,999 \quad$ $100,000 – 199,999$  
$200,000 – 299,999 \quad$ $300,000 and Above$

23) What is your ethnicity? (Please check one)  
White  Black  
Asian  Native Hawaiian or Other Pacific Islander  
American Indian, Alaska Native  Hispanic  Other, Please describe:  

Thank you
APPENDIX B
SOCIAL IMPACT SURVEY
SOCIAL IMPACT OF WICKENBURG FESTIVALS
WICKENBURG CHAMBER OF COMMERCE

Thank you for agreeing to participate in this survey. Knowing your opinion about the value of the 67th Annual Gold Rush Days festival and the Bluegrass festival will allow us to assess their social impact on the host community. We understand that your privacy is of utmost importance to you and your participation is voluntary. Your responses are confidential, will only be used in aggregate form and you may withdraw from the study at any time. If you have any questions regarding this research study, please contact Deepak Chhabra, School of Community Resources and Development, Arizona State University at 602-496-0172; deepak.chhabra@asu.edu.

Sincerely
Karla Scott
Master of Science Candidate

Deepak Chhabra, Associate Professor
School of Community Resources and Development, ASU

SECTION I

Please check the option most applicable to you:

A. I value the Gold Rush Days & Blue Grass Festivals because of the following:

   I attend the festival every year
   I have the option to attend it in the future if I want to
   I will like to continue so that future generations can attend and experience it
   I will like it to continue because it boosts the image of my town and is good for the local community because it offers social and economic benefits

B. Willingness to pay:

1. If Gold Rush Days festival or the Bluegrass festival required an increase in admission fees, how much more would you be willing to pay to support Wickenburg’s efforts to host these festivals in the future?

   $1-$3
C. Value of the Gold Rush Days and Blue Grass festivals:

a. What monetary value would you place on the festivals for offering opportunities for cultural education/enrichment for the local residents?

b. If the festivals needed investment to improve and extend services and facilities, would you be willing to support funding through tax payer dollars?
   Yes       No

c. Do you think the festivals are an integral part of Wickenburg’s economy?
   Yes       No

d. Do the festivals enhance the image of Wickenburg?
   Yes       No

If yes, please provide reasons in support of your answer:

D) Which value will you associate with one day events?

a. What monetary value would you place on the festivals for offering opportunities for cultural education/enrichment for the local residents?

b. If the festivals needed investment to improve and extend services and facilities, would you be willing to support funding through tax payer dollars?
   Yes       No

c. Do you think the festivals are an integral part of Wickenburg’s economy?
   Yes       No

d. Do the festivals enhance the image of Wickenburg?
   Yes       No

If yes, please provide reasons in support of your answer:

SECTION II

Social and Environmental impact items on a Likert scale. Please rate each item.
<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>The festival brings a sense of pride for the local residents</td>
<td></td>
<td></td>
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<tr>
<td>The festival offers opportunities for social interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>It has increased quality of recreation opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It offers cultural exchange opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The festival preserves local culture and history</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The festivals increases traffic congestion and hazards</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>The festivals increase noise pollution and increase strain on local resources</td>
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<tr>
<td>The festivals increase quality of local infrastructure (improved roads and public facilities)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The festivals stimulate local economy through increased taxes</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>The festivals increase employment opportunities in Wickenburg</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Are there any social/environmental impacts associated with one day events such as the Fiesta, Cowboy Christmas Poetry and Guys who Grill? (Please refer to impacts above)
The festivals increase traffic congestion and hazards

The festivals increase noise pollution and increase strain on local resources

The festivals increase quality of local infrastructure (improved roads and public facilities)

The festivals stimulate local economy through increased taxes

The festivals increase employment opportunities in Wickenburg

SECTION III

User Profile

a. What is your gender?
   Male           Female

b. What year were you born? __________

c. Which of the following best describes the highest level of education you have completed?
   Some high school or less       High school graduate
   Some college/technical school  College graduate
   Post graduate school

d. What is your zip code? ________

e. What is your approximate household income before taxes?
   < $20,000
   $20,000 – 39,999
   $40,000 – 59,999
   $60,000 – 79,999
   $80,000 – 99,999
   $100,000 – 199,999
   $200,000 – 299,999
   $300,000 and Above

e. What is your ethnicity? (Please check one)
   White
   Black
   Asian
Native Hawaiian or Other Pacific Islander
American Indian, Alaska Native
Other, Please describe:

Thank you
APPENDIX C
IRB APPROVAL
EXEMPTION GRANTED

Deepak Chhabra
Community Resources and Development, School of
602/496-0172
Deepak.Chhabra@asu.edu

Dear Deepak Chhabra:

On 4/1/2015 the ASU IRB reviewed the following protocol:

<table>
<thead>
<tr>
<th>Type of Review:</th>
<th>Initial Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>Socio-cultural Impact of Wickenburg Festivals</td>
</tr>
<tr>
<td>Investigator:</td>
<td>Deepak Chhabra</td>
</tr>
<tr>
<td>IRB ID:</td>
<td>STUDY00002495</td>
</tr>
<tr>
<td>Funding:</td>
<td>None</td>
</tr>
<tr>
<td>Grant Title:</td>
<td>None</td>
</tr>
<tr>
<td>Grant ID:</td>
<td>None</td>
</tr>
</tbody>
</table>
| Documents Reviewed: | • RECRUITMENT SCRIPT.pdf, Category: Recruitment Materials;  
|                 | • Social Impact Survey.pdf, Category: Measures  
|                 | (Survey questions/Interview questions /interview guides/ focus group questions);  
|                 | • dcRevised- Updated Application - Feb 2015.docx, Category: IRB Protocol;  
|                 | • dcRevised Cover letter.pdf, Category: Consent Form; |

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 4/1/2015.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,
IRB Administrator

cc:
    Dale Larsen
    Karla Scott
    Dallen Timothy