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## The economic impacts of annual community festivals: A case of the Sturgis Falls Celebration, 2013

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THE ECONOMIC IMPACTS OF ANNUAL COMMUNITY FESTIVALS:

A CASE OF THE STURGIS FALLS CELEBRATION, 2013

An Abstract of a Thesis

Submitted

in Partial Fulfillment

of the Requirements for the Degree

Master of Arts

Chelsea Mae Tolle

University of Northern Iowa

May, 2014

## ABSTRACT

This study examines spending patterns and economic impact of visitors to the community of Cedar Falls, Iowa for the annual Sturgis Falls Celebration. The following aspects of festival tourism development were addressed: (1) visitors' travel motivations and satisfaction; (2) visitors' spending patterns and (3) the economic impacts of Sturgis Falls Celebration visitors in Black Hawk and contiguous counties.

The data for the study was collected using a questionnaire based intercept survey that was distributed to the attendees at the Sturgis Falls Celebration during the festival in 2013. Of the residents and visitors in attendance at the festival, 539 people participated in the study. Therefore, the findings of the study are applicable only to Black Hawk and contiguous counties in the state of Iowa.

The Sturgis Falls Celebration was held the weekend of June 27-30, 2013. The festival attracted both first time and repeat visitors, who traveled to Cedar Falls from around the state with the purpose of attending the celebration. Approximately 71.6% of the 63,000 attendees were local residents (Cedar Falls or Waterloo residents).

Initial Sturgis Falls Celebration visitors' expenditures of \$2.96 million generated \$4.4 million in terms of sales, \$2.2 million in terms of personal income, and created 56 new (seasonal) jobs. For every dollar spent by festival visitors, an output of 1.5 was generated in terms of sales (gross output multiplier 1.5). Furthermore, an estimated income multiplier of 1.57 and employment multiplier of 1.33 were generated.

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## CHAPTER I

### INTRODUCTION

Festivals and special events are a popular attraction throughout the world. Many communities rely on events to bring residents and visitors together to celebrate the community around them. Terry, Macy, and Owens (2009) found that communities value festivals and special events because they enhance the community image and provide activities and spending outlets for locals and visitors. Planning for festivals and special events involves many planning hours to ensure the most beneficial amenities and attractions are being provided for attendees.

Communities experience a range of benefits from special events and festivals. These benefits include building social cohesion, providing a specific time and place for families and friends to show their commitments to the area, to provide public goods beyond entertainment, and to provide a socially acceptable area for public actions (Rao, 2001). A community will also experience a number of economic benefits from special events and festivals. These benefits can include looking at the number of participants that attend the event and the estimated dollar value per event (Terry et al., 2009). These benefits help to determine the overall economic impact of the event.

### Statement of the Problem

Understanding the economic impacts of annual community festivals is necessary for event coordinators to understand the reasons why a festival is important to their community and surrounding areas. This information allows festival planners to show community members the financial impacts these events have on a variety of stakeholders. Sponsors also need to know how their donations contribute towards a successful event.

### Purpose of the Study

This particular study will focus on the economic impact of annual community festivals, specifically examined will be the Sturgis Falls Celebration 2013 in Cedar Falls, Iowa. Reviewing the economic impact of the annual event will display the economic effects the event has on Cedar Falls. Areas of research to be highlighted include examining the number of participants to attend the event and how the amount spent throughout the event will affect the increase in sales tax revenue. Festival planners will benefit from this data by learning how to make future events financially beneficial to the community. This data can also provide a defense on why a community festival would be important for a particular area.

### Research Questions

- What are the economic impacts of the Sturgis Falls Celebration 2013 on Cedar Falls, Iowa?
- Why are these economic impacts important to the host community (Cedar Falls)?
  - How long do these impacts last in the community?
- Do different lengths of festivals lead to different economic impacts within the community?
- Do surrounding communities benefit from similar economic impacts as the host community?

### Significance of the Study

Annual community festivals have impacts on their surrounding communities and residents, these communities continue to benefit from the economic impacts after the festivals. Not all annual events have a significant impact on the host community. However, when a host community has the opportunity to create a successful event, the impacts are evident through many different factors of the area.

The Sturgis Falls Celebration is a major tourism attraction to the Cedar Valley each year. Research from Besculides, Lee, and McCormick (2002) states “tourism is a way to increase pride and create cultural identity, cohesion, and an opportunity to

exchange ideas” (p. 306). Festivals and special events are proving to be important for a community, but festival organizers must show successful outcomes.

### Delimitations

Many aspects of the research study can be controlled by the researchers to better ensure the most accurate results are obtained. These aspects include: participants, survey instrument, times/locations of survey collection and results being generalized. The participants are controlled based on who is picked to be in the study. These participants are also allowed to decline, if they would not like to participate. The survey instrument is designed by the researcher, specifically for the particular event. The times and locations of survey collection are determined by the researcher and the researcher has the authority to decide how to interpret the results of the study. Each of these decisions can impact how the study turns out.

### Limitations

There are also aspects of the study the researchers do not have control over, these include: weather and who is in attendance of the festival. The weather during the event can impact how many people are in attendance and the amount of time these people stay at the event. Attendance of the Sturgis Falls Celebration is open and free to all members of the public. This type of event attracts all types of people and cannot be controlled by anyone. The researcher also cannot control a person’s attitude towards

the survey once it has been handed over. They may complete it quickly without paying attention to the desired information.

### Assumptions

It is assumed that survey collectors will use non-probability random selection to approach individuals to participate in the study. It is also assumed that weather will not affect the number of visitors during the Sturgis Falls Celebration.

### Definitions of Terms

- Direct Economic Impact: direct injections of “new” money into the community (Andersson & Lundberg, 2013)
- Direct Expenditure: estimate of all expenditures that festival visitors incur related to the event (Andersson & Lundberg, 2013)
- Event: any event that takes place within specific intervals; flexible enough to accommodate limited time exhibits or special events at existing venues (Miller, 2007)
- Indirect Impact: additional input purchases made by local businesses as a result of the direct impact (Miller, 2007)
- Induced Impact: created when local business owners, suppliers, and employees spend the additional income that they earned as a result of the direct and induced impacts (Miller, 2007)

- Instantaneous Capacity: the total number of people the space can hold at any one point in time (Kelven Tan, personal communication, April, 2013)
- Intercept Survey: a set of questions designed to gather information directly from the event attendees (Carter & Zieran, 2012)
- Multiplier Effect: the number of times a dollar “changes hands” before leaving the community (Miller, n.d.)
- Sample: sub-set of the total number of people that could be surveyed (Miller, 2007)



## CHAPTER II

### REVIEW OF RELATED LITERATURE

Since the recent economic downturn, many local governments have been faced with budget cuts. These cuts have caused difficult decisions, because communities still rely on those programs being cut. One way many communities have decided to supplement the budget is through community festivals (Carter & Zieren, 2012). The growth of popularity of festivals and special events has risen in recent years. The popularity and diversity of the events is important for host communities (Gursoy, Kim & Uysal, 2004). According to Getz (2012) researchers are unable to explain why the sudden increase in interest of festivals and special events. The current hypothesis is that many societies are now multi-cultural and have the opportunity to enrich the lives of many members of that particular society. Also, the urban life style is becoming more populated and this can cause many stressors in a person's life. The special events and festivals have the potential to provide a location for society members to come together and share identities and places of significance. If run correctly, these festivals have the potential to generate extra income for the host community. The event should be sure to share the community's story and contribute to the unique image. This can be done by ensuring local talent is featured and local businesses are used as partners for the event (Carter & Zieren, 2012).

### Community Based Tourism

Before examining community based tourism and the most effective ways to implement, it is necessary to understand what a community means. According to Encyclopedia Britannica (2008) community is a social group whose members reside in a specific locality and share a common cultural and historical heritage. A community can also be a location inhabited by a specific group. A group of people having something in common and actively engaging with each other to generate a shared identity can be another way to look at the definition of community (Anderson, 1991 within Salazar, 2012). Even though there can be multiple ways to define a community, they all have some combination of space, people, and social interaction (Iorio & Corsale, 2014).

Tourism is an industry that contributes significantly not only to a community, but to the United States economy as well. This is because a wide range of business sectors are being impacted and the event has the possibility of impacting employment and payroll incomes (Bonn & Harrington, 2008). The employment and payroll incomes have the potential to impact federal, state, and local governments in the form of taxes. The Travel Association of America (2005, within Bonn & Harrington, 2008) estimated that in 2004 \$100 billion in taxes were generated based off direct sales from tourism.

Community based tourism presents a way to provide benefits to all affected by tourism through consensus-based decision making and local control of development (Salazar, 2012). Members of the community are given the opportunity to design and implement tourist attractions for locals and residents. When community based tourism

is implemented correctly, multiple benefits can be felt throughout the community. These benefits include generating income and employment, benefits from natural resources prompting the community to use the resources in a sustainable way, and can add value to the area through economic diversification (Rozemeijer, 2001 within Salazar, 2012).

There are four levels of implementing community based tourism. The event must be economically practical; meaning that the revenue from the event must exceed the costs. Also, the event must be ecologically sustainable; meaning that the environment is not jeopardized because of the event. Thirdly, there must be an equal distribution of costs and benefits to all participants of the event; meaning that locals and visitors must see the benefits. Lastly, the organization must be recognized by all stakeholders to represent all community members. The opinions of any community members cannot be ignored in order to host the event; this is one of the major challenges of community based tourism. The event must be accepted by various interest groups within the community, but it also needs to be economically beneficial and leave the environment sustainable (Salazar, 2012).

“Community based tourism suggests a symbolic or mutual relationship where the tourist is not given central priority but becomes an equal part of the system” (Wearing & McDonald, 2002 within Salazar, 2012, p. 10). One way this can be accomplished is through community participation where all investors are involved in a way that the decision making is shared (Okazaki, 2008). Another way to create the

multiple relationships is through networking between outside sources and local community members. The interaction (or network) between the two sides of the event can help to create the bonding relations within the community and strengthen social inclusion (Iorio & Corsale, 2014). Finding the right balance between the economic gain and culture integrity for the community can be difficult, but when outside sources are combined with locals, ideas can be looked at in a different light to ensure all opinions are being considered. Networking also helps the local community to spread the word about the event to the outside world.

The first step to creating community based tourism is to examine the community's current situation and indicate the areas to promote. It is important to approach local issues with caution, because backlash by the locals could cause hostility towards tourists. Once the community's assets (local people, natural environment, infrastructure, facilities, and special events) have been identified, planning can begin to determine how to show off these assets to tourists. Tourism is based on a community's current assets and it is important to ensure they are viewed in a positive way. Local public involvement is a driving force to protect the community's assets and encourage their use for tourism related income. To ensure and increase a project's longevity and achievability, the plans should be linked with the overall socioeconomic development of the community (Okazaki, 2008). When local residents have an input in the decision making process, sustainable tourism has the opportunity to occur. The planning process becomes more effective because all parties are being heard and looked out after. The

locals must be the driving force behind the best interest of the community (Iorio & Corsale, 2014).

### Significance of Community Festivals/Events

Festivals and special events lead to many benefits within the host community. As stated earlier, these benefits include building social cohesion, providing a sense of place, providing public goods beyond entertainment, and providing a socially acceptable area for public actions. Values and beliefs can vary between people within a community based on how their experiences have influenced them. Community-based festivals focus on economic benefits for host communities and the effects of the tourism promotion. These festivals provide the opportunity for residents and visitors to collectively experience an event that is distinct from everyday life (Huang, Li & Chi, 2010). Derrett studied communities to better understand how people are influenced. These values, interests, and aspirations are influenced by a person's space and environment, which leads to a sense of community, that influences how the community celebrates, that affects the community's well-being and in turn informs the environment in which individuals and groups define their values and beliefs (2003, p. 52).

Better understanding how people are influenced can help a community understand which type of festival is best. Three major elements can help to determine a festival type: the destination or place, the people who reside in the location, and the visitors that are attracted to the location or festival (Derrett, 2003). When a location is

better understood a more efficient festival can be created. The host community can also encourage the festival to enhance or preserve local culture and history. This preservation can generate economic benefits, which leads to the local tourism industry being stimulated (Huang, et. al, 2010).

Many times a “Community Main Street” program or “Tourism Bureau” is responsible for organizing a large scale event for the community. It can be difficult for these organizations to justify to community members and/or officials why spending for the event is necessary for the community. One way to show the justification is through festival evaluations. These evaluations are used to determine whether the positive impacts outweigh the cost of putting on the event. The results are then shared with policy makers and sponsors to help to determine which events are necessary to sponsor (Carter & Zieren, 2012). The results also have the potential to showcase the incentives for businesses that decide to become involved with the festival. The promotional opportunities for businesses associated with the festival may be greater than initially realized (Gursoy, et al., 2004).

### Economic Impacts

Many communities are interested to see how an event has an impact on the host community. Bozman, Frye and Kurpis (2010) stated, “Using survey data alone is normally considered insufficient to estimate economic impact in all but some limited and unusual circumstances” (p. 67). It is essential for data collectors to also conduct

another form of collection when determining an economic impact. One type of data collection does not necessarily tell the entire story of how the festival impacted the host community. Utilizing the economic impact analysis by itself can provide a narrow perspective about the impacts of tourism on the host community (Stynes, 2000).

In order to estimate the economic impact of visitors' expenditures in Cedar Falls during the Sturgis Falls Celebration, the uses of the output from the sector (expenditures of festival visitors) were examined as inputs to other sectors of the economy. Resulting models estimate economic effects of visitors' expenditures in Cedar Falls on the total value of economic transactions and on the overall level of household income. An accurate assessment of the event impacts requires the researcher to follow the specific economic impact framework. This framework helps to determine the source of the expenditure, the geographic starting point of the expenditure, the end point of the expenditure, and the reason for the expenditure (Tyrrell & Johnston, 2001).

Direct impacts (inputs) are the primary impacts of an economic impact (Janeczko, Mules & Ritchie, 2002). These impacts are injections of money into the economy of the host community, which are multiplied further, based on linkages of different economic sectors in the area. Direct effects are the economic impacts in different economic sectors that are resulting directly from the injection of these inputs. The secondary impacts analyze the new money being spent within the community and include indirect and induced impacts (Janeczko, et al., 2002). Indirect impacts measure the total value of supplies and services supplied to festival-related businesses by the

chain of businesses which serve these organizations. Induced effects accrue when festival-related businesses and businesses in the indirect industries spend their earnings (wages, salaries, profits, rent and dividends) in goods and services in the area. The total impacts are the sum of direct, indirect and induced effects and are the total of transactions attributed directly to expenditures of Sturgis Falls Celebration visitors in Cedar Falls. The residents of the host community are most concerned with the impact that will impact them, not only the impact that filters back to the city council (Crompton, Lee & Shuster, 2001).

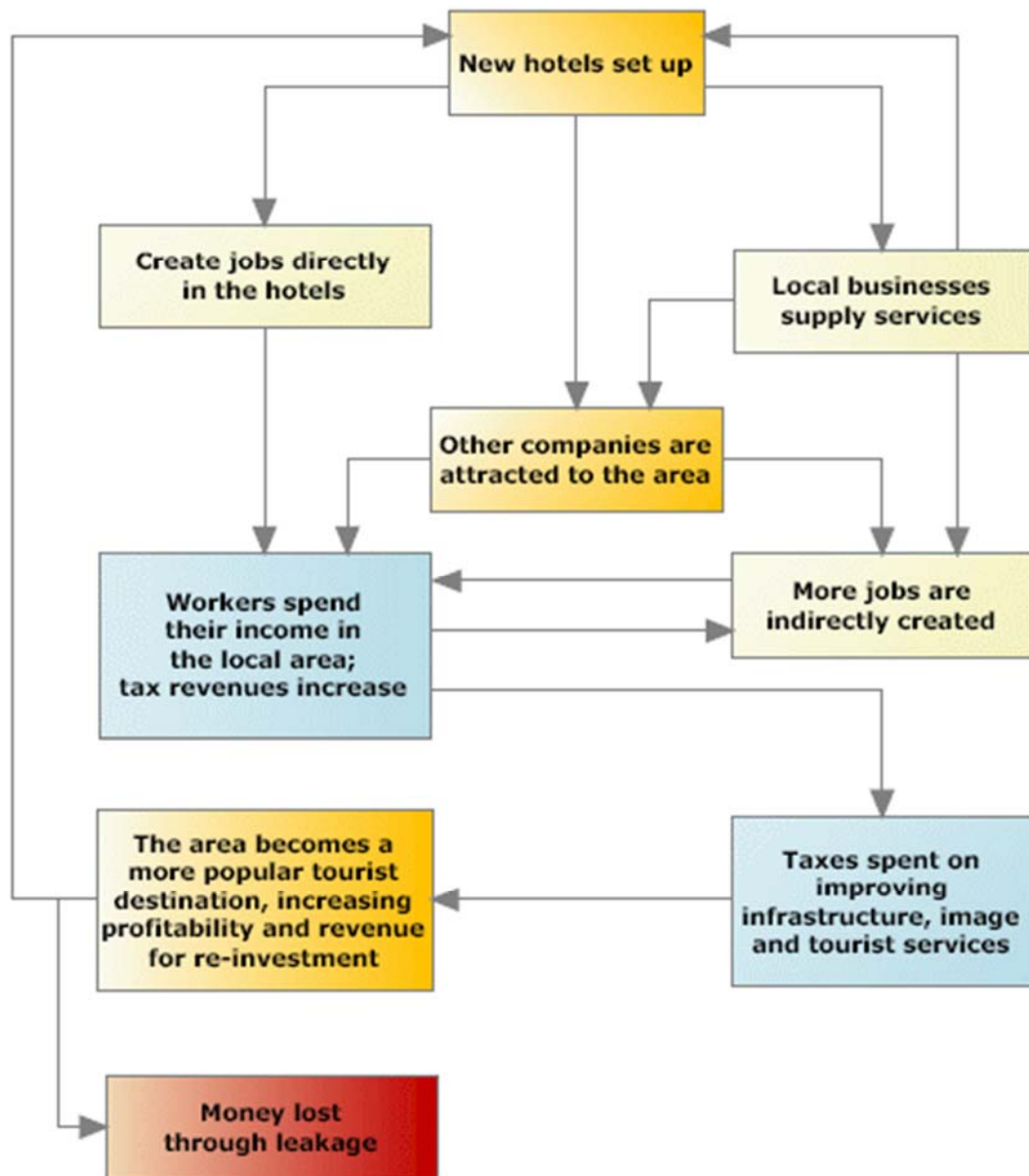
The multiplier effect refers to the number of times a dollar changes hands within the community before being spent elsewhere, outside of the area. The festival organizers and community leaders are able to better understand the “ripple effects” happening within the community because of the festival expenditures (Miller, n.d.). Output in the economy is stimulated because of the expenditures by festival and special event attendees that filter through the local economy (Saayman & Saayman, 2006). A visual representation of this can be seen in Figure 1.

Figure 1 uses the startup of a hotel in the area as the initial source to bring money into the community. Jobs are created to build the hotel and current local businesses are used to supply the materials for the project. Other companies are attracted to the area because of the new hotel; which creates more jobs for the area. All employees begin spending their income, which leads to an increase in tax revenues. The tax money is spent to improve infrastructure in the community. This money goes back



into the community or to the residents and some of the money leaks out of the area.

The cycle is then repeated to continue improving the community.



*Figure 1: Visual representation of the multiplier effect (Barcelona Field Studies Centre, 2013).*

The multiplier effect was developed by the tourism industry and is used as an indicator in the formula used to calculate economic impact analysis. As applied to the study, this theory holds that it is expected for the independent variable (amount of money spent by visitors to the festival) to influence or explain the dependent variable (economy of the community hosting the special event) because the amount calculated will show the economic impact of the festival on the host community.

The multiplier provides a way for total festival impact to be estimated and show the change of economic activity around the host community. This change is a ratio (normally between 1.0 and 3.0) that will display the initial change of total economic impact to initial economic impact, but will vary based on the amount of economic activity. The multiplier will also display the number of times the dollar changes hands within the community before leaking out (Miller, n.d.). If a large multiplier is revealed it shows there were few leakages of expenditures from the host community during and after the event (Saayman & Saayman, 2006). In an ideal world, the total expenditures would stay in the host community, but that is not possible because not all resources are available within one community.

Two types of multipliers exist: Type I multipliers examine the changes linked to industries (to the festival) due to the increase in demand (Miller, n.d.) or the direct and indirect effects of the production side of a regional economy (Wagner, 1997); Type II multipliers look at the effect on linked industries (to the festival) and the induced and/or consumption effect (Miller, n.d.) or the household consumption through the spending of

wage income (Wagner, 1997). Many researchers determine both types of multipliers and then examine the results together.

It is important to remember that the multiplier only represents an estimate of the economic impact and should be interpreted respectively. These estimates can lead to festival planners determining how employment, gross sales, and income sectors were impacted because of the festival. A comparison of these sectors can help festival planners and community leaders determine where increased time and resources need to be focused (Miller, n.d.).

#### Economic Impacts of Festivals

The Hill Strategies company state, “Festivals and events have impacts that go well beyond what can be measured in economic terms” (2003, p. 2). Andersson and Lundberg (2013) explain that an event is likely to have a social, cultural, and environmental impact on the community as well as the people at the event. When people support an event in their community it is most likely because they are being given the opportunity to interact with friends and family members. These interactions can encourage the participants to spend the money that eventually leads to the economic impact.

An economic impact analysis is completed to measure the economic benefits accrued in a host community. When these economic investments are conceptualized as going back to the residents (not intended for the city council), it helps community

officials and researchers to include all expenditures during the festival time frame (inside festival gates and elsewhere in the community) in the economic analysis (Crompton, 2006). Running the economic impact analysis will help the researcher to better understand exactly how the host community is being impacted by the festival or special event. Larger events have a greater potential for generating a larger economic impact because of the attendance size and greater media coverage. Participant-based events may also generate a larger expenditure per person/party than the spectator-based events. This is because each individual is encouraged to become a part of the event, instead of merely watching. A festival creates a number of impacts on the host community such as: increased expenditures, creation of employment, increase in labor supply, increase in public finances (such as sales tax), increase in standard of living and increase in awareness of the area. Even though each of these impacts is felt within the community, it is always necessary to determine ways to make the impact larger and create a more successful event. This can be done by increasing: visitor length of stay in the area, visitor expenditures in the area, destination awareness, and civic pride or community support (Myles, Carter & Barrett, 2012). When each of these areas are closely examined and understood how they impact the host community, a successful event can be created for the community and visitors to enjoy.

Table 1 shows a matrix of different economic impact studies that have been completed across the world and the results founded. This information is helpful to the researcher because it can lead to an explanation as to why one method of collection is

preferred over another for each specific festival or special event. As noticed in the table, the visitor survey tool is most commonly chosen by researchers. This could be because the survey allows for visitors to easily share about their spending patterns. It also allows the researcher the opportunity to ask demographic questions to better understand the target market (Myles, et al., 2012; Janeczko, et al., 2002).

Table 1

*Economic Impact of Festivals Matrix*

| <b>Author, Year</b>                                | <b>Location</b>            | <b>Festival/Event</b>              | <b>Method</b>        | <b>Results</b> |
|--|----------------------------|------------------------------------|----------------------|----------------|
| Carter & Zieren (2010)                             | Columbus, Mississippi      | Market Street Festival             | Intercept Survey     | \$7,320,000    |
| Carter & Zieren (2010)                             | Ocean Spring, Mississippi  | Peter Anderson Arts Festival       | Intercept Survey     | \$13,000,000   |
| Crompton, et al., (2001)                           | Ocean City, Maryland       | Springfest                         | Interviews           | \$1,922,000    |
| Janeczko, et al. (2002)                            | Snowy Region, Australia    | AMBA Cup Mountain Bike Race        | Survey               | \$88,459       |
| Janeczko et al. (2002)                             | Snowy Region, Australia    | National Runners Week              | Survey               | \$117,359      |
| Janeczko, et al. (2002)                            | Snowy Region, Australia    | Shakespeare Festival               | Survey               | \$17,360       |
| Janeczko, et al. (2002)                            | Snowy Region, Australia    | Thredbo Jazz Festival              | Survey               | \$122,743      |
| Sustainable Tourism and Environment Program (2005) | Northeast Iowa Communities | Place Based Food Tourism           | Survey               | \$2,638,811    |
| Sustainable Tourism and Environment Program (2007) | Eugene, Oregon             | Eugene International Film Festival | Intercept Survey     | \$455,925      |
| Tyrrell & Johnston (2001)                          | Newport, Rhode Island      | Newport Folk Festival, 1997        | Survey               | \$1,088,000    |
| University of Baltimore (2001)                     | Talbot County, Maryland    | Waterfowl Festival                 | Intercept Interviews | \$5,000,000    |

Janeczko, et al. (2002) identify the first step to ensuring the survey method will work properly for the economic impact study is to identify trends within the host and surrounding communities. This can help researchers to determine the specific

demographic questions that are needed to complete the survey. A weakness of using the survey tool instead of an interview is inconsistency; “All people are different and do things in a different way” (p. 19). Training and instruction materials must be provided to all survey administrators to make sure everyone understands the purpose of the research. This will also help to create consistency in how the research is presented to participants.

## CHAPTER III

### METHODOLOGY

#### Economic Impact Studies

An economic impact analysis seeks to estimate changes in local and/or regional spending, output, income, and employment associated with a tourist event, policy, or destination. It is a conscious attempt at improving the decision-making related to the community's economic development (Stynes, 2000; Tyrrell & Johnston, 2006). Local planners and policy makers rely on the results to assess the economic consequences and benefits of the tourist events (Tyrrell & Johnston, 2001).

The economic impact analysis will track monetary payments as they move throughout the regional economy. The transfer of payments from one group is being watched as it moves to an alternative group (Tyrrell & Johnston, 2006; 2001). Economic impact studies tend to emphasize the benefits displayed in the tourist destination and can sometimes discount for the costs related to the attractions. To have an accurate assessment of the event, it is necessary to examine the benefits and cost together. Many times the costs are overlooked because they are not as tangible as the benefits (Ap & Crompton, 1998).

Economic impact studies can become a powerful tool for the tourism sector when utilized with integrity. They are designed to supplement the traditional financial balance sheets and provide information to local leaders. The study is not an exact process and should be regarded as best guess estimation (Crompton, et al., 2001). To



have a successful economic impact study and tourism attraction, the community support is necessary. The attraction has the potential, and does, impact the community as a whole (Stynes, 2000).

An economic impact study is a multi-step project. This particular study incorporated six major steps including: determining a methodology for data collection, designing the survey, determining methodology for estimating visitors, revising and finalizing the survey, data collection and data analysis. As seen in the timeline displayed in Table 2, many aspects of designing the project overlap. This is beneficial to the project to ensure all aspects are flowing together in a cohesive manner. It is also shown in the timeline that the project is a multi-month project. This ensures the researchers have ample time to design and facilitate the study in the most efficient way.

Table 2

*Timeline for Economic Impact of Sturgis Falls*

|  | Jan – Mar 2013 |   |   | April – June 2013 |   |   | July – Sept 2013 |   |   |
|--|----------------|---|---|-------------------|---|---|------------------|---|---|
| <b>Task 1: Determining Methodology for Data Collection</b>     | ■              | ■ |   |                   |   |   |                  |   |   |
| <b>Task 2: Designing Survey</b>                                |                | ■ | ■ |                   |   |   |                  |   |   |
| <b>Task 3: Determining Methodology for Estimating Visitors</b> |                |   | ■ | ■                 |   |   |                  |   |   |
| <b>Task 4: Revising and Finalizing Survey</b>                  |                |   |   |                   | ■ | ■ |                  |   |   |
| <b>Task 5: Data Collection</b>                                 |                |   |   |                   |   | ■ |                  |   |   |
| <b>Task 6: Data Analysis</b>                                   |                |   |   |                   |   |   | ■                | ■ | ■ |

### How to Interpret Data

An economic impact analysis can be measured and interpreted through several models (Davies, Coleman & Ramchandani, 2013). Saayman and Saayman (2006) state, “The economic benefits of festivals flow from the fact that the tourism industry consists of a number of different but interlinked service sectors (p. 571). Each of the differing models relies on expenditures to be spread out between the different festival service sectors.

Some of the models that could be utilized in the analysis of an economic impact study include the TEIM, RIMS II, CGE model and Input-Output models. The TEIM is the United States Travel Data Center’s Travel Economic Impact Model. This model focuses on expenditures by United States’ residents traveling more than 100 miles from home and includes one or more nights of paid accommodations. All expenditures are recorded in specific categories to determine impacts in each sector. The RIMS II is a regional input-output model created by the Bureau of Economic Analysis. This model also records tourist spending in economy categories based on the item purchased. The total output earnings and employment increases produced are discovered by the tourism expenditures being multiplied by the sector multipliers (Horváth & Frechtling, 1999). The CGE model is a computable general equilibrium model. This model focuses on the equilibrium links between production structures, incomes of various groups, and demand patterns. It also looks at international trade, economic development, public finance, macroeconomics and natural resources. This type of model is supply and

demand driven and conducts a comparative analysis for expenditures. Input-Output models focus on the uses of the output from each economic sector as an input to other sectors in the economy (Zhou, Yanagida, Chakravorty & Leung, 1997). The main use of the Input-Output model is to compare the relative impacts made by different types of tourism versus other sectors of the economy (Horváth & Frechtling, 1999).

For this particular study the Input-Output model was preferred because it provided a comprehensive view of the economy of the host community of the festival and would have the ability to determine sectorial impacts as well (Horváth & Frechtling, 1999). Research shows that a multiplier analysis within an Input-Output analysis has been favored as the most credible method for measuring an economic impact of a festival or special event (Saayman & Saayman, 2012 within Davies, et al., 2013)

Intercept surveys are most commonly analyzed through the IMPLAN (impact analysis for planning model) software. This software was created in 1993 by two researchers at the University of Minnesota. It was important for the software model to examine the flow of products from each industrial sector to each of the sectors utilized by consumers. A weakness of the IMPLAN software is that it is inappropriate to use with large impacts because it assumes a linear design to production function. The model also assumes that full employment is the norm for the host community. An additional weakness of the software is that it compares local economic impacts to national averages (Bonn & Harrington, 2008). Utilizing national averages can be a disadvantage because not every community looks like the nation as a whole. It is difficult for IMPLAN

to be supplied specific data for each host community and examine the local industry (Tyrrell & Johnston, 2006).

Strengths of IMPLAN include being provided with detailed estimates of sectors at the county level. This information can become more specific for the local community than the data displayed for the national level. The software also has the ability to provide a one-year prediction for the host community and allows for customization with the analysis (Bonn & Harrington, 2008). When a host community is given the ability to see into the future they are shown the areas needing the most focus to continue to be successful.

This analysis develops three types of economic impact measures (sales (output), personal income, and employment), all from the single input values of one event (Crompton & Lee, 2000; Miller, 2007). Sales measures are based on the effect of extra visitor spending on the economic activity within a host community. The visitor expenditures are related to an increase in business turnover. Personal income measures are based on the effect of extra visitor spending resulting in a level of personal income in the host community. This economic benefit is received by the residents based on the costs that were invested throughout the event. Employment measures are based on the effect of extra visitor spending on employment within the host community. This measure is based on three assumptions; (1) includes full and part-time jobs, (2) all existing employees (within the host community) experienced an increase in employment level, (3) all new jobs created because of the festival are filled with local

residents (Crompton & Lee, 2000; Crompton, 2006). All three of the economic measures are looked at by the IMPLAN software to determine the festival's economic impact on the host community.

IMPLAN showcases three types of economic impact benefits felt by host communities; direct impacts, indirect impacts, and induced impacts. The formula used to determine the impact is:  $(\text{direct impact}) + (\text{indirect impact}) + (\text{induced impact}) = (\text{total impact})$ . An accurate estimate of economic impact is dependent upon an accurate estimate of direct impacts. When determining the direct impact, it is important to indicate where new revenues are coming from and where they are expected to go. Once the impacts are determined, a multiplier is given to better understand how the impact is multiplied on the community. The multiplier impact is always greater than one and represents the sum of direct, indirect, and induced impacts (Miller, 2007).

#### Problems with Existing Studies

Crompton and Lee (2000; Crompton, 1995) have proposed the principles central to the integrity of economic impact analysis. Two of these principles include the exclusion of local residents and the exclusion of time-switchers and casuals. The exclusion of local residents is important because it is mentioned that the money being spent by local residents is money that would have been spent within the community otherwise. This money has simply just been removed from an alternative event (switched spending). The resident's money represents a "recycling" of money that

already existed within the community. The community residents provide the initial funds for the community and they receive an investment return in the form of new jobs and more household income. The money spent in the community by visitors is what contributes to the higher income and jobs for residents. Including local expenditures in the economic impacts is necessary if the event encouraged locals to stay in the area specifically for the event. This demonstrates that the event saved an income loss by encouraging the locals to spend locally, instead of traveling (Miller, 2007). Saayman and Saayman (2006) remind researchers that without distinguishing between resident and visitor spending the numbers become inflated. This causes sponsors and promoters to use the higher values to persuade tax payers and festival supporters.

Other types of visitors to be aware of in attendance of a festival are casuals and time-switchers. Casuals are visitors already in the area and decide to attend the event since they are already there. Time-switchers are non-locals visitors that already had a trip to the area planned, but changed the date because of the event. Expenditures by casuals and time-switchers are also not included in the economic impact, because they would have occurred even without the festival (Crompton & Lee, 2000).

An advantage to limiting the analysis to only visitor expenditures is that the researcher will avoid double counting; which can construe the results (Tyrrell & Johnston, 2001). Non-local visitors play an important role in conducting an economic impact study. Non-local visitors are any visitor that resides more than 90 miles away and should be included in the economic impact results. Many times the non-local visitor also

resides out-of-state and these individuals spend more money while in the area (Carter & Zieran, 2012). The extra money spent within the community contributes to the initial direct expenditures which stimulate the economic activity. This economic activity also creates additional business turnover, personal income, employment and government revenue in the host community (Crompton & Lee, 2000; Crompton, 1995).

The purpose of an economic impact study is to measure the economic benefits created within the host community (Crompton, 1995). Many times festival organizers bring in non-local vendors to run an aspect of the festival. The money spent with these vendors is immediately leaked out of the host community once the event is completed (Tyrrell & Johnston, 2001). These non-local economic leakages do not contribute to the local stimulus. Some of the direct household income (induced impacts) generated will not be spent in the local economy. The majority of the time the local government revenue generated from taxes and fees from the festival is likely to be expended back into the host community. These expenditures will help to stimulate the local economy (Crompton, 1995).

#### Approaches to Data Collection and Analysis

Intercept surveys are the most common data collection tool for economic impact studies. Surveys provide valuable information about attendees that may be useful in future marketing campaigns (Miller, 2007). Consumer demographics are one of the most important pieces of information to assist marketing efforts (Carter & Zieran, 2012).

This information can help to direct survey coordinators on where to campaign and to better understand the types of visitors that attend the event.

Like with everything, there are advantages and disadvantages to intercept survey data collection. The advantages of this process are that the researchers are able to obtain a high response rate of attendees. This collection process can be less expensive than face-to-face interviews and festival attendee contact information is not required before data collection. The disadvantages of intercept survey collection processes are that it may be more expensive than to mail surveys. When data collectors have the opportunity to view the attendees, selection bias may interfere with the process. Also, event attendees may be limited to providing expected expenditures because they have not yet completed the visit (Miller, 2007).

Once it is determined that an intercept survey is the correct method to gather data for the study, it is necessary to determine how the sample population is going to be selected. Smith (2010) states that unbiased results are best obtained and are representative of your population when the sample is the appropriate size and profile of participants. There are two ways to determine the sample population; through probability and non-probability sampling. Probability sampling ensures randomness of choosing participants. Each person involved with the event has an equal chance of being selected. Non-probability sampling takes place when the researcher is unable to determine possible participants before the event; this was the case with the Sturgis Falls Celebration:



- there were no reliable estimates of the number of people who attend the festival
- visitors were free to wander between events while in attendance
- there was no information about average length of stay for visitors
- performance and activity times overlapped
- visitors consisted of individuals and groups of adults, teenagers and children

The non-probability sample was appropriate because researchers were able to collect a convenience sample. Any person in attendance of the festival had the potential to be selected to participate in the study, but people that were willing to participate were the ones approached. This is a form of random sampling because anybody could be stopped. With this type of collection it is important for the primary researcher to develop a stint sampling design. This design will lay out which areas of the event will be surveyed in each block of time. The stint sampling design for the Sturgis Falls Celebration 2013 can be seen in table 3. The timing of survey administration can impact how participants respond to the study (Janeczko, et al., 2002). It is important to ensure multiple areas of the festival are being surveyed, but that the visitors are also given the opportunity to enjoy the activities of the festival. A map of each area of the survey locations can be seen in Appendix C.

Table 3

*Stint Sampling Design*

|                                    | <b>Fri - 6/28</b>  | <b>Sat - 6/29</b>  | <b>Sun - 6/30</b>                   |
|------------------------------------|--------------------|--------------------|-------------------------------------|
| <b>Parade</b>                      | <b>X</b>           | <b>9am-12pm</b>    | <b>X</b>                            |
|                                    |                    | 4 reviewing stands |                                     |
| <b>Car Show</b>                    | <b>X</b>           | <b>X</b>           | <b>12-1:30pm</b>                    |
|                                    |                    |                    | shelter & tent                      |
| <b>Carnival</b>                    | <b>X</b>           | <b>7-8pm</b>       | <b>2-3pm</b>                        |
|                                    |                    | ticket booth       | ticket booth                        |
| <b>Overman Park Stage</b>          | <b>1:30-4:30pm</b> | <b>1:30-4:30pm</b> | <b>11am-12pm</b><br><b>3:30-5pm</b> |
|                                    | seating            | seating            | seating                             |
| <b>Kidsway Stage</b>               | <b>2-4pm</b>       | <b>2-4pm</b>       | <b>X</b>                            |
|                                    | activities area    | activities area    |                                     |
| <b>Vendor Market</b>               | <b>4-6pm</b>       | <b>4-6pm</b>       | <b>10-11am</b>                      |
|                                    | far entrance       | far entrance       | far entrance                        |
| <b>Cedar Basin Jazz Fest Stage</b> | <b>7:30-9pm</b>    | <b>7:30-9pm</b>    | <b>X</b>                            |
|                                    | vendors            | vendors            | vendors                             |
| <b>Gateway Park Stage</b>          | <b>6-9 pm</b>      | <b>6-9 pm</b>      | <b>5-8:30pm</b>                     |
|                                    | vendors            | vendors            | vendors                             |

An intercept survey (Appendix A) was administered during the 2013 Sturgis Falls Celebration. Data was collected from 539 attendees in multiple venues and throughout multiple events of the celebration. The purpose of the intercept survey was to gather data from visitors and residents during the Sturgis Falls Celebration. This data was used to identify visitor characteristics of spending patterns and the economic impact of the Sturgis Falls Celebration to Cedar Falls. A main goal of the survey was to keep it short. It was important that the respondents did not feel the survey was taking away from time

they could be enjoying the festival. It was decided that only essential questions to the study would be included in the survey.

The first section of the survey asked visitors about their travel and trip characteristics. These questions looked at the visitors' primary purpose for the trip, how far they had traveled to attend the event, how long they were planning to stay in the area, what type of lodging accommodations they had arranged, and how many people were traveling in their party. It is essential for a researcher to know how many people are in each travel party because the amount spent within that party is related to how many people were in attendance of the festival (Crompton, et al., 2001).

The second section of the survey examined how the visitors had spent their time within the festival. These questions highlighted the aspects of the festival that were most popular with each travel party, how the respondent heard about that aspect of the festival, why it was engaging, and the aspect of the festival that was least popular with the travel group. The researchers wanted a better understanding of the most popular days of the festival in order to know which events to ensure are brought back for future festivals. The most popular areas of the festival are demonstrating the greatest return for the host community (Crompton, et al., 2001).

The third section of the survey addressed visitor spending patterns to travel to the festival and spending patterns while at the festival. These questions identified the amount of funds spent within the festival areas and the amount of funds spent in other areas of the community. It is important for the survey respondents to display spending

in the specific categories because each category has its own multiplier coefficient for analysis. It is also important to remember that the expenditures are only an approximation (Crompton, et al., 2001). Some of the respondents completed the survey before completing the event and were asked to estimate expenditures for the remainder of their trip.

The fourth and final section of the survey identified visitor demographics. These questions included age, gender, income level, and where they call home. This information is important to the study to help the researcher see how far they are reaching. It can help to determine where marketing needs should be improved and know why people come to the event.

The surveys were administered by students from the University of Northern Iowa and by volunteers of the Cedar Falls Tourism and Visitors Bureau. It was determined necessary to collect 500 surveys from visitors. The goal was surpassed in collecting 539 surveys to be analyzed. The visitors intercepted included anyone who was in attendance of the festival; this included local residents and non-residents. This data will help to determine the number of participants attending the festival and the percent who reside outside the area.

Survey data regarding spending patterns was evaluated using the IMPLAN I-O model and creating multipliers. The inputs looked at the amount of money that was directly and indirectly being spent during the trip to the festival. The multiplier effect looked at the number of times a dollar “changed hands” within the community. This

gave an estimate to the economic impact by visitors during the Sturgis Falls Celebration (Stynes, 2006, p. 7).

### Estimating the Number of Visitors

Accurate economic impacts are dependent upon accurate counts of visitors in attendance at the festival, because the impact estimates are based on the sample to visitation count (Crompton & Lee, 2000). This type of economic impact leads to the tourist patron spending impact, which is calculated on a per-visit/per-party number. Three factors are needed to determine this impact. The first measurement needed is the estimate of number of patrons or parties in attendance at the festival. Secondly, the estimate of average expenditures of patrons or parties is needed. Lastly, an estimate of the multiplier that reflects the impacts of patron expenditures is needed. The formula used to determine this is: (number of visits per patron/party) X (average spending per visit) X (multiplier) = (economic impact of patron spending) (Miller, 2007).

Determining the number of visitors at a special event is essential to determining the economic impact of a festival. Estimating the number of users at the different events throughout a festival helps planners to understand the type of visitors being attracted. Like many community festivals, the Sturgis Falls Celebration was free to the public and did not have specific access gates to the parks. It was determined to develop a methodology similar to, festival researcher in Singapore, Kelven Tan, (email correspondence in April 2013) to acquire the best count of attendance of the festival.

Tan suggests determining the density levels of attendance, instead of actually counting each person at the festival. Before the festival, researchers determined what high, medium and low density percentages equated to in attendance numbers. This was done by first determining the amount of space used by the festival in each location and the amount of space left for visitors to move around. The instantaneous capacity for each location is determined by multiplying the maximum square feet of the park by square feet allowed per person. Tan suggests allowing 0.6 square meters of space per person and this number converts to 6.458 square feet per person. The next step was to determine the percentages of space available for users in each park (how much space was not being used by festival buildings, stages, booths, etc.). Finally, it was necessary to determine each density level. This was done by multiplying maximum square feet of park by percent of park used and divided by square feet allowed per person. The density and capacity numbers can be seen in Table 4.

Table 4

*Capacity and Density Levels for Each Festival Location*

| Park Locations   | Maximum Square Feet of Park    | Instantaneous Capacity | % of Space Used | Density Levels |           |           |
|--|--------------------------------|------------------------|-----------------|----------------|-----------|-----------|
|  |                                |                        |                 | Max 100%       | Med 70%   | Min 40%   |
| Overman Park   | 62,500 sq. ft.                 | 9,677.92               | 65%             | 6,290.65       | 4,403.46  | 2,516.26  |
| Sturgis Park   | 37,500 sq. ft.                 | 5,806.75               | 80%             | 4,645.40       | 3,251.78  | 1,858.16  |
| Carnival Area  | 240,000 sq. ft.                | 37,163.21              | 35%             | 13,007.12      | 9,104.98  | 52,202.85 |
| Gateway Park   | 200,000 sq. ft.                | 30,969.34              | 70%             | 21,678.54      | 15,174.98 | 8,671.42  |
| Police Officer's Park  | 200,000 sq. ft.                | 30,969.34              | 35%             | 10,839.30      | 7,587.51  | 4,435.72  |
| Parade Route<br>per block  | 385,000 sq. ft.<br>(11 blocks) | 59,615.98              | 100%            | 59,615.98      | 41,731.19 | 23,846.39 |
|  |                                | 5,419.63               |                 | 5,419.63       | 3,793.74  | 2,167.85  |
| Arts 'N Crafts<br>per block  | 80,000 sq. ft.<br>(4 blocks)   | 12,387.74              | 65%             | 8,052.03       | 5,636.42  | 3,220.81  |
|  |                                | 3,096.93               |                 | 2,013.00       | 1,409.10  | 805.20    |
| Formulas: 0.6 sq. m/1 person = 6.458 sq. ft./1 person<br>Density: Maximum = 100% - 71%; Medium = 70% - 41%; Minimum = 40% - 0% |                                |                        |                 |                |           |           |

The times for determining density correspond with the schedules and locations of survey distribution. During each hour of survey collection, the survey administrator used a best judgment to estimate the density of that specific area of the festival. The density level information was recorded with the location of the festival and time of day. An example of the log sheet can be seen in Appendix B. After the festival, each recorded density percentage was converted back to the equivalent number of people it corresponded with. Each attendance number from each festival location was added together to calculate a daily attendance.

## Data Analysis

### Festival Attendee Characteristics

Sturgis Falls Celebration 2013 attracted approximately 63,000 attendees. Figure 2 displays 71.6% of these attendees being local residents (Cedar Falls and Waterloo), leaving 17,892 attendees being visitors from outside the community. Approximately 37.5% of respondents were male and 57.0% female. The respondents most commonly fell into the age range of 20-29 years old, closely followed by the age range of 50-59 years old (Figure 3). Figure 4 reveals that 31.7% of the respondents indicated their education level as a college graduate and 24.7% of respondents had completed some college. The majority of respondents (16.9%) indicated their annual household income levels as \$50,000-\$74,999, 15.4% in the \$100,000-149,999 and 15.2% were in the \$75,000-99,999 category (Figure 5).

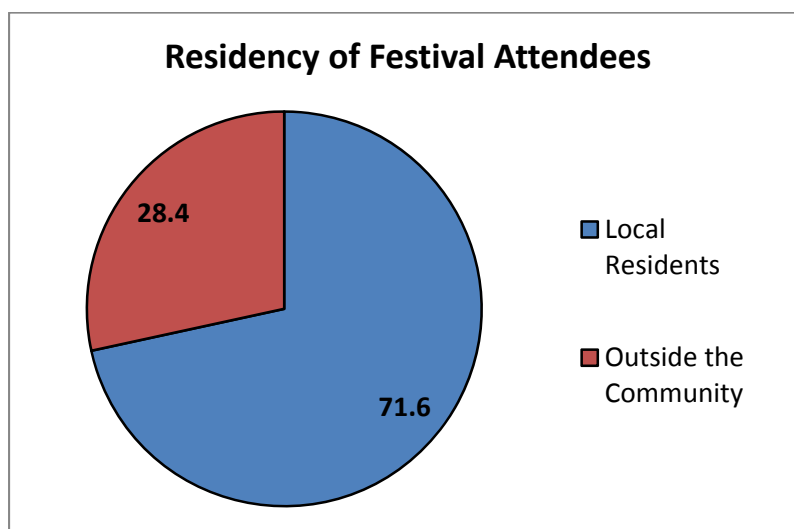


Figure 2: Festival Attendee Residency



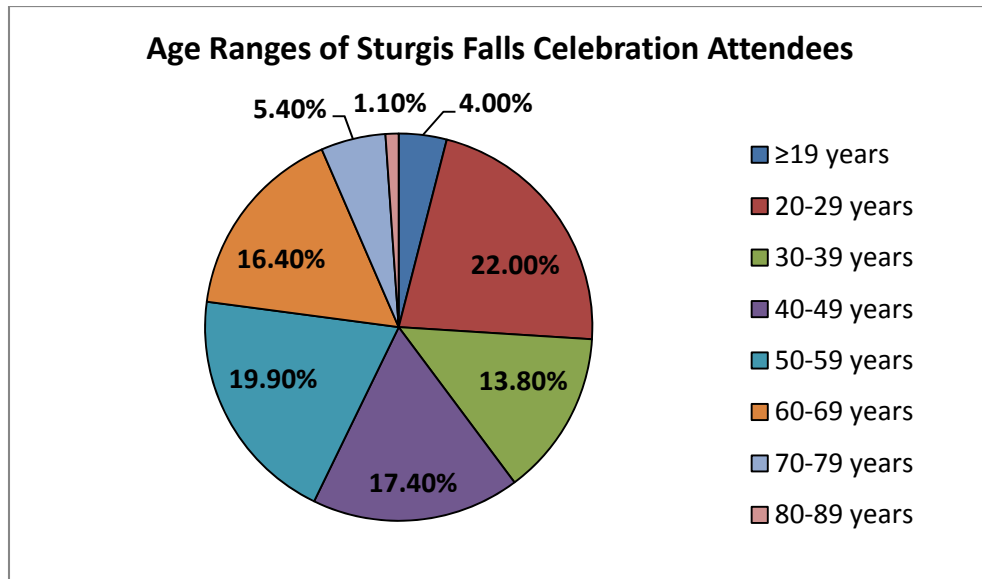


Figure 3: *Age Ranges of Sturgis Falls Celebration Attendees*

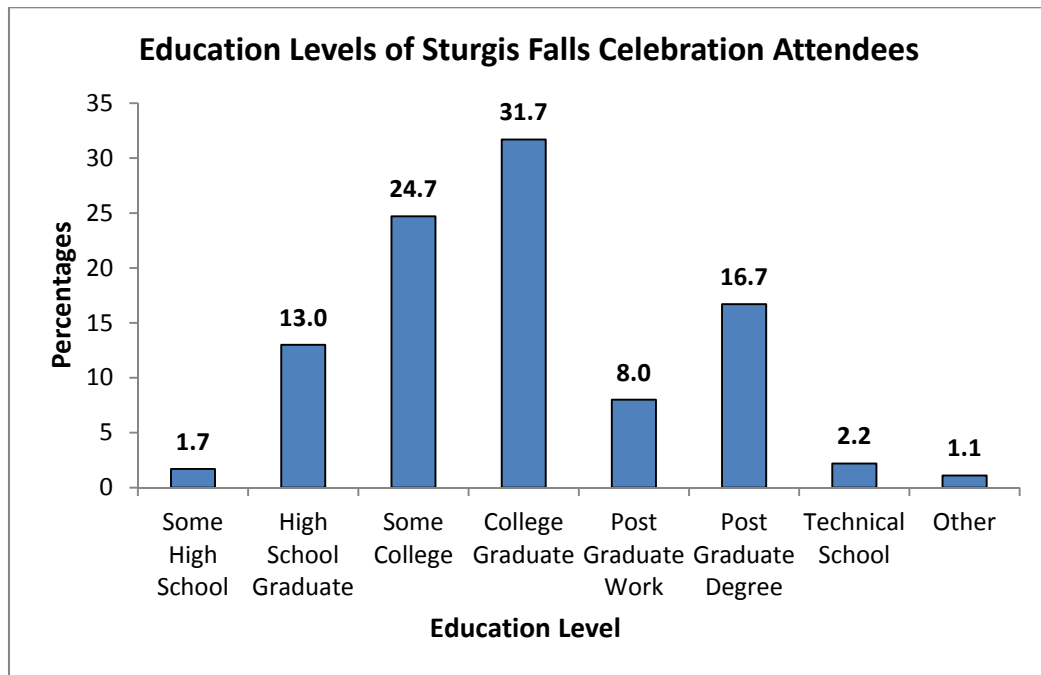


Figure 4: *Education Levels of Sturgis Falls Celebration Attendees*

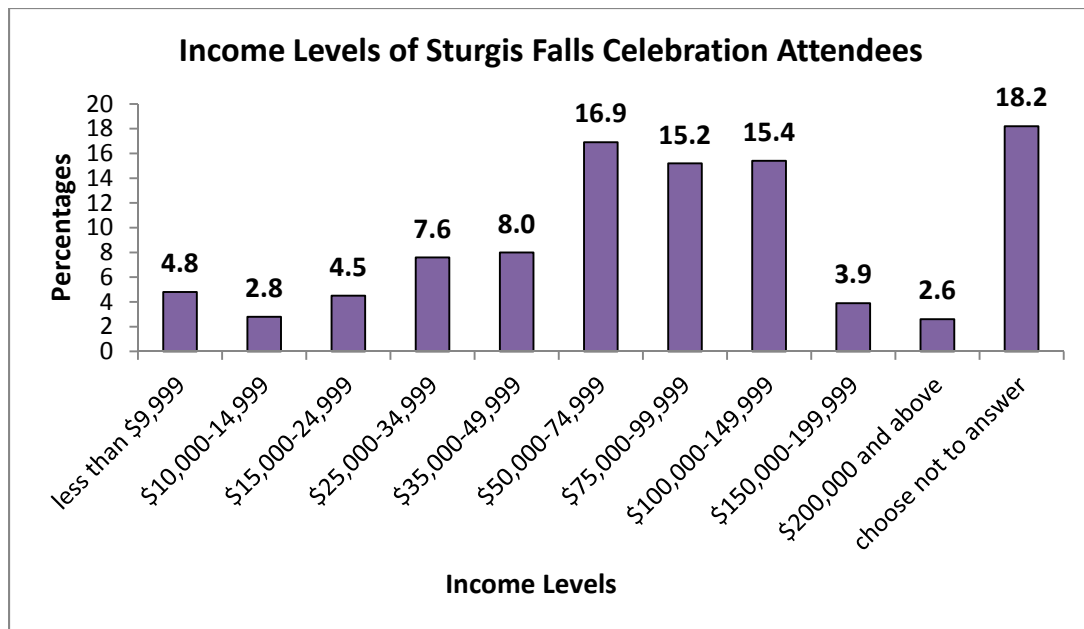


Figure 5: *Income Levels of Sturgis Falls Celebration Attendees*

The average party size of festival attendees was 3.4 people. The majority of people (98%) answering the survey had visited Cedar Falls before their visit for the celebration and 81.5% of the survey respondents came to Cedar Falls that day specifically to attend the festival. A large percentage (85.9%) of the attendees had attended a Sturgis Falls Celebration in years previous.

The survey asked respondents to report how many days it was planned for the travel party to attend the festival. Figure 6 shows that 38.7% of the respondents mentioned two days would be spent at the festival and three days being spent at the festival closely followed with 35.6% of the respondents.

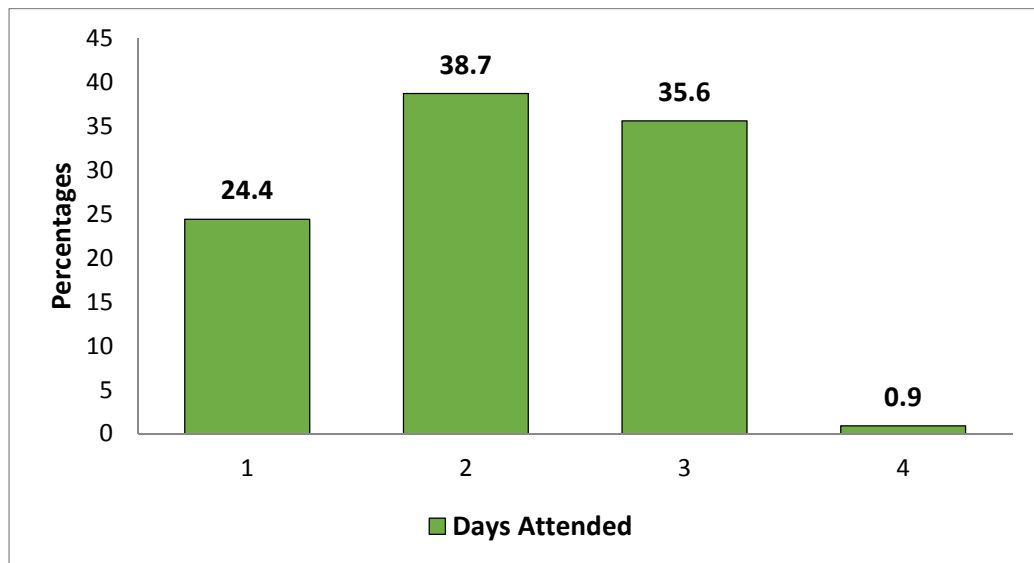


Figure 6: Number of Days Attending Festival

The respondents were also asked to report if they would be staying overnight in Cedar Falls; 68.9% of the respondents reported that yes they would be staying overnight. The follow-up question asked respondents, that were staying overnight in Cedar Falls, to report where they were staying. Figure 7 shows that the majority of respondents (50.6%) shared they would be staying in another location or their home. This makes sense because over 70% of festival attendees were local residents. The figure also shows 15.2% of the respondents stayed with family and friends, 2.4% staying in a hotel or motel and 1.3% staying in a campground.

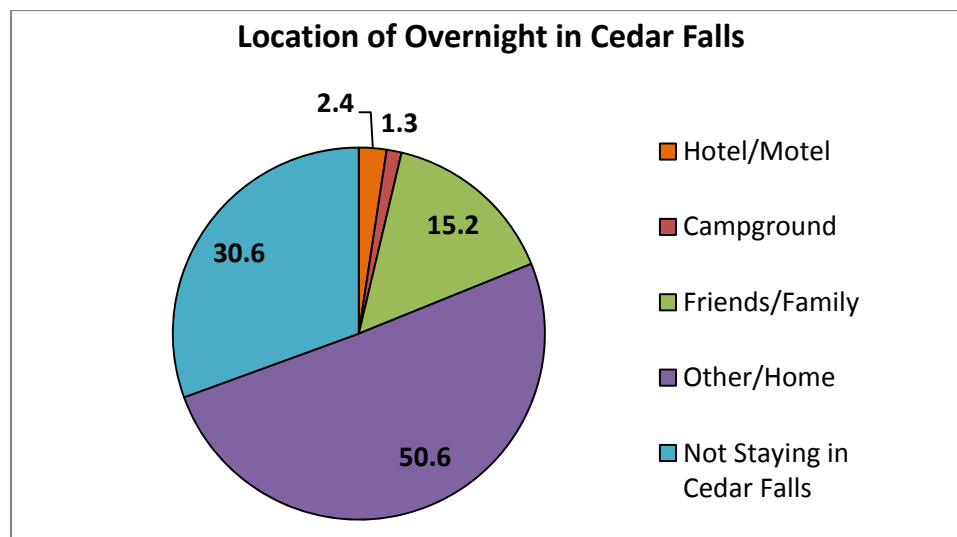


Figure 7: Location of Overnight in Cedar Falls

The second section of the survey asked respondents to share how they heard about the festival (Figure 8) and how they had spent their time within the festival. The most common source of information (33% of respondents used) came from advertisements and media (including: Sturgis Falls Celebration brochures, flyers, booklets and television, radio, newspaper and local advertisements. It also shows that 23% of the respondents gained their information from friends and family or 16% is general knowledge for this area. The Sturgis Falls Celebration is a long-standing event that takes place the same weekend every year. Locals know this about the event and simply look for the specific entertainment information from year to year.

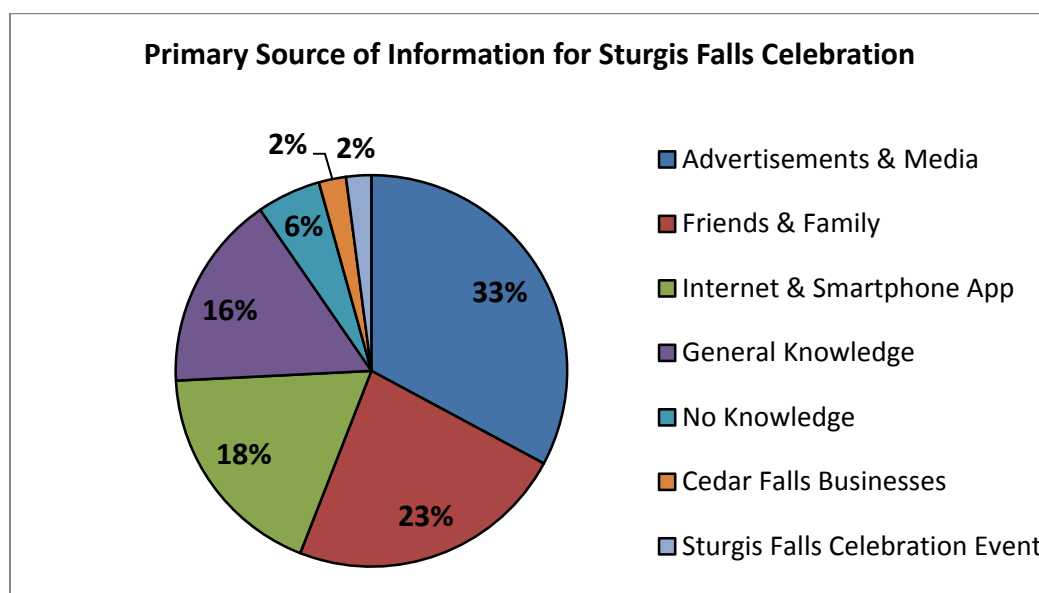


Figure 8: Primary Source of Information for Sturgis Falls Celebration

How people feel about the festival is important for planners to see and make changes from year to year. Figure 9 displays the most interesting aspect of the festival for respondents. The Sturgis Falls Celebration planning committee brings in multiple live musical groups and local bands and the survey showed this was appreciated with 44% of the respondents mentioning this was their favorite aspect of the festival. The second most popular aspect of the festival (14% of respondents) was the food and drink vendor choices.

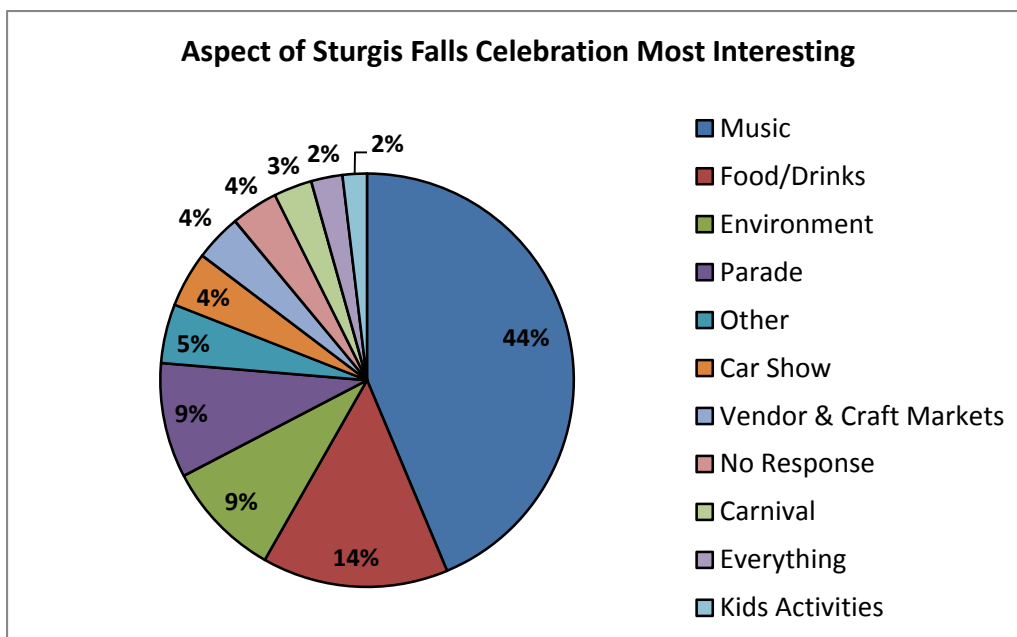


Figure 9: Most Interesting Aspect of Sturgis Falls Celebration

Figure 10 shares the most disappointing aspect of the festival for respondents. The highest number of respondents (45%) reported that no aspect of the festival was disappointing to them. Accessibility/Parking/Crowds were mentioned by 13% of the respondents as the most disappointing aspect. This was closely followed by 12% stating they did not like the weather. Saturday of the festival was cold and rainy and this did deter some of the attendants during that time. The rain also caused some areas of the festival to be wet and muddy. Even though food and drink was one of the most popular aspects of the festival, those prices and the variety fall into the category of one of the most disappointing aspects of the festival (7% of respondents).

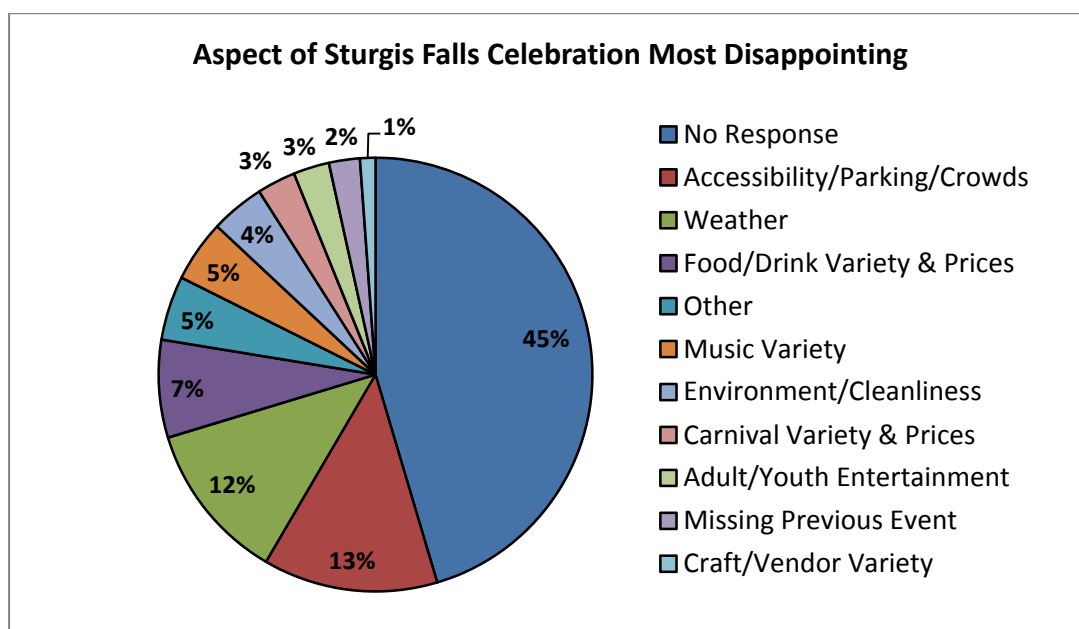


Figure 10: Most Disappointing Aspect of Sturgis Falls Celebration

### Spending Categories

Table 5 shows the mean and median spending of festival parties while in attendance of the Sturgis Falls Celebration 2013. The highest mean spending category per travel party of 3.4 people is on lodging at \$306.71 with the median spent on lodging being \$200. The lowest mean spending category per travel party of 3.4 people is on admissions at \$45.42 and the median being \$30. Admissions should be the lowest spending category because the event is a free event. Some of the spending that took place in this category could include carnival tickets, workout facility entrance fees, movie ticket prices or other activities within the community.

Table 5

#### *Sturgis Falls Celebration Festival Party's Mean and Median Spending*

| <b>Spending Categories</b>                | <b>Mean Dollar</b> | <b>Median Dollar</b> |
|---|--------------------|----------------------|
| Lodging (hotel, motel, campground, cabin) | \$306.71           | \$200                |
| Restaurant and bar meals and drinks       | \$90.21            | \$50                 |
| Grocery/Convenience store food and drink  | \$55.63            | \$30                 |
| Transportation/Gas                        | \$56.25            | \$25                 |
| Admissions (recreation and entertainment) | \$45.42            | \$30                 |
| Retail merchandise                        | \$58.96            | \$40                 |
| Food/Non-food vendors at the festival     | \$55.35            | \$40                 |



### Economic Impact of Sturgis Falls Celebration 2013

In order to estimate the economic impact of Sturgis Falls Celebration visitors, the uses of the output from each sector were examined as inputs to other sectors of the economy. Resulting models estimate economic effects of visitors' expenditures on the total value of economic transactions, on the overall level of household income, and on the number of jobs created.

The IMPLAN Input-Output (I-O) Model for this study included Black Hawk county as well as Benton, Bremer, Buchanan, Butler, Fayette, Grundy, and Tama counties (contiguous counties). The area under examination is 4,829 square miles, with the population of 268,911 residents, or 111,677 households. The total number of festival visitors included in the IMPLAN model was estimated at 17,892 (the total number of attendees was estimated at 63,000, only 28.4% of those were visitors, hence the total number of visitors was calculated as  $63,000 \times 28.4\% = 17,892$  visitors, or 7,157 spending parties).

Initial expenditures of \$2.96 million generated \$4.44 million in terms of sales, \$2.22 million in terms of income, and created 56 new (seasonal) jobs. For every dollar spent by the visitors, an output of \$1.5 was generated in terms of sales (gross output multiplier 1.5). Furthermore, an estimated income multiplier of 1.57 and employment multiplier of 1.33 were generated.

Table 6 shows the total sales/output impact, added/income impact, and employment/jobs impact. The sales/output impact is \$4,436,140. The added/income is \$2,219,527. The employment/jobs impact is 56 new (seasonal) jobs.

Table 6

*Total Economic Impact of Sturgis Falls Celebration 2013*

|                                 | Direct      | Indirect  | Induced   | <b>Total</b>       | Multiplier |
|---------------------------------|-------------|-----------|-----------|--------------------|------------|
| Total sales/output impact       | \$2,964,296 | \$854,942 | \$616,903 | <b>\$4,436,140</b> | 1.50       |
| Total value added/income impact | \$1,410,517 | \$451,458 | \$357,552 | <b>\$2,219,527</b> | 1.57       |
| Total employment/jobs impact    | 42          | 8         | 6         | <b>56</b>          | 1.33       |

\*Model results have been deflated and aggregated, and are provided in 2011 dollars

Sturgis Falls Celebration economic impact studies have been completed in three previous years; 1986, 1992, 1994. The data comparing the four years (including 2013) can be seen in Table 7. This data can be helpful to organizers and community supporters to see where the festival has grown and areas they still need to work on.

Table 7

*Comparison of Sturgis Falls Celebration Studies*

| <b>Year</b>  | <b>1986<sup>1</sup></b> | <b>1992<sup>2</sup></b> | <b>1994<sup>3</sup></b> | <b>2013<sup>4</sup></b> |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>number of respondents</b>                         | 230                     | 248                     | 124                     | 539                     |
| <b>Black Hawk County residents?</b>                  | 66.10%                  | 64.90%                  | 70.20%                  | 71.6%                   |
| <b>average party size</b>                            | 3.3                     | 3.47                    | 2.99                    | 3.4                     |
| <b>average daily spending per party</b>              | \$35.40                 | \$70                    | \$70.08                 | \$168.70                |
| <b>previously attended Sturgis Falls Celebration</b> | 85.20%                  | 79.40%                  | 87.10%                  | 85.9%                   |
| <b>estimated attendance</b>                          | 61,550                  | 199,876                 | 51,750                  | 63,000                  |
| <b>estimated economic impact</b>                     | \$1,703,503             | \$4,019,659             | \$2,590,058             | \$4,436,140             |

1. Sturgis Falls Celebration Economic Impact Study 1986
2. Institute for Decision Making (1992)
3. Institute for Decision Making (1994)
4. Sustainable Tourism and Environment Program (2013)

There is a large discrepancy of attendance estimation between 1992 and the other years. This could be because of a difference in how the numbers were collected. In 1992, the data collection was done through using traffic check-point counters. Six entrance locations throughout the community were picked for a counter to be placed.

As cars drove over the counter they were counted. This could cause some people to be counted multiple times and just because they were in the community does not mean they attended the festival. Traffic counters were also utilized in the 1986 study. In the 1994 study, researchers looked at the surveys of non-residents and conducted telephone interviews with residents after the festival. No one method is “better than the other,” but each style will develop different results.

### Conclusions and Future Recommendations

The development of festival tourism as a generator of income and enhancement of community pride and identity has emerged as an objective of many destinations worldwide. Challenging economic times have compelled destinations to explore ways and means to increase visitation levels and generate revenues. Doing so has required communities to look carefully at their policies and practices, and to focus on issues such as economic development.

Most of the Sturgis Falls Celebration visitors (71.6%) were residents of Cedar Falls and Waterloo and the majority of the visitors (81.5%) stated the primary purpose of the trip was to attend the Sturgis Falls Celebration. The most common age range was 20-29 years and men were represented at 37.5% and women represented at 57.0% in our sample. A large percentage (85.9%) of the attendees had attended a Sturgis Falls Celebration in years previous and a majority of respondents (38.7%) mentioned two days would be spent at the festival. Many respondents (68.9%) indicated they would be

staying overnight in Cedar Falls, the most of these respondents (50.6%) stated the accommodations in Cedar Falls were at another location (not in a hotel/motel, campground or with friends and family) or in their home.

The average party size of Sturgis Falls Celebration, 2013 attendees was 3.4 people. The average total spending per travel party for the Sturgis Falls Celebration was \$168.70. Lodging was the spending category with the highest mean (\$306.71) and median (\$200) dollar amounts per travel party. It is crucial to understand visitors' spending behavior and the underlying factors affecting such behavior, because of the unrestricted nature of expenditures in visitor destinations. Understanding expenditure patterns and activities of visitors during their visit to a specific festival or special event is a key issue in the strategic planning of tourist destinations.

Economic impact studies showcase that host communities experience direct, indirect and induced impacts from a festival and/or special event in the community. The host community also experiences sales, income, and employment impacts from the event. The Sturgis Falls Celebration, 2013 experienced a total estimated economic impact from initial expenditures of \$2.96 million which generated \$4.44 million in terms of sales, \$2.22 million in terms of income, and created 56 new (seasonal) jobs. There is no set time frame for how long the community will continue to experience these impacts, but generally it is until the money has leaked out of the local economy.

The economic impacts are important for a host community because additional tax revenues are generated. This money can then be used to improve local

infrastructure and tourist resources. The economic impact study provides data specific facts that can be shared with community officials and event planners to show the benefits the community experiences. The economic impacts are felt in host communities and the contiguous counties. These impacts do differ based on how long a festival or special event lasts. A longer event will encourage visitors to stay in the area longer, eventually creating larger impacts for the host community.

Sturgis Falls Celebration survey findings reveal opportunities for increased marketing to attract more first time visitors, from Black Hawk and neighboring counties should be put in place. In this context, partnerships and collaboration with other tourism and tourism-related businesses is critical to enhance larger and longer visitation lengths in the region. These partnerships will help to lead towards a larger economic impact for the area.

It is important for survey data to be collected from residents and visitors in attendance of all areas of the festival through non-probability sampling procedures. This information will allow festival organizers to better understand if the event contains an equal distribution of costs and benefits to all participants and if the event is recognized by all potential stakeholders. It is important for each survey administrator to encourage respondents to include estimated expenditures at the festival and within the community, even if the festival is not yet complete.

When utilizing the density methodology for estimating the total population at the festival or special event, the lead survey administrator and one other collector

should be completing the estimates. Each estimator should equally understand what 100%, 70%, and 40% density levels resemble. Each individual should collect density levels in the same areas, during the same times. It is important to remember that each person may have a different understanding of each density level. If two sets of data are collected during the festival and analyzed afterwards, the data results can be compared. This will give the researcher a better understanding of the true population in attendance of the festival or special event.

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## APPENDIX A: STURGIS FALLS CELEBRATION 2013 SURVEY

Location \_\_\_\_\_ Time \_\_\_\_\_

**Economic Impacts of Sturgis Falls Celebration**

*Sturgis Falls Celebration Board and the Sustainable Tourism and Environment Program at the University of Northern Iowa are identifying the economic benefits resulting from the annual Sturgis Falls Celebration. Thank you for your time and assistance in filling out this questionnaire.*

1. Is this your first visit to Cedar Falls?  Yes  No
2. Did you come to Cedar Falls today (*Check one*)  
 Primarily for the purposes of attending the festival  
 Primarily for other reasons (shopping, visiting friends or relatives, etc.)
3. Have you previously attended the Sturgis Falls Celebration?  Yes  No
4. What was your primary source of information about the festival? \_\_\_\_\_
5. What was the most interesting/entertaining aspect of the festival? \_\_\_\_\_
- 
6. What aspect of the festival was most disappointing? How could it be improved upon? \_\_\_\_\_
- 
7. How many days will you attend the festival?  1 day  2 days  3 days
8. Are you staying in Cedar Falls overnight?  Yes  No
- If yes, where are you staying?  Hotel or motel  With friends/family  
 Campground  Other \_\_\_\_\_
9. How many people are in your travel party, including yourself? \_\_\_\_\_
10. Estimate your travel party's spending while staying in the area. Include the amount of money spent so far and money you intend to spend. Leave space blank if you spent nothing in a category.
- | Spending categories                       | Total spending |
|---|----------------|
| Lodging (hotel, motel, campground, cabin) | \$ _____       |
| Restaurant and bar meals and drinks       | \$ _____       |
| Grocery/convenience store food and drink  | \$ _____       |
| Transportation/Gas                        | \$ _____       |
| Admissions (recreation and entertainment) | \$ _____       |
| Retail merchandise                        | \$ _____       |
| Food/non-food vendors at the festival     | \$ _____       |
11. How many people in your travel party do these expenses cover? \_\_\_\_\_

**About You**

12. Where do you live? City \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_ Postal zip code \_\_\_\_\_
13. You are \_\_\_\_\_ Years old      You are \_\_\_\_\_ Female      \_\_\_\_\_ Male
14. What level of education have you completed? (*Check one*)  
 Some high school       Some college       Post graduate work       Technical school  
 High school graduate       College graduate       Post graduate degree       Other \_\_\_\_\_
15. Which statement best describes your total 2012 annual household income before taxes? (*Check one*)  
 Less than \$9,999       \$25,000-34,999       \$75,000-99,999       \$200,000 and above  
 \$10,000-14,999       \$35,000-49,999       \$100,000-149,999       Choose not to answer  
 \$15,000-24,999       \$50,000-74,999       \$150,000-199,999

*Thank you for your time and assistance! Enjoy your day!*

## APPENDIX B: DENSITY EVALUATION FORM

While you are collecting surveys please take the chance to assess the density of the population of the area you are in once per hour. Please fill in the location of the festival you are and the time of day the density is recorded. Place a check mark next to the percentage of maximum population you feel the location is at.

- **High Density** 100%-71% = people are standing with little to no room to pass by each other
- **Med. Density** 70%-41% = some people are sitting in lawn chairs, but mostly people are standing
- **Low Density** 40%-0% = few people are in the area and people are able to comfortably move

**Location:**

| Hour 1 – Time: | Hour 2 – Time: | Hour 3 – Time: |
|----------------|----------------|----------------|
| 100%-71%       | 100%-71%       | 100%-71%       |
| 70%-41%        | 70%-41%        | 70%-41%        |
| 40%-0%         | 40%-0%         | 40%-0%         |

APPENDIX C: EVENT MAPS WITH SURVEY LOCATIONS


Key -  location of survey administration



Figure C1: Cedar Basin Jazz Festival Area (Sturgis Falls Organization, 2013)

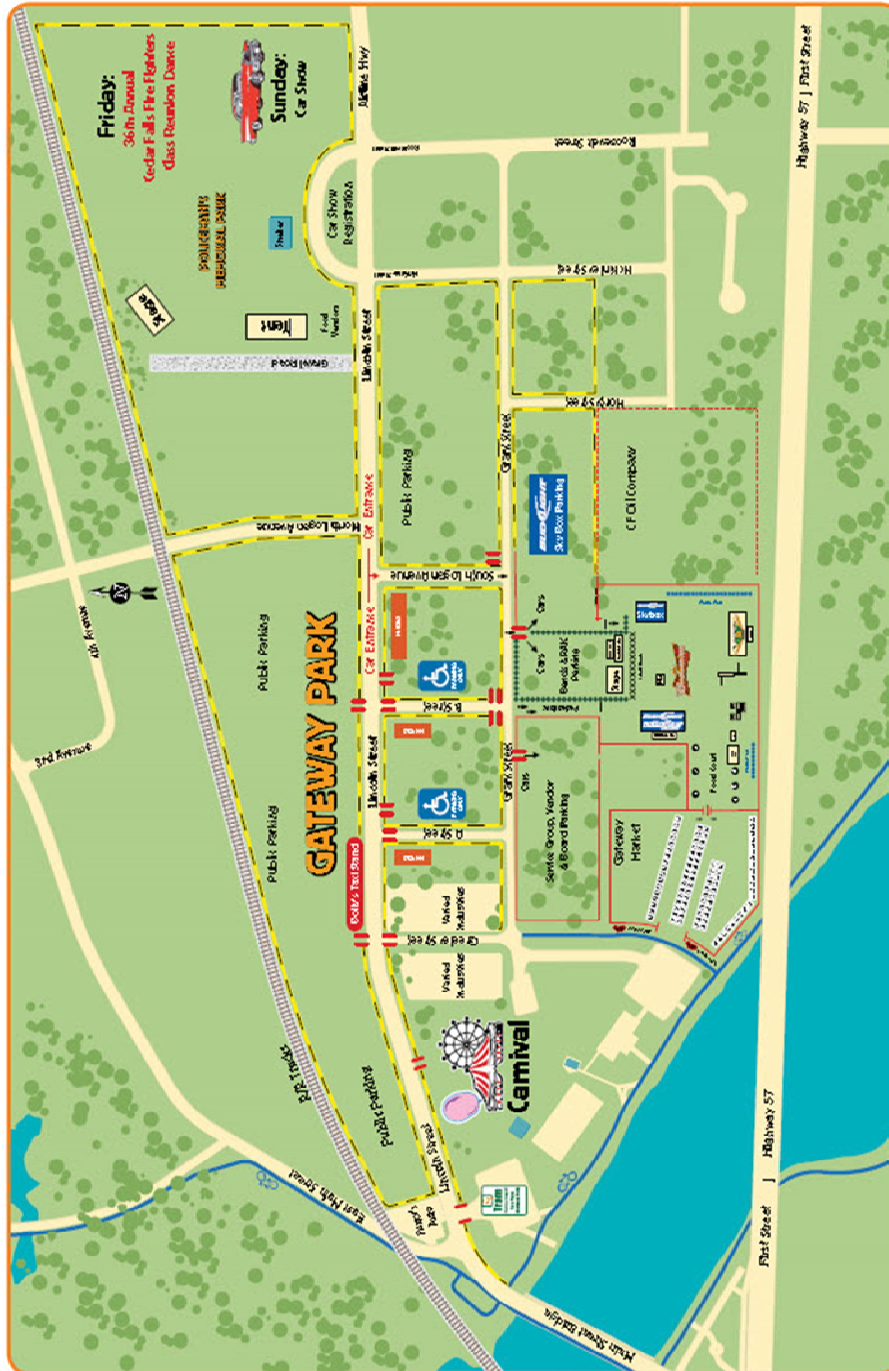


Figure C2: Gateway Park Area (Sturgis Falls Organization, 2013)



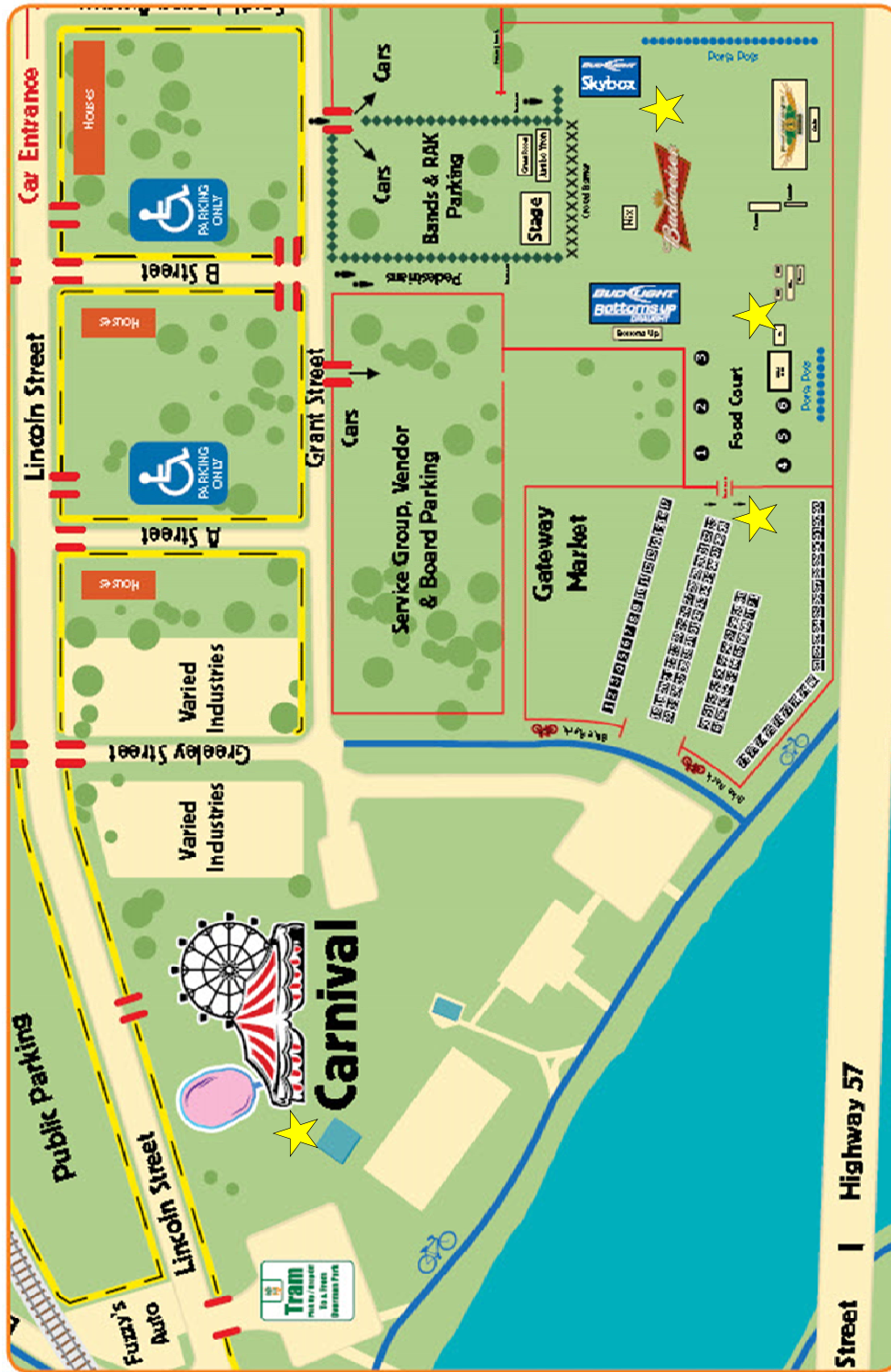


Figure C3: Carnival, Market, Beer Area at Gateway Park (Sturgis Falls Organization, 2013)

# Parade Route

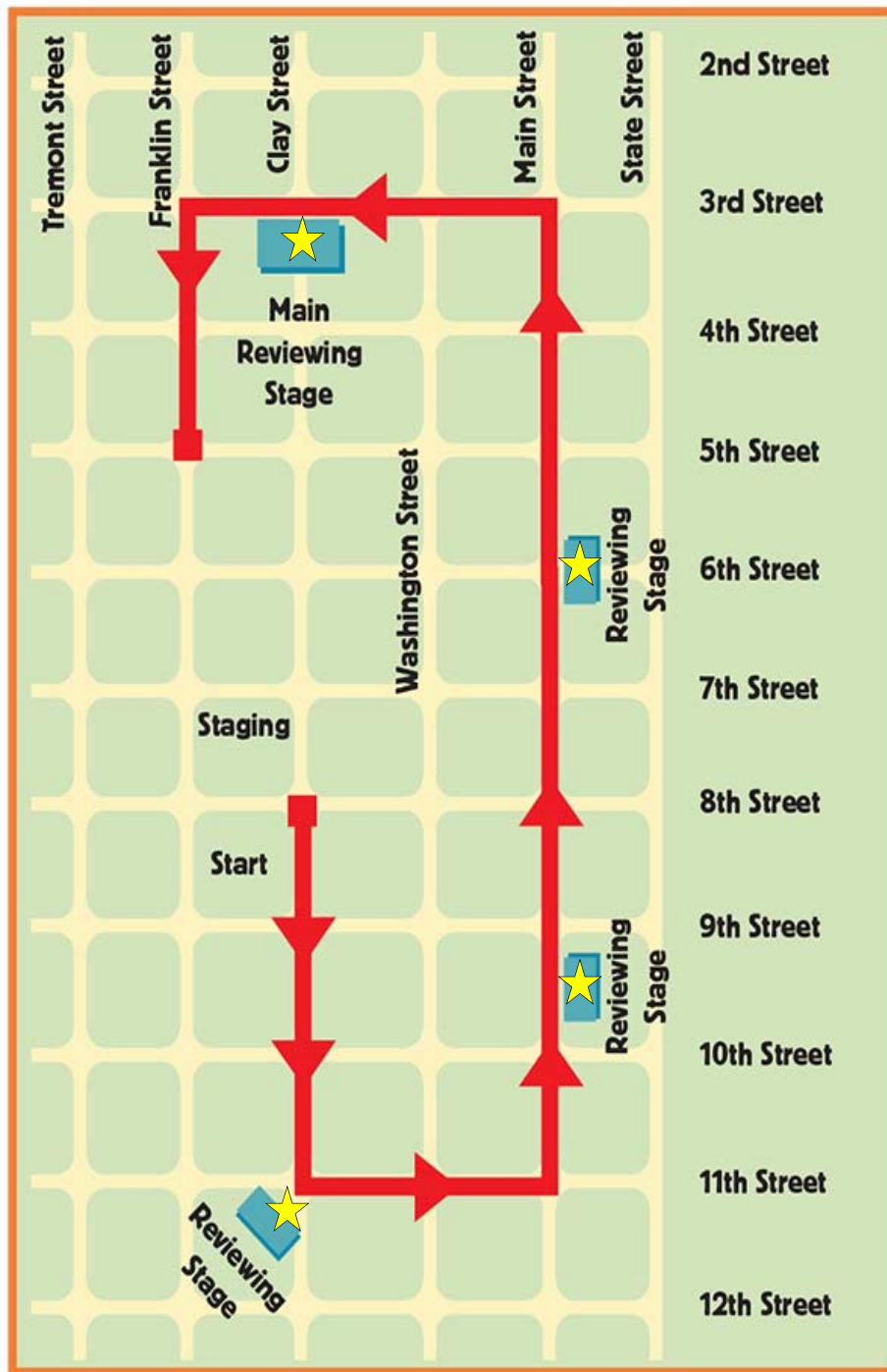


Figure C4: Parade Route Area (Sturgis Falls Organization, 2013)

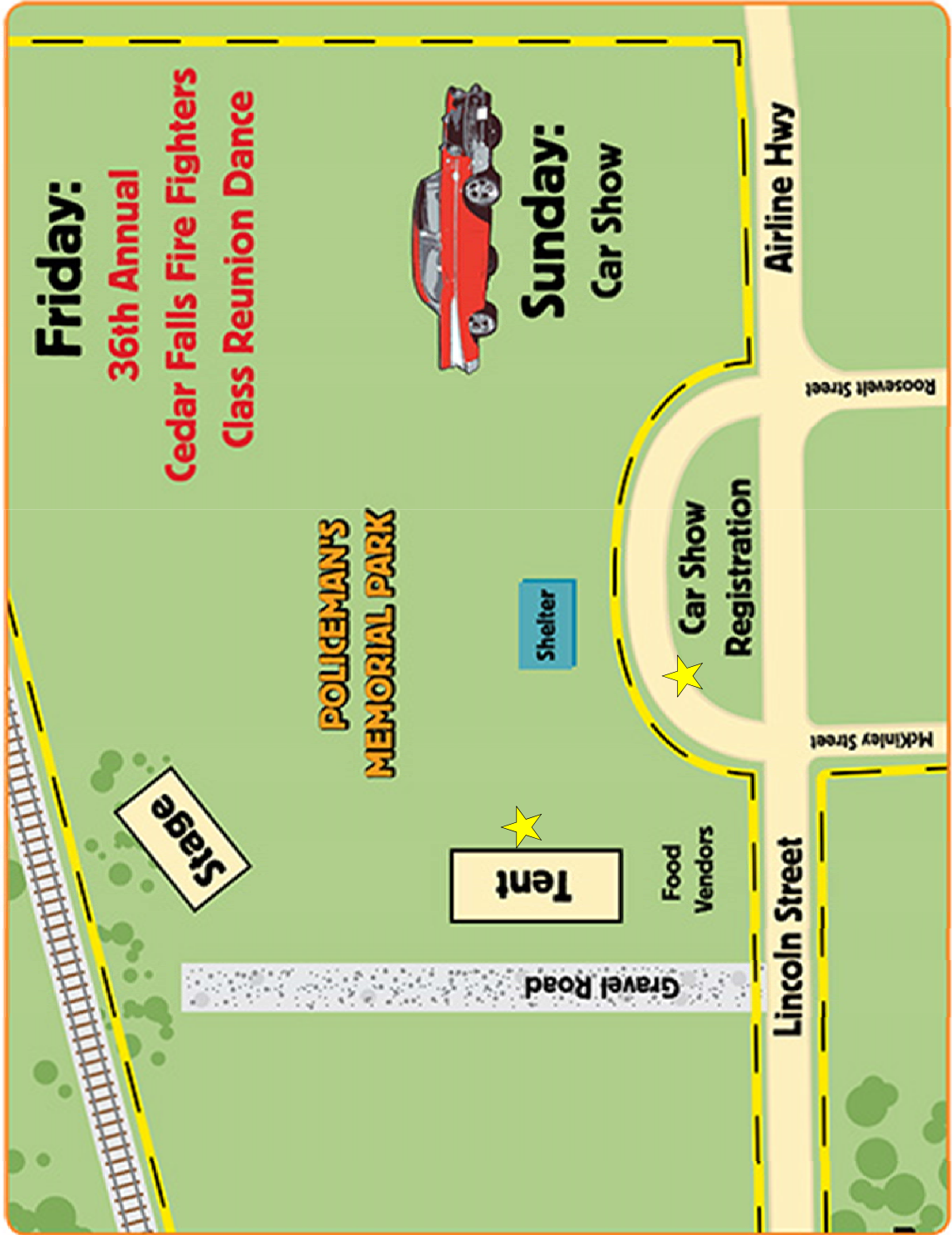


Figure C5: Policeman's Memorial Park Area (Sturgis Falls Organization, 2013)

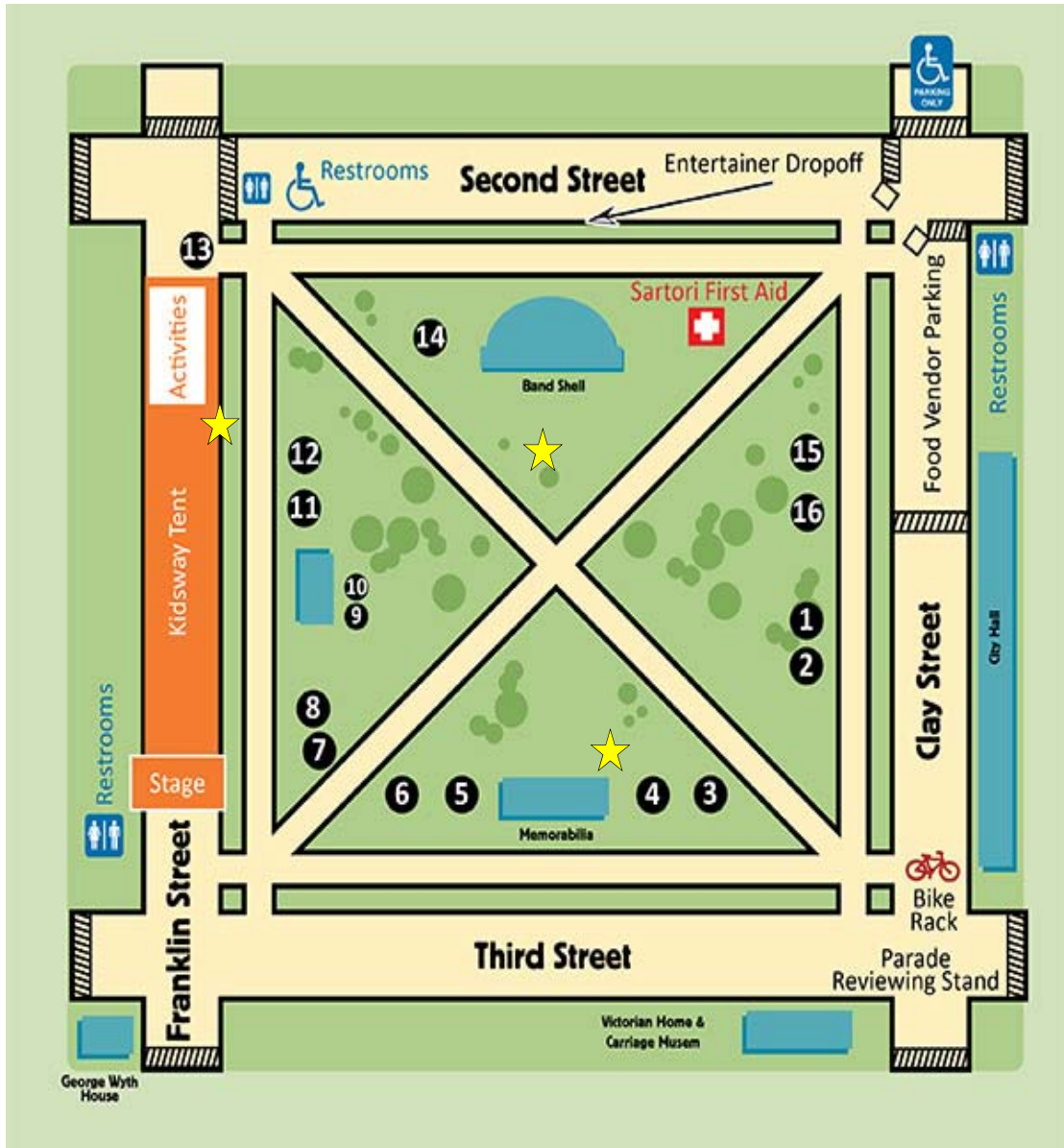


Figure C6: Overman Park Area (Sturgis Falls Organization, 2013)