ABSTRACT

Chhabra, Deepak. Heritage Tourism: An Analysis of Perceived Authenticity and Economic Impact of the Scottish Highland Games in North Carolina (under the direction of Dr. Erin O. Sills and Dr. Carol S. Love).

Short-term events such as festivals are important components of heritage tourism. Heritage tourism provides economic benefits and cultural sustainability to local communities. This dissertation analyzes perceived levels of authenticity and spending by visitors to heritage festivals. The economic impact of visitor expenditures upon the host regions in North Carolina (USA) is also analyzed. Existing and potential visitor target markets are identified. The festivals studied are Scottish Highland Games, and analyses are based on survey data collected from Grandfather Mountain Highland Games and Flora Macdonald Highland Games held in North Carolina. Perceived authenticity is measured as the average authenticity rating of events offered at the Games and statistically related to visitor characteristics. Second, visitor expenditures are compared across age and income groups and regressed on other visitor characteristics, including the visitors' experience at the event. Finally, economic impact of total visitor expenditures is estimated with an input-output model that calculates income, output and value added impacts. The results provide useful insights for Highland Games and local government officials with respect to future promotion. Highland Games in the United States are staged authenticity, but this does not make them inauthentic. There are important differences in perceptions of authenticity among visitors with regard to gender and historical background. Tourist expenditures are positively related to annual household income and distance traveled. When potentially endogenous attributes acquired at the Games (such as enjoyment) are added to the model, they increase the statistical significance of the

model. Finally, the Highland Games visitor expenditures have the biggest economic impact on the lodging industry. This is followed by impacts on eating and drinking, admission and registration, gasoline and retail industries. Since the multipliers are small, the games have a rather small percentage impact on their host regions. However, they generate both large direct expenditures as well as indirect and induced effects. The results of this study show that the Highland Games boost heritage tourism in North Carolina by providing events perceived as authentic and economic benefits to the local community.

Heritage Tourism: An Analysis of Perceived Authenticity and Economic Impact of the Scottish Highland Games in North Carolina

by

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BIOGRAPHY

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Chapter 1: Introduction

Heritage tourism has become a major area of growth in the tourism market. Globally, it is a well established phenomenon. In recent years "heritage" has been rediscovered as a major tool to attract visitors who seek personally rewarding and enriching tourist experiences. At the macro level, the meaning of heritage is shaped by ethnic and social structure (Light & Prentice, 1994). Heritage is defined as anything that "reflects a heterogeneous nostalgia for the past as imagined or presented" (Light & Prentice, 1994: 27). According to Collins (1990: 69), "heritage is an accumulation of daily details and large traditions, social, racial and religious built from time and memory". The nature of demand for heritage is important for devising product development and promotional strategies in accordance with the needs and expectations of visitors.

This chapter proceeds first with the main objectives of the dissertation and literature review on heritage tourism. Next, the role of heritage tourism in North Carolina is discussed, followed by background information on Scottish heritage in North Carolina, and a history of the Highland Games, focusing on Games held in North Carolina. Finally, the structure of the dissertation is presented.

Objectives

The general goal of the dissertation is to study heritage tourism through short-term events. Short-term events are an important component of a region’s strategic tourism planning. As an attraction, they lure tourists to the host region and both entertain and employ local residents.

Festivals have frequently been labeled as heritage events since they bring old traditions back to life (Zeppal & Hall, 1991). Due to the positive image and benefits these events generate, there has been an extraordinary increase in the number of community and rural festivals in recent years (Kim et al., 1998; Bitta et al., 1978). This study shows that festivals encourage community interactions and offer a social experience. They can attract funds to a region, increase demand for associated services, leave behind legacies and attract media attention. Specific goals of the dissertation are:

1) Discussion of staged authenticity in the light of festivals and analysis of perceived levels of authenticity by visitors, participants and festival organizers

2) Analysis of spending behavior of visitors and the subsequent economic impact on the host region

In the following chapters, these goals are addressed with specific research questions about visitor behavior with respect to expenditure and their perceptions of authenticity. The chapters pose eight "hypotheses" that are selected with relevance to short-term events, feasibility of testing with the specific data sets available, and suggestions in the literature. The hypotheses are considered in the specific context of Highland Games and visitors who attend them. They are tested with data on two of the games held in North Carolina, relying mainly on visitor surveys.

Literature Review of Heritage Tourism

In the late 1980s and early 1990s, heritage tourism gained increasing attention, with a growing body of specific literature being devoted to the topic (Balcar and Pearce, 1996: 203). Zeppal and Hall view heritage tourism as a broad field of specialty travel, "based on nostalgia for the past and the desire to experience diverse cultural landscapes and forms" (1992: 49). Yale says that "the fashionable concept of heritage tourism really means nothing more than what we have inherited, which can mean anything from historic buildings, to art works and beautiful scenery" (1991: 21).

This dissertation is concerned with heritage tourism, explained broadly as an activity that boosts economic benefits, and promotes heritage and authenticity. The literature supports this encompassing view of heritage tourism. According to Hall et al., "heritage tourism is a subset of cultural ethnic and educational forms of special interest tourism which includes many aspects of touristic behavior ranging from examination of the physical remains of the past to the experience of contemporary cultural traditions " (1990: 24). Hollinshead (1988) asserts that heritage tourism also includes local cultural traditions, the community heritage that serves as touristic attractions and embraces folkloric traditions, arts and crafts, ethnic history, social customs and cultural celebrations. In fact, heritage tourism is representative of many contemporary traveler's desire to directly experience and consume diverse past and present cultural landscapes, environments and places. According to Smith (1989), heritage tourism includes nostalgia for the past with an emphasis on peasant culture and hand crafted objects. MacCannell (1976:10) says "all tourists desire deeper involvement with society and culture to some degree; it is a basic component of their motivation to travel. "Perceived authenticity can be regarded as a crucial motivating factor for touristic experience of historic sites and other culture groups (Cohen, 1989; Moscardo & Pearce, 1986). Fyall and Garrod (1998) define heritage tourism as an economic activity that makes use of socio-cultural assets to attract visitors. Thus, heritage tourism is a mixture of many things. It is a highly competitive and market oriented business, based upon nostalgia for the past, and it sells a heritage product in the name of authenticity. "It is not something we should devalue in the pursuit of a dollar" (Donovan, 1988: 91). The sustainability of heritage tourism lies in the preservation and promotion of its authenticity. In fact, sustainability requires heritage tourism to carefully preserve the authenticity of its product so that future generations inherit the genuine.

In 1996, sixty-six million Americans took a domestic trip (within the US) that included heritage and cultural activities (Traveling America, 1998). For the next decade throughout the United States, demand for cultural and heritage travel offerings is expected to continue to increase by 10-15% (total travelers) per year (Traveling America, 1999). A variety of trends have led to an increase in the number of heritage tourists. They are rising education level, increasing age, importance of quality, advances in global communications, proliferation of travel options, increasing importance of international tourism and the global economy (Brown, 1999).

In many communities throughout the United States, institutions mandated primarily to serve cultural, educational, and preservation objectives form part of the critical mass of tourism infrastructure upon which private sector attractions and accommodations depend. Brown (1999:4) says "because these institutions are not funded to serve tourism, their approaches and effectiveness are limited in several important ways such as lack of capital investment in facilities that meet public needs and stimulate tourism interest, lack of staff training to serve tourists, insufficient marketing strategies for sustained presence in tourism markets, insufficient operating budgets that affect program excellence and reputation and the absence of ongoing programs to demonstrate the importance of heritage attractions on the economy of a locality." The challenges of tourism development when major attractions have mandates other than tourism or economic development are twofold: institutions have to be convinced that tourism development is sustainable and will be sensitive to the local environment; and the local residents have to be convinced of the benefits of tourism (both economic and cultural) through quantitative research. Thus, studies of heritage tourism and its clientele are required to overcome the above limitations.

As heritage tourism becomes an increasingly important factor for tourist destinations, it is important to assess how heritage tourists can be better understood and serviced through marketing, planning and programming with local and regional communities (Alzua et al., 1998). There is little quantitative information on heritage tourists to determine heritage tourism demand and the behavioral structure of such demand (Alzua et al., 1998; Light & Prentice, 1994; Richards, 1996). Socio-economic and distinct market segments should be studied in order to better understand heritage tourism demand. This knowledge will be useful for improving managerial and marketing strategies to target existing cultural and heritage market niches. The nature, extent, and potential of the heritage tourism market still needs to be identified and documented in literature. Availability of this information can help the concerned industries both at the local and regional level to "better plan, expand or modify their programs and anticipate and measure trends" (Spring, 1988: 352).

Finally, economic impact studies of heritage tourism should be done and made available to the government and general public especially in rural areas so that future allocation of additional resources (for promotion and for additional attractions) is justified. Elected officials have to be convinced that heritage tourism delivers collective benefits before they approve funds. These collective benefits can be classified into three public benefits: "economic development; alleviating social problems; and environmental stewardship" (Crompton, 2000: 64). These benefits can receive funding support only when they are regarded as being high priority in a community. It is the task of heritage tourism organizations to identify benefits related to heritage tourism both for the host community and the visitors and demonstrate their potential contribution towards generating these benefits. For example, an economic impact analysis can identify highly impacted industries and potential income and employment for the host regions. Heritage tourism generally involves community participation in the role of volunteers. Environmental stewardship also concerns preservation of culture besides nature (Crompton, 2000). " Preserving cultural remnants offers lingering evidence to remind people of what they once were, who they are, what they are and where they are" (Crompton, 2000: 65). It feeds their sense of heritage.

Heritage Tourism and Its Place in North Carolina

Heritage tourism has always been offered in North Carolina and is one of the earliest forms of tourism. In fact, tourism in North Carolina closely follows the steps of early modern tourism in Europe. Resorts, summer homes, health travel, seaside vacations, day trips and cultural gatherings were embedded in the North Carolina tourism history.

Today, tourism is big business in North Carolina. In 1999, it brought $11.4 billion in revenue (a 5.8% increase over 1998), and provided employment to198,000 people. International travelers spent $472.4 million in the State. Domestic and international traveler spending generated over $1.9 billion in tax receipts: $960.8 million in federal taxes, $644.4 million in state tax revenue and $303 million in local tax revenue (TIA Report, 1999). The Report further says: the average age of a North Carolina visitor is 46 years old; average number of visitors per party are 2; average number of nights spent is 4; annual household income is $62,100; and the most popular visitor activities are shopping, outdoor recreation and visiting historic sites (TIA Report, 1999). Most of these visitors to North Carolina are heritage tourists (Clapp, 1999).

Heritage tourism is economically valuable to the State because heritage visitors stay longer, and spend more money than traditional visitors (Kidd, 1998). They also tend to travel year-round and go to less visited locales. The State of North Carolina has established heritage corridors to move these profitable visitors across the State (Kidd, 1998). In fact, heritage tourism has become the focus of the Division of Travel, Tourism, Film and Sports Development (DTTFSD) of North Carolina. North Carolina's Heritage Tourism Initiative by the DTTFSD harnesses the benefits of both economic development and community heritage development. The aim of DTTFSD is to preserve and promote the State's heritage.

In 1998, DTTFSD designated two model communities for heritage tourism development in the State: Hertford/Perquimans County in the east and Bryson City/Swain County in the west. With assistance from the Division, these communities were able to identify and secure state and federal sources of funding and technical assistance. The North Carolina Heritage Tourism Inter-Agency Task Force made team visits to nineteen counties involved in the Eastern North Carolina Heritage Tourism Initiative (Clark, 2000). The task force represented diverse disciplines and spent time touring and experiencing each county's heritage and cultural offerings. The main objective was to identify products for the promotion of heritage tourism. Consequently, other counties may secure funding and technical assistance.

Travel writers, FAM (familiarization) tours of travel agents and tour operators play a pioneer role in the promotion of North Carolina's heritage tourism to attract visitors. These are sponsored by DTTFSD. The Division has also mounted promotional campaigns for selected regions of the State to help them capitalize on their cultural treasures. For example, northeast has abundant heritage tourism treasures. In 1999, Dann Kidd, the DTTFSD's heritage tourism manager presented a slide show of historical and cultural resources of two model heritage tourism communities to travel writers and FAM. The effort was to develop a historic corridor in the area. Federal officials were invited to the town of Hertford. Further, to meet the rising demand for heritage tourism, the DTTFSD has recruited eight heritage development officers who are stationed in different parts of the State. They interact with rural people to help them identify heritage tourism products (Clark, 2000). Community assistance programs have been started. All the counties of North Carolina have rich heritage that can be used for tourism to generate economic benefits.

Foreseeable demands, trends and advanced use of the Internet have also affected heritage tourism in North Carolina. For the promoters of heritage tourism, future marketing efforts are based upon the research done by academicians and travel writers. According to Clark (2000), the foreseeable developments in tourism are: more advanced technology and changing demographics. Technology has already dictated the changes in their marketing tools. The 1-800 toll-free phone number is becoming less popular. More and more people today have access to the Internet and the inquiries on the DTTFSD Web page have increased tremendously leading to electronic mails. People have discovered a whole different travel market through the Web. Clark (2000) said, "North

Carolina is serving the same customers, but in a different way. Postage is on the decline. Non-stop flights from Charlotte to Europe will commence soon which will bring a new wave of accessibility to North Carolina from Europe. A Travel Agent is still important to cross language barriers since North Carolina wants to reach people from all over the world, Internet cannot overcome language barriers."

Travelers today are environment conscious and want authenticity (Kidd, 1998). The increasing interest in heritage tourism complements DTTFSD's efforts to expand the visitor market by providing diverse products. The tourists of today desire quality (Clapp, 1999). Their demand will positively affect historic preservation and sustainability. Current studies show an emerging interest in the sustainability of heritage tourism (Garrod & Fyall, 1998). This will make the heritage tourism industry in North Carolina more sensitive to its carrying capacity, its hosts and its environment.

Promoting heritage tourism through short-term events may be an excellent opportunity to generate income in North Carolina. Short-term events, such as the Scottish Highland Games promote heritage and are becoming increasingly popular (Donaldson, 1986). Ray (1998: 142) writes that "heritage tourism is explicitly about seeking connections with ancestors." Since 1950, there has been a growing movement among Americans of Scottish descent to revive their Scottish culture in North Carolina. Scottish culture has contributed significantly to the heritage tourism of the State.

Background of Scottish Heritage in North Carolina

Immigration

The Highlands of Scotland include mainland and island areas north and west of a line formed approximately by the foothills of the Grampian Mountains (Meyer, 1961). The Scots who lived in these Highlands were called Highlanders. The migration of Scottish Highlanders to North Carolina began in 1730 and slowly gained momentum. Many local historians ascribe to what Meyer (1961) called the "exile theory" (the belief that the majority, if not all, of Scottish immigrants were Highlanders driven out of Scotland solely because of the outcome of the Battle of Culloden). "It is a central premise in today's community lore that majority of the immigrants were political refugees fleeing English repression" (Meyer, 1961: 23). The Battle of Culloden was the result of Jacobite struggle for the throne of England and Scotland. Jacobites were people who favored the restoration of James II or, after his death in 1701, the restoration of his son James III (Meyer, 1961). Although they took part in several uprisings, the main revolutionary efforts of the Jacobites took place in 1715 and 1745, subsequently known as the Fifteen and the Forty-five (Meyer, 1961). The Forty-five uprising under Charles Edward resulted in the bloody Battle of Culloden in which the Highlanders were defeated and had to flee for their lives. Some of these moved to North Carolina.

Meyer (1961:4) further says, "it is remarkable that a people so imbued with a love of chief and clan and so attached to the braes and glens of the Highlands should have emigrated at all." Some authors suggest that the Scottish Highlanders migrated not only because of political reasons (the battle of Culloden), but also because of evictions produced by changes in agriculture, the decay of the clan system that removed social ties and restraints that might have prevented migration and the poverty and unrest caused by population growth (Meyer, 1961). Another reason for the Highland Scot settlement in North Carolina could be a desire for better living conditions and preservation of Scottish heritage.

In North Carolina, the first settlement of Highland Scots was along Cape Fear River in 1732 (Meter, 1961). From there, the Scot Highlanders moved to the Cross Creek region up the Cape Fear River. The Cross Creek region which had been part of New Hanover County in 1733, was in Bladen County in 1739 (Meyer, 1961). Today, the area of Highland Scots settlement extends into Anson, Bladen, Cumberland, Moore, Richmond, Scotland and Robeson counties (Ray, 1998).

Scottish Heritage Revival

A succession of short-lived "Scottish patriotic" societies formed in North Carolina between the 1880s and the 1920s. According to Ray (1998), these societies emerged in the early 1880s because the South was recovering from the shock of war or perhaps because of a new influx of Scots Highlanders in 1884 to the Cape Fear Valley. Immigrants came mostly from the Isle of Skye in Scotland to the Cape Fear Valley and many, not finding the "Highland landscapes," returned to Scotland (Ray, 1998).

A second attempt at reviving the Scottish community came in 1939, when a bicentennial celebration of the Highland Settlement took place in Fayetteville (Ray, 1998). The event was intended to be annual but World War II intervened. In the two years of its existence, 1000 people signed their names in the visitor handbook and many noted their ancestry back to Scotland (Ray, 1998).

The real revival in North Carolina emerged in the 1950s as it did across entire United States. In North Carolina, it was led by a Scotsman named Donald MacDonald, a resourceful news reporter in Charlotte, who was ideally placed to promote events and interest in Scottish heritage. Dressed in his kilt, he gave talks of his trip to Scotland. In 1955, he hosted a Burns' Night Supper as a result of which Burns Society of Charlotte was formed. He was also the co-founder of the Grandfather Mountain Highland Games in 1956. Donaldson calls Macdonald "a true rouser of Scots" (1986, p.43). The shape of many present "traditional" Scottish events within the community was conceived by Macdonald (Ray, 1998). During this time, there was a major attempt to re-establish and regenerate Scottish culture through Highland Games. This promoted heritage tourism in North Carolina.

The North Carolina Scottish community that is responsible for promoting Highland Games consists of many organizations and individuals with local, state, national and international affiliations and interests. Institutions dedicated to preservation of Scottish culture in the State have been established in two areas where settlement was concentrated: the mountains and the sandhills. Some of these important organizations are: The Scottish Heritage USA. Inc., The Council of Scottish Clans and Associations, Inc., The National Trust for Scotland, The Scottish Tartans Society and the Scottish Heritage Center (See Appendix B for details).

History of the Highland Games

According to MacDonald (1998), the Highland Games as practiced today were perpetuated by the clans of Northern Scotland but began far earlier among the Celts of Ireland. According to Meyer, "the Highlanders were mostly descendents from the Irish Gaels" (1961:4). Several accounts credit an 11th century Scottish king, Malcolm Canmore, with having started the first Highland Games. It was a single hill-race up a mountain in Aberdeenshire (Ray, 1998). In the first half of the eighteenth century, the Highlanders lived in a secluded feudal society dominated by tribal chieftains (Meyer, 1961). However, the isolation and tribal character of these Highlanders was destroyed in the Jacobite struggle for the throne of England and Scotland, which eventually led to Scottish emigration to the United States.

Scottish Highland Games came to the United States in 1836. However, in 1920, the older Games in North America lost their appeal due to the emergence of new amateur athletic clubs. The Caledonian clubs, which had depended on Games for financial support, began to feel the effects of America's sporting boom (Donaldson, 1986). It was in 1924 that the current rebirth of the Games began. The year of 1956 saw the spectacular appearance of the United States gathering that has garnered more national and international attention than any other Highland Games in the US: the Grandfather Mountain Highland Games and Gathering of Scottish Clans[1] (Donaldson, 1986).

[1] Clan refers to an extended Scottish family or Scottish tribe (Morehead, 1965:102).

The Highland Games of North Carolina

There are currently four Highland Games held in North Carolina (See map, Appendix A). The oldest and most well known are the forty-four year old Grandfather Mountain Highland Games in Linville. These Games drew nearly 20,000 visitors in 1996 (GMHG office, 1996). In 1997, they drew as many as 30,000 visitors and in 1999 the total number of visitors was around 40,000 (GMHG office, 1999). They are the site of annual meetings of many national clan societies.

In 1892, the MacRae (Highland Scots) family founded the resort town of Linville beneath the towering presence of Grandfather Mountain which they owned. Dedicated to her Scottish heritage, Mrs Agnes MacRae Morton envisioned a Highland Games on the mountain. Along with Donald F. Macdonald, the reporter from Charlotte, she founded Grandfather Mountain Highland Games in 1956. Grandfather Mountain Highland Games are held annually on MacRae Meadow, high on the slopes of Grandfather Mountain where the setting closely resembles Scotland.

The Flora Macdonald Highland Games (FMHG) are held in Red Springs near the heart of the 18th century Highland Settlement and involve many descendents of Highlander immigrants. The FMHG are twenty-one years old. These Games drew 4500 visitors in 1996 and 1998. In 2000, they drew as many as 7000 visitors. The increase in visitation shows popularity of such heritage events. FMHG are named in honor of the Scottish heroine "Flora Macdonald". She saved the life of Prince Charles Edward Stuart, who had made a plot to overthrow the King of England in 1746 (Donaldson, 1986). In 1774, along with her husband, Flora joined the Scottish migration to North Carolina's

Cape Fear Region. They settled near Fayetteville and became involved in the Revolutionary War. During this war, Flora's husband joined the Scottish loyalists. He was captured and returned to Scotland. After spending five years in North Carolina, Flora returned to Scotland to join her husband. Red Springs, where FMHG is held is rich in Scottish heritage. Highlanders in this area fought in the American Revolution. The first land grant from the State of North Carolina was presented to a Scotsman, Hector MacNeil, in 1775 (Highland Games, 2000). The grant given to McNeil in 1775 and one given to another Scotsman called George Sizemore the following year comprise the town of Red Springs today.

Next, the seventeen year old Waxhaw Games are located in Charlotte. Through limited advertising, the one-day Waxhaw gathering is deliberately kept smaller. This is partly due to financial reasons and partly to maintain the "local" atmosphere of the event (Ray, 1998). Waxhaw Highland Games had 2000 visitors in 1996. In 1998, the total number of visitors was 2500 and the visitation figures increased to 3000 in year 2000 (Waxhaw Highland Games Office, 2000). Finally, Loch Norman Highland Games are held in Charlotte. They were established in 1992.

These Games are run by non-profit organizations with strong Scottish roots. They share the same basic format, but offer a somewhat different sense of community through their size, attendees' origin and length (Ray, 1998). Their main objective is the promotion of Scottish heritage. These Games have become popular festivals and are a big draw for heritage tourists, both from Scottish and non-Scottish backgrounds.

Dissertation Structure

The main objective of this dissertation is to look at the perceived levels of authenticity among various groups, study the effect of socio-economic characteristics (along with other characteristics unique to the Highland Games) upon visitor spending behavior and finally determine the economic impact of visitor expenditures upon the host regions. Existing and potential heritage tourist clientele is identified. All chapters in the dissertation are presented in a systematic manner. First, the perceived authenticity is analyzed as a measure of product quality. Second, spending behavior of the visitors is analyzed and third, economic impact of visitor expenditures on the host regions is determined. The main objective of the chapters has been to highlight the features that make the Games unique and popular in terms of culture sustainability and economic benefits.

The dissertation begins with an analysis of authenticity in chapter 2 with empirical tests for differences in perceived levels of authenticity across people who have personal experiences of Scotland and those who do not, as well as various groups of clientele (across gender, clan members and non-clan members, age groups, income groups). The main aims are to evaluate the authenticity of the events (on a five point Likert scale) through perceptions of visitors, participants and organizers. The relationship between perceived level of authenticity and total visitor expenditure incurred in the Games region is also tested. Chapter 3 conducts empirical analysis to determine the spending behavior of visitors across various age and income groups. Other socio-economic characteristics of visitors (both endogenous and exogenous) are regressed on expenditure. Finally, chapter 4 estimates the economic impact of total visitor expenditures. Industries that generate biggest income, output and value added impacts are identified.

The main focus of chapters 3 and 4 is on tourist expenditures and their impact upon the host region. Authenticity, age, income, length of stay, distance traveled, enjoyment and other socio-economic characteristics are used to explain expenditure behavior in chapters 2 and 3. The empirical analysis and economic impact analysis of this dissertation are based on data collected from onsite visitor surveys. The GMHG survey was conducted in 1997, and the FMHG survey took place in 2000. The GMHG and FMHG are held in different parts of North Carolina. GMHG is held in a mountainous region with climate very similar to the Highlands of Scotland. FMHG is held in an area of southeast North Carolina with historical significance as the site for early Scottish settlement. Both are run by non-profit organizations. GMHG was chosen because it is considered to be one of the biggest Games in the world (Hunt, 1997) and forms an ideal case study of a heritage tourism event. On the other hand, FMHG is run on a small scale and was chosen because of the historical significance of its location. Socio-economic characteristics of the visitors are compared among GMHG and FMHG. This is the first quantitative study of GMHG and FMHG, and in fact the first quantitative analysis of any Highland Games in the United States.

Different questionnaires were used for GMHG and FMHG. A wide range of questions were asked (heritage, expenditures, etc.) at the GMHG. For the purpose of this study questions related to expenditures (eating & drinking, gas, Scottish goods, souvenirs, lodging, admission & registration, gas, vehicle repair, vehicle rental etc), heritage (members of a clan, been to Scotland, learnt history at the Games, having Scottish ancestors), socio-economic characteristics (age, education, income, profession, distance traveled) and a few general questions (length of stay, advance planning, future plans, first time attendees, level of enjoyment) are used in the empirical analyses. On the other hand, the FMHG survey was much shorter. Visitors were asked about their perceptions of authenticity for the events offered at the Games. Questions regarding socio-economic characteristics, heritage (member of a clan, been to Scotland), expenditures incurred (eating and drinking, Scottish goods, souvenirs, lodging, admission and registration and gas) were also included. Questions were asked to determine if the Games generated nostalgia for the past among visitors.

The results of FMHG surveys are analyzed in chapter 2. Authenticity and total expenditure are the two response variables used. Chapter 3 analyzes GMHG surveys and total expenditure is the main response variable. Both chapters make use of univariate statistics and ordinary least square (OLS) regression models conducted in SAS (Statistical Analysis System). Chapter 2 also uses analysis of variance methods (ANOVA) to test differences across various groups of visitors

Even though GMHG and FMHG surveys are different from each other in their design, they present similar information on socio-economic characteristics and expenditures of visitors. Samples from both surveys are representative of their population. Chapter 4 determines the economic impact of GMHG and FMHG visitor expenditures through the USDA Forest Service's IMPLAN model. Finally, chapter 5 presents a summary of the dissertation.

Chapter 2: Authenticity and Its Staging in Heritage Tourism

Authenticity has become an important topic of discussion in heritage tourism (Wiatt, 2000; Taylor, 2000). Many authorities (Clapp, 1999; Cohen, 1988) believe that the quality of heritage tourism is enhanced by authenticity, or at least by its presentation by the tourists. Much research, mostly qualitative, has been done in this field (Wang, 1999; Taylor, 2001; Hughes, 1992; MacCannell, 1973; Urry, 1996). However, few quantitative studies (Wiatt, 2000; Pocock, 1992) have addressed the tourist perception of authenticity. Moreover, no research in published literature has focused on the authenticity of short-term events in heritage tourism. Most of the studies have concentrated on economic impact, management etc. (Crompton, 1999; Getz, 1997; Yoon, 2000; Della et al., 1971). This chapter discusses authenticity and its staging at the annual Flora Macdonald Highland Games. It further looks at the level of authenticity perceived by visitors attending these Games and explores differences in their perception.

Flora MacDonald Highland Games are held in Red Springs in a rural setting and are named after the famous Scottish heroine " Flora Macdonald". The main activities at these Games are Highland dancing, musical events, Scottish Highland athletic events, parade of the tartans, border collies (sheep dog demonstrations), clan gatherings and purchase of Scottish souvenirs.

Scottish Highland dancing, also known as Scottish country dancing, closely resembles ballroom dancing (Groves & Stewart, 1993; GMHG, 1999). "Some of these dances are very old and are thought to originate in ancient rites celebrating marriage, fertility, victory or defeat, joy for the living or lament for the dead" (Groves & Stewart, 1993: 16). They are a blend of fact and fiction (Donaldson, 1986). Musical events include solo piping and drumming competitions, Scottish fiddling, harp and Scottish folk songs. Highland athletic events include tossing the caber, shot put, throwing the hammer, wrestling and tug of war. Parade of the tartans is a march of the clan groups led by their tartan banners. The Border collies are recognized as the best livestock-working dog in the world and are trained to gather, drive, and separate all types of farm animals (Groves & Stewart, 1993). Clan gatherings are held at their respective tents and constitute socializing of fellow clan members. Purchase of Scottish souvenirs include Highland wear and accessories, tartans, Scottish foods, CDs, music and heritage books, and other supplies for piping, drumming and dancing.

The hypotheses addressed in this chapter are:

1) **Scottish Highland Games are authentic in MacCannell's sense of staged authenticity**

2) **Scottish Highland Games are perceived authentic by tourists**

3) **Differences in the level of perceived authenticity exist within the heritage tourist clientele.**

The authenticity of a festival and its staging are analyzed through literature review and through visitor and participant responses to surveys conducted at the Flora Macdonald Highland Games in 2000. Visitor perceptions of authenticity form an important constituent of this study. They can serve as a guide for FMHG organizers to maintain quality of the activities offered. Further, events identified by literature as authentic are compared with events perceived to be authentic by visitors and participants.

Authenticity in heritage tourism is key to further development of the tourism sector in North Carolina. It has been argued that authenticity and quality experience are essential ingredients of heritage tourism (Hargrove, 1999). In fact, focus on authenticity is a basic principle for heritage in heritage tourism development (Fischer, 1999). North Carolina leaders have recognized that heritage tourism can bring economic benefits, which include well-paying jobs, to the State (Kidd, 1998). According to Clapp (1999:3) "heritage tourism brings together diverse groups and organizations that feel they do not have a common denominator". In other words, heritage tourism has economic development people talking to environmentalists and cultural resources people talking to art councils. Further, "heritage tourism is the fastest growing segment within the gigantic travel and tourism industry" (Kidd, 1999: 2). The continued growth, popularity and economic benefits of heritage tourism depend upon authenticity. Heritage tourism sells heritage to tourists. If heritage is perceived as inauthentic, it may lose its appeal to heritage tourists.

Flora Macdonald Highland Games are studied in this chapter. They are held every year in the town of Red Springs. The duration of the Games is one day filled with activities, competition and clan gatherings. Two surveys were conducted at FMHG in October 2000. Five hundred self-administered questionnaires were randomly distributed to visitors at the main entrance (See Appendix H, Survey 1). The response rate was 24% (120 surveys). Also, fifteen out of 200 participants (7%) were randomly intercepted (Appendix H, Survey 2). The results of both surveys are used. Besides, General Managers of Grandfather Mountain Highland Games (GMHG) and Flora

Macdonald Highland Games (FMHG) were interviewed. Questions were asked regarding their objectives and marketing strategies (Appendix H, Survey 3).

Besides reporting univariate results of the visitor surveys (See Appendix C, Tables 1, 2 & 3), this chapter compares perceptions of authenticity across groups of visitors. ANOVA tests and OLS regression models are used to detect statistical differences among various groups. The results are qualitatively compared to participant perceptions of authenticity.

Literature Review

Authenticity has been a subject of discussion in tourism research for the past twenty-five years. For the purpose of this study, authenticity is defined broadly as something that is an accurate reproduction of the original and creates nostalgic memories of the past. Literature supports this encompassing view of authenticity and this section discusses the concept of authenticity put forward by different authors. The main contributor is MacCannell. For the most part, MacCannell's work on authenticity and its staging is discussed and critiqued. MacCannell talks about authenticity as the search for original and then takes it one step further and asserts that it is mainly staged in the post-modern tourism period to promote nostalgia for the past.

In heritage tourism, authenticity is usually referred to as the level of cultural production (display of culture). According to MacCannell (1976), cultural production includes a wide range of phenomena. The largest cultural productions are the summer-long and year-long festivals that tie up the entire life of a community. Any cultural production can serve one of the essential functions given by MacCannell (1976: 81): “1) it may add to the weight of the modern civilization by sanctifying an original as being a model worthy of copy or 2) it may establish a new direction, break new grounds, or otherwise contribute to the progress of modernity by presenting new combinations of cultural elements.” The authenticity targeted today by heritage tourism is a blend of both these functions. First, an attempt is made to copy the original, and then the copy is modified to meet the needs of the modern community.

Authenticity can have different meaning for different people and it can be interpreted differently. Wang (1999) says that the museum linked usage of authenticity has been extended to tourism. According to him, products of tourism such as works of art, festivals, rituals, cuisine, dress, and so on are usually described as authentic or inauthentic in terms of the criterion of whether they are made or enacted by "local people according to custom or tradition" (1999:534). In this sense authenticity connotes traditional culture and origin, and a sense of the genuine. Within cultural tourism, the production of authenticity is dependent on some act of reproduction. It is conventionally the past that is seen to hold a model for the original. "Tourism sites, objects, images, and even people are not simply viewed as contemporaneous productions. Instead, they are positioned as signifiers of past events, epochs, or ways of life. In this way, authenticity is equated as original" (Taylor, 2000: 33). The present day authenticity pays homage to the "original" concept.

According to MacCannell (1976), a central aspect of the culture of modernity is the quest for authentic experience. Tourism, which emerges within this search for authenticity, is based upon the belief that authentic experience resides outside the boundary of everyday life in contemporary society (MacCannell, 1976). People think either the past was better or lives outside their space are better.

According to Fine and Speer (1985), an authentic experience involves participation in a collective ritual, where strangers get together in a cultural production to share a feeling of closeness or solidarity. This cultural production is not a total re-creation of the past. In fact, nostalgic collective memory selectively reconstructs the past to serve needs of the present (MacCannell, 1973). According to MacCannell, reconstruction leads to distortion. But this overlooks the fact that what is original is constantly changing in the hands of those who protect it. Most of the museums in Britain offer slide shows so that visitors can acquaint themselves with items on display and choose where to spend their time. What is lost over there is probably a search for an authentic experience, since everything is available with one click of a button. Today, management through technology is dominating the movement and gaze of the tourists. The artifacts themselves have not changed, but the spectators have.

This movement in search of authenticity is driven by people who are seeking either nostalgia or romanticism. People are nostalgic about old ways of life, and they want to relive them in the form of tourism, at least temporally. Nostalgia, in fact, is a universal catchwood for looking back. Lowenthal says," if the past is a foreign country, nostalgia has made it foreign country with the healthiest tourist trade of all" (Lowenthal, 1990: 4). Profitability incites real estate agents to drum up interest by digging out every shred of history, whether the connection be with a king or a pop star. Once unhappy with its nineteenth-century legacy, British rail now finds steam engines and scenes of bygone eras a source of pride and profit. The contemporary explosion of the heritage industry in Britain is in part a nostalgic response to an unease with the certainties of the present "hypnotized by images of the past, we risk losing all capacity for creative change"(Johnson, 1996:

234). People pine for past things. “The remembrance of time past is a burgeoning business in almost every country, and any epoch will do” (Lowenthal, 1990: 6).

Thus, heritage is created and re-created from surviving memories, artifacts and sites of the past to serve contemporary demand. Heritage has many creators, purposes and consumers (Ashworth, 1992). Heritage tourism poses questions about authenticity and about the representation of geographical and historical knowledge. Johnson (1996: 552) says, "the difficulty of the historicist conception of authenticity lies in the fact that the restless and infinite retreat of now will eventually make anything that has taken place in the world authentic." Ashworth (1990) supports Johnson’s view by asserting that what is marketed as "history" is just one version of the truth, often bearing a faint and extremely partial resemblance to past events as documented in various alternative sources.

MacCannell (1973) says that the tourist consciousness is motivated by its desire for authentic experiences, and the tourist may believe that he is moving in this direction, but often it is very difficult to know for sure if the experience is in fact authentic. It is possible for the individual to leave his everyday world in search of authentic experience only to find himself surrounded once again by fake elements such as would occur in a trip to Disney World. "The displacement of the genuine attraction and authentic values out of everyday life is redoubled when details of other epoch and other cultures are borrowed, intermixed and expanded to become immediate reality of modern man" (MacCannell, 1973:154). There is a belief that somewhere, in another country and in another life-style, there is perhaps a genuine society.

Pearce and Moscardo (1986) have further elaborated the notion of authenticity. They maintain that it is necessary to distinguish between authenticity of the setting and authenticity of the persons gazed upon; and to distinguish between diverse elements of the tourist experience which are of importance to the tourist in question.

“The dividing line between structure genuine and spurious is the realm of the commercial. Spurious social relations and structural elements can be bought, sold, traded and distributed throughout the world. Modern economies are based upon this exchange" (MacCannell, 1976: 155). Projected from this scenario is the packaging that forms the background of tourist perception of authenticity. Further he says that when the touristic definition of an ethnic group or community prevails, the group is frozen in a image of itself or museumized (MacCannell, 1984). In other words, it appears that tourism has helped by giving importance to these groups, in getting beyond the phase of ethnic relations where minorities are kept in place with light salaries, heavy prison terms, and cruelty (MacCannell, 1984). All the time MacCannell is referring to staged authenticity.

MacCannell had introduced the concept of 'staged authenticity' in the context of ethnic tourism in 1973. When discussing tourees (hosts) who put their culture including themselves on sale in order to create a package that appeals to the tourist, MacCannell (1973: 596) says, "to the degree that this packaging alters the nature of the product, the authenticity sought by the tourist becomes "staged authenticity" provided by the touree. He also argues that staged authenticity is further divided into front and back regions. "The front is the meeting place of hosts and guests or customers and the back is the place where members of the home team retire between performances to relax and prepare” (MacCannell, 1976: 92).

People are fascinated with the work lives of others. MacCannell notes that such real lives can only be found “backstage” and are not immediately visible. “Backstage” represents the back region (MacCannell, 1976). Hence, the gaze of the tourist involves an obvious intrusion into people's lives, which would be generally unacceptable. So the people being observed and local tourist entrepreneurs gradually construct artificial “backstages” meant for tourist gaze. For tourists, according to MacCannell (1976), exposure to a back region is a casual part of their touristic experience. What they see in the back is only another show. It does not trick or anger them, and they do not express any feelings of having been made less pure by their discoveries. Concluding this, MacCannell suggests, "for the study of the tourist settings front and back be treated as ideal poles of a continuum, poles linked by a series of front regions decorated to appear as back regions, and back regions set up to accommodate outsiders" (1976: 67). At the same time he says that there is no need to worry about the staged concept as long its structural features and their influences are understood. Whatever is acceptable to a tourist is staged by a host. Thus, the development of the constructed tourist attraction results from how those who are subject to the tourist gaze respond. The objective is twofold for the hosts: to protect themselves from intrusions into their lives, and to take advantage of the opportunities it presents for profitable investment (Urry, 1997). For Highland Games, which is a free standing event that does not take place in a location where "real" Scottish people are going about their daily lives, the differentiation of front and back stages relates to the Games as experienced by the participants and the Games are experienced by non-participant tourists.

Modern mass tourism is based on seemingly contradictory tendencies: the international homogenization of tourist culture and the artificial preservation of local ethnic groups and attractions so that they can be consumed as tourist experiences. Wang (1999) says "when MacCannell refers to staged authenticity, his tourists turn to quest for the authenticity of originals and consequently become victims of staged authenticity" (1999:350). According to Wang, experiences cannot be counted as authentic even if tourists themselves might think they have achieved such experiences. What is implied here is a conception of staged authenticity. Wang says that MacCannell insists on a museum-linked and objectivist conception of authenticity when staged authenticity is referred to. According to him, "tourist search for authentic experiences is thus no more than an epistemological experience of toured objects which are found to be authentic" (MacCannell, 1976: 94). That which is judged as inauthentic or staged authenticity by experts, intellectuals, or elite may be experienced as authentic and real from an ethnic perspective.

Crick (1989), by contrast, points out that there is a sense in which all cultures are “staged” and are in a certain sense inauthentic. “Cultures are invented, remade and the elements reorganized” (Crick, 1989: 65). Hence, it is not clear why the apparently inauthentic staging for the tourist is so very different from what happens in all cultures anyway.

Cohen (1988) says "there is no such person as the tourist, but rather, many different kinds of tourist, some of whom, are looking for no more than mere recreation" (Cohen, 1988: 32). Cohen's implication is that different tourists have different perspectives and needs. The underlying rationale of Cohen's argument is that similarity and diversity are not fixed concepts, and they are negotiable. The term homogenization should not be used randomly while talking about the tourist desire for staged authenticity.

Also, not everything experienced by tourists is staged. Johnson (1996) talks about heritage tourism and a historical house in Ireland. He says "the case of the representation of one landed estate, Strokestown Park House, County Roscommon, challenges and reconciles popular views of Ireland's past by restoring the historical narrative to its geographical context. By anchoring the narrative in local historical geography and by eschewing an approach that reifies local events into national political and cultural processes, the site provokes productive debates about the regional, national and global identities" (Johnson, 1996: 562). Johnson through his study asserts that the contention of heritage tourism being merely and invariably "bogus history" is wrong. “Not all heritage landscapes need be bogus, sanitized and hypnotic renderings of the past” (Johnson, 1996: 563). According to Selwyn (1996), MacCannell's staged authenticity is knowledge based (subjective). This authenticity is subject to scientific procedures and processes that are objectively verifiable (whether or not authentic). The key foundation is modernity, technology and is dictated by demand.

Crick (1989) says that the notion of staged authenticity is based upon assumptions about alienation in the modern world, which according to both of them is of limited explanatory use. Berghe (1984) says that "MacCannell overgeneralizes a frequent, yet far from universal, motivation among tourists." Not all tourists seek depaysement (displacement), as the French say (Nash 1984). Many are threatened by it and search, on the other contrary, the security of familiar food served by people fluent in their language in the familiar setting of an "international" hotel with only subdued reminders of the location. At the same time, Berghe (1984), asserts that MacCannell is correct to some extent that many tourists actively seek depaysement and cultural exoticism. Ethnic tourism, according to Berghe (1984) is the prototype of this search for the other. A native remains authentic only as long as he does not consciously change his behavior to make himself more attractive to tourists. Here, according to Berghe (1984) lies the self-destruction of ethnic tourism. Moreover, modernity and individual greed can quickly destroy the charm of a small town.

Further, Berghe (1984) says that staged authenticity is difficult to perform for ethnic tourists who are a discriminating clientele, both cautious and tired of manipulation. Demand for staged authenticity and its success depends both upon the type of tourist and the type of host. Staging, if it means displacement of cultural production from one place to another, does not necessarily mean superficiality. People migrate all around the world and they take their culture with them. They hold festivals to promote nostalgia for the past, thereby strengthening their cultural ties. MacCannell's meaning of staged authenticity is true for such festivals, but not in an inauthentic sense.

Summarizing MaCannell's concepts, he seems to have accepted the fate of staged authenticity in its entire superficial setting. He wants people to accept that everything is staged and artificial while meeting the tourism demand. However, he argues that tourists themselves are aware of another stage behind the stage and they want it. In other words, tourists are interested in staged “backstages”. MacCannell wants both the tourists and tourees to understand this phenomenon.

In today's age of mass tourism and its economic bloom, it is hard to look at tourism industry with any other motive other than monetary gains. Authenticity is getting distorted for economic gains. However, other authors assert that real authenticity should not be given up and staged should not be embraced in its totality. Instead, what is needed is the knowledge of staged authenticity and an attempt to go towards simplicity and less excitement and drama. Johnson (1996) proves through his study that all history is not enacted, and Berghe (1994) offers hope through his example of San Cristobal in Mexico that laid its plans for tourism development by being sensitive to their carrying capacity and local involvement.

Thus, some authors assert that perceptions and valuations of authenticity vary among types of tourists. For example, there may be differences between those who have experienced the "real" culture and those who have not. There may be differences by gender, income and other socio-economic variables.

Staged Authenticity of Scottish Highland Games

In this section, Scottish Highland Games are studied in the light of staged authenticity. A traditional Highland Games required piping, Highland dancing, hill running and heavy (athletic) events (Jarvie, 1991; Donaldson, 1986). The roots of Scottish Highland Games are over 900 years and the Games held before the Battle of Culloden (1745) in Scotland serve as traditional role models (Donaldson, 1986; Jarvie, 1991).

The Highland Games in the United States are staged authenticity since they are reconstructed in the memory of Scottish Highland past. In Scotland itself, they are staged since the motivations to hold them today are different from those in the past. In the past, they were a way of life (see introduction) and today they are enacted in the form of a drama for entertainment. "Many of the cultural artifacts and customs which are so central to today's Highland Gatherings contributed towards a way of life which revolved around a Highland clan" (Jarvie, 1991: 42). This section argues that the Highland Games in the United States are not inauthentic even though they are staged. The background of different events and their staging is discussed. The arguments are mainly drawn from observation, interviews with the Highland Games organizers and through literature review.

The Games in the United States represent a continuing tradition of over 200 years (Donaldson, 1986). Scotland is a small country whose people are scattered in British settled areas across the globe. "In that scattering, they took with them a love of their country and their heritage that could not be destroyed. This love has passed on to succeeding generations, and has remained strong enough to stir those whose hearts are in the Highlands whether they have actually been there or not" (Donaldson, 1986: 3) Scottish people carry this image in their hearts and the nostalgia has given birth to MacCannell's staged authenticity.

The tradition that the Scots enjoy today was not happily passed from one generation to another. As mentioned in the first chapter, Highland Scots started migrating to North Carolina after the Battle of Culloden in 1745 which destroyed their way of life and traditions. "It was only by emigration, so the argument goes, that the Highlander could cope to hold onto the traditional way of life" (Jarvie, 1991: 47). The Highlanders emigrated because they were unable to survive in the changing social formation of the Highlands brought by British sovereignty. The choice facing the Highlanders during late eighteenth and early nineteenth centuries was to remain in the face of changing cultural, economic, social and political pressures or emigrate to hold on to a traditional way of life which had become marginalized in its original context. Those who remained continued to be locked into increasingly unequal social conflicts between landlord and tenant. Those who left took with them many of the cultural artifacts and traditions that subsequently contributed to the emergence of a vast number of Highland Games in North America at a much later date (Jarvie, 1994).

In Scotland, after the Highlanders were crushed, the Highland Games vanished between 1745 and 1788. It should be noted that forty-three years later they were revived and promoted by the British monarchy. "The patronage bestowed on the Braemer Royal Gathering by Queen Victoria marked the beginning of a Balmorisation process which linked together a bonding between the reigning monarchy, the Balmoral estate and the Braemer Royal Gathering in particular, although not exclusively" (Jarvie, 1991: 64). This process contributed greatly to the cultural production and reproduction of Highland gatherings in a particular social form influenced by those who were responsible for their destruction in the first place.

The result is evidenced in the Games today. “There is a boldness and preciseness and an aura of perfection seldom exhibited in other ethnic displays. And there exudes a sense of pride and joy from all participants, competitors and non-competitors alike, also seldom experienced by other groups. When you are witnessing these events, you are witnessing a representation of a way of life” (Donaldson, 1996: 41). These events are enacted and reconstructed differently at Highland Games all around the world. Today, Highland Games are thriving in Scotland, Canada and the United States, as well as in a few other locations such as New Zealand.

Another important source of promotion in the early 1800's was Sir Walter Scott and other authors who introduced the notion of romanticism into the Highland past. "The romanticism of Scott, and others, was based on the belief that the past was really gone and that past history should not be used as a basis for social and political mobilization" (Narin, 1981: 115). Consequently, the Highland images presented by Scott are not those of eviction, poverty, famine and increasing dependency on the landlords but ones of tartan kilts and glen romanticism. Sir Walter Scott's novels and poems generated an aura of nostalgia for the Highlander way of life. However, in the midst of all this, the character and ingredients of the Games still retain their origin. In other words, they still retain elements of original Games.

“In the first upsurging years of the Games in Scotland, families who could not walk to the Games would go by pony and trap; farmers would hitch up their largest carts and their strongest Clydesdales and load up their families, workers, and friends” (Donaldson, 1986: 22). When bicycles became a popular mode of transport, there were often thousands of bicycles at a major gathering. Some of the athletes bicycled from Games to Games; many would travel nearly 100 miles a day to subject themselves to the grueling competition (Donaldson, 1986). The expansion and popularity of railways played an important part in developing Highland gatherings by giving Scottish city dwellers an opportunity to have a cheap day out enjoying pleasant entertainment in congenial surroundings. The increased mobility also allowed the better competitors to participate in more distant Games. Athletic competitions were boosted.

In 1875, a Canadian newspaper published an editorial decrying the fact that professional athletes were traveling from one Games to another, winning everything and keeping local amateurs off the prize lists (Donaldson, 1986). The Games committees themselves encouraged professionals, recognizing that spectators wanted to see the best-known performers and that record-breaking efforts were much enjoyed by the crowds. This distorted the spontaneity of old Highland Games tradition that accommodated all interested participants rather than a handful of professionals who were selected to suit the public demand.

During this time, there was a parallel development in piping, Highland dancing, and heavy athletics. The competitive structure that evolved led to higher standards all over the world. Because of intense rivalry, frequency of competitions, and wide geographic spread of the circuit, Scottish music, dance, and sport were developed to a greater, more sophisticated degree than their ethnic counterparts in other countries. According to Jarvie (1991), it is almost impossible to compare the respective merits of modern-day Highland dancers and pipers to those of the past. This example shows the modern-day need to be competitive and cater to masses and supports MacCannell 's concept of the host putting their culture on sale to create an appealing package for tourists.

In North America, Scots at first gathered to seek out and share their Games heritage, but these activities, with their opportunities for display of Scottish heritage also attracted non-Scots (Donaldson, 1986). The expansion of the Games in the US (in the 1970s) led to the creation of an interdependent organization, the Association of Scottish Games and Festivals (ASGF). The purpose of the ASGF was: "To encourage, support and assist member organizations on the production and presentation of Scottish Games and Festivals. Such endeavors provide a means of celebrating, encouraging and perpetuating the rich heritage accruing to persons of Scottish heritage and descent, and present, for the enjoyment and benefit of all people, those aspects of Scottish culture and tradition for which the Scottish people are known the world over" (Donaldson, 1996: 42). In other words attempts were made to accommodate heritage for the enjoyment of diverse visitor groups (for example, visitors enjoying outdoor recreation, heritage etc.). Thus, superficiality blended with nostalgic history was used to promote these Games.

Another example of staged authenticity is the Scottish Tartan Museum and heritage center in Franklin, North Carolina, which has an evolutionary exhibition of the Scottish garment tradition.

New tartans are created to give symbolic significance to new emerging groups or celebrations. The past in this case is not static, but knowledge of the past is used to create new symbols. Thus, history keeps re-creating itself. One such example is the George tartan that was first designed and woven in 1982. The Stone Mountain Highland Games, Inc. commissioned the Scottish Tartan Society to design and weave the tartan in honor of Georgia's Semiquincentenary Celebration which coincided with the 10th Annual Games and Scottish Festival at Stone Mountain, in Atlanta (Tartans, 1997: 6). It has been said that the pattern and colors of Georgia Tartan are a reflection of the State's strong ties with Scotland (Tartans, 1997). However, even though new tartans are emerging, the tartan tradition is authentic. This view is supported by Jarvie. He says, "Yet there is a great deal of evidence which suggests that, while the production of clan or family tartans did not exist before the nineteenth century on such a large scale as it does today, it is in fact wrong to assert that the tartan tradition of the Highlanders was an invented tradition" (Jarvie, 1991: 25). Further he says that with the reference to the modern Highland Gatherings, it must be noted that, not only the wearing of the kilt but also the numerous tartan symbols provide this tradition with a specific sense of Highland cultural identity.

Highland Games in the United States are rich in heritage. The examples of Alex Beaton and the Baird Family Society support Johnson's (1996) claim that all staged history is not bogus. Alex Beaton is the most popular and successful Scottish folk singer in North America (GMHG, 1999; FMHG, 2000). He is the featured performer at all major Scottish festivals in the United States and Canada. With more and more people interested in their Celtic roots, Alex Beaton brings out the best in that musical heritage for those eager to learn more about the world their ancestors left behind (GMHG, 1997). The Baird Family Society Worldwide was founded by Byron Owsley Baird and his wife Francis in 1971 when approaching the Lord Lyon, King of Arms, they found that no organized effort existed (Donaldson, 1986). Upon receiving a favorable reply, the Bairds issued a formal invitation to the Scottish community to assist them in their efforts to form an organization that would represent individuals with the name of Baird and its variations. Berghe's (1984) claim that ethnic tourists enrich the heritage of their hosts and do not want superficiality is supported by the demand for the Scottish country music and the efforts of the Baird Family Society. Next, the authenticity of some of the main events offered at Highland Games is analyzed.

Scottish country dancing is the traditional ballroom dancing of Scotland. It is not a sword dance and fling as performed by Highland dancers. "Rather it is a social dance whose winding patterns are reminiscent of interlacing Celtic knotwork, and whose circle, line and square formations came from the lowlands and other parts of Britain" (GMHG magazine, 1997: 15). The elegance of French court dancing was integrated into Highland dancing. Like Scotland's unique musical heritage, Scottish Country Dancing reflects the country's rich cultural heritage. Dances are handed down from generation to generation, and new dances are continually being devised, as this is a living art form (Cornelia & Stewart, 1993). However, Pipers, who originally played for the dancers, had to be replaced by fiddlers after the English banned the pipes in the 18th century. Scottish country dance cuts across social classes in Scotland, being danced in the Queen's court and crofter's cottages. Again, since Scottish dancing is an ever evolving progressive art form, the old tradition has lost its authenticity. In Scotland itself, most of the dancing at the Highland Games is staged in the name of art (Donaldson, 1986; Groves & Stewart, 1993).

Scottish athletic events at most of the Highland Games are divided into amateur and professional categories. Tossing the caber (a long tree trunk) has changed little over centuries and was considered strictly a Scottish event (Groves & Stewart, 1993). The shot put (putting the stone) "had been a traditional test of strength in the Highlands of Scotland for centuries" (Groves & Stewart, 1993: 21). The hammer throw became popular in the Scottish Highlands as a pastime among young men who gathered at the local blacksmith's shop and used his hammer (GMHG magazine, 1999). "Today, a special wire shafted hammer is used for amateur international events. However, Scots still use a wooden shafted hammer and stick to the old rule that a thrower must not move" (Groves & Stewart, 1993: 22). The present day tug of war is a combination of contests. The event was popular in one form or another in rural life, in the military and in the Navy in Scotland (Groves & Stewart, 1993: 24).

The clan groups, led by their tartan banners, are a well-loved part of all Highland Games today. Parade of the Tartans varies from Games to Games, but the appeal is universal. This activity was introduced by GMHG organizers in 1964 with the belief that spectators should be involved in the Games (Groves & Stewart, 1993). This event has become one of the most spectacular and popular events at the Games and they serve "as a role model for virtually every other Scottish Games" (Groves & Stewart, 1993: 31). As the literature reveals, Parade of the Tartans is a newly constructed event and was not handed down from generations.

Next, one of the most melodious sounds of the Highland Games is that of the Scottish Harp. In the Highlands, harpists used to accompany clan chiefs to battle until the bagpipes replaced them in the 16th century. The clan harpist performed for both joyous and sad occasions. He was also responsible for playing the clan to sleep. The history is long gone. But Scottish Harp continues in a staged set up. This staging is not superficial since it follows the old guidelines.

Finally, with particular reference to modern Highland Games, it is important to elaborate upon the importance of Poibaire within the clan formation. Piobaire is the Gaelic word meaning simply piping, pipe music or the art of playing on the bagpipe. Piping is an integral part of today's Highland Gatherings. "The playing of the Piobaireachd is a central tenet of the Highland tradition, albeit reproduced in a changed and modernized form. Yet, it serves in part as a symbol of Highland cultural identity and has also developed out of the tradition on the Piobere who held an important position within the old Highland clan" (Jarvie, 1991:36). Once again, this element of today's Highland Gatherings has developed out of a number of antecedent cultural forms that have their point of origin and original meaning firmly rooted within the Highland clan formation.

Thus, it is obvious that while some staged events have become modernized and superficial, the ingredients of most of the Highland Games in the United States are the same and follow old traditions. Similarity in Games indicates authenticity. Most of the athletic events can be traced back to their traditional past. Harp and piping follow old guidelines. Parade of Tartans is a new event and cannot be traced back to ancient times. However, it can still be argued that it represents tartans that are an embodiment of Scottish spirit and that most of the tartans themselves are traditional designs. Highland dancing is a progressive art form, but it can be argued that authenticity can be manifested in cultural evolution and not just strict preservation.

The main objective of GMHG and FMHG organizers is the promotion of Scottish culture. The General Managers of these Games rely mostly on word-of-mouth publicity even though other promotional strategies are used (such as advertisement in the local newspapers and Highland Games magazines). Web sites have proved to be an important tool for promotion. During the interview, both the General Managers said that the authenticity of the Games was maintained through the careful selection of events, the involvement of pioneers from Scotland and the fact that they are non-profit organizations.

Highland Games are marketed as a heritage tourism activity: "Watch as the muscular athletes participate in the ancient sporting events. Enjoy the dancers of all ages compete in the colorful and graceful dances of the Highlands. Take an excursion into your Scottish heritage by investigating your genealogy. Enjoy a taste of Scotland with a Southern flair" (FMHG brochure, 2000). Authenticity of such events is important. In addition to information provided by literature and Highland Games managers, participants and visitors at the Games can be an important source of information on authenticity.

Backstage of Staged Authenticity and the Perceptions of Highland Games Participants

The existence of a “backstage” at Flora Macdonald Highland Games is investigated based on the survey of participants conducted in 2000. They were participating in a wide range of activities like cross creek pipes and drums, judging Scottish athletes, athletic competitions, Solo piping, and bag pipe bands. The backstage of Highland Games is defined as the stage where the participants practiced their feats. According to MacCannell (1976), backstage is viewed by the visitors. They pay to go behind the scenes. Hence, the existence of a backstage at the Games is determined by visitor’s ability to access and enjoy the “behind-the-Games” scene. To determine if the Highland Games have MacCannell’s back stage, the participants were asked where they practiced and whether visitors watched them while they practiced. The results reveal that 87% of the participants practiced at home and 13% practiced elsewhere. Approximately 73% of the participants asserted that the visitors did not watch them while they practiced. However, 27% were watched by visitors, but these visitors were not required to pay a fee to enjoy this back stage[2].

For the 15 participants interviewed, the average and median age was 39 years. They incurred an average expenditure of $109 and the median was $50. Average distance traveled to the Games was 100 miles and the median was 315 miles. Eighty percent of the participants had Scottish heritage and 33% of them had been to Scotland. Approximately 87% of the participants thought that the events offered at the Games created nostalgia for the past. Fifty-three percent of the participants noted that these Games revived memories of their own Scottish heritage. According to 20% of the participants, the events at the Games were targeted at the revival of Scottish heritage, while 67% thought that the events were targeted towards the promotion of Scottish heritage. Twenty percent were of the opinion the events were targeted at social interactions and outdoor recreation and entertainment.

The participants rated Highland dancing as the most authentic event followed by Scottish amateur athletics and Parade of the Tartans. As Table 1 reveals, the event perceived as least authentic was Haggis Hurling and Broomstick Toss. Recall that literature suggests Highland dancing is not highly authentic with respect to its Scottish heritage. It is more or less blended with the French style and has been modified over the years in the name of art. Parade of the Tartans is a new event but depicts the significance of tartans. Interaction with fellow clan members was found to

[2] One participant practiced in the park and was watched by passers by.

be authentic by the participants. This activity can be traced back to Scottish history when interaction with fellow clan members was the most important aspect of the Highland gatherings.

Table 1: Perceived level of authenticity of the participants

Items offered at the Games	Authenticity scale (1-5) Mean rating
Highland dancing	4.6
Scottish amateur athletics	4.4
Interacting with your clan	4.3
Learning Scottish history	4.1
Parade of Tartans	4.0
Highland Games Setting	3.7
Scottish souvenirs	3.7
Haggis hurling and broomstick toss	2.8

Authenticity as Perceived by Visitors

Tourism necessarily involves day dreaming and anticipation of new or different experiences from those normally encountered in everyday life. But such daydreams are not autonomous; they involve working over advertising and other media-generated sets of signs, many of which relate very clearly to complex processes of social emulation. Also modern consumerism is historically changing. So it is important to understand what the tourists think is authentic and to study the behavior of different tourist clientele. Waitt (2000) explored the effect of gender, income, education level, age, place of residence and previous tourism experiences on the perceived level of authenticity of Maori culture in New Zealand. This study also looks into possible explanations of perceived levels of authenticity that include tourist demographics and event activities.

As Table 2 shows, 68.3% of the people visited FMHG to seek authentic Scottish goods. 60.4% and 60.3% sought authentic Scottish food and outdoor recreation and spectacle respectively. Finally, 57.4% of the visitors sought information on Scottish heritage. Visitors seeking authenticity definitely will not accept superficiality (fake representations) as suggested by MacCannell. However, there is a substantial percent in the respondents who were just out for outdoor recreation and spectacle. It seems that these visitors accept MacCannell's staged authenticity. They know what they are enjoying is not authentic and they still want it.

Table 2. Features sought at the Games[3]

Features sought at the games	Percentage of visitors seeking
Authentic Scottish goods	68.3
Authentic Scottish food	60.4
Outdoor recreation and spectacle	60.3
Information about Scottish heritage	57.4
Athletic competition	48.5
Opportunity to participate in traditional Scottish activities	37.6
Interaction with fellow clan members	37.6

Visitors were asked to rate the level of authenticity of activities on a five point Likert scale. Events taken into account were Highland dancing, Parade of the tartans, Highland Games setting and purchase of Scottish souvenirs. Authenticity was also rated for learning Scottish history, family gathering, making new friends and interacting with fellow clan members. One variable 'authentic' is created which gives the mean authenticity rating perceived by the visitor. Other continuous variables used were "nights" (number of nights spent in the region), "age" (age of the visitors) and

[3] Other features sought were Pipe Competition (Solo), traditional music and pipers, Seven nations, Crafts and sales booths, parade, border collies and herding demonstrations, Alex Beaton and highland dancing.

"expenditure" (total expenditure incurred by the visitors). The total expenditure variable is used in logarithmic form to overcome the problem of heteroskedasticity (See Appendix C, Table 1).

Categorical variables used were “memclan” which indicated clan versus non-clan members, “Scotan” indicating visitors who had been to Scotland versus those who had never been to Scotland, “memory” indicating visitors who felt that the Games revived memories of their Scottish heritage versus those who felt that the Games did not revive any memories of their Scottish heritage and those who did not have Scottish heritage. Other binary variables used were “gender” and “nostalgia” indicating visitors who felt nostalgia at the Games versus those who did not feel nostalgia. Income in this study is also used as a categorical variable indicating six groups (Group 1: <$20,000; Group 2: $20,000 - $40,000; Group 3: $40,000-$60,000; Group 4: $60,000 - $80,000; Group 5: $80,000 - $100,000; and finally Group 6: above $100,000). To compare authenticity perception across different age groups, age was divided into groups (Group 1: <25 years; Group 2: 25-35 years; Group 3: 35-45 years; Group 4: 45-55 years; and finally Group 5: above 55 years). Tables 2 and 3 in Appendix C provide frequency information of categorical variables.

Table 3: Perceived level of authenticity by the visitors

Items offered at the Games	Authenticity scale (1-5) Mean rating	Standard deviations of the Mean rating
Highland Dancing	4.2	.8
Parade of Tartans	4.0	1.0
Learning Scottish history	3.8	1.2
Highland Games Setting	3.7	1.0
Scottish souvenirs	3.5	1.1
Family gathering	3.5	1.3
Interacting with your clan	3.5	1.3
Family reunion	3.4	1.3

As Table 3 reveals, Highland dancing was considered to be the most authentic item, followed by Parade of the Tartans, learning Scottish history, Highland Games setting and purchase of Scottish souvenirs. ANOVA tests were conducted to see if there were any differences in the mean perceived level of authenticity among clan and non-clan members and visitors who had been to Scotland versus those who had never been to Scotland (See Table 4).

This study also looks at differences of the level of perceived authenticity across various groups (Table 4). Visitors who felt nostalgia at the Games gave a much higher rating to overall authenticity and statistical differences existed between them and the ones who did not feel nostalgic at the Games. There were also statistically significant differences among visitors who felt that the Games revived their personal memories and the ones who did not feel anything at the Games. The authenticity rating was higher for the group who felt the Games revive personal memories of their heritage. The tests further reveal that differences in the perceived level of authenticity existed among visitors who clan and non-clan members. It is also important to note that the non-clan members thought that the items offered at the Highland Games were more authentic and female visitors gave a higher authenticity rating.

Differences were also tested between visitors who had been to Scotland versus those who had never been to Scotland and finally between male and female visitors. The ANOVA tests reveal that differences among the above mentioned groups were not statistically significant. However, it is worth noting that those who had never visited Scotland gave a higher authenticity rating than the ones who had been to Scotland.

Table 4. Difference in Perceived Authenticity Scores for the Highland Games

Independent variables	Perceived authenticity scores Mean rating		Results of two-way ANOVA	N
Nostalgia for the old world	Yes Mean = 3.8	No Mean = 2.7	F value = 6.17 P value = .016	107
Personnel Scottish memories[4]	Yes Mean = 3.9	No Mean = 3.3	F value = 6.60 P value = .002	97
Been to Scotland	Yes Mean = 3.5	No Mean = 3.9	F value = .11 P value = .744	109
Members of a clan	Yes Mean = 3.3	No Mean = 3.7	F value = 5.80 P value = .020	110
Gender	Yes Mean = 3.6	No Mean = 3.8	F value = .61 P value = .439	111

Table 5 reveals that visitors belonging to different age groups did not have different perceived level of authenticity. However, the lowest age group (< 25 years) gave the highest authenticity rating. This was followed by the second lowest age group (25-35 years) and subsequently the highest age group (> 55 years).

Table 5. Perceived level of authenticity between different age groups (N=70)

Independent variables Age	Perceived level of authenticity Mean	ANOVA Results
< 25 years	4.0	
25-35 years	3.9	F value = .30
35-45 years	3.7	P value = .82
45-55 years	3.6	
> 55 years	3.8	

Significant differences in the perceived level of authenticity did not exist across various income groups (Table 6). However, the authenticity rating offered by different income groups throws light upon the visitor perceptions. The highest income group (> $100,000) gave highest authenticity rating to items offered at the Games. This was followed by the lowest income group (< $20,000) and the income group with salary between $40,000 and $60,000. Heritage tourists in higher income brackets are perceived to be more educated and middle aged (Formica & Uysal, 1998; Balcar & Pearce, 1996). The results imply that the positive authenticity perceptions of visitors at the FMHG are valid and it is safe to assume that FMHG represents authentic Scottish heritage through most of its events.

Table 6. Perceived level of authenticity between different income groups (N=70)

Independent variables Income	Perceived level of authenticity Mean	ANOVA Results
< $20,000	4.0	
$20,000 - $40,000	3.4	F value = .91
$40,000 - $60,000	3.9	P value = .48
$60,000 - $80,000	3.6.	
$80,000 - $100,000	3.5	
> $100,000	4.1	

While men and women do not differ in their perceived levels of authenticity (Table 7), ANOVA tests indicate different patterns among women and men (Table 7). Female visitors who had been to Scotland had different perceived levels of authenticity than the ones who had never been there. Female visitors who had visited Scotland felt that the events offered at the Games were more authentic than the female visitors who had never been to Scotland. Differences were also observed between members and non-members of a clan among male visitors. Male clan members gave higher authenticity ratings than the male non-clan members. Differences in perceived levels of authenticity also existed between male visitors who thought the Highland Games revived personal memories of Scottish heritage and those who felt no personal memories. Thus, differences in level

[4] Mean authenticity rating for visitors with no Scottish heritage was 3.5

of perceived authenticity exist within the Highland Games clientele according to gender and historical background. From the results it is hard to determine if the male or female visitors had the greater propensity to critique.

Table 7. Difference across various groups according to gender (N=70)

Independent variables	Perceived authenticity scores Mean rating		Results of two-way ANOVA
Gender	Male = 3.6	Female = 3.8	F value = 1.09 P value = .13
Scottish memories by gender[5] (Male)	Yes = 3.5	No = 3.0	F value = 2.12 P value = .16
Scottish memories by gender[6] (Female)	Yes = 4.0	No = 3.4	F value = .52 P value = .60
Visited Scotland by gender (Male)	Yes = 3.4	No = 3.7	F value = .01 P value = .93
Visited Scotland by gender (Female)	Yes = 3.8	No = 3.7	F value = 2.20 P value = .08
Members of a clan by gender (Male)	Yes = 3.4	No = 2.8	F value = 3.61 P value = .32
Members of a clan by gender (Female)	Yes = 3.7	No = 3.2	F value = 1.04 P value = .32
Age by gender (Male)	3.6		F value = .52 P value = .68
Age by gender (Female)	3.8		F value = .80 P value = .51

* Few visitors (both male and female) did not feel that the events offered at the Games created nostalgia for the Scottish past. Due to missing values their scores could not be reported.

Using OLS bivariate regression models, perceived level of authenticity was analyzed for significant correlation with visitor expenditure behavior (total group expenditures in the region. Results reveal that the perceived level of authenticity (for all events) had a highly significant coefficient in a model of expenditure (Table 8). When the authenticity rating of events increased on

[5] The authenticity scores of the male visitors who did not have Scottish heritage was 3.1
[6] The authenticity scores of the female visitors who did not have Scottish heritage was 3.8

a scale of 1 to 5, the total spending of visitors also increased. The rating of events perceived as most authentic was also individually regressed on expenditure (Table 9). The perceived level of authenticity of Highland dancing was not found to be significantly related to expenditure behavior. But the authenticity rating of parade of the tartans, information on Scottish history, and setting of the Highland Games had significant positive coefficients in the model of expenditure behavior. Higher the authenticity rating of these events, the more money the visitors spent. The results suggest that it is important for Highland Games to be authentic since this is associated with higher levels of visitor spending.

Table 8: Expenditure behavior

Independent variable	Parameter	F value	P value
Authentic	3.45	10.33	.003

Table 9: Expenditure behavior

Independent variables	Parameter	F value	P value
Dance	.65	1.44	.23
Parade	2.26	6.65	.01
History	1.23	4.37	.04
Setting	2.10	5.67	.02

Discussion

Staging involves displacement of cultural production from one place to another. But it does not necessarily mean superficiality. People migrate all around the world and they take their culture with them. They hold festivals to promote nostalgia for the past, thereby strengthening their cultural ties. MacCannell's (1973) concept of staged authenticity does apply to such scenarios, but not in an inauthentic sense. In other words, what is staged is not superficial since it contains elements of the original tradition.

Technology has made it possible for people to travel and become tourists who like to gaze at what they like or at what is offered in the name of heritage (Urry, 1997). This can include gazing at their own culture and ancestral past through festivals and cultural events. It is not necessary then to assume that all tourists like gazing only at other lives. Authenticity and an authentic experience through domestic tourism or family gatherings when people of the same background get together has become a popular trend. The perceived level of authenticity of these visitors is responsible for the staged authenticity and its distortion. This is in turn controlled partly by media and partly by the visitors themselves. Research has shown that the heritage events get maximum publicity through word of mouth (Chhabra, 1997; Vance, 1999).

Moreover, authenticity perception in the mind of Scottish Americans may be distorted because they feel that they are far away from their ancestral land. For example, a Scottish American approached at the Highland Games and asked if he would like to return back in Scotland flatly refused. Thus, this Scottish American becomes MacCannell's tourist who likes looking at other people's lives (including his ancestors) for a short time. For such visitors, nostalgia is a way to feel humble about their present way of life since they want to believe that beauty lies elsewhere and they want to keep it far so that they can reach it sometimes. At the same time, they do not want to embrace it because they know that what is beautiful is just a mirage and behind its display lies intense labor, poverty and suffering.

Since most of the visitors are mature individuals, it is assumed that they know what to expect at the Games and they are happy with what they gaze at. However, literature review shows that some of their perceptions are distorted. The FMHG survey results in this chapter reveal Highland dancing to be the item offered, that is perceived as most authentic whereas the history of Highland dancing shows that it has been progressively modified. Piping, Fiddling and Border Collies are considered authentic by literature and today's audience as well. Since the Highland Games do not have a backstage except for participants, they retain their privacy and authenticity. As soon as the backstage is opened to visitors for monetary gains, the atmosphere of aura disappears.

It should be noted that some Highland Games are organized on a profit-maximizing basis, while for some (Flora Macdoanld Highland Games in North Carolina), the objective is to break even. These Gatherings may be close to the ethnic tourism described by Berghe (1994). Here the tourists are looking for reality not staged reality. However, Scottish Highland Games are an excellent example of MacCannell's staged authenticity. Nevertheless, it is not correct to generalize that all tourists want and accept superficiality. Reconstruction does not necessarily mean distortion. The commercialization of Highland Games as claimed by Jarvie (1991) has led to the creation of new events and shows justified in the name of progressive art. By retaining the traditional ingredients of Scottish culture, a balance can be achieved between authenticity and reconstruction and invention (in the name of old tradition).

Results reveal that important differences in the perceived level of authenticity exist among Highland Games visitors with different historical backgrounds and connections to Scottish heritage, especially among women. The socio-economic characteristics of the visitors did not determine the perceived level of authenticity at the Games. Visitors who were very serious about the Scottish heritage, for example members of a clan or those who had been to Scotland, did not perceive the Games to be more authentic than their counter parts. This supports the indication in literature that the Highland Games traditions in the United States brought by Scottish immigrants follow the earlier version of Highland Games held in Scotland before the British era. Literature strongly indicates that the Highland Games held in Scotland before the British era (before the Battle of Culloden) had the original traditional ingredients (Jarvie, 1991). The present day Highland Games held in Scotland may be more modified (since they were revived by the British) than the ones held in the United States.

Further, the authenticity rating was found positively related to expenditures incurred by the visitors. This gives a very important indication to the organizers of Highland Games. Authenticity generates revenue and its preservation is considered important by the tourist clientele. Events that received higher authenticity rating should be promoted by the Games.

For the purpose of future promotion and sustainability of Scottish culture, the Highland Games organizers in the United States need to closely follow the quality of staged events. Equally important is awareness of tourist's perception of authenticity. Information on the historical background of all events should be freely given and wherever possible, supported by facts not fiction.

Chapter 3: Determining Tourist Expenditures in Heritage Tourism

Festivals and special events attract visitors because of the unique blend of novelty, culture and education they are likely to experience (Formica & Murrmann, 1998). Despite the growing importance of short-term events such as festivals, there has been little research on festival visitors and their spending behavior (Backman et al., 1995; Formica & Uysal, 1996; Uysal et al., 1993; Tighe, 1991).

This study addresses this gap by analyzing the spending behavior of heritage tourists at a specialized type of festival (Scottish Highland Games). The objective is to determine demand for heritage tourism through the effect of income, age and other socioeconomic characteristics of tourists (on expenditures) along with the unique characteristics related specifically to the event. The event considered is Grandfather Mountain Highland Games. They are held in North Carolina and encompass the tradition of Highland Scots.

By relating expenditures to age and income, this study also identifies distinct market segments. Main motivations are to: 1) identify new groups for marketing; 2) promote existing groups; 3) evaluate festival visitors and their spending behavior; and 4) provide information on socio-economic characteristics of heritage tourists.

The specific hypotheses addressed in this chapter are:

1) **Age is an important determinant of tourism expenditures at the Highland Games**
2) **Heritage tourism expenditures had not reached saturation point (in 1997)**
3) **Socio-economic characteristics determine the amount of Highland Games tourism**
4) **Predetermined exogenous attributes including socio-economic characteristics are better indicators of expenditure behavior than the attributes acquired at the event itself.**

Literature Review

Travel behavior and preferences of various market segments are of great interest to the travel and tourism industry (Field, 1999). Under increasingly competitive market conditions, the need to create and deliver specific demand-related products has become very important. According to McQueen and Miller (1985:3), "the ability to determine the proper target audience and its travel needs is crucial to a successful and efficient marketing campaign, with strategies properly designed for more receptive segments." The main objective behind all these strategies is to increase revenue through market segmentation.

Segmentation is the division of a market into distinct subsets of consumers who require specific services and marketing actions (Field, 1999). Such segmentation facilitates more cost-effective marketing through better-targeted design and promotion. It also acts as a guide to project products that are designed for a specific purpose with the aim to satisfy the needs of different groups (Court and Lupton, 1997; Middleton, 1994). Advertisement is a tool most commonly used to market these products. According to Chacko, “differentiated advertising campaigns or specifically tailored tourism experiences are likely to become increasingly important to a consumer marketplace that is ever more sophisticated in its travel experience and expectations to a travel industry constantly seeking to gain a competitive edge” (1997:37).

Since technology driven tourism development started in the 1980s, consumers are showing substantial changes in their motivations and travel patterns. Poon (1993) argued that the travel and tourism market has become increasingly segmented along demographic, socioeconomic and psychographic lines, including tourists' motivations, hobbies, and opinions. Research suggests that marketers must appreciate the influence of nationality, age, culture, background, gender, and other classifications on tourist behavior and construct their marketing strategies accordingly (Sussmann & Rashcovsky, 1997; Opperman, 1993).

In a tourism market, the fundamental variable in any profitability analysis is the tourist expenditure (Poon, 1993). According to Taylor et al., (1993), tourist expenditures are a key variable in the economic analysis of costs and profits associated with the travel and tourism industry. The estimation of spending behavior of tourists by means of a causal model that reflects the influence of different attributes of the individual tourists can be useful to project profits (Poon, 1993).

Even though previous studies have recognized the importance of evaluating festival visitors in terms of their spending behavior, no single study has considered the effects of age, income and other socio-economic characteristics. Formica and Uysal (1998) explored the existing markets of a unique cultural event (Spoleto festival in Italy) in terms of motivation and demographics. The study revealed family togetherness, socialization, excitement, relaxation and nostalgia as the most critical factors in visiting a festival. However, the effect of age, income and other socio-economic characteristics upon the spending behavior of tourists has not been studied. Kaylen et al. (1998) estimated tourism expenditures for open-access amateur sports tournaments and determined the average tourist expenditures before analyzing their economic impact. Nogowa et al. (1996) also used direct expenditure figures to conduct an empirical study of a Japanese event. The respondents were broken down into different categories according to their total travel expenditures. The expenditure behavior was not considered. Tourism expenditures at short-term events have been most often been analyzed for economic impact.

Studies outside the range of short-term events were also identified. Davies and Mangan (1992), while looking at expenditure behavior of heritage tourists in a rural area, studied the effect of income on total expenditure. They discovered that expenditure was highly elastic at low-income levels and became low but still elastic at high-income levels. They asserted that increase in real income might continue to bring rapid growth to the heritage tourism market. Blaine et al. (1984) determined demand for rural tourism through the effect of length of stay, income and level of commitment to the region (Fredericksburg, Virginia). Length of stay, income and commitment to Fredericksburg were all found to have a positive effect on total expenditure. Leones et al. (1998) conducted a study to track tourist expenditures of nature tourists in Southeastern Arizona. They examined a couple of sites and found that as travel costs increase length of stay increases. Distance also had a positive effect on expenditure. The farther the visitors were from their home, the more they spent.

Study Area

Onsite surveys conducted at the Grandfather Mountain Highland Games (GMHG) are analyzed to evaluate tourism demand and expenditures. According to Donaldson, GMHG "has won more national and international attention than any other Highland Games" (1986:232). Since GMHG are one of the biggest Highland Games in the world (Donaldson, 1986; Ray, 1998), they are a good case study of tourism expenditures at Scottish Highland Games and more generally, at heritage festivals and short-term events.

GMHG drew 15,000 visitors in 1996 (GMHG office, 1996). In 1997, they drew as many as 20,000 visitors and in 1998 approximately 30,000 visitors attended the event (GMHG office, 1997). In 1999, the total number of visitors was around 40,000 (GMHG office, 1999). The trend shows increasing popularity of the Games. They are the sites of annual meetings for many national clan societies.

Because of the magnitude of the festival, the impact of this heritage tourism event needs to be determined on the surrounding counties. For this purpose, GMHG included the counties of Burke, Avery, Watauga, McDowell, Mitchell, Yancey, Catawba, Ashe, Wilkes and Caldwell (See Map, Appendix A). The selection of these counties is also supported by interviews with volunteers at the Highland Games site in 1999 (all are from these counties) and the accommodation list provided by the GMHG office for visitors. The GMHG survey conducted in 1997 provided a map defining this region (Appendix H: Survey 4). Respondents were asked an open-ended question about their accommodation type and its location. The results show that all visitors were staying in the GMHG region as indicated above.

Sample

The survey was distributed to a random sample of visitors (one adult per party) at GMHG in 1997. Visitors were requested to complete the survey and return it to the GMHG gift shop located near the main entrance. The sample is divided into three main groups, based on when and where the survey was returned: Saturday responses (565); Sunday responses (600); and the mailed back responses (111). Besides these groups, 25 surveys were returned to the GMHG office and 41 were collected from campers at the Highland Games site. A gift was offered as an incentive for returning the surveys. The response rate was 28% (N=1437).

To test the hypotheses, univariate summary statistics and ordinary least squares regression (OLS) are used. As a preliminary step to multivariate OLS, bivariate regression models are estimated to identify income and age level groups that generate maximum revenue. Finally, multivariate regression models are used to determine the effect of different socio-economic characteristics upon total visitor expenditure.

Survey Data

The survey gathered information on visitor expenditures in several categories. Respondents were asked to estimate the total expenditures for their group during the trip. This trip involved the visit to the GMHG and the GMHG region. Expenditure variables are defined as follows:

Site = Expenditure incurred at the GMHG site on the following items:
Admission/registration + food/drinks + Scottish shops + Camera/films + camping at the site + arts & crafts + other items/souvenirs + Scottish clothing

Accom = Expenditure incurred on following accommodations in the GMHG region:
Hotel/motel + camping outside the GMHG site + rental cottages/condominiums

Food = Expenditure incurred at restaurants and on groceries in the GMHG region

Transport = Expenditure incurred on vehicle rental, vehicle repair and gas & oil in the GMHG region.

Hiking = Expenditures incurred for hiking in the GMHG region

All expenditures are for the group traveling with the respondent. The variable "Total" is defined as the sum of above expenditures. In addition, the survey obtained information on length of the trip and size of the group. Two additional variables are used and are defined as follows:

Stay = number of nights spent in the GMHG region

Group = total number of people per party as reported in the questionnaire

In addition to their age, income and education, respondents were asked whether they were members of a clan, attending the GMHG for the first time and had plans to come back next year. The later variables are binomial and offer a choice of "yes" or "no" (See Appendix D, Table 5). For promotional reasons, it is important to determine how much time is taken by the visitors to plan their trip. Respondents were asked about advance planning for the trip. A choice of four time periods was given: over six months, less than six months, less than one month and less than one week. Finally, an enjoy variable was created by calculating mean enjoyment of events at the Games rated on a Likert scale (See Appendix H, Survey 4)

Survey Analysis

Expenditure, income, distance traveled, length of stay and the group size are logged to overcome the problem of heteroskedasticity (See Appendix D: Tables 1, 2 & 3). Heteroskedasticity occurs when the distribution of survey sample is not normal. Larger the independent variable, larger the variance of associated distribution. This kind of heteroskedasticity affects properties of the OLS estimator. High values of skewness (skewed to the right or left) and kurtosis (peaked distribution) are the main indicators of heteroskedasticity in general. It is also important to deal with outliers (unusual cases), and their influence can be reduced by using logarithmic forms.

For several of the variables, there is a problem with item non-response. This is a challenge faced by all researchers who undertake tourism studies. Most previous studies simply omitted observations with any missing values. (Kaylen et al., 1998; Gartner & Holecek, 1983; Madambi & Baum, 1997; Nogowa et al, 1996; Kim et al., 1995).

In addition to dropping cases, there are three other methods that deal with missing data: mean substitution; imputation without random error components; and imputation with random error components. Dropping cases with missing data reduces effective sample size and ignores the present information in cases that are dropped (Tomaskovic-Devey, 1996). In a sample where all items have some missing data and many variables are used in substantive analyses a large proportion of cases may be dropped, distorting the sample in unexamined ways. The second method is mean substitution. It is a common practice, but can dramatically reduce both variance and covariance. In addition, "when missing data are nonrandom, mean substitution reproduces the biased point estimate associated with non-response and can lead to misleading multivariate inferences" (Tomaskovic-Devey, 1996: 2). Researchers are more likely to choose this approach when the increase in sample size outweighs the decrease in model quality.

Imputation is generally preferable to dropping cases or mean substitution when sufficient information about cases exists to make an educated guess about what the approximate value would have been if the item were answered (Kalton, 1983). There are three approaches to imputation: mean values within imputation classes, hot deck imputation and regression based imputation. In the first approach, the imputation classes are selected because they are meaningfully associated with values of the variable that is missing (Tomaskovic-Devey, 2000). According to Tomaskovic-Devey

(2000:2), "this method reduces variance relative to the population, but preserves covariance between the grouping categories and the imputed value."

Hot-deck imputation also requires the construction of imputation classes. Rather than the mean, a random case is drawn from the imputation class to replace missing value. Relative to the previous method this approach increases variance for the imputed items but reduces covariance among all items unless all missing data for a particular case are donated from a single matched case (Tomaskovic-Devey, 1996). This approach is rarely used because it requires the same set of imputation classes for all items that require imputation.

Regression based imputation uses a regression model with all items present to develop predictions of what the missing value for specific cases would have been. This method increases both variance and covariance as compared to the previous two methods and uses the maximum amount of available information. It is a preferred approach and reasonable estimation model can be constructed even when the missing data are random (Anderson et. al., 1983). "Generally researchers use either an OLS regression estimate or an iterative maximum likelihood solution to estimate appropriate values for items with missing data" (Tomaskovic-Devey, 1996:3). Both regression approaches use data that is present in the survey to create a prediction equation for the variable with missing data. The prediction equation should include a set of variables in the data set that have a strong relation with the variable being imputed. The set variables should have no or few missing value themselves. This approach models both known and unknown sources of non-response as well as substantively important sources of variation in the variable for which we wish to impute missing values. The efficiency of the regression solution for imputing missing data rises with the coefficient of variation in the prediction equation. However, according to Tomaskovic-Devey (1996: 4) "the drawbacks of the regression-based approach include that it is only as accurate as the regression model. It can lead to imputed values outside of the observed range, and it can be a lot of work."

However, all of the mentioned imputation methods leave the sample with constricted variance relative to the population. This may artificially inflate covariance. The preferred solution is to add a random error component to the computation of the missing values of items (Kalton, 1983; Cohen and Cohen, 1983). This approach helps smooth out distribution of the imputed values. In the case of regression-based imputation, this can be achieved by adding a random error value with a mean of zero and standard deviation equal to standard error of the regression equation to the imputed value for missing cases. Tomaskovic-Devey (1996) argues that the resulting distribution becomes reasonably close to the population distribution.

In this study, distance traveled and annual household income are found to have the maximum number of missing values. Approximately 11% (158 observations) of the total sample did not report the value for distance traveled, while 37% (531 observations) did not report annual household income. The missing data for distance traveled is substituted by its mean value (313 miles).[7] Regression based imputation is used to substitute the missing values for annual household income. The primary reason is the higher non-response rate. Furthermore, while it is not easy to predict the determinants of distance traveled, age, education and occupation are sound predictors of household income (Formica &Uysal, 1998; Balcar & Pearce, 1996). Hence, the missing data for annual household income are substituted through regression-based imputation.

[7] The mean substitution for missing values for distance values does not bias the results. Model including this mean substitution is compared with a model that deletes all the missing values of distance traveled (See Table 6 and Appendix B, Table 6). The coefficient of distance traveled is found to be robust across both the models.

A multivariate regression model is constructed to predict income for missing data with the following estimation results:

$$\text{Income} = a + b_1 * \text{Age} + b_2 * \text{Education} + b_3 * \text{Professional} + e$$

$$\text{Income} = 14.86 + .40 * \text{Age} + 1.79 * \text{Education} + 11.77 * \text{Professional} + e$$

Where

a = intercept and b_1 and b_2 = parameters and e = error term.

Education is the number of years in education ranging from 1 to 16.

Occupation is used as a dummy variable with professional=1 else=0

R squared is .27 and sample size is 716. Approximately 27% of the variation in household income is explained by age, education and occupation.

There were missing data for other questions in the survey. These observations are deleted, resulting in loss of about 8% of observations. After substituting the missing data for income and distance traveled, the total number of observations analyzed was 980 (an increase by 280 observations)[8]. The response rate became 20%.

[8] The total sample size after deleting the missing observation for income and distance traveled was 700.

Determining Tourism Demand of Different Age Groups

Age is often considered a significant determinant of expenditure behavior (Sussmann & Rashcovsky, 1997; Opperman, 1993). The expected relationship between age and expenditures is positive, which means that older people are more likely to spend money in tourism (Opperman, 1993). This section evaluates the hypothesis that age is an important determinant of expenditures at the GMHG.

Analysis

To determine the effect of age, several characteristics of the visit including length of stay; size of group; and total expenditures incurred are regressed on age. Specifically, the following equations are estimated:

Expenditure effect

$$\text{Site} = a + b\,(\text{Age}) + e \qquad (1)$$

$$\text{Accom} = a + b\,(\text{Age}) + e \qquad (2)$$

$$\text{Total} = a + b\,(\text{Age}) + e \qquad (3)$$

Effect of age on length of stay and size of group:

$$\text{Stay} = a + b\,(\text{Age}) + e \qquad (4)$$

$$\text{Group} = a + b\,(\text{Age}) + e \qquad (5)$$

Where

Site is the logged total expenditure incurred at the GMHG site

Accom is the logged expenditure incurred on accommodation during the GMHG

Total is the total logged expenditure incurred in the GMHG region during the event

Stay is the logged number of nights spent in the GMHG region

Group is the logged size of the group

Age is the age of the respondents

a, b are parameters to be estimated and e is the error term

Results and Interpretations

Estimation results are presented in Table 1. Age is not found to have a significant effect upon the length of stay in the GMHG region. However, it is found to have a significant and positive effect upon the total logged expenditure incurred during the event. It is also found to be a significant determinant of length of stay and size of group. A quadratic term agesquared (age*age) is used to test the curvilinear effect. Since agesquared did not have a significant effect upon any of the response variables, the simple log-linear models are used.

Interpreting the results from Table 2, a one-year increase in the age of the respondent results in a 1% increase in total expenditure. A one-year increase in age increases the length of stay by 2%. Older people are more likely to spend money on accommodation, but they travel in smaller groups. The results also reveal that a one-year increase in age led to a 6% decrease in the number people per party. Older people are more likely to spend money on accommodations, but they travel in smaller groups. Thus, the results show that age has positive impact on expenditures per capita. Based on the

R-squared measures, age explains the most variation in total expenditures and in expenditures incurred on accommodation.

Table 1: Effect of age:

Response variable	a	b	t-stats for a	F value	R squared
Site	4.57	.001	.33	.11	.02
Accom	1.99	.02*	3.91	15.31	.15
Total	4.95	.014*	3.38	11.41	.12
Accom	1.06	.0003	.002	.05	.01
Group	1.39	-.06*	3.12	1.80	.07

* Significant at $p \leq .05$ level

In order to evaluate whether expenditures increase steadily with age or whether specific age groups spend more than others, respondents were divided into five age categories. The groups are: Age1: <25 years; Age2: 25-35 years; Age3: 35-45 years; Age 4: 45-55 years; and finally Age5: >55 years. Using the oldest group (Age5) as the omitted category, these dummy variables are included in the regressions on group size and expenditures (Table 2). When determining the effect of different age groups, it is interesting to study groups that have a significant effect upon total expenditure incurred; size of the group; and expenditure incurred on accommodation. None of the age groups are found to have a significant effect individually upon size of the group. However, significant age groups are identified for total expenditure incurred in the GMHG region and specifically for expenditures on accommodations during the event. A multivariate model is used with each age group as a dummy variable.

The model specified is as follows:

Group = a + b_1 Age1 (age group <25 years) + b_2 Age2 (age group between 25 and 35 years) + b_3 Age3 (age group between 35 and 45 years) + b_4 Age4 (age group between 45 and 55 years) + e

Total expenditure = a + b_1 Age1 (age group <25 years) + b_2 Age2 (age group between 25 and 35 years) + b_3 Age3 (age group between 35 and 45 years) + b_4 Age4 (age group between 45 and 55 years) + e

Where a = intercept

b_1, b_2, b_3, b_4 are the parameters & e is the error term

Table 2: Effect of different age groups

Groups	**Effect upon total expenditure**			**Effect upon accommodation expenditure**		
	Parameter	**t statistic**	**R squared =.15**	**Parameter**	**t statistic**	**R squared = .10**
< 25	-.41*	-3.98		-.91*	-2.95	
25-35	-.268	-2.90		-.60*	-2.10	
35-45	-.07	-.68		-.49*	-2.02	
45-55	.02	.14		.06*	.24	

* Significant at $p \leq .05$ level

The results show that compared to the oldest age group, each younger age group spends less on total expenditure and accommodation expenditure. The youngest age group (Age1) spends 41% less than the oldest age group (Age5). The Age2 group also tends to spend 27% less than the Age5 group. There is no difference in the spending behavior between Age3, Age 4 groups and Age5 group.

Thus, older age groups (Age4: above 45 years) tend to spend more money than the younger age groups. In other words, the youngest group (<25 years of age) and the age group between 25 and 35 years of age spend significantly less than the oldest group in the model of total expenditures. It is this difference between the youngest and oldest visitors that drives the positive effect of age on expenditures. Similar pattern is observed while determining the effect of different age groups upon expenditure incurred on accommodation. The age groups above 45 years tended to spend more money on accommodation than the younger age groups.

Effect of Income on Total Expenditure

Household income is also expected to influence total expenditure. In this section, expenditures are related to income to evaluate the determinants of demand that could be used to segment the market. Another purpose is to evaluate the hypothesis that tourist expenditures are a long way from saturation point. Saturation point is defined as the point in tourist spending when the household income of the visitor does not determine the level of expenditure incurred (Davies & Mangan, 1992). Significance of saturation point lies in the underlying assumption that the more money you have, the more you spent. If spending is not determined by income, then targeting higher income groups by the tourism industry is not feasible. Here, tourism will be considered a necessity and not the luxury of a few wealthy people. Thus, saturation point plays a key role in demand forecasts.

Analysis

This section follows the model specified by Davies and Mangan (1992). The model Davies and Mangan (1992) used is based on Engel's (1857) curve, with expenditure as a function of income. In this case, total expenditures are related to annual household income. Thus,

Total = f (Income)

Where

Total is the expenditure incurred by visitors (a sum total of accommodation, GMHG site, transportation, food and hiking)

Income is the annual household income

And f means function

Following Davies and Mangan (1992), given that the data are from a particular point of time, it can be assumed that other factors affecting demand are constant (i.e., the price). To quantify this relationship, regression analysis is used. In the GMHG survey, there are a number of respondents in each income category and this gives rise to heteroskedasticity. As the pre-regression results (See Appendix D: Table 1 for values of skewness and kurtosis) portray heteroskedasticity, the double logarithmic form for income is considered (McClendon, 1994). This 'double log' specification has a long history in the tourism demand literature (Fuji and Mak, 1980; Loeb, 1982; Blaine, Mohammed and Var, 1993). It has two distinct advantages over other functional forms. First, it allows the estimated coefficients to be interpreted directly as demand elasticities (percentage changes in the variables) (Blaine et al, 1993). Second, it reduces the residual variance in each equation, thereby increasing R-squared and thus the explanatory power of the system. The linear form is also estimated to compare the goodness of the fit. Therefore the equations are:

$$\text{Log (Total)} = a + b\,(\text{Log Income}) + e \qquad 1$$

$$\text{Total} = b_1 + b_2\,(\text{Income}) + e \qquad 2$$

Results and Interpretations

The results show a good fit for both formulations. In both the double-log and linear specifications, income has statistically significant coefficients. In the double log, 25% of the variation in logged total expenditure is explained by logged household income.

Table 3: Effect of income

Equation	a	b	Overall model significance
1. Linear	375.05	1.90** t = 3.77	F Value = 39.18 R squared = .18
2. Double log form	4.23	.34** t= 6.26	F Value = 14.23 R squared = .25

* * Significant at $p \leq .01$ level

The estimation results given in Table 3 suggest that expenditure is income inelastic (E=. 34). Thus, they do not support the findings of Davies & Mangan (1992). Their results show elasticity of income with regard to expenditure. In this study, income is found to have a positive effect even though a 1% increase in the household income does not lead to a 1 % (instead a 34%) increase in GMHG expenditures.

The effect of different income groups also needs to be studied to identify groups that incur maximum expenditure. While the results thus far suggest that expenditures increase with income, we can confirm whether this is true across all income classes by dividing the sample into different income classes that are used as dummy variables. Omitted group is the highest income group (> $100,000), while the model includes dummies for Income1 (below $25,000); Income2 (between $25,000 and $50,0000); Income3 (between $50,000 and $ 100,000); and finally Income4 (above $100,000). Total expenditure is logged and the specified model is as follows:

$$\text{Log (Total)} = a + b_1 \text{ Income1} + b_2 \text{ Income2} + b_3 \text{ Income3} + e$$

Where a, b_1, b_2 and b_3 are the parameters and e is the error term

Table 4 shows that the lowest income group (< $25,000) spent 66% less than the highest income group (> $100,000). Further, there is no difference between income groups 2 and 3 and the highest income group. Omitting the lowest income group, expenditures are incurred at the event irrespective of the income categories.

Table 4: Effect of different income groups

Different income groups	**b**	**t - stats**
Less than $ 25,000	-.66**	-4.36
Above $25,000 and below $50,000	-.15	-1.44
Above $50,000 and below $100,000	-.006	-.07

** Significant at $p \leq .01$ level   F value = 7.01; R squared = .13

The study confirms the general understanding in tourism studies that tourist expenditures were a long way from saturation point in 1997 (Davies & Mangan, 1992; Burgan & Mules, 1992).

However, this study does not decide on the saturation point of tourist expenditure through elasticity. The significant effect (even though less than 1%) of annual household income upon tourist expenditures is an important factor to decide whether tourist expenditures had reached saturation point in 1997. Increase in the annual household income led to an increase in tourist spending. This indicates that specific income groups can be targeted for event promotion to maximize revenue. Based upon these results, the null hypothesis is rejected. This study does not confirm the general understanding in tourism studies that expenditure is income elastic. Segmenting the household income into several groups brings forth interesting information that can be useful for marketing the appropriate target groups.

Determining Travel Patterns

Socio-economic characteristics that determine the travel patterns and behaviors of a heritage tourist can help understand existing groups for future promotion and forecasting. This study follows the demand model proposed by Blaine et al. (1993) for rural heritage tourism that takes place because of an annual event. Following Blaine et al. (1993), the study is designed to determine the travel demand for a rural travel destination (GMHG region) and to determine the effects of selected socioeconomic variables upon travel patterns and expenditure.

Analysis

Following Blaine et al. (1993), equations endogenizing two key variables (length of stay and expenditures made during the event) for rural tourism demand is specified:

$$Stay = a + b_1 (Distrav) + b_2 (Income) + b_3 (Commit) + b_4 (Occup) + e$$

$$Total = a + b_5 (Stay) + b_6 (Income) + b_7 (Commit) + b_8 (Occup) + e$$

Where

Stay = log of duration of stay (in days) for visits to the GMHG

Total = log of total expenditure incurred in the region

Distrav = log of distance traveled

Income = log of household income

Commit = level of commitment to the Highland Games as a heritage tourism attraction with plans to come back next year (a dummy variable with plan (yes) =1 and no =0).

Occup = (dummy variable with prof. (professional) =1 and others =0)

a and b are parameters to be estimated and e is the error term

Results and Interpretations

All continuous variables are estimated in logarithmic forms. The results of this model reveal interesting patterns (Table 5). Increasing distance is positively associated with the length of stay (number of nights spent in the region ($b_1>0$)). According to Blaine et al. (1993), this most likely illustrates the desire of the visitors to economize on travel time. This result is also in accordance with Silberman (1985), but contrasts the findings of Uysal et al. (1988). It is also revealed that visitors with higher income spent more time in the region ($b_2 >0$) and also increase their spending in the region (b6 > 0). This finding does not support the assertions of Linder (1970), Blaine and Mohammed (1991) and Blaine et al. (1993) that leisure time and recreation goods and services are substitutes rather than complements. A longer stay is associated with greater spending. The findings also show that the level of commitment to Highland Games with plans to return does not have significant effects upon length of stay and total expenditure. Contrary to expectations, occupation (Professional versus others) did not determine the length of stay and total expenditure.

Table 5. Regression results from rural heritage tourism demand equations

Variable	**a**	**Dist**	**Stay**	**Income**	**Commit**	**Occup**	
Stay	6.25	.85** t = 10.20		.22** t = 3.75	-.26 t = 1.61	-.04 t = .98	F value = 35.83 R squared =.15
Total	4.68		.19** t = 14.38	.23** t = 4.39	-.14 t = 1.02	.006 t = .68	F value = 69.63 R squared = .24

** Significant at $p \leq .01$ level

Finally, a marginal propensity to spend money with respect to length of stay is calculated to be positive ($\beta_1 > 0.19$) with the most highly statistically significant finding with a t-ratio of 14.38. A longer stay implies higher costs. A 1% increase in the length of stay leads to a .19% increase in spending. This translates to $104 per party per extra day. The amount is substantially smaller than the overall average per day spending of $547.This indicates that estimating economic impact by attracting visitors to stay longer may inflate the effects of extended stays if average propensities are used in place of marginal propensities (Blaine et al., 1993).

The regression models explain 15% of variation in length of stay and 25% of variation in expenditures. The degree of explanatory power is similar to that reported by Blaine et al. (1993) and Davies & Mangan (1992). Hence, annual household income and distance traveled play a key role in determining the length of stay in GMHG region. Increase in the length of stay and household income have a positive effect on total expenditure incurred in the region. Tourists with higher income stay longer and spend more in the GMHG region. Blaine et al. (1993) do not support this finding. They report that households with higher incomes spend less time on a tourism site, but intensify their trips by spending more in the region. Thus, Blaine et al. (1993) assert that leisure time and recreation services and goods are substitutes. Linder (1970) also supports their view. However, in this case, leisure time and recreation services and goods serve as complements rather than substitutes. Increase in the length of stay leads to more leisure time and more spending.

Socio-economic characteristics of the visitors are important determinants of expenditure behavior. They provide information that can be used to target the groups to promote the economy of a rural region. Older age groups (above 55 years) have a tendency to spend more and they stay for a longer time. Higher income groups spend more. Lower income groups can be targeted by offering discounted packages, for example, offering lower admission fees. By providing useful insights into the travel and expenditure patterns of visitors to rural region for a short-term event, this study can be helpful to the planners.

Spending Patterns of Heritage Tourists

As mentioned earlier, age, income and education are identified by literature (Formica & Uysal, 1998; Balcar & Pearce, 1996; Zeppal & Hall, 1984) as socio-economic characteristics that can predict demand patterns in heritage tourism. This section develops a comprehensive model using the significant explanatory variables identified earlier, for total expenditure. In addition, new variables unique to the event are added. The variables are divided into two categories: exogenous and endogenous attributes. However, variable determining the length of stay is excluded since it is difficult to determine if it is exogenous or endogenous to the model. Almost 50% of the visitors decided within one month to attend the event. Among them, 12% were day-trippers and 25% stayed for one night only. Hence, it is difficult to decide if the length of stay was decided prior to the visit (exogenous attribute) or during the visit (endogenous attribute). On the other hand, the endogenous or the exogenous category of other variables can be determined with certainty. The hypothesis evaluated is: pre-determined exogenous attributes are better indicators of expenditure behavior than the endogenous attributes acquired at the event.

Exogenous Attributes

Exogenous attributes are identified as the socio-economic characteristics (age, income, education and occupation) of visitors along with their ancestral background, membership in a clan, distance traveled to the Games, whether they are first time attendees and their planning horizon. Having Scottish heritage and being members of a clan are attributes acquired prior to the Games. These attributes serve an important purpose in determining whether visitors with Scottish heritage tend to spend more. This can also throw light upon the question of whether visitors serious about their heritage tend to spend more. On the other hand, if the visitor is a non-clan member, then it is safe to assert that Highland Games is a heritage tourism event that is popular with Scots and non-Scots alike.

Distance traveled is an important determinant of expenditure behavior (Blaine et al., 1993; Kerstetter et al., 2001). People traveling from further away might be expected to spend more, particularly on lodging: the greater the distance traveled, the more the possibility of spending money on lodging and other recreation goods (Blaine et al., 1993). It is also important to know if the visitor is a first time attendee or a repeat visitor. These categories might have different expenditure behaviors and require different promotional strategies. The time taken to plan the visit to GMHG is another indicator of serious planning on the part of the respondents. Advance planning is the variable used for this purpose. The visitors were given four choices: less than one week; less than one month; less than six months; over six months. The difference between the spending behavior of visitors who planned their visit more than six months in advance and the rest is studied.

Endogenous Attributes

Attributes unique to the event and its site are called endogenous attributes. Enjoyment, learning Scottish history at the Games and plans to come back are identified as endogenous attributes for this study. Experience at the event is considered to be an important determinant of tourist expenditures. Literature on motivations to attend local festivals has consistently reported "Family Togetherness", "Socialization", "Excitement", "Relaxation", "Escape" and "Nostalgia" as common reasons for visiting a festival (Backman et al., 1995; Mohr et al., 1993; Ralston & Crompton, 1988; Uysal et al., 1993). This study does not take individual motivations into account, but rather measures visitor enjoyment of a list of events. These events take place every year at GMHG. In the survey, visitors were asked to rate their level of enjoyment for the events on a five point Likert scale. The events taken into account are: "Friday night live Celtic jam", "Friday piping concert", "Friday Scottish country dance gala", "Listening to Scottish fiddling", "Watching the Opening Ceremony Pipe Bands", "Socializing with Fellow Clan Members", and "Events in the Gaelic Tent". One variable "enjoy" is created which gives mean enjoyment of the visitor.

Further, learning history at the Games is an activity acquired once at the site. Learning history at the Games denotes interest in Scottish heritage. It also suggests that the Games are contributing to the promotion of Scottish heritage. People learn about their heritage and they are motivated to spend more. Plans to return are decided during or after the experience. This affects the success of Games both financially and as an important cultural gathering. Differences in the spending behavior of visitors who plan to return and those who have no future plans can also guide Games organizers towards more strategic marketing plans. Different marketing techniques might be needed to attract repeat visitors. In such case, quality of Games has to be consistently maintained.

Analysis

Eleven variables are studied. Six variables namely total expenditure, age, income, education, distance traveled (one way), and enjoyment are continuous and the others are categorical. The enjoyment variable represents the mean rank of GMHG events. Total expenditure, as mentioned earlier, accounts for the entire spending during the trip. Total expenditure, distance traveled, and income are logged. Age squared (Age*Age) is used to check if age has a curvi-linear effect on expenditure, for example, up to a certain age, the expenditures might increase and then start decreasing. Chi Square tests are used to check for multicollinearity. Independent variables are said to be multicollinear if they are related to one another.

Two Multivariate OLS regression models are run. The first model comprises of the exogenous attributes that the respondents bring with them. The second model adds the endogenous attributes acquired at GMHG. These are overall enjoyment, planning to come again, learning

Scottish history at GMHG. An incremental F test is conducted to see if the characteristics of the visitor experience at the festival significantly increase the explanatory power of the model. Estimated parameters in the more significant model is discussed.

Results and Interpretations

Approximately 89 % (See Appendix D, Tables 4 & 5) of the respondents had Scottish origin, 44% were attending GMHG for the first time, 66% of the respondents learned about their heritage at GMHG, 35% of the respondents had visited Scotland, 77 % of the respondents had plans to come back and 69% of the respondents were members of a clan. Forty percent of the respondents made their plans six months in advance. Eleven percent planned their trip less than one week in advance; 35% planned their trip to GMHG less than six months in advance; and 15% planned their trip within one month of the Games. Besides, 86% of the visitors were engaged in professional occupations.

The chi-square tests found significant correlation between two pairs of variables: "members of a clan" and "learnt history at the games"; "attending for the first time" and "advance planning to the event". The first pair of explanatory variables is related (Chi sq= 22.92 and $p \leq .0001$). The second pair is also found to be related (Chi Square = 28.19 and $p \leq .0001$). Significant correlation is between the variables: "having Scottish ancestors" and "being members of a clan" (Chi Square = 187.09 and $p \leq .0001$). The variables "members of a clan" and "attending for the first time" are dropped to reduce the problem of multicollinearity[9]. Two models used are as follows:

Log Total= a + b_1 (Income) + b_2 (Distrav) + b_3 (Age)+ b_4 (Agesquared) + b_5 (Educ) + b_6 (Prof) + b_7 (Ancestor) + b8 (Oversixm) + e **Model 1**

Log Total = a + b_1 (Income) + b_2 (Logged Distrav) + b_3 (Age)+ b_4 (Agesquared) + b_5 (Educ) + b_6 (Prof) + b_7 (Ancestor) + b_8 (Oversixm) + b_9 (Yeslearnt) + b_{10} (Enjoy) + b_{11} (Plan) + e **Model 2**

Where

Total = Total logged expenditure incurred during the trip to Highland Games

Income = Logged annual household income

Distrav = Logged distance traveled

Age = Age of the respondent & Agesquared = AGE * AGE

Educ = Education of the respondent

Prof = Occupation of the visitor (dummy variable with professional (prof.) =1 and others =0)

Ancestor = Having Scottish ancestors (dummy variable with ancestor (yes) =1 and no=0)

Oversixm = Advance planning (dummy variable with six months in advance = 1 and else = 0)

Yeslearnt = Learnt history at the Games (dummy variable with yeslearnt (yes) =1 and no = 0)

Enjoy = Level of enjoyment felt at the Highland Games (Likert scale used from 1-5 starting from less enjoyable to very enjoyable).

[9] Members of a clan and attending for the first time were also tested to see if they had any significant effect on the total expenditure. The results were not found to be significant.

Plan = Plans to come back next year (dummy variable with yes = 1 and no = 0).

Table 6: Multivariate Regression Models (N=902)

Dependent Variable: Total expenditure Model 1 Model 2

Dependent variable	**Parameters**	**t stats**	**Parameters**	**t stats**
Logged income	.286**	4.48	.275**	4.39
Logged distance traveled	.137**	4.41	.111*	3.58
Age	.020*	1.78	.019*	1.71
Agesquared	-.0001	-1.54	-.0001	-1.43
Education	.003	.31	.003	.26
Professional	-.084	-1.09	-.102	-1.34
Ancestor	.166	1.67	-.076	.73
Oversixm	.647**	8.76	.622**	8.55
Yeslearnt			.044	.59
Enjoy			.190**	5.81
Plan			-.112	-1.34
Intercept	2.93		3.02	
R squared	.142		.174	
Adj. R squared	.134		.164	
F test (p<.0001)	18.84		17.38	

** Significant at $p \leq .01$ level

* Significant at $p \leq .05$ level

The incremental F test is significant at the value of 168 (the F critical is 3.81 at the .05 level). This implies that the two models are different and model 2 is better than Model 1. However, the overall F statistic is higher in Model 1. In terms of the standard error of estimate, Model 2 (1.07) is again better than Model 1 (1.09). For Model 1, 14% (.142) of the variation in total expenditure incurred by the respondents at GMHG is explained by the independent variables (Table 6). The Adjusted R- squared (.134) is the penalty for adding additional variables. Model 2, explains 17% (.174) of the variation in the total visitor expenditure GMHG. The Adjusted R-squared value is 16%

(.164) for Model 2. Model 2 is accepted as a better model than Model 1 for predicting expenditure behavior.[10]

The estimation results for model 2, including only significant variables are summarized below:

Logged total expenditure = 3.02 + .275 (logged income) + .111 (logged distance traveled) + .019 (age) + .622 (over six months) + .190 (enjoy) + e

Only the significant variables are listed. All the variables combined together have a significant effect upon total expenditure. Approximately 17 % of the variation in the total expenditure incurred is explained by the explanatory variables.

Looking at the individual effects of independent variables, note that logged household income is significant with a t value of 4.39. This implies that for every one percent increase in household income, total expenditure increases by 29% while keeping the logged distance traveled, age, education, professional, having Scottish ancestors, planning the trip over six months in advance, learning history at GMHG, overall enjoyment at GMHG and planning to come back to GMHG constant. The logged distance traveled to GMHG is significant at the t value of 3.58. This means that for every 1% increase in distance traveled, the total expenditure incurred at GMHG increases by 11% while controlling other variables. Age has a positive effect on total expenditure with the t value of 1.71. A one-year increase in the age of respondents leads to a 2% increase in total expenditure while controlling other variables in the model. Enjoyment also has a positive

[10] . Endogeneity is an important issue that needs to be addressed. It implies that there is a correlation between independent variable and the error term. The dependent variable might be affecting an independent variable in the model. The variable to be impacted by total expenditure was enjoy. Despite this potential endogeneity problem, the

effect upon the logged total expenditure with a t value of 5.81. For every one point (mean) increase in enjoyment felt on a five point Likert scale while attending the events at GMHG, total expenditure increases by 19 % keeping other variables constant.

Planning the GMHG trip over six months in advance has a significant effect on logged total expenditure with a t value of 8.55. This response variable is a dummy variable. It implies that the respondents who planned their GMHG trip six months in advance spent 62% more during their trip than those who made plans less than one week in advance, less than one month in advance and less than six months in advance.

Other dummy variables used are “Prof.”, “Plan” and “Ancestor”. These are not found to have a statistically significant effect upon the logged total expenditure. There was no difference in the expenditure behavior among visitors who have Scottish ancestors and those who do not have them. Information on Scottish heritage did not motivate visitors to spend more money as expected. Further, no differences in spending pattern existed among visitors who had plans to return versus those who had no plans to return. Visitors also spent money at the Games irrespective of the fact whether they were employed in a professional occupation.

The sample is a strong representative of visitors with Scottish origin. The socio-economic background of the visitor combined with enjoyment at the Games determined the expenditure incurred at GMHG. The evidence strongly suggests that GMHG is a heritage tourism event enjoyed by all visitors. There is no significant difference among visitors motivated by heritage and those who have general interest, for example, members of a clan versus non-clan members. Apart from

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model useful for showing the positive relationship between enjoyment and expenditures. The signs and significance of education, other socio-economic characteristics of a heritage tourist can be used to determine expenditure effects. Based upon the results, the null hypothesis is rejected. Predetermined exogenous attributes such as the age, income, distance traveled and advance planning are not better indicators of tourist expenditure in heritage tourism. Experience at a heritage tourism event such as level of enjoyment is very important in determining the amount of expenditure incurred.

Discussion

As indicated in previous tourism studies, less than 50% response rate from onsite surveys is not unusual (Leeworthy et al., 2001). Random sampling has always been a challenge for tourism researchers. By distributing the surveys over the three-day period, a random sample was acquired. Presentation and contents of a survey are also important. Surveys should be carefully designed to encourage high response rate.

Very few studies have dealt with item non-responses. This study takes a bold step in this direction. Regression based imputation proved to be an effective method for dealing with missing values of income. It is recommended that future studies should experiment with this method by including a random error component. Using a simple method of mean substitution for the distance variable can have its own repercussions. However, it does not pose a problem here since the results are found robust when the model dealing with missing distance values is compared with the model that deleted missing values.

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the coefficients on the exogenous variable are robust to model specification.

Age has a significant effect upon the total expenditure incurred during the event. Besides, it can also explain variations in length of stay and size of group. Older people are more likely to stay for a longer period of time. This study also identifies specific age groups, which generate more expenditure. The age groups above 45 years spend more money on accommodation than the younger age groups. These groups can be marketed in the future.

The tourist expenditures need not be income elastic to show positive income effects. Positive effect (even if it is less than 1%) can signify that rising income will lead to greater expenditures in tourism. Tourists with higher income are likely to spend more money. Higher income groups should be targeted for promoting GMHG in future. Further, annual household income and distance traveled play a key role in determining the length of stay in GMHG region. Tourists with higher income also stayed longer and spent more in the GMHG region. Expenditures increased with increase in household income and distance traveled to the Games.

Further, visitor segments can be isolated according to their potential for generating effects through different age and income groups. This study takes a first step in offering details on the spending behavior of heritage tourists. Tourist expenditures are found to be inelastic for general income levels and distance traveled in all models used in the study. The success of such events as the GMHG can be related to different visitor types and their spending behavior.

The success of the Grandfather Mountain Highland Games is due to a general interest in Scottish heritage both by visitors of Scottish origin and non-Scottish visitors. Contrary to expectations, visitors having Scottish heritage do not spend more. The seriousness towards Scottish heritage studied through the spending behavior of visitors (who have Scottish ancestors) does not contribute to the event economy as expected. However, this group can be motivated to spend by promoting events they enjoy. The results support the general assertion in the tourism industry that popularity of heritage tourism is also due to the desire to share other people's past. It is not solely because of the need to dwell in one's own heritage. Heritage tourism can be boosted by targeting diverse groups. An in depth study of Scottish heritage and the clans can provide information that can be used to target visitors who are serious about their Scottish heritage. Other groups that can be targeted are the repeat visitor and first time attendee groups. Both these groups require different marketing strategies. Repeat visitors are loyal visitors and their interest can be maintained by sending them quarterly newsletters. First time visitors can be offered discounts, for example on admission and registration fees encouraging them to return.

Festivals are becoming popular among a wide range of tourists irrespective of their heritage. Targeting this market and identifying different groups within this market will generate more revenue in the rural regions of the United States. Trends show that in-state market in the United States contributes as much revenue as the out-of-state and foreign market combined together. Approximately 42% of the visitors at GMHG were in-state. In 1999, 32% of the total tourist revenue in North Carolina was obtained from in-state tourists (TIA, 2000). This segment needs to be marketed more by the travel representatives at the county as well as the statewide level.

Travel behavior is a very important tool in tourism that helps in determining the market needs. By providing useful information on different segments of tourist socio-economic background, this study has contributed to the tourism organizations both at the private and public level as well at the county and statewide level. The results of this research have already been applied by the GMHG organization for future promotion.

Further, comparison of expenditure behavior between out-of-state and in-state visitors can provide suggestions for different marketing techniques. Studies in segmentation analysis could incorporate other components such as visitor motivations, expectations and preferences. Another important product of this segmentation can be isolation or classification of visitors according to their potential for generating local effects.

Chapter 4: Economic Impact of Short-term Events

Economic development and diversification are concerns for many communities, especially those that have relied heavily on one industry for their economic well-being. In response to the need for diversification, many regions have attempted to develop their tourism industry as a complement to their traditional economic base (Leitch & Leistritz, 1985; Kottke, 1988; Taylor, et al., 1993). Increasingly, it is recognized that short-term events and festivals can be an important component of a location's portfolio of tourism products (Ryan, 1998). Such events can stimulate tourist demand in otherwise quiet periods, help generate positive images of a location, and create opportunities for community action. In doing so they generate employment and income opportunities for various sectors of the tourist industry, notably for accommodation and retailing.

This chapter estimates the economic impact of short-term events and develops regional multipliers with the USDA Forest Service IMPLAN. The economic impact analysis will determine what final demands would be lost if short-term events were not available (Grado et al., 1998).

Specifically, this chapter evaluates the following hypothesis:

Scottish Highland Games have a significant impact upon their host rural regions of North Carolina.

The term 'significant' in the hypothesis means important and meaningful. The study determines the impact of tourism expenditures at Grandfather Mountain Highland Games and Flora Macdonald Highland Games in North Carolina. These Scottish Highland Games are short-term cultural entertainment events.

Literature Review

The chapter proceeds with a literature review of economic impact, IMPLAN, and multiplier effects before the tourism expenditures, economic impact and multipliers of the case study (the Highland Games) are discussed. The literature review includes economic impact studies conducted on short-term events.

Economic Impact

The main economic impacts of tourism relate to contributions to government revenues, generation of employment and income, and stimulation to regional development (Lickorish & Jenkins, 1997). Long and Perdue (1996), in a study of the economic impacts of rural festivals and special events, define economic impact as the net change in the economy as the result of a special event or a festival. Economic impacts of tourism include sales, jobs and income resulting from the expenditure of non-local visitors in local businesses (Burgan & Mules, 1992). There are basically two components that contribute to the economic impact of tourism businesses on local communities (Andrew & Rouse, 1986). The first is the degree to which the local business sells to tourists, i.e.

exports. The second is the extent to which the business purchases its inputs locally thereby reducing leakages (Andrew & Rouse, 1986).

"From an economic perspective, the structure of a regional economy can be described by its production, income distribution, consumption of goods/services, savings and investment, and trade" (Wagner, 1997:592). Most of the economic impacts in tourism studies are measured in terms of output, total value added, employment and income (Kim et al., 1998; Burgan & Mules, 1992; Var & Quayson, 1985; Crompton, 1999). The main visitor expenditures analyzed for the economic impact of short-term events are incurred on meals, food and beverage, lodging, retail shopping and auto-related expenses. Even though admission and registration constitute an important percentage of total visitor spending at the events, they have either been excluded or included only in direct expenditures in most studies. One study included this segment to determine economic impact (Crompton, 1999). However, Crompton does not discuss the challenges researchers might face with such expenditures, such as, event organizers who do not readily offer information on the allocation of revenue from admission and registration fees.

Ryan (1998) conducted an extensive study on short-term events. He analyzed expenditures from seven different events in Palmerston North in New Zealand. He asserted that the number of out-of-region visitors and levels of spending are important determinants of economic impact. Besides, factors like size of the group and occupancy patterns of the accommodation sector must also be taken into account (Ryan, 1998). Shopping, lodging, meals, drinks and registration were the visitor expenditures used in Ryan's study. Shopping included petrol sales and generated the highest spending followed by meals and lodging. However, Ryan (1998) did not use an Input/Output (I/O) model, and his results were based on direct visitor expenditures.

Bitta et al. (1978) estimated the economic impact of Tall Ships '76 Celebration (a short-term tourist event) on the State of Rhode Island. In addition to providing estimates of economic impact, the study generated a number of descriptive measures for the event to evaluate pre-event planning estimates. Their challenge lay in determining accurate tourist spending and more importantly, tourist attendance. Non-resident visitor expenditures were used, and these were meals, entertainment, transportation, lodging and miscellaneous. Maximum expenditure was incurred on meals. Transportation and lodging came next. Again, this study considered only direct expenditures and did not use an Input/Ouput model.

Crompton (1999) conducted an economic impact study of a ten-day festival. He divided the economic activity of the festival into three categories and determined separate economic impacts for them using an Input/Output model. The first category included expenditures of both residents and non-residents. The second category covered non-residents only and the third category included non-residents while excluding casuals and time switchers. The visitor expenditures analyzed were food and beverage, admission fees, nights club, lounges and bars, retail shopping, lodging, private auto expenses, commercial transportation and other expenses. The multipliers used were output, personal income and employment and the industries most affected by the impact were food and beverage, retail shopping and lodging.

Kim et al. (1998) determined the direct, indirect and induced impact of a birding festival on the local economy using an Input/Output model. The visitor expenditures considered were lodging, food & beverage, entertainment and transport. Their focus was on non-resident visitors and their study determined substantial economic impacts in terms of total gross output, employee compensation and employment. The multipliers used were output, personal income and employment. Lodging, eating and drinking and shopping were the industries that had the maximum impact.

Gartner and Holecek (1993) determined an economic impact of the annual tourism industry exposition, the Greater Boat and Fishing Show in Michigan. It is a nine-day event. They used an I/O model to determine the economic impact of patrons (visitors) and exhibitors. Gartner and Holecek used both resident and non-resident expenditures in their impact. Their reason for including the resident expenditures was that there were no close substitutes for boat shows besides other boat shows. Visitor expenditures used were transportation (parking and auto related), lodging, food, entertainment and miscellaneous. Economic sectors heavily impacted by patron expenditures were food services, entertainment and auto related. Economic sectors heavily impacted by show exhibitors were households, advertising and insurance. The study indicated that small events can have substantial economic impacts on a local community and they should not be underestimated in their contribution to a community's economic well-being.

For all but the very largest sporting events (such as the Olympics), the use of employment multiplier is not recommended (Burgan & Mules, 1992). Such Multipliers assume a fixed relationship between output and employment. Since sporting events or festivals are short-term, it is highly unlikely that any permanent jobs are created. The Adelaide Grand Prix Study (Burns et al., 1986) found that despite the event resulting in an income of over $20 million, business houses did not hire additional staff. Restaurants, hotels, car rental firms all reported that they responded to the short-term increase in demand by working existing staff on longer hours, extra rosters, overtime etc.

(Burns et al., 1986). An employment multiplier is inappropriate in such studies (Burns et al., 1986, Var & Quayson, 1985).

Several other economic impact studies in tourism were also considered in this study. Var and Quayson (1985) examined the economic impact of tourism on a rural region in British Columbia (Canada). The multipliers used were sales, personal income and employment. Another economic impact study was conducted by Wagner (1997). He used a Social Accounting Matrix (SAM) to examine the economic effects of tourism in a Brazilian region. The greatest economic benefits were found to be associated with rudimentary rural farmers and subsistence households. Wagner (1997) also discovered that most of the inputs, commodities and capital used in the region were imported.

Based upon literature review, two commonly used techniques are identified. (Fletcher 1989; Heng & Low 1990; Kottke, 1988; Wagner 1997). These are the regional Input/Output (I/O) model and the Social Accounting Matrix (SAM). I/O analysis attempts to quantify, at a point in time, the economic interdependencies in an economy, such as a nation, a state or a county. In this analysis, all economic activity is assigned to one of two types of sectors: production or final demand. The SAM model is similar to the I/O analysis except that the households are considered endogenous to the model. This model has been used traditionally to examine the structures of larger regions and national economies (Pyatt and Round, 1985). It can also be developed for rural economies that are characterized by simple production activities. SAM includes a more comprehensive view of the circular flow of income than a standard I/O model. Other methods that have been used are the inventory/budget method, economic base analysis, and benefit cost analysis (Kottke, 1988). This study uses an I/O model implemented with IMPLAN software to determine the economic impact of short-term events upon the host region.

IMPLAN

IMPLAN is a regional/local economic impact analysis system developed by the USDA Forest Service (Taylor et al., 1993; Alward et al., 1985). In fact, IMPLAN was developed primarily as a tool for supporting economic analysis within the land management planning procedures required of the Forest Service (Hope, 1988; Kim et al., 1998; Johnson & Moore, 1993). "It has its roots in export base theory which originates in Keynesian national income growth and growth model analysis" (Pleeter, 1982:67). Export base theory demands that an area's economy is composed of basic (export) and local sectors. IMPLAN relies on two sets of data. The first is a 528-sector input-output transaction table based upon the Bureau of Economic Analysis' National Input-Output table (MIG, 1999). This describes the utilization and production of commodities by 528 manufacturing, commercial, and government sectors in the United States economy. The second is the county-level data used to develop regional input-output structure that describes total output, employment, and the components of final demand and value-added for the sectors within the region. The IMPLAN model is then used to derive the direct and secondary (indirect and induced) impacts resulting from tourism expenditures.

"Input-Output provides a framework in which to collect, categorize, and analyze data on the inter-industry structure and interdependencies of the community's economy" (Aruna et al., 1998: 2). Input-Output analysis uses matrix algebra to find out how much can be left over for consumption (demand) and how much output will be used up in productive activities to obtain a final net output

(Baumol, 1977). Accordingly, an I/O model can be used to estimate the amount of income, employment, and production that are required to satisfy a given level of tourism demand. Additionally, an I/O model generates estimates of multipliers. Therefore, it appeals to data users who want to strengthen their case by including all secondary impacts in the evaluation process.

Basically two types of models can be used in I/O modeling: First in Closed models, the households are endogenous. This means that the households are treated as an industry. Relationship between change in income and personal consumption expenditures is linear. Thus, if household income doubles, all household purchases also get doubled. Second, in Open Model, the household consumption is induced as a component of final demand (Otto & Johnson, eds., 1993). The households are exogenous in this case.

The I/O model has some drawbacks (Otto & Johnson, eds., 1993). It deals with an aggregate of a whole industry rather than with a set of firms. The results are not easily translated into applied recommendations. Multipliers, for example, are subject to misinterpretation unless qualifications are clearly stated. Also, the fact that final payments are not always final and final demand is not always exogenous may also create a problem for the regional analyst. The most obvious example is labor. An increase in the demand for labor will result in increased incomes to households, which may, in turn, increase final demand and sales and as a result affect inter-industry sales, even in the current period. Some other problems are time related. Actual transactions during a single accounting year constitute the foundation for the entire input-output structure. Any particular year may involve irregularities such as major strikes, uncharacteristic weather patterns etc., that cast doubt on the coefficients derived from the current transactions data.

IMPLAN (1996) makes use of I/O analysis with SAM, Social Accounting Matrix (Pyatt & Round, 1985). This makes IMPLAN different from standard I/O models since it overcomes the disadvantages listed above. It has three advantages: First, it describes the structure of an economy in terms of the links between production, income distribution, and demand within a region's economy (Thorbercke, 1985). Second, regional economic data are often gathered by different governmental agencies and stored in different formats, and SAM provides a concise framework for synthesizing and displaying the data on a region's economy (Thorbecke, 1985). Third, it allows for the calculation of regional economic multipliers for estimating the impacts of tourism on production, income distribution, and demand, given the existing structure of the economy (Thorbecke, 1985).

As with all models, IMPLAN has limitations, particularly in its dependence on fixed historical economic relationships among industries and resource owners. The main assumptions behind IMPLAN (MIG, 1999) are:

1) Constant Returns to Scale: the production functions (an industry's list of expenditures) are assumed to have constant returns to scale. Constant returns to scale means the production functions are linear; if additional output is required, all inputs increase proportionately.

2) No Supply Constraints: this means that supplies are unlimited. An industry has unlimited access to raw materials and labor and its output is limited only by the demand for its products.

3) Fixed Commodity Input Structure: this implies that price changes do not cause a firm to buy substitute goods. A fixed commodity input structure assumes that changes in the economy will affect the industry's output but not the mix of commodities and services it requires to make its products.

4) Homogenous Sector Output: in other words the proportions of all the commodities produced by that industry remain the same, regardless of total output or change in demand. An industry would not increase the output of one product without proportionately increasing the output of all its other products. In other words, in I/O models such as IMPLAN, an industry or a sector is defined as producing only one output. Thus, one such output could actually be several products produced in fixed proportions.

5) Industry Technology Assumption: this comes to play when data are collected on an industry by commodity basis and then converted to industry matrices. It assumes that the industry uses the same technology to produce all its products.

However, IMPLAN offers the advantage of providing comprehensive measures of direct, indirect and induced effects of changes in a complex economy. It develops regional multipliers that can be applied to all the tourism sectors.

Multipliers

The basic idea of a multiplier is that direct injection of spending into a region does not simply stop as soon as it is spent. In fact, when businesses have more sales than usual owing to a short-term event, their factors of production also have more income than usual (Davidson & Schaffer, 1980). A tourism multiplier is a measure of the total impact in the region attributable to a dollar of tourist expenditure. It adds up all the rounds of transactions initiated by the tourist expenditure.

According to Var and Quayson (1985), the detailed effect of tourist expenditures is registered at three stages in the multiplier mechanism: First, the initial injection of tourist expenses is a direct effect. This effect creates revenue for hotels, restaurants, shops and other tourist enterprises. These are the immediate effects associated with the change in demand for a particular tourism product. Second, the indirect effect refers to the impacts upon businesses whose turnovers increase by the portion of initial expenditure that remains in the region as factor income (wages, rents and salaries) and local purchases from local enterprises. Thus, indirect effects are secondary effects that are caused when input needs change due to production changes in industries that are directly effected. Third, the induced effect is the general increase in economic activity through expanded household consumption in the local area which is the result of rising factor incomes. Thus, the induced effects are the changes in regional household spending patterns caused by changes in regional employment. For example, an increase in the sale of food from food stores causes income to increase.

Var & Quayson (1985) further say that the magnitude of a multiplier depends upon: 1) the pattern of the initial round of tourist expenditure, and 2) the extent of the region's economic base and economic linkages which means the degree to which businesses in the area supply each other with goods and services. The propensity to import is smaller if a region's economic base is larger. Larger the regional value is added, larger the multiplier becomes.

However, estimating tourism effects through multipliers pose a couple of limitations. "Impact studies which use multipliers emphasize on quantitative economic effects of multipliers without expressing qualitative and other non economic benefits" (Milne, 1987: 502). Another shortcoming is the assumption of zero opportunity costs for resources committed to tourism (Pigram & Cooper, 1980).

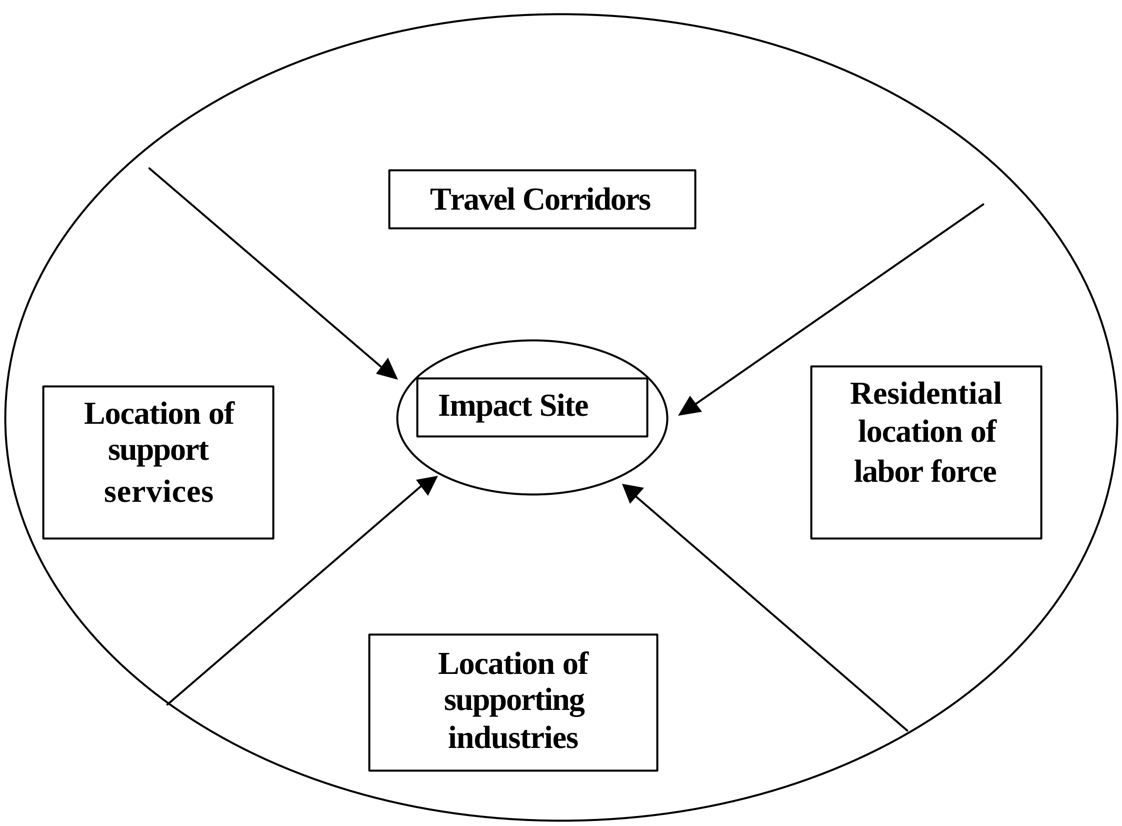
The direct, indirect and induced effects are combined to develop regional economic multipliers. Type I, Type II or SAM multipliers can be used to estimate the economy's response to tourist expenditures at local businesses (Wagner, 1999). For this study, the Forest Service IMPLAN model is used to develop Type I and Type SAM multipliers for sectors, that received tourist expenditures. The three types of multipliers are defined as follows:

Type I: These multipliers give the direct and indirect effects only, that is, the original expenditures, and the indirect effects of industries buying from industries. Household expenditure effects, i.e. induced effects, are not estimated.

Type II: Type two multipliers represent the ratio of the total sale impacts to direct sale impacts. It identifies the strength of the regional economy in providing indirect linkages within the business community and in meeting the induced demands of employees in the direct and indirect industrial sectors. This multiplier assumes that as income rises, spending on all goods and services will rise. In other words, it assumes the household will purchase proportionately more as income increases. Here, direct, indirect and induced impacts are estimated and the model is closed. In closed models, households are treated as an industry. The relationship between the change in household income and the change in personal consumption expenditures is linear. If household income doubles, household purchases double.

Type SAM: These multipliers are the direct, indirect and induced effects where the induced effect is based on information in the social account matrix. This relationship accounts for social security and income tax leakage and institution transfers. The multiplier is flexible in that any institution can be included. The detail provided by SAM allows the inter-industry transactions matrix to be closed with respect to other sub accounts. Given the information contained within a SAM, the question of which other sub accounts might be defined as endogenous is important. Thorbecke (1985: 323) stated "inter-industry transactions submatrix should be closed so that it contains all the necessary behavioral and technical relationships of the economic system in a consistent way." Pyatt and Round (1985) also argue that the multipliers should reflect the circular flow of income that characterizes the multiplier process of demand, production and income distribution.

Figure 1: Study Area



A Study area has to be defined for an economic impact analysis. It is an economic impact site that is a consumer of goods and services and an employment of labor (MIG, 1999). It includes places where people live, work, and shop. "For impacts associated with other exogenous events like tourism, the geographical scope will largely be determined by the area designated as the designation of tourists and its commuting field" (Otto & Johnson, eds., 1993). Generally, the smaller the region, the more important exports and imports become. The study area (Figure 1) includes the travel corridors, residential location of labor force, consumer locations, location of support services and location of supporting industries that are key players in the economic impact site. If induced effects, or household purchases, are important to an analysis, then commuting areas and travel corridors also need to be considered. People spend money where they live and where they work. If an industry is located in one county and the workers live in an adjacent county, then both counties should be included in the study area to ensure the effects of household spending are properly estimated (MIG, 1999).

The study area for Grandfather Mountain Highland Games region comprises of ten counties: Yancey, Avery, Ashe, Watauga, Burke, McDowell, Caldwell, Catawba, Wilkes and Mitchell (See Map, Appendix A). The study area for Flora Macdonald Highland Games region comprises of one county: Robeson (See Map, Appendix A). Information about the study areas is given in Table 1.

Table 1: Information on the Highland Games region

	GMHG region (1997)	**FMHG region (2000)**
Area (sq. miles)	4,312	949
Population	649,331	113,169
Personal income total	13,570,253,808	1,800,321,024

Estimating Tourism Expenditures

The tourism expenditures at Grandfather Mountain Highland Games (GMHG) and Flora Macdonald Highland Games (FMHG) are estimated from visitor surveys. The self-administered on-site surveys included specific questions about expenditures associated with visiting the Games. The location of these expenditures is also determined.

The visitors need to be identified after the study area is determined. Any person apart from the GMHG staff, vendors, and volunteers can be a GMHG visitor (Vance, 2000). Gartner and Holecek (1993) classified the short-term event clientele in their study into patrons (visitors) and exhibitors (participants) and determined their economic impact on the region. Davidson and Schaffer (1980) asserted that not all visitors are spectators. During their study of short-term events they found that festivals bring in hundreds of participants from neighboring states and from outside the country. These performers are accompanied by family members and are one of the biggest contributors of economic benefits to the host region. Since the spending pattern of participants is similar to visitors, it is assumed to be a part of the total visitor expenditures. Hence, the participant expenditures are not filtered in this study and are inclusive of the total visitor expenditures.

It is also important to segregate expenditures incurred by the local people. "This question of isolating visitor and local expenditure arises because most of the local spending would have occurred anyway" (David & Schaffer, 1980:14). People are defined as visitors not only because their residence lies outside the impact region, but, more basically, because they are bringing in dollars that are usually spent elsewhere (Davidson & Schaffer, 1980; Brokensha & Tonks, 1985).

Therefore, a resident of the neighboring community who usually spends his money in the event community is not identified as a visitor for the purpose of this study. Counting their expenditure would overestimate the impact of the festival. At the same time, eliminating all local expenditures can eliminate locals who spend money because of the event. Local expenditures can be divided into retained and displaced expenditures (Ryan, 1998). Retained expenditures belong to residents who consider the event to be important and will not substitute it for another activity. Displaced expenditures are not additional expenditures incurred by the locals and are a substitute for spending which would have taken place elsewhere if the event were not happening. The locals incurring these expenditures are called casuals (Crompton, 1999).

Another aspect that merits attention is the purchase from vendors who sell products or souvenirs at the festival. Vendors residing outside the region take their gross revenues with them when they leave. Thus, their pattern of input purchases and factor income may differ from the typical retail profile in IMPLAN. According to Grado et al. (1998), the residence of visitors and vendors must be taken into account while determining regional expenditures to derive economic impacts. Long and Perdue (1990) found that failure to account for non-local spending might significantly overestimate the economic benefits to the host community. Non-resident vendors took a big share of the festival revenue (80% of the visitor spending) with them. Therefore, Long and Perdue (1990) found it equally important to obtain vendor residence. The visitor expenditures made to non-resident vendors were subtracted from the total trip expenditures. For the purpose of this study, information on the vendors was obtained from the Highland Games organizers. The GMHG vendors were also intercepted and information about their residence was obtained. All the vendors selling Scottish goods resided outside the GMHG and FMHG regions. Therefore, the visitor expenditures on Scottish goods are excluded from the economic impact.

Another limitation in this study is its inability to consider 'time-switchers.' Time switchers are visitors who already intended to visit the Highland Games region for a long time, but switched the timing of their visit to correspond with the Highland Games (Kim et al., 1988). These switches can occur in the destinations visitors choose, resulting in one location at the expense of others without bring a net increase in the overall economy of the region because of the event (Faulkner, 1988). Due to lack of information on this behavior, this study assumes that there are no time-switchers.

Local visitors are identified from the zip code information offered by survey respondents. Expenditures incurred by people who reside in the GMHG and FMHG regions are considered local and excluded from analysis. The total number of local visitors to the four-day festival was 5,284 (23.6%). For the Grandfather Mountain Highland Games, approximately $0.2 million was spent by these visitors, hence excluded from total visitor expenditures. For Flora Macdonald Highland Games, the total number of local visitors was 2706 (39.8%). Approximately $0.04 million was excluded from the FMHG visitor expenditures.

To test sensitivity of results to exclusion of expenditures by local visitors, an alternative assumption is that 50% of the local expenditures would have been spent at tourist events outside the Highland Games region and could not have been spent elsewhere inside the region. So these are retained expenditures. A separate group of expenditures is calculated. This group adds 50% local expenditures to the total non-local expenditures (See Appendix E, Tables 6& 11). Economic impact is determined for this group and sensitivity analysis is conducted to compare this group with the non-local expenditure group. The analysis shows that the economic impact (exclusive of local expenditures) might be underestimated.

Revenue earned by the Highland Games organizers through admission and registration is the next important issue. As discussed earlier, admission and registration revenue from short-term events has not been extensively used in economic impact studies. Few studies have included this revenue in their direct expenditure reports. However, no study discusses the allocation and distribution of this revenue for economic benefits[11]. The total revenue earned by GMHG through admission and registration was $ 232,167 (GMHG office, 2000). This figure includes registration fees charged from clan sponsors ($ 39,177) and patrons ($ 76,250). The detailed breakdown of ticket sales is given in Appendix E (Table 1). It was not possible to acquire details from the GMHG office on allocation of revenue obtained through admission and registration. Proprietary information is confidential and often difficult to obtain. However, a general breakdown was obtained from the organizers. The budget of GMHG includes scholarships, event promotion and costs incurred for printing and distribution of brochures. Four scholarships ($1000 each) are awarded every year to students in order to encourage cultural exposure in Scotland. Fifty workers are hired close to the occurrence of GMHG. Only one worker is hired through out the year and is part time. Similarly, for FMHG, detailed information on the admission and registration could not be obtained. It is a one-day event and the ticket price at the entrance was $6.00 per adult and $4.00 per child (FMHG, 2000). The FMHG office gave a general estimate of the revenue made through admission and registration of $ 47,000 (FMHG Office, 2000). According to the FMHG organizers no sale records are kept, and the profits usually balance their costs. The profits are used for printing and distribution of brochures and event promotion (Ammons, 2000).

Grandfather Mountain Highland Games

Tourist expenditures at the Grandfather Mountain Highland Games (See Appendix H, Survey 4) were elicited for the categories of eating and drinking, food stores, lodging, gas, Scottish clothing, hiking, vehicle rental, vehicle repair and miscellaneous retail. Eating and drinking includes food and beverages purchased at the Highland Games site and at local restaurants (outside the GMHG site). Miscellaneous retail includes the expenditures incurred on camera, film, arts, crafts and souvenirs at the Highland Games site. Lodging includes money spent on hotels, camping, bed and breakfast inns and condominiums in the GMHG region.

According to the survey, the average number of nights spent at Grandfather Mountain Highland Games was 3.28. Average group size (per respondent) was 3.33 (standard deviation was 3.1). For robust estimation of average tourism expenditures, winsorized average is used (Tukey & McLaughlin, 1963). A winsorized average is a trimmed mean. The arithmetic mean is a simple, well-understood estimate of location. However, it is highly non-robust being very sensitive to extreme outliers (unusual cases). Andrews et al. (1972) have offered one way to make the arithmetic mean insensitive to extreme points, which is first to delete or 'trim' a proportion of data from each end and then to calculate the arithmetic mean of the remaining numbers. Winsorized average usually drops 2.5% of observations from the minimum and maximum tails of the data to get rid of outliers (Andrews et al., 1972). See Appendix E, Table 2. Sensitivity analysis for the estimates is conducted. Trimmed means are obtained by dropping 1% and 4% of observations from the

[11] As mentioned in the literature review, Crompton (1999) calculates the impact of registration and admission fees but details about the analyses are not given in his report.

minimum and maximum tails of the data (See Appendix E, Table 3). These are compared with the 2.5% trim. The results show that the figures using the 2.5% trim are robust for all expenditures except the ones incurred on lodging. Since the 2.5% winsorized average are robust across most of the expenditure sectors, this study follows Andrews et al. (1972) in their assertion that 2.5% trimmed means give robust results.

Next, total expenditures are calculated from the winsorized averages. According to the GMHG office (1999), the total number of visitors was 22,390, out of which 17,106 (76.4%) were non-local. Total number of non-local in-state visitors was 4208 (25%). The total number of out-of-state visitors was 12,898 (75%). The study uses average tourism expenditures (per person) that are multiplied with the total number of in-state and out-of-state visitors to arrive at the total spending figures.

Table 2 gives a breakdown of tourist expenditures for Grandfather Mountain Highland Games. GMHG generated $1.8 in direct expenditures. Lodging brought the highest revenue (29.8%) followed by eating and drinking (20.9%), Scottish goods (15.1%), and admission & registration (13.%). For more details see Appendix E (Tables 2 & 4).

Table 2: Tourist expenditures by out of the GMHG region visitors

Item	Total revenue from non-local visitors	Percentage
Eating & Drinking	$ 386,937	21.9%
Food Stores	$ 104,517	5.6%
Lodging	$ 552,181	29.8%
Gasoline	$ 174,310	9.4%
Vehicle Repair	$ 3,592	.2%
Misc. Retail	$ 97,846	5.3%
Scottish goods	$ 280,196	15.1%
Vehicle Rental	$ 3,079	.2%
Admission & Registration	$ 251, 287	13.5%
Total	**1,853,948**	**100%**

Some tourist expenditures could not be included in the impact (Table 3) such as the ones incurred on Scottish goods. The vendors selling these goods do not reside in the GMHG region (GMHG magazine, 1997). Expenditure incurred on vehicle rental could not be included due to lack of information on the location of airport used. It is assumed that vehicles were obtained from rental agencies located close to the airport. There are three airports within the vicinity of the GMHG region. These are located in Asheville, Greensboro and Charlotte. Only one of these airports (Asheville) belongs to the GMHG region but it was difficult to ascertain what percentage of visitors used the Asheville airport. Besides, admission and registration expenditures incurred by visitors could not be included due to lack of detailed information provided by the GMHG office. Finally, the winsorized average expenditure incurred on hiking was $0.00. It is assumed that hiking did not contribute to the economic impact. In brief, approximately $0.5 million were removed from visitor expenditures.

Table 3: Tourist expenditures not included in the economic impact

Item	Total revenue from out of the GMHG region visitors
Scottish goods	$ 280,196
Vehicle Rental	$ 3,079
Admission & Registration	$ 251, 287
Total	**$ 534,562**

Flora Macdonald Highland Games

At Flora Macdonald Highland Games, expenditures were incurred on eating and drinking, gas, lodging, Scottish goods and miscellaneous retail. Eating and drinking consisted of food and beverages consumed in Robeson County and miscellaneous retail expenditures consisted of money spent on arts and crafts in the county.

Total number of visitors was 6800 (Ammons, 2000) out of which local visitors were 4094 (60%) and other in-state visitors were 3525 (86%). Total number of out-of-state visitors was 569 (13.9%). The average number of nights spent was 0.6, and average size of party was 4.12 people. Winsorized average is used dropping 2.5% observations from the minimum and maximum tails of the data.[12] Average tourism expenditures per person are calculated and multiplied with the total number of visitors. Total direct visitor expenditures generated were $106,076. Expenditure breakdown of the FMHG visitors is given in Table 4. For a more detailed breakdown of these expenditures, see Appendix E (Table 7).

[12] As in the case of GMHG expenditures, a sensitivity analysis is conducted by comparing the 2.5% winsorized average figures with 1% and 4% winsorized averages. The 2.5% average was found to be robust (See Appendix E, Table 8).

Table 4: Tourist expenditures by out of the FMHG region visitors

Item	Total revenue	Percentage
Eating & Drinking	$ 28,249	26.6%
Food Stores	$ 82	0.1%
Lodging	$ 21,494	20.3%
Gasoline	$ 12,323	11.6%
Misc. Retail	$ 818	0.8%
Scottish goods	$ 26,652	25.1%
Admission & registration	$ 16,458	15.5%
Total Revenue	**$ 106,076**	**100%**

Some tourist expenditures could not be included in the impact. Table 5 gives a breakdown of the excluded expenditures. These include expenditure incurred on Scottish goods and admission and registration. Approximately $.04 million is excluded (See Appendix E, Table 9 for details).

Table 5: Tourist expenditures not included in the economic impact

Item	Total revenue
Scottish goods	$ 26,652
Admission & registration	$ 16,458
Total	**$ 43,110**

Determining Economic Impact

Most of the software concerning economic impact analysis involves a final demand change to a predictive economic input-output model. Thereafter, the resulting changes in the economy are analyzed. Also, most of the economic impacts in tourism studies have been measured in terms of output, total value added, employment and income.

Industry output is a single number in dollars or million of dollars for each industry. The dollars represent the value of an industry's total production. Employment is listed as the single number of jobs for each industry (MIG, 1999). Total value added has four sub-components: employee compensation; proprietary income; other property type income; and indirect business taxes. Employee compensation describes the total payroll costs (including benefits) of each industry in the region. It includes the wages and salaries of workers who are paid by employers, as well as benefits such as health and life insurance, retirement payments, and non-cash compensation (MIG, 1999). Proprietary income consists of payments received by self-employed people such as income. Other property type income consists of payments for rents, royalties, and dividends. Indirect business taxes consist of excise taxes, property taxes, fees, licenses and sales taxes paid by businesses. These taxes occur during the normal operation of businesses but do not include taxes on profit or income. Employee personal (labor) income is a sum of employee compensation and proprietary income.

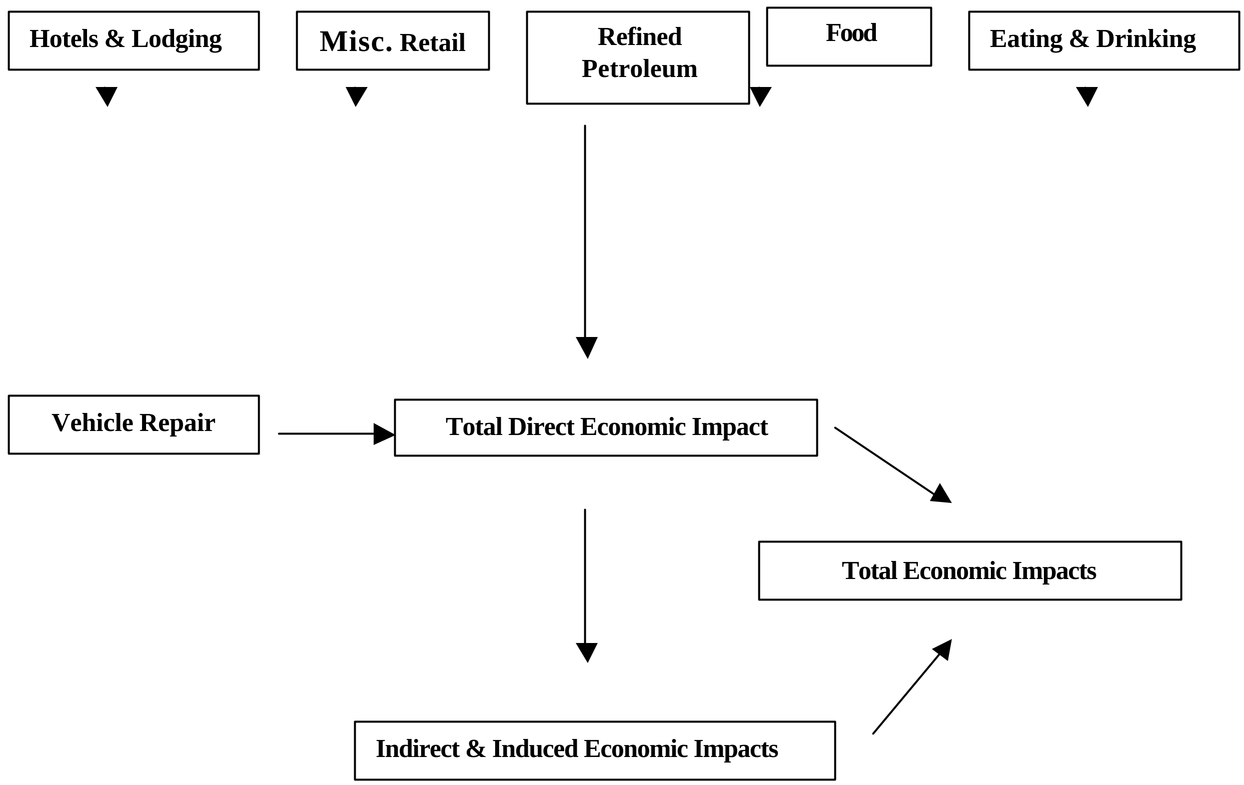
The impacts on output, value added and personal (labor) income of Highland Games are measured in terms of direct, indirect and induced effects. Direct effects are immediate impacts associated with the change in demand for a particular good or service. For example, an increase in demand for food stores will cause the industry to provide more food for the stores. Indirect effects are the secondary impacts that are caused when input needs change due to the impact of directly affected industries. Induced effects are the impacts caused by changes in regional household spending patterns affected by changes in regional employment. For example, an increase in room sales will cause income to increase thereby stimulating spending in the economy in general.

Besides discussing the direct, indirect and induced impacts, the final demand for various sectors derived from the tourism expenditures is compared with the final demand which occurred in the region during the event period (as given by Implan, MIG, 1999). Final demands are institutions or individuals (such as visitors) who buy goods and services for consumption. These goods and services disappear from the economy and are not used to generate more products. The overall objective is to calculate the contribution of the Highland Games to the overall economy of the host region.

Visitor expenditures are interpreted as changes in final demand. They are categorized in to industries for economic impact analysis.[13] In IMPLAN the industries are aggregated into eating and drinking; lodging; food stores; vehicle repair; gas and miscellaneous retail based on the underlying assumption that each sector represents a homogenous production function. Aggregation results in a production function that is a weighted average for all industries included in that sector (Aruna et al., 1998). The Standard Industrial Classification codes are used when aggregating schemes. Thus, the gas expenditures incurred by the visitors are a change in final demand for the refined petroleum sector with a Regional Purchase Coefficient of 0.3%. In other words, 99.7% of refined petroleum is imported from outside the region and the retail margin is only 0.3%. Because of the high degree of import, the effects of refined petroleum are not registered with IMPLAN.

[13] SIC coded 454, 463, 450, 479, 210 and 455 for eating & drinking, lodging, food stores, vehicle repair, refined petroleum and miscellaneous retail respectively.

Figure 2: Economic impact of Grandfather Mountain Highland Games



A brief description of sectors that generate direct impacts and the linkages to other sectors in the GMHG region is given in Figure 2. Table 6 gives a breakdown of direct, indirect and induced impacts for output, value added and labor income. The economic impacts of the tourist expenditures in the sectors where the tourists originally spent is given in Table 7.

Table 6: Total economic impact of tourist expenditures upon the GMHG region

Impact	Output	Value Added	Labor Income
Direct	$ 1,095,300	$ 579,766	$ 390,270
Indirect	$ 257,556	$ 147,059	$ 86,334
Induced	$ 247,725	$ 153,992	$ 92,415
Total	**$ 1,600,581**	**$ 880,816**	**$ 569,019**

The results (Table 6) reveal that the GMHG generated a direct output of $1,095,300. The indirect output generated was $ 257,556 and induced output was $ 247,725. The total output and value added impacts were $1.6 million and $ 0.9 million respectively. The Grandfather Mountain Highland Games generated a total labor income of $ 0.57 million. Table 7 gives a breakdown of total impact by the concerned industries. Details on direct, indirect and induced impacts of output, value added and labor income is offered in Appendix E (Tables 12, 13, and 14).

Table 7: Breakdown of total impact by the concerned industries

Industries	Total industry Output	Value Added	Labor Income
Eating & Drinking	$ 330,992	$ 166,954	$ 119,843
Food Stores	$ 103,562	$ 88,636	$ 58,945
Lodging	$ 451,980	$ 242,036	$ 159,245
Vehicle Repair	$ 18,914	$ 8,689	$ 5,508
Misc. Retail	$ 93,400	$ 78,237	$ 51,461

Total output for the GMHG region in 1997 (given by IMPLAN) was $ 30,089 million (Table 8). The GMHG event contributed 0.005% to the total output generated by the GMHG region in 1997. The contribution to the eating and drinking sector was 0.04%. Food stores contributed 0.04% and the contribution of the lodging sector was 0.2%. Finally, the contribution of the vehicle repair sector was 0.05%.

Table 8: Output and value added for the GMHG region (millions of dollars in 1997)

Sectors	Output	Value Added
Food Stores	280.8	240.3
Eating & drinking	785.6	396.3
Miscellaneous retail	319.5	267.6
Lodging	261.5	140.0
Vehicle repair	177.3	81.4
Total for the region	30,089.3	14,210.2

Total value added for the GMHG region in 1997 was $14, 210.2 million. The GMHG event contributed 0.005% to the total value added. The contribution of various tourism sectors to the total value added for the region was: 0.1% for the eating and drinking sector; 0.04% for food stores sector; .1% for the lodging sector; and 0.01 % for the vehicle repair sector.

Table 9 compares the total demand generated by the GMHG event with the total final demand in the GMHG region for 1997. If the Grandfather Mountain Highland Games were cancelled, the final demand in the ten county region would fall by 0.04%. In other words, the region would have incurred a loss of $1.1 million. The loss for different tourism sectors in the region would have been as follows: 0.06% for the eating and drinking industry; 04% for the food stores industry; 0.4% for the lodging industry; 0.04% for the vehicle repair industry; and finally 0.03% for the miscellaneous retail sector.

Table 9: Comparison of demands

Industry	**Final demand because of the Grandfather Mountain Highland Games**	**Total final demand for the region for 1997**
Eating & Drinking	$ 386,938	$ 722,400,000
Food Stores	$ 104,518	$ 254,600,000
Lodging	$ 552,182	$ 141,000,000
Vehicle Repair	$ 3,592	$ 105,500,000
Misc. Retail	$ 97,846	$ 289,700,000
Total	**$ 1,145,075**	**$ 23,310,700,000**

Other sectors significantly impacted by the GMHG were natural gas and crude petroleum, maintenance and repair for other facilities, maintenance and repair for oil and gas, doctors and dentists, motor freight transport and ware, electric services, wholesale trade, automotive dealers and service stations, banking, real estate and owner-occupied dwellings (Table 10). Natural gas and crude petroleum constituted 6.8% of the total output followed by real estate (3.9%) and wholesale trade (3.8%). Value added for natural gas and crude petroleum was the highest (9.3%) followed by wholesale trade (4.7%), owner-occupied dwellings (2.5%) and banking (2.5%). Sectors that generated highest personal income were natural gas and crude petroleum and wholesale trade (4.3%) followed by maintenance and repair of other facilities (2.4%).

Table 10: Impact on other industries

Industry	Output (%)	Value Added (%)	Personal income (%)
Natural Gas & Crude Petroleum	$ 108,713 (6.8%)	$ 82,436 (9.3%)	$ 24,331 (4.3%)
Maintenance and Repair Other Facilities	$ 27,235 (1.7%)	$ 14,322 (1.6%)	$13,498 (2.4%)
Maintenance and Repair Oil and Gas	$13,591 (.8%)	$ 1,440 (.2%)	$ 632 (.1%)
Hospitals	$ 19,251 (1.2%)	$ 0.00	$ 11,830 (2.1%)
Doctors and Dentists	$24,674 (1.5%)	$ 0.00	$ 14,741 (2.6%)
Motor Freight Transport and Ware	$29,331 (1.8%)	$ 12,128 (1.4%)	$ 9,508 (1.7%)
Electric Services	$ 20,927 (1.3%)	$ 18,564 (2.1%)	$ 4,529 (.8%)
Wholesale Trade	$60,464 (3.8%)	$ 41,650 (4.7%)	$ 24,450 (4.3%)
Automotive Dealers and Service Stations	$20,854 (1.3%)	$ 15,820 (1.8%)	$ 9,841 (1.7%)
Banking	$31,762 (2%)	$21,807 (2.5%)	$ 7,472 (1.3%)
Real Estate	$62,150 (3.9%)	$ 43,082 (4.9%)	$ 5,835 (1%)
Owner-occupied dwellings	$ 28,124 (1.7%)	$ 22, 304 (2.5%)	$ 0.00

The impact of visitor expenditures at GMHG are also calculated under the assumption that 50% local expenditures are added to the non-local expenditures (For expenditure breakdown details, see Appendix E, Table 6). This analysis is based upon the assumption that not all local expenditures are displaced. Output, value added and labor income generated by this group are used for sensitivity analysis (See Appendix E, Table 15). Table 11 gives a breakdown of the impact. Maximum output, value added and labor income is generated in the lodging sector followed by the eating & drinking and food stores.

Table 11: Impact including 50% local expenditures

Industries	Output	Value Added	Labor Income
Eating & Drinking	$ 426,115	$ 214,935	$ 154,284
Food Stores	$ 121,954	$ 104,323	$ 69,377
Lodging	$ 564,414	$ 302,245	$ 198,858
Vehicle Repair	$ 11,493	$ 5,280	$ 3,347
Misc. Retail	$ 118,849	$ 99,555	$ 65,483

The economic benefits increase substantially in the GMHG region with the inclusion of 50% local expenditures (Table 12). Excluding all local expenditures might have underestimated the economic impact of visitor expenditures at GMHG. The percentage used for retained expenditures (50%) is an assumption. Hence, the economic impact of this study is based upon non-local expenditures.

Table 12: Comparison for Sensitivity Analysis

Impact	GMHG (50% local expenditures included)	GMHG (all local expenditures excluded)
Output	$ 2,107,703	$ 1,600,581
Value Added	$ 1,205,503	$ 880,816
Personal income	$ 747,984	$ 569,019

Figure 3: Economic Impact of Flora Macdonald Highland Games

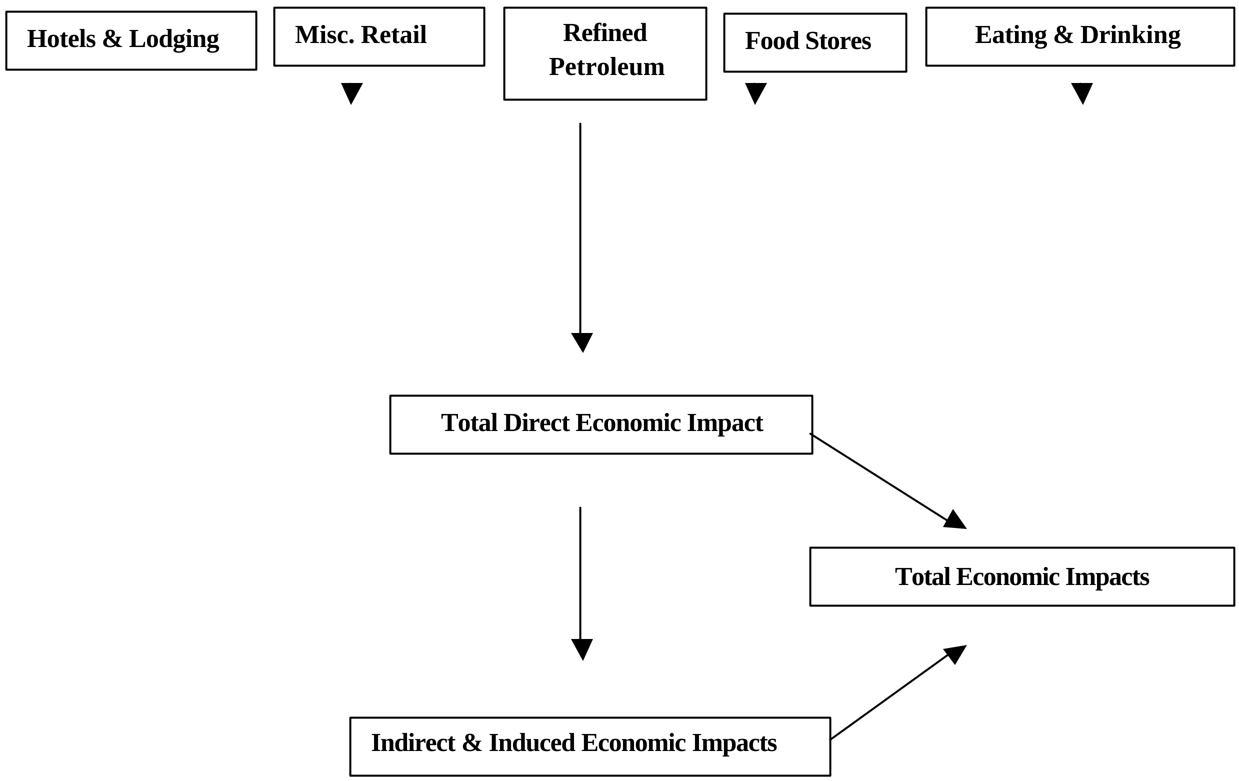


Figure 3 gives a brief account of all sectors directly involved in the economic impact. The economic impact of FMHG tourist expenditures in terms of output, value added and labor income is given in Tables 13 & 14. The total output and value added from the FMHG event from the industries studied was \$0.08 million and \$0.04 million respectively (Table 13). Total labor income generated was \$0.02 million. Table 14 gives a detailed breakdown of the impact in the sectors where visitors spend money.

Table 13: Total economic impact of tourist expenditures upon the FMHG region

Impact	Output	Value Added	Labor Income
Direct	$ 62,705	$ 25, 773	$ 17,713
Indirect	$ 11,504	$ 6,751	$ 3,705
Induced	$ 8,380	$ 5,263	$ 3,148
Total	**$ 82,590**	**$ 37,787**	**$ 24,566**

Table 14: Breakdown of total impact in selected sectors

Industries	Total industry Output	Value Added	Labor Income
Eating & Drinking	$ 29,027	$ 13,882	$ 9,965
Food Stores	$ 755	$ 646	$ 430
Lodging	$ 21,564	$ 9,463	$ 6,227
Misc. Retail	$ 1,670	$ 1,399	$ 920

The total output for the FMHG region in 2000 (given by IMPLAN) was $3,718.8 million (Table 15). The total output generated from the FMHG event was 0.002 % of the total FMHG region output in 2000. Breakdown of the various FMHG tourism sectors with respect to the total output generated for Robeson County in 2000 is given in Table 15. The output contribution from the eating and drinking sector was 0.04% and the food stores comprised of 0.002%. The lodging sector contributed 0.1% output and the share of miscellaneous retail sector was 0.005%. The results reveal that FMHG is responsible for the greatest percentage of final demand in the lodging sector (0.1%).

Table 15: Total output and value added generated in the FMHG region in 2000

Sector	Output	Value Added
Food Stores	$33,700,000	$28,800,000
Eating & drinking	$75,500,000	$36,100,000
Miscellaneous retail	$42,800,000	$35,800,000
Lodging	$15,500,000	$6,800,000
Vehicle repair	$14,100,000	$6,000,000
Total impact for the region	**$3,718,800,000**	**$1,618,000,000**

Total value added for the FMHG region in 2000 (given by IMPLAN) was $1,618.6 million. FMHG event's share was 0.002%. The contribution from the various tourism sectors was as follows: 0.01% from the eating and drinking sector; 0.002% from the food stores; 0.06% from the lodging sector; and 0.002% from the miscellaneous retail sector[14].

If the Flora Mcdonald Highland Games were not to happen, the final demand in the FMHG region would fall by 0.001%. In other words, the loss will be $.5 million for the region (Table 16). The loss for different tourism sectors in the region would have been as follows: 0.04% in the eating and drinking industry; 0.002% in the food stores industry; 0.3% in the lodging industry; and finally 0.002% in the miscellaneous retail industry (Table 16).

Table 16: Comparison of demands

Industry	**Final demand because of FMHG (visitor expenditures)**	**Total final demand for the region for 2000**
Eating & Drinking	$ 28,249	$68,600,000
Food Stores	$ 81.88	$30,400,000
Lodging	$ 21,494	$6,800,000
Misc. Retail	$ 818.8	$38,700,000
Total Revenue	**$ 50, 642.68**	**$4,021,200,000**

There are other sectors that were significantly impacted by the FMHG. These were natural gas and crude petroleum, maintenance and repair for other facilities, maintenance and repair for oil and gas, doctors and dentists, motor freight transport and ware, electric services, wholesale trade,

[14] The total labor income was determined separately by IMPLAN for the region. As discussed before, labor income is a component of value added.

automotive dealers and service stations, banking, real estate and owner-occupied dwellings (Table 17). Wholesale trade generated the greatest output (3.4%) followed by electric services. It also had biggest value added (5.2%) and income (5%) impacts.

Table 17: Impact on other industries

Industry	Output (%)	Value Added (%)	Personal income (%)
Electric Services	$ 1,726 (2.1%)	$ 1,53 (4%)	$ 367 (2.1%)
Wholesale Trade	$ 2,843 (3.4%)	$ 1,953 (5.2%)	$ 1,220 (5%)
Automotive Dealers and Service Stations	$ 1,342 (1.6%)	$ 1,018 (2.7%)	$ 670 (2.7%)
Real Estate	$ 1,730 (2.1%)	$ 1,199 (3.2%)	$ 170 (.7%)

Finally, 50% of local expenditures are added to the non-local visitor expenditures (For details, see Appendix E, Table 11). A separate economic impact model was run and the results are compared with the previous model. Maximum output, value added and labor income are generated in the lodging sector.

Table 18: Economic impact including of 50% local expenditures

Industries	Output	Value Added	Labor Income
Eating & Drinking	$ 30,423	$ 14,550	$ 10,444
Food Stores	$ 838	$ 717	$ 477
Lodging	$ 20,093	$ 8,817	$ 5,802
Misc. Retail	$ 1,856	$ 1,555	$ 1,022

Sensitivity analysis in Table 19 shows that the economic impact increased with the inclusion of 50% local expenditures. Excluding all local expenditures has underestimated the economic impact of visitor expenditures. However, the study does not filter displaced expenditures of the local visitors. The percentage used for retained expenditures (50%) is an assumption, hence the economic impact is based upon non-local expenditures.

Table 19: Comparison by sensitivity analysis

Impact	Including 50% local expenditures	Excluding all local expenditures
Output	$ 86,034	$ 82,590
Value Added	$ 41,926	$ 37,787
Personal income	$ 26,949	$ 24,566

Multiplier Effects

Type I and Type SAM multipliers represent the value of production required from all sectors by a particular sector to deliver one million dollar worth of output to final demand. Final demand is the ultimate consumption of commodities, including both goods and services. The size of the multiplier does not represent the importance of a given industry for the economy (Aruna, et al., 1998). It provides an estimate of the impact created if that industry's sales change to final demand. Hence, it is an indicator that can be used to measure the interdependence of sectors.

Output Multiplier

The output multiplier represents the value of production required from all sectors for a particular sector to deliver $1 worth of output to final demand. Larger the output multiplier, greater the dependence of the sector on the rest of the regional economy and more a dollar turns over in an economy before it leaks out to another sector or region. Output multipliers are useful only as an indicator of the degree of structural interdependence between each industry and the rest of the economy. Tables 20 and 21 give a summary of the output multipliers for the various tourism sectors of the Highland Games region.

Type I output multiplier for the GMHG region ranges from 1.09 (food stores) to 1.31 (lodging and vehicle rental). However in relative terms, the Type I multiplier for the five sectors are rather close ranging from 1.09 to 1.21. Type I output multiplier of 1.31 for the GMHG region means that for each million dollars of output produced by the lodging sector, $.31 million worth of indirect output is generated in other local industries. In other words, a multiplier of 1.31 means that each dollar ripples through the economy 1.31 times in creating direct and indirect output. For the FMHG region, the Type I output multiplier ranges from 1.07 (miscellaneous retail) to 1.27 (lodging). Type I output multiplier of 1.27 for the FMHG region means that for each million dollars of output produced by the lodging sector, $0.27 million worth of indirect output is generated in the local industries. For a breakdown of direct, indirect and induced effects of multipliers see Appendix E (Tables 19, 20, 21, 22, 23, 24)

For the GMHG region, Type SAM output multiplier for the lodging sector is found to be highest. It ranges from 1.40 (Eating & drinking, miscellaneous retail) to 1.55 (lodging). A type SAM multiplier of 1.55 for the lodging industry means that for each million dollar's worth of output produced by the lodging industry, $0.31 million worth of indirect output is generated in other local industries and $0.24 million worth of induced effect is felt due to regional household spending patterns as a result of changes in the regional employment (Appendix E, Table 19).

Table 20: GMHG Multipliers

Industries	Output		Value Added		Labor Income	
	Type I	SAM	Type I	SAM	Type I	SAM
Eating & Drinking	1.29	1.53	1.30	1.58	1.24	1.48
Food Stores	1.09	1.40	1.06	1.30	1.05	1.26
Lodging	1.31	1.55	1.36	1.64	1.32	1.58
Vehicle Repair	1.31	1.51	1.34	1.61	1.35	1.61
Misc. Retail	1.10	1.40	1.07	1.30	1.06	1.27

Table 21: FMHG Multipliers

Industries	Total industry Output		Value Added		Labor Income	
	Type I	SAM	Type I	SAM	Type I	SAM
Eating & Drinking	1.19	1.35	1.22	1.43	1.17	1.34
Food Stores	1.06	1.29	1.04	1.21	1.03	1.18
Lodging	1.27	1.42	1.38	1.59	1.32	1.51
Misc. Retail	1.07	1.29	1.05	1.22	1.04	1.19

For the FMHG region type SAM output multiplier ranges from 1.29 (food stores and miscellaneous retail) to 1.42 (lodging). A type SAM output multiplier of 1.42 for the FMHG region means that for each million dollars worth of output produced by the lodging industry, $0.26 million worth of indirect output in other local industries and $0.14 million worth of induced effect is felt in the regional household spending patterns with changes in the regional employment (Appendix G, Table 22).

Labor Income Multipliers

Type I labor income multiplier calculates the effect on labor income generated from $1 worth of production for final demand. Labor income has two components: employee compensation and proprietary income. For GMHG, Type I income multiplier is the highest for vehicle repair

(1.35). This is followed by lodging (1.32), eating & drinking (1.24), miscellaneous retail (1.06) and food stores (1.05). For the vehicle repair sector, the multiplier implies that with the direct effect of $1 in labor income, an indirect effect of .35 is generated in labor income. For the FMHG region, Type I labor income multipliers range from 1.03 (food stores) to 1.32 (lodging). Type I labor income multiplier of 1.32 in lodging sector means with the direct effect of $1 in labor income, an indirect effect of 0.32 million is generated in labor income. Type SAM labor income multipliers for the GMHG region range from 1.26 (food stores) to 1.61 (vehicle repair). For the FMHG region, they range from 1.19 (miscellaneous retail) to 1.51 (lodging).

Value Added Multipliers

Value added multiplier estimates the effect on value added generated from the production of $1 of output for final demand. "Value added represents the costs added to the intermediate costs of producing goods and services to form the producer price" (Aruna et al., 1998). As mentioned earlier, the four components of value added are: employee compensation; proprietary income; other property type income; and indirect business taxes. Employee compensation and proprietary income together represent labor income. Value added multiplier for GMHG is the highest for the lodging sector (1.36) followed by the vehicle repair sector (1.34), eating & drinking (1.30), miscellaneous retail (1.07) and finally food stores (1.06). For the FMHG region, Type I value added multipliers range from 1.04 (food stores) to 1.38 (lodging).

Tables 20 & 21 summarize Type SAM value added multipliers for both the GMHG and FMHG regions. Type SAM value added multiplier for the GMHG region ranges from 1.30

(miscellaneous retail and food stores) to 1.61 (vehicle repair). Type SAM value added multiplier for the FMHG region ranges from 1.21 (food stores) to 1.59 (lodging).

Discussion

Lodging, eating and drinking, admission and registration, gas, retail involving Scottish goods and miscellaneous retail (local souvenirs, arts and crafts) are the biggest contributors of direct expenditures to the Highland Games regions. For GMHG, lodging is the biggest contributor followed by eating and drinking. For FMHG, eating and drinking generated the highest revenue followed by lodging. The results are consistent with other studies that have been conducted on short-term events. Meals, food and beverage, lodging, entertainment, shopping, admission fees and auto related expenses have been considered the main benefactors of economic impact. Besides these, admission and registration expenditures form an important constituent of the overall visitor spending.

Visitor expenditures (13.5% from GMHG and 15.5% from FMHG) in admission and registration could not be included in the IMPLAN model. Detailed information is required from the Highland Games organizers to include these expenditures in the economic impact. Because of this loss, the total visitor expenditures used for the economic impact are underestimated. However, it is important to note that total visitor expenditures ($251,287) from admission and registration from the GMHG surveys were similar to the estimated figures ($ 251,877) from the GMHG office. This indicates that accurate information was obtained from visitors. But these figures do not tally in FMHG's case. The admission and registration revenue calculated through FMHG surveys was $

16,457 and the estimated figure offered by the FMHG office was $ 47,000. This discrepancy could be due to inaccurate expenditures listed by visitors. It could also be due to the overestimation on the part of FMHG office. The later is more likely since their calculations are vague and the FMHG organizers do not maintain appropriate records. Despite these discrepancies, the study provides reliable and important information on the economic impact generated by the GMHG and FMHG.

Highland Games generate direct, indirect and induced tourism expenditures in the rural regions of North Carolina. The study does not support the hypothesis that the Highland Games have a significant overall impact upon their host regions. The percentages as revealed are small. But these impacts are important and benefit local industries such as the lodging and food establishments.

The local residents spent $ 43,111 and $ 534,562 at the FMHG and GMHG respectively. Their expenditures are excluded from the economic impact. Most of the economic impact studies in tourism have excluded local expenditures. Few studies have questioned the validity of the assumption that local tourism expenditures are displaced expenditures i.e., expenditures which would probably have occurred in the region on other activities (Adelaide Grand Prix, 1986; Ryan, 1998). However, from the tourism industry perspective, any net switching to tourism is relevant, and from an individual tourism perspective, both transfer and switching expenditures are relevant because they represent a potential source of business. "As a result, the rational for exclusion of certain types of expenditures is related to the decision makers frame of inference" (Adelaide Grand Prix, 1986: 12). This study tries to address the issue by conducting a sensitivity analysis under the assumption that the tourism spending at the Highland Games might be understated. The sensitivity analysis shows an increase in the total visitor spending with the inclusion of local expenditures (50%).

Further studies should be carefully deal with local expenditures. The displaced expenditures of local residents need to be taken into account. Ryan (1998) talks about retained expenditures incurred by host residents. They attend because the event is important to them. In this case, their expenditure can be regarded as 'retained' expenditure because it takes place because of the event. By ignoring these expenditures there is a likelihood that the total economic impact is underestimated. A question should be included in the survey for local residents: "If the Highland Games were not happening, would you have spent the money elsewhere?" Since the study did not include such a question in the survey, the total economic impact might be underestimated for the GMHG and the FMHG regions. The probability of this impact is obtained under the 50% assumption. The comparison confirms the suspicion that the economic impact is underestimated by excluding all local expenditures.

Residence of the vendors is the next issue. Vendors residing outside the event region take their profits with them. Their revenue is a leakage for the community and cannot be included in the economic impact. At GMHG and FMHG, Scottish goods generated a considerable amount of revenue. All the vendors selling these goods resided outside the region. Their revenue is a leakage for the community and cannot included in the economic impact ($280,196.28 and $26,651.94 from the GMHG and FMHG regions respectively). Local industry for the manufacture of Scottish goods should be set up to reduce the level of imports.

The revenue figures calculated for both the Highland Games are comparable with revenue figures acquired from short-term event studies across the world. Ryan (1998) studied seven short-term events in New Zealand. The total direct spending for these events ranged from $2,200 to

$240,000 (Ryan, 1998). Total direct spending for a nine-day tourism exposition in Michigan was estimated to be $1.03 million by local residents (Gartner & Holecek, 1983). Their studies excluded local expenditures from their total spending and do not discuss multiplier effects.

This dissertation takes multiplier effects into account. The magnitude of a multiplier depends upon the degree to which the regional economy is able to retain the money spent by visitors as income. Output, value added and labor multipliers were low across both the Highland Games indicating leakages. Low interaction between various sectors in the Highland Games region is assumed to be the main reason. SAM multipliers were larger than the Type I multipliers especially for the GMHG region.

With regards to economic contribution (money generated in the region) of GMHG and FMHG on their respective regions, the results reveal that the Grandfather Mountain Highland Games only contribute .04% to its region and the Flora Macdonald Highland Games contribute .001% to the total economy of its region. Even though, GMHG are held in Avery County, its visitor expenditures are spread over ten counties. The promoters of these Games should try to reduce the number of counties involved in hosting the event. The main reason for the spread is the lack of accommodation offered to the visitors in the Avery County. Because of the magnitude of the event, Avery County is not able to meet the demand for accommodation and restaurants. This event can make a very significant contribution if more rooms are provided in Avery County and the consistent room rates are offered across a few closely involved counties. High accommodation rates will also drive visitors in search of low rates to nearby counties. A concentrated impact is certainly better from the host region perspective. It would increase local involvement, create more jobs and generate more personal income. Tax revenue from GMHG can be used to promote and develop other local attractions.

On the other hand, looking at the benefits for the entire State, a policy maker might argue that a larger economic impact area is more beneficial. It would distribute personal income and provide an opportunity for counties enroute to the GMHG to benefit from the mega event. This provides incentive to market the location of counties that are not frequently visited. The counties can develop their attractions, lodging and eating and drinking establishments and encourage visitors to spend the night enroute to GMHG.

Since the GMHG (and other Highland Games in North Carolina) are repetitive in nature, the economic impact occurs every year. Approximately 90% of the Grandfather Mountain Highland Games visitors had plans to come back and 50% were repeat visitors. This provides a continuity effect for the GMHG event. The benefits of repeat visitation are numerous and include: 1) a reduction in the risk of event financial failure; 2) a likely increase in organizational efficiency (improved quality of visitor experience) for subsequent events; 3) reduced uncertainty and risk of future trip decisions; 4) and finally less risk and better time period in which to secure returns from an investment (Adelaide Grand Prix, 1986). For a non-local visitor, a visit to a once only event in an 'unknown' destination is a high risk travel decision, whereas in the case of an ongoing event happening every year where the initial staging has been successful, the uncertainty and risk are considerably reduced. Increase in organizational efficiency is obvious from increase in the ticket revenue for GMHG and FMHG (GMHG office, 1999; FMHG office, 2000). The increasing visitations and popularity of GMHG and FMHG show that they have become credible destinations for heritage tourism.

Chapter 5: Conclusions

This dissertation has evaluated short-term events as a component of heritage tourism from several perspectives. These include socio-economic characteristics, perceptions of authenticity, spending patterns of visitors and subsequently the economic impact of their expenditures. The short-term events considered are Scottish Highland Games. This is the first quantitative research in the US on economic impacts and socio-economic characteristics of visitors related to Scottish Highland Games. This study is also the first of its kind in short-term event literature that has done empirical analysis of authenticity.

The data were collected from two Scottish festivals, GMHG and FMHG. The empirical analysis used methods drawn from tourism literature to evaluate the spending behavior of visitors and determine differences in authenticity perceptions among various visitor groups. The USDA Forest Service model IMPLAN was used to determine the economic impact of Highland Games on their host regions. IMPLAN has been used extensively in tourism literature for economic impact analysis. This chapter reviews methodologies applied in the dissertation. Data collection and data analysis are discussed with their limitations. Recommendations are given for developing better ways to assess visitor perceptions, spending patterns and finally economic benefits to the host community. Next, the hypotheses discussed in Chapters 2, 3 and 4 are reviewed in the context of their results. Finally, conclusions (both specific and general) are drawn based upon the results offered by this study.

Methodology and Data

This dissertation provides insight into the benefits of short-term heritage tourism events in promoting the economy and culture of host regions. Surveys were structured to collect information on visitor expenditures, as well as socio-economic characteristics and perceptions of authenticity of visitors. Onsite surveys were used to collect data at GMHG in 1997 and FMHG in 2000. As the literature reveals, response rate from on-site surveys in tourism are usually less than 50%. The response rates to the GMHG and FMHG surveys were 24% and 22% (percent of questionnaires completed and returned) respectively.

Survey distribution at GMHG and FMHG was designed to be random and unbiased to obtain a representative sample. The surveys were distributed at different times during the Games to obtain unbiased responses. At GMHG, they were distributed over a three-day period (mornings and afternoons). At FMHG, the distribution was at different times (morning and afternoon) of the same day. The socio-economic characteristics of visitors at GMHG and FMHG were similar. The average age was 45 years and 47 years for GMHG and FMHG respectively. Average income of the visitors was $70,000 for GMHG, and the majority of FMHG visitors belonged to the income category of $40,000 to $80,000. These results are consistent with the average age and income of heritage tourists provided by the Travel Agency of America (TIA, 1999).

Few studies in tourism have dealt with the problem of item non-responses. Chapter 3 discusses different methods that can be used to address the problem of missing values. The GMHG data have missing values for annual household income and distance traveled. Different methods were applied to substitute these missing values. Regression based imputation was used to substitute missing values of income. Mean value was used for missing values of distance traveled to GMHG. Sensitivity analysis was conducted by comparing models that used substitutes of missing values with the ones that deleted observations with missing values of income and distance. The findings found both the models similar. Results implied that the methods applied for missing values did not introduce bias. However, it is recommended that future studies include a random error component (to smooth out the imputation of imputed values) in the regression based imputation model and develop a more appropriate method, such as regression based imputation, to deal with the missing values of distance.

Many researchers have faced the issue of estimating total attendance at short-term events. Incorrect attendance figures can underestimate economic impact. This study uses the total figure calculated by the GMHG office based upon the number of tickets sold. However, a discrepancy in the ticket counts (sold) was suspected (GMHG office, 2000). This was due to the lack of appropriate records on ticket sales. The FMHG office, on the other hand, guessed the total visitor attendance at their Games. Future studies should recognize estimates of attendance an important issue and design appropriate methods to get an accurate count rather than relying on event organizers. Counting total number of cars is one way to resolve the issue. That method would also require an estimate of the average number of persons per car. Another alternative is to coordinate with the Highland Games organizers to overcome discrepancies over the number of tickets sold. Appropriate records of ticket sales will need to be organized and maintained.

Next, this study addresses three main statistical challenges in the analyses of survey data. These were heteroskedasticity (unequal variances that can be caused by outliers), multicollinearity (linear relationships among independent variables) and endogeneity (correlation between independent variable and error term). Endogeneity implies that the dependent variable might have an effect upon the independent variable in chapters 2 and 3. In chapter 2, enjoyment at GMHG was potentially endogenous in a model of total expenditures. Since other model results were robust to the inclusion of this enjoyment variable, this problem was disregarded. Different methods were applied to overcome the problem of heteroskedasticity. Chapter 3 used logarithmic forms for variables that had high values of skewness (skewed to the right or left) and kurtosis (peakedness of the distribution). Expenditure, distance, income and length of stay were used in their logarithmic forms. Winsorized averages (trimming the upper and lower tails of the data by 2.5%) for visitor expenditures were used for economic impact in chapter 4. Variables suspected to be multicollinear were tested with Chi Square tests and dropped when high collinearity was found.

While univariate analysis provided useful information about the socio-economic characteristics of visitors, ANOVA and OLS regression models (bivariate and multivariate) were the key empirical methods. Statistical differences across various groups of tourists were tested. Chapter 2 found significant differences in perceived levels of authenticity across gender and different age and income groups. Authenticity rating (on a scale of 1 to 5) was positively related to total expenditure. Chapter 3 tested differences in the spending pattern of visitors across different age groups through length of stay and size of group. Multivariate regression models were estimated to determine the effect of different socio-economic characteristics upon total expenditure incurred at the Games. In two models, total spending at the Games was found related to exogenous attributes (socio-economic characteristics of the visitors) and possible endogenous attributes acquired at the event, such as enjoyment, learning Scottish history at the Games and plans to return next year.

The USDA Forest Service IMPLAN model was used to determine the economic impact of GMHG and FMHG upon their host regions. As an Input/Output model, IMPLAN offers the advantage of providing detailed measures of direct, indirect and induced effects in a complex economy. However, Input/Output models have many limitations and the results should be interpreted cautiously. For example, the production function is assumed to have constant returns to scale (proportional increase in all inputs when output increases). Further, an industry is assumed to have unlimited access to raw materials and labor, and thus the demand for its products determines the final output. These limitations are not a great concern in this study, because the activity studied (the Highland Games) represents a small part of the host economy.

The multiplier concept in economic impact studies summarizes the economic activity stimulated by visitors, creating additional business transactions, personal income, employment and government revenue in the host community. Output, value added, personal (labor) income and employment are commonly used multipliers in short-term event studies. The use of employment multiplier is not recommended, as discussed in chapter 4. Since events occur over a short duration, it is unlikely that industries involved in the event will employ more workers. Rather, current employers work overtime to meet the additional demand for goods and services. Type I and SAM (Social Accounting Matrix) multipliers were used to determine output, value added and labor income impacts of the GMHG and FMHG visitor expenditures.

Finally, the data on visitor expenditures used for economic impact imposed certain limitations. Local visitor expenditures were excluded. Future studies should include appropriate questions in the survey to include retained expenditures (incurred only because of the event) and exclude displaced expenditures (could have incurred elsewhere in the Highland Games region) of local residents. Further, information provided by the surveys was not sufficient to identify time switchers, defined as non-local visitors who may have been planning to visit the Highland Games region for some time, but changed the timing of their visit to coincide with the event. Their expenditures should not be included in the impact since they would have still occurred without the event.

Discussion of Hypotheses and of Results

Using the methodologies described above, eight hypotheses related to authenticity, spending behavior and economic impact presented in chapters 2, 3, and 4 are tested. The results provide useful insights for Highland Games officials with respect to future promotion. The host county and the North Carolina state officials can also use the results to promote heritage tourism.

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Chapter 1 discussed the staged authenticity of Highland Games. Sociologist Dean MacCannell asserts that all authenticity is staged and distorted to suit the needs of tourists. This assertion is discussed in the light of Highland Games. North Carolina was one of the earliest places where Scottish Highlanders emigrated as a result of the Battle of Culloden. The culture and tradition they brought with them was authentic (original and created by the nostalgic memories of the past), and they are representative of Scotland in North Carolina. Scots stage Highland Games today to display and promote their traditions. These Highland Games are very important and are an expression of Scottish courage and commitment to their community. Highland Games in North Carolina are run by non-profit organizations. The goal of FMHG is to break even. GMHG, being a bigger event, strives to make profits. The organizers assert that the profits are invested back into

GMHG and other activities that encourage cultural promotion. While Scottish Highland Games in North Carolina are staged authenticity, they are not necessarily inauthentic.

The above view is supported by the analysis of visitor perceptions of authenticity. The average authenticity score was 4.0 on a 1 to 5 scale with 5 being most authentic. There are important differences in perceptions of authenticity among visitors with regard to gender and historical background. However, members of Scottish clans and the visitors who had been to Scotland did not perceive the items offered at the Highland Games to be more authentic than their counter parts. Visitors who gave higher authenticity ratings to the events offered at the Games had a tendency to spend more.

Chapter 3 considered the spending behavior of tourists. The effects of age, income and other socio-economic characteristics of tourists were analyzed. The Games were found to be more popular with older people since they stayed for a longer period of time. Different age groups were also tested for differences in spending levels. The age groups above 45 years of age had a tendency to spend more money on accommodation. Tourist expenditures were also positively related to annual household income. As expected, expenditures also increased with distance traveled. When potentially endogenous attributes acquired at the Games are added to the model, they increase the statistical significance of the model. In other words, the experience at the Games is related to expenditures, even after controlling for socio-economic characteristics such as income. These relationships make sense, for example, enjoyment at the Games can increase the desire of visitors to spend more.

Finally, chapter 4 analyzed the economic impact of tourist expenditures incurred at GMHG and FMHG. Tourist expenditures had the greatest economic impact on the lodging industry. This was followed by the eating and drinking, admission and registration, gasoline and retail industries. Visitor expenditure on Scottish goods was excluded since vendors selling these goods resided and purchased all inputs outside the GMHG region. They were considered leakages. Admission and registration had to be excluded due to lack of detailed information provided by the GMHG and FMHG organizers on allocation of revenues. Vehicle rental expenditures could not be included for lack of information on the rental location of the vehicle. However, vehicle rental only constituted 0.6% of total expenditure figures and that share was considered insignificant.

Results implied rather small impacts on the FMHG and GMHG regional economies in comparison with total regional income. However, the significance of Highland Games to their host regions cannot be ignored. In addition to direct expenditures, they generate indirect and induced effects. Because GMHG is a large event, the impact is assumed to accrue to ten counties. If the host region of GMHG were considered to be smaller (fewer counties), the economic impact would be a larger percentage of these counties' economies, although leakages would also be higher. The host counties for the Games could concentrate benefits by providing more lodging and eating and drinking establishments. FMHG impact is concentrated in one county only (FMHG office, 2000). Here, FMHG can be used as a tool to promote other attractions in the region encouraging visitors to spend more nights in the region. If visitors stay for more nights, they will spend more, thus increasing their impact on the region.

General Discussion

Over the past decade, community festivals and special events in the United States have grown phenomenally. Festivals (as is evident in Scottish Highland Games) are organized for a variety of reasons that include preservation of host culture and enhancement of the local tourism industry. They also provide local recreation and leisure opportunities. Many festivals can be classified as heritage tourism activities since they depict heritage and are oriented to historical nostalgia. Their reliance in heritage can provide an incentive to officials both at the local and state level to emphasize the authenticity of events at such festivals. Scottish Highland Games have provided an excellent case study to serve as a guide for future festival promotions.

Scottish Highland Games have enhanced the tourist appeal of their host regions (GMHG office, 1999; FMHG office, 2000). Consequently, they provide considerable economic benefits in terms of direct impact. Since they are annual, they encourage repeat visitation at GMHG. Approximately 50% of the visitors were return visitors. Consistency in the quality of service provided by the Games and the Games region is crucial to maintain existing clientele and target future markets. Promotion of authenticity is a big draw for such markets. Criteria for authenticity should be based upon both literature review and visitor perceptions, which are not always consistent. In "staging" an event that will be perceived by tourists as authentic, Highland Games organizers have to go beyond the depiction of authenticity portrayed by their counterparts in Scotland. As discussed earlier, the present day Highland Games in Scotland are a product of heritage revival supported and chosen by the English aristocrats. The “authentic” heritage of Scotland could be traced before this revival wave. All heritage tourism events can draw upon the results of this dissertation to recognize the importance of authenticity for economic benefits (higher expenditures associated with greater perceived authenticity) and culture sustainability (preservation of heritage).

Tourism has often been condemned for spoiling the authenticity of heritage. Profit-driven objectives of organizers and promoters of heritage tourism activities are responsible for this cultural degradation to some extent. Political factors also play a powerful role. A study conducted in various countries of Africa on sustainable ecotourism asserted that government policies that create both political and financial chaos could be the main contributors of degradation of tourism in general. This is also applicable to heritage tourism. At the same time, profit incentives cannot be ignored and may support authenticity if it is recognized as generating revenues. The quality of authenticity is important both for the sustainability of Scottish culture and for promoting heritage tourism. Co-ordination on the part of government officials and heritage tourism organizations is crucial to achieve a balance between profits and sustainability of culture.

The Scottish Highland Games provide a good example of sustainable heritage tourism. When heritage is staged in a place away from the land of its origin by its descendents, it leads to cultural enrichment. Staged authenticity for financial gains can be an asset provided the organizers use the funds for promoting heritage.

Investigation of economic significance can provide valuable input to governmental decision-making with regard to the appropriate role of short-term events in the tourism mix of a county, state or a region. Significant evidence is required to quantify economic benefits, such as growth in tourism revenues, so that the host regions can justify request for funds. Elected officials have to be convinced that heritage tourism delivers economic and social benefits.

Further, in order to gain confidence and support of the local business community, studies should compare the economic impact (benefits) with the economic costs of tourism (such as infrastructure). Better understanding and communication is necessary. An event attracts nonresident visitors who spend money in the local community both inside and outside of events they visit. This new money from outside the community generates income inside the community. The community residents are responsible for providing initial funds, and they receive a return on their investment in the form of new jobs and household income.

Future studies should look at the effect of spatial distribution of visitors (residence) on expenditures. Visitor segments from various regions might be identified with different expenditure behavior. Further, while determining economic impact, retained expenditures of local visitors should be taken into account. Additional information should be asked to identify such visitors. Time switchers also need to be identified and their expenditures should not be included. Finally, in-state visitor market is an important segment and separate economic impact studies should be conducted to identify the economic benefits generated by them.

Short-term heritage tourism events such as festivals often involve high-intensity activity and are repetitive in nature. They generate positive images and provide social and economic benefits to the local community. They offer a social experience for guests and the hosts alike. Further, this study has shown that festivals generate substantial tourist expenditures in the host region. This study has also proved that authenticity is an important component of heritage tourism. It generates revenue and leads to cultural sustainability.

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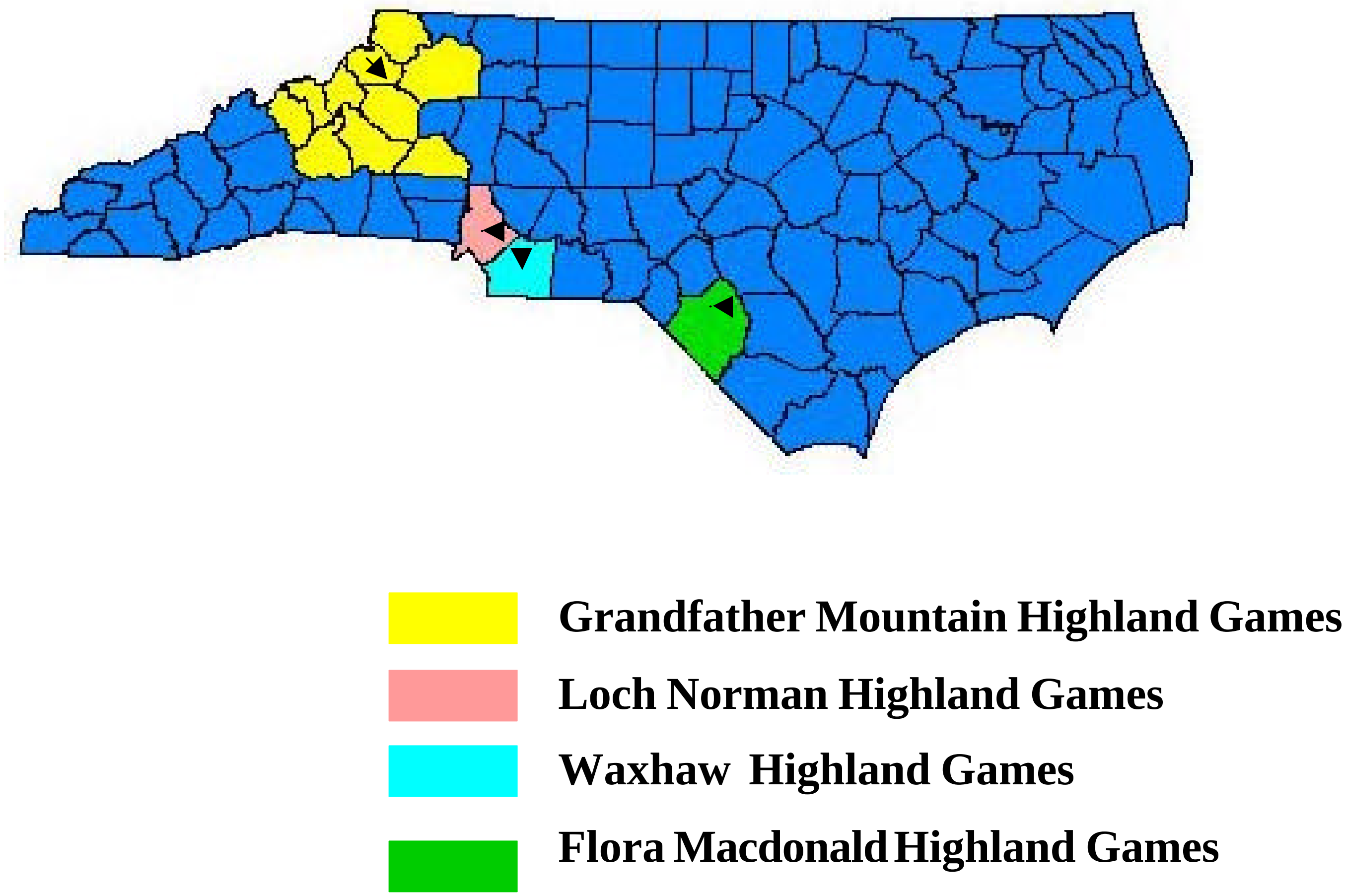
Appendices

Appendix A: MAP

Study Area: North Carolina



Appendix B

Scottish Heritage USA, Inc., Pinehurst, NC: Scottish Heritage USA, Inc. promotes the exchange of ideas and people between Scotland and the United States, by organizing exchange scholarships in horticulture and supporting the Trust for Scottish Conservations Projects.

The Council of Scottish Clans and Associations, Inc.: The Council of Scottish Clans & Associations (COSCA) represents more than 150 Scottish clans and family associations. COSCA can research family names to determine eligibility to join and can locate clan tents or contact your clans by mail if the clan is not present at the Games.

The National Trust for Scotland, Scotland: The Trust is a non-governmental charitable organization founded in 1931 by a small group of Scots who were concerned about the growing threat to Scotland's natural and architectural heritage. It administers Scotland's historic and scenic properties to make them accessible to everyone.

The Scottish Tartans Society, Pitlochry, Scotland: This society was established in 1963 and its main objective is to promote tartan and Scottish heritage among the Scottish Americans. The Tartan Museum in the mountains in Franklin, North Carolina is a living example of its efforts. In 1993, the museum not only won the heart of the local residents but was also officially recognized by the State of North Carolina (Tartans, 1996). Four official highway road signs on the main highways into Franklin were erected by the state to direct travelers to the museum. As the brochure of the Scottish Tartan Museum proudly says, "a visit to the Scottish Tartans Museum in the heart of Franklin, North Carolina is a stroll through the history and culture of Scotland. Education and history of the tartan is the focus of the Scottish Tartans Museum"(Brochure,1997).

Scottish Heritage Center, Lauinberg, NC: The Sandhills region of North Carolina was home to the most significant Scottish settlement in all of North America in the eighteenth and nineteenth centuries. These Scottish settlers continued the traditions and customs of their homeland - the church, strong family bonds, the arts, and quality education. Descendents founded Flora McDonald College and Presbyterian Junior College with this Scottish emphasis in mind. St. Andrews Presbyterian College in Laurinberg, the result of a merger of these two schools in 1958, maintains a commitment to quality education and an innovative interdisciplinary program. A Scottish Heritage Center was established by the St. Andrews Prebysterian College. It pursues projects aimed at highlighting the Scottish traditions of the region, promoting historical and cultural studies, and providing services and support to individuals and organizations with an interest in the preservation of Scottish heritage and culture (The heritage of St Andrews College brochure, 1998).

Appendix C

FMHG

Table 1. Univariate information on FMHG variables (visitors)

	Authentic	Age	Number of people	Nights	Expenditure	Expenditure (logged)
Mean	3.97	47.49		.48	107.51	4.45
Median	4.0	47		0.00	62	4.18
Mode	4.33	40		0.00	0.00	3.33
Std. Dev.	.54	13.13		.97	117.25	1.01
Kurtosis	-.87	- .34		3.51	1.89	-.19
Skewness	.22	.53		2.02	3.30	-.11

Table 2: Frequencies of FMHG categorical variables (I)

Variable	Categories	Frequency percent
Member of a clan :	Yes No	50% 50%
Nostalgia at the Games	Yes No	96% 4%
Revived memories of own Scottish heritage	Yes No Don't have Scottish heritage	63% 18% 19%
Been to Scotland	Yes No	41% 60%
Gender	Male Female	38% 62%
Accompanied by	Family Friends Others Family & friends	53% 16% 3%$ 9% 17%

Table 3: Frequencies of FMHG categorical variables (II)

Variable	Categories	Frequency percent
Income	<$20,000	5%
	$20,000-$40,000	19%
	$40,000-$60,000	33%
	$60,000-$80,000	20%
	$80,000-$100,000	12%
	> $100,000	11%
Age	<25 years	2%
	25-35 years	16%
	35-45 years	29%
	45-55 years	31%
	>55 years	23%

Appendix D

GMHG

Table 1: Univariate information on GMHG continuous variables (I)

	Total Expenditure	Logged (Total)	Income ($000)	Logged (income)	Distance	Logged (Distance)
Mean	547.38	5.64	70.92	4.086	313	5.20
Median	344	5.84	68	4.22	250	5.42
Mode	61	4.11	50	3.91	302	5.71
Std. Dev.	1448	1.15	39.73	.670	431	1.17
Kurtosis	529.13	1.15	15.30	5.70	51	2.13
Skewness	21.37	-.54	2.12	-1.59	6	-1.008

Table 2: Univariate information on GMHG continuous variables (II)

	Site	Logged (Site)	Stay	Logged (Stay)	Nights	Logged (Nights)
Mean	123.73	2.38	70.18	3.02	3.41	1.07
Median	1.00	0.00	40.51	3.93	3	1.10
Mode	1.00	0.00	1.00	0.00	2	0.69
Std. Dev.	237.90	2.69	90.18	2.06	2.63	.52
Kurtosis	26.95	-1.77	17.34	-1.27	113.64	1.35
Skewness	4.44	.313	3.20	-.56	8.27	0.24

Table 3: Univariate information on GMHG continuous variables (III)

	Age	Education	Group size	Group size (logged)
Mean	45.29	15.58	3.71	1.09
Median	45	16	3.0	1.10
Mode	50	16	2.0	0.69
Std. Dev.	15.81	3.57	2.95	.628
Kurtosis	-0.51	3.066	24.14	.135
Skewness	-0.02	1.097	3.60	.344

Table 4: Frequencies of GMHG categorical variables (I)

Variable	Categories	Frequency percent
Occupation	Professional/Managerial Others including retired	86% 14%
Having Scottish ancestors	Yes N0	89% 11%

Table 5: Frequencies of GMHG categorical variables (II)

Variable	Categories	Frequency percent
Member of a clan	Yes No	69% 31%
Advance Planning	Less then one week Less then one month Less than six months More than six months	11% 35% 15% 40%
Learnt history at the Highland Games	Yes No	66% 34%
Plan to come back to the Highland Games next year	Yes No	77% 23%
Attending the Highland Games for the first time	Yes No	44% 6%

Table 6: Multivariate Regression Models (deleting missing values of income and distance traveled) N=653

Dependent Variable: Total expenditure Model 1 Model 2

Dependent variable	**Parameters**	**T statistic**	**Parameters**	**T Statistic**
Logged income	.337*	4.54	.320*	4.40
Logged distance traveled	.108*	2.98	.081*	2.27
Age	.024*	1.78	.024*	1.83
Agesquared	-.0002	-1.68	-.0002	-1.67
Education	-.002	.856	-.003	.095
Professional	-.133	-1.51	-.172	-1.98
Ancestor	.035	.843	-.074	.778
Oversixm	.657	7.69	.602	7.16
Yeslearnt			.091	1.03
Enjoy			.214	5.83
Plan			-.102	-.82
Intercept	3.07		3.14	
R squared	.147		.192	
Adj. R squared	.137		.179	
F test (p<. 0001)	13.96		13.91	

* Significant at $p \leq .05$ level

Appendix E

GMHG

Table 1: Breakdown of ticket sales by the GMHG office

Ticket type	Total revenue	Price per ticket
Two day ticket (adults)	$ 21, 010	$ 25
Two day ticket (children)	$ 1397.00	$ 8
Four day ticket (Campers: adult)	$ 27,123	$ 35
Four day ticket (Campers: children)	$ 2005	$ 20
Saturday (one day: adults)	$ 13,825	$ 18
Saturday (one day: children)	$ 2765	$ 5
Sunday (one day: adults)	$ 42,816	$ 15
Sunday (one day: children)	$ 1850	$ 5

Table 2: Tourist expenditures by out of the GMHG region visitors (using 2.5% winsorized averages)

Item	Average (per group)	Average (per person)	Total expenditures (per person)
Eating & Drinking	$ 75.31	$ 22.62	$ 386,938
Food Stores	$ 20.34	$ 6.11	$ 104,518
Lodging	$ 107.48	$ 32.28	$ 552,182
Gas	$ 33.92	$ 10.19	$ 174,310
Vehicle Repair	$. .71	$ .21	$ 3,592
Misc. Retail	$ 19.06	$ 5.72	$ 97,846

Table 3: Sensitivity Analysis for GMHG (comparing 1%, 2.5% and 4% winsorized averages)

Item	Average (not winsorized)	Average (per group) 1% winsorized	Average (per group) 2.5% winsorized	Average (per group) 4% winsorized
Eating & Drinking	$ 89.28	$ 86.56	$ 75.31	$ 72.13
Food Stores	$ 26.16	$ 23.65	$ 20.34	$ 20.34
Lodging	$ 190.21	$ 187.75	$ 107.48	$ 178.05
Gas	$ 39.75	$ 38.01	$ 33.92	$ 33.92
Vehicle Repair	$ 6.60	$5.04	$.71	$ .70
Misc. Retail	$ 23.06	$ 23.11	$19.06	$ 22.55

Table 4: Items not included in the economic impact

Items	Reason (not included in impact)	Average (per group)	Average (per person)	Total revenue per person
Scottish goods	Leakage	$ 54.54	$ 16.38	$ 280,196
Vehicle rental	Missing airport info.	$ .61	$ .18	$ 3,079
Admission & registration	Revenue by the GMHG organizers	$ 48.93	$ 14.69	$ 251,287

Table 5: Sensitivity Analysis for items not included in the impact (comparing 1%, 2.5% and 4% winsorized averages)

Items	Average	Average (per group) 1% windorized	Average (per group) 2.5% windorized	Average (per group) 4% windorized
Scottish goods	$ 75.91	$ 75.12	$ 54.54	$ 72.13
Vehicle rental	$ 11.56	$ 7.70	$ .61	$. 60
Admission & registration	$ 47.47	$ 52.20	$ 48.93	$ 47.47

Table 6: Figures including 50% local expenditures for GMHG

Item	Local Expenditures (50%)	Total Expenditures (excluding local)	Total GMHG Revenue
Eating & Drinking	$ 15,010	$ 386,937	$ 401,946
Food Stores	$ 3144	$ 104,517	$ 107,661
Lodging	$ 6484	$ 552,181	$ 558,665
Gas	$ 5366	$ 174,310	$ 179,676
Vehicle Repair	$ 0	$ 3,592	$ 3,592
Misc. Retail	$ 4671	$ 97,846	$ 102,517

FMHG

Table 7: Total tourist expenditures by out of the FMHG region visitors (using 2.5% winsorized averages)

Item	Average (per group)	Average (per person)	Total revenue per person
Eating & Drinking	$ 28.86	$6.90	$28,249
Food Stores	$ .10	$ .02	$81.88
Lodging	$ 21.94	$ 5.25	$21,493
Gas	$ 12.59	$ 3.01	$12,323
Misc. Retail	$.82	$ .20	$ 0

Table 8: Sensitivity Analysis for FMHG (comparing 1%, 2.5% and 4% winsorized averages)

Item	Average	Average (per group) 1% winsorized	Average (per group) 2.5% winsorized	Average (per group) 4% winsorized
Eating & Drinking	$ 34.53	$ 28.86	$ 28.86	$ 36.13
Food Stores	$ .53	$ .10	$ .10	$ .10
Lodging	$ 25.52	$ 21.94	$ 21.94	$ 30.10
Gas	$ 13.66	$ 12.58	$ 12.59	$ 16.09
Misc. Retail	$ 2.00	$ .82	$.82	$1.38

Table 9: Items not added in FMHG economic impact

Items	Reason (not included in impact)	Average (per group)	Average (per person)	Total revenue per person
Scottish goods	Leakage	$ 27.22	$ 6.51	$ 26,652
Admission & registration	Revenue by the FMHG organizers	$ 16.82	$ 4.02	$ 16,458

Table 10: Sensitivity Analysis for expenditures not included in the FMHG impact (Average per group)

Items	Average	Average (per group) 1% winsorized	Average (per group) 2.5% winsorized	Average (per group) 4% winsorized
Scottish goods	$ 31.5	$ 27.22	$ 27.22	$ 36.32
Admission & registration	$ 19.05	$ 16.82	$ 16.82	$ 20.98

Table 11: Figures including 50% local expenditures for FMHG

Item	Local Expenditures (50%)	Total Expenditures (excluding local)	Total FMHG Revenue
Eating & Drinking	$ 2482.37	$ 28,249	$ 30,731
Food Stores	$ 0.00	$ 81.88	$ 81.88
Lodging	$ 0.00	$ 21,493	$ 21,493
Gas	$ 1509.75	$ 12,323	$ 13,833
Misc. Retail	$ 99.00	$ 818.8	$ 917.8

Economic impact of GMHG

Table 12: Output of GMHG

Industries	Direct	Indirect	Induced
Eating & Drinking	$ 35,251	$ 92,096	$ 126,242
Food Stores	$ 8,151.84	$ 27,245	$ 34,041
Lodging	$42,246	$ 131,915	$ 180,297
Vehicle Repair	$ 0	$ 3,842	$ 1,197
Misc. Retail	$ 8,262	$ 23,752	$ 31,988

Table 13: Value added of GMHG

Industries	Direct	Indirect	Induced
Eating & Drinking	$ 35,251	$ 92,096	$ 126,242
Food Stores	$ 8,152	$ 27,245	$ 34,041
Lodging	$ 42,246	$ 131,915	$ 180,297
Gas	$ 13,329	$ 45,640	$ 56,963
Vehicle Repair	$ 0	$ 3,842	$ 1,197
Misc. Retail	$ 8,262	$ 23,752	$ 31,988

Table 14: Labor income of GMHG

Industries	Direct	Indirect	Induced
Eating & Drinking	$ 35,251	$ 92,096	$ 126,242
Food Stores	$ 8,152	$ 27,245	$ 34,041
Lodging	$ 42,246	$ 131,915	$ 180,297
Vehicle Repair		$ 3,842	$ 1,197
Misc. Retail	$ 8,262	$ 23,752	$ 31,988

Table 15: Total impact including 50% local expenditures

Impact	GMHG
Output	$ 2,107,703
Value Added	$ 1,205,503
Personal income	$ 747,984

Economic impact of FMHG

Table 16: Output of FMHG

Industries	Direct	Indirect	Induced
Eating & Drinking	$ 28,055	$ 309	$ 663
Food Stores	$ 450	$ 30	$ 275
Lodging	$ 21,290	$ 195	$ 80
Misc. Retail	$ 1,282	$ 38	$ 350

Table 17: Value added of FMHG

Industries	Direct	Indirect	Induced
Eating & Drinking	$ 13,418	$ 148	$ 317
Food Stores	$ 385	$ 26	$ 235
Lodging	$ 9,432	$ 86	$ 35
Misc. Retail	$ 1,074	$ 32	$ 293

Table 18: Labor income of FMHG

Industries	Direct	Indirect	Induced
Eating & Drinking	$ 9,632	$ 106	$ 228
Food Stores	$ 256	$ 17	$ 156
Lodging	$ 6,148	$ 56	$ 23
Misc. Retail	$ 706	$ 21	$ 193

GMHG Multipliers

Table 19: Output multipliers of GMHG

Sectors	Direct	Indirect	Induced	Type I	Type SAM
Eating & Drinking	1.0	.29	.23	1.29	1.52
Food Stores	1.0	.09	.31	1.09	1.40
Lodging	1.0	.31	.24	1.31	1.55
Vehicle Repair	1.0	.31	.20	1.31	1.51
Misc. Retail	1.0	.10	.30	1.10	1.41

Table 20: Value added multipliers of GMHG

Sectors	Direct	Indirect	Induced	Type I	Type SAM
Eating & Drinking	.50	.15	.14	1.30	1.58
Food Stores	.85	.05	.19	1.06	1.29
Lodging	.53	.19	.15	1.36	1.64
Vehicle Repair	.45	.15	.13	1.34	1.61
Misc. Retail	.84	.06	.20	1.07	1.30

Table 21: Labor income multipliers of GMHG

Sectors	Direct	Indirect	Induced	Type I	Type SAM
Eating & Drinking	.36	.09	.09	1.24	1.48
Food Stores	.57	.12	.71	1.05	1.26
Lodging	.35	.11	.09	1.32	1.58
Vehicle Repair	.27	.09	.07	1.35	1.61
Misc. Retail	.55	.03	.11	1.06	1.27

FMHG Multipliers

Table 22: Output multipliers of FMHG

Sectors	Direct	Indirect	Induced	Type I	Type SAM
Eating & Drinking	1.0	.19	.16	1.19	1.35
Food Stores	1.0	.10	.23	1.06	1.29
Lodging	1.0	.27	.15	1.26	1.42
Misc. Retail	1.0	.07	.22	1.07	1.29

Table 23: Value added multipliers of FMHG

Sectors	Direct	Indirect	Induced	Type I	Type SAM
Eating & Drinking	.48	.11	.10	1.22	1.43
Food Stores	.85	.04	.14	1.04	1.22
Lodging	.44	.16	.70	1.38	1.59
Misc. Retail	.84	.04	.14	1.05	1.22

Table 24: Labor income multipliers of FMHG

Sectors	Direct	Indirect	Induced	Type I	Type SAM
Eating & Drinking	.34	.06	.06	1.17	1.34
Food Stores	.57	.02	.09	1.03	1.29
Lodging	.29	.09	.05	1.32	1.51
Misc. Retail	.55	.02	.08	1.04	1.19

Table 25: Total impact including 50% local expenditures

Impact	FMHG
Output	$ 86,034
Value Added	$ 41,926
Personal income	$ 26,949

Appendix F: Questionnaires used

Survey 1

Flora MacDonald
Highland Games
Flora MacDonald Campus
Red Springs, Robeson County

Dear respondent,

This survey is designed to enable us to get feed back from you. Your answers will help in making the highland games a better event in future. Please take time to answer the questions in this survey to the best of your knowledge. It is very important that you answer all the questions. We will be collecting the surveys back at all the entrances from 2:00 p.m. onwards. If you wish to return the survey before 2:00 p.m., you can give it to any of the concession stands located inside the Flora MacDonald Highland Games.

Timmy Ammons	**Deepak Chhabra**
President	**Ph.D. candidate**
Flora MacDonald	
Highland Games	**Raleigh**

1. Features sought at the Games: Please check Ö

ð Authentic Scottish food

ð Authentic Scottish goods

ð Opportunity to participate in traditional Scottish activities

ð Information about Scottish heritage

ð Outdoor recreation and spectacle

ð Athletic Competition

ð Interaction with fellow clan members

Other features sought:________________________________

____

2. Which of the following items at these Highland Games authenticate the Scottish heritage. Please circle the one which best describes your personal evaluation:

	Not authentic			Very Authentic
Scottish souvenirs	1	2 3	4	5
Highland Games Setting	1	2 3	4	5
Highland dancing	1	2 3	4	5
Parade of Tartans	1	2 3	4	5
Making new friends	1	2 3	4	5
Family reunion	1	2 3	4	5
Family gathering	1	2 3	4	5
Interacting with your clan	1	2 3	4	5
Learning Scottish history	1	2 3	4	5

Is there anything else at the games that you think is especially authentic or not authentic?

3. Do the events offered at the games create nostalgia for the past (a sense of connection with the Scottish history and heritage)?

ð Yes ð No

4. Do these games revive memories of your own Scottish heritage? ð Yes ð No ð Don't have Scottish heritage

If yes, then in what way?

5. Have you been to Scotland?

ð Yes ð No

Were you born in Scotland: ð Yes ð No

6. Are you a member of a clan?

ð Yes ð No

7. Are you accompanied by your

ð Family ð Friends ð Others ð None

How many people are in your group? __________

8. Are you accompanying anybody who is participating at the games? ð Yes ð No

9. What is your total anticipated expenditure during this visit? $ ____________

How many nights are you staying in Robeson County? _____

10. What is your annual household income (please check one)

ð < $20,000 ð $20,000 - $40,000
ð $40,000 - 60,000 ð $60,000 - $80,000
ð $80,000 -$100,000 ð > $100,000

12. For each activity listed below, please estimate total expenses for your travel party in Robeson County (at the Highland Games site and outside the site) and outside Robeson County in North Carolina. Please give your best estimate.

	Amount spent by your travel party:	
	Robeson County	Outside Robeson County
Expenses at the Highland Games site:		
Admission/registration fees	$_____	$ XXX
Scottish goods	$_____	$ XXX
Food/drinks	$_____	$ XXX
Expenses not at the festival		
Lodging	$_____	$______
Food/drinks	$_____	$______
Groceries	$_____	$______
Vehicle fuel & oil	$_____	$______
Locally made arts & crafts	$_____	$______

13. How many miles (one way)have you traveled to the games? ____________

14. What is your zip code ? ___________

15. What is your age? ___________

16. What is your gender ? ð Male ð Female

17. Any additional comments:

Survey 2

For Participants of the Flora MacDonald Highland Games:

Please answer all the questions to the best of your ability. It is very important that you answer all the questions.

1. You are participating in which activity or event?

While preparing for these Games, where did you practice ?
ð At home ð School ð College
ð Any other place: ________________________________

Did you have visitors watch you while you practiced?
ð Yes ð No

Is this the first time you are participating at these Highland Games? ð Yes ð No

If yes, then how many times participated? _________________

2. Which of the following can be described as authentic or not authentic with regard to Scottish heritage. Please circle the number which best describes your answer.

	Not authentic			Very Authentic
Scottish souvenirs	1 2 3 4 5			
Highland Games Setting	1 2 3 4 5			
Highland dancing	1 2 3 4 5			
Parade of Tartans	1 2 3 4 5			
Scottish Amateur Athletics	1 2 3 4 5			
Haggis Hurling and Broomstick Toss	1 2 3 4 5			
Interacting with your clan	1 2 3 4 5			
Learning Scottish history	1 2 3 4 5			

Is there anything else at the games that you think is authentic?

3. Do the events offered at the games create nostalgia for the past (a sense of connection with the Scottish history and heritage)?

ð Yes ð No

Do these games revive memories of your own Scottish heritage?

ð Yes ð No ð Don't have Scottish heritage

If yes, then in what way?

Please check one or two of the following:
The events at the Flora MacDonald Highland Games target at:

ð Revival of Scottish heritage
ð Promotion of Scottish heritage
ð Social interactions
ð Outdoor recreation and entertainment

4. Have you been to Scotland? ð Yes ð No

5. Do you have Scottish heritage? ð Yes ð No

6. You are accompanied by your:(Please check one of the following
ð Family ð Friends ð Others

How many people are in your group? __________

7. What is your age? ______________

8. What is your zip code? _____________

9. How many miles (one way) did you travel to come to the Game _______

10. What is the total anticipated expenditure (including your family), you will incur during your trip to the Flora MacDonald Highland Games? $_____________

Thank You
Timmy Ammons, President, Flora MacDonald Highland Games

Survey 3

Questions for the GMHG and FMHG organizers:

1) Revenue and Visitation figures in 1994, 1996, 1998 and 2000.

2) The objective of the FMHG and WHG. Has it changed over the years?

3) Who decides which events to include and what is the criteria?

4) What is the marketing strategy of the FMHG and WHG?

5) How many volunteers are involved?

6) Number of paid staff working at the FMHG and WHG.

7) Does the town and the location where FMHG and WHG is held have Scottish heritage?

8) How is the authenticity of the Games maintained?

Survey 4

GRANDFATHER MOUNTAIN HIGHLAND GAMES, INC. ©

Dear Visitor,

Welcome to the Grandfather Mountain Highland Games. Grandfather Mountain Highland Games(GMHG) greatly appreciate your help by taking time to fill out this survey honestly. This would enable us to determine cultural and economic interests especially for Scotland and the Scottish heritage of so many of our fellow Americans. The overall statistics from this could help GMHG secure advertisers and sponsors to help keep the overall cost of GMHG's operations from becoming unaffordable for clans as well as the individual. The results will further have a strong positive impact on the Scottish American culture. Also your evaluation of the Highland Games would help us to improve the quality of the Games for years to come.

We hope you had a wonderful time and will give us the pleasure of your company next year too.

Frank Vance
GMHG General Manager
Grandfather Mountain Highland Games Inc.
P.O. Box 1095, Linville, North Carolina 28646

Survey coordinators:

Deepak Chhabra
Research Scholar for Ph.D

Dr. Gene Brothers
Associate Professor

Department of Parks, Recreation & Tourism
North Carolina State University
Raleigh, NC 27695-8004

PART 1: Group description

1. Was this the first time you attended Grandfather Mountain Highland Games(GMHG)? (Please√)

☐ Yes ☐ No ☐ I only attended last year's games.

If no, please check the number of times attended:

☐ 1-3 ☐4-6 ☐7-10 ☐11-20 ☐21+

2. Which of the following best describes the people who came with you?

☐ Family ☐ Friends ☐ I visited alone ☐Family and Friends
☐Organized group(school, tour, church group etc.)

3. Whose idea was it initially to come to the Games?

☐Wife/Female Head of household ☐Children
☐Husband/Male Head of Household ☐Do not know
☐Friend/Other Relative ☐Group decison

PART 2: Marketing

4. Which of the following influenced your decision to come to GMHG? (√all that apply)

☐Newspaper Story ☐ Brochure ☐ Recommendation
☐Been Before ☐ Television Story ☐ Magazine
☐Clan Newsletter ☐ Advertisement ☐ Internet
☐Directory ☐ Word of mouth
☐Other (Please comment) ______________

5. How far in advance did you start planning this trip?

☐ less than one week ☐ less than one month
☐ less than six months ☐ over six months

6. Did you call or write for travel information on the area or the Games? ______ Yes ______ No

If said "yes," please answer questions 8 & 9.

7. Who did you contact for Games or area travel information?

☐ Highland Games office ☐ Grandfather Mountain
☐ NC High Country Host ☐ Blowing Rock Chamber
☐ Avery/Banner Elk Chamber ☐ Everything Scottish
☐ Travel & Tourism Office ☐ Boone Chamber
☐Other : (please specify) ________________________

8. What type of information did you ask for?

☐ Lodging ☐ Directions/Maps ☐ Area Attractions
☐ Restaurants ☐Weather ☐ Games Prices
☐ Grandfather Mountain Info ☐ Other

9. **What was the reason for coming?**
☐Games in general ☐ Curiosity ☐ Scottish culture
☐ dance ☐ athletic events ☐ Happened to be here
☐ Entertainment/music ☐Other : _________

10. **How far did you travel to come to the Games?** ____miles

PART 3: Lodging and Food

11. **Check the days of the week in which you spent/will spend the night in the area while attending the Games.**
☐ Mon ☐ Tue ☐ Wed ☐ Thur ☐ Fri ☐ Sat ☐ Sun
☐ More than one week only ☐ Day trip
☐ Local/Seasonal resident

12. **Where did you stay during the GMHG event? Please give names:** _____ County _____ Place _____ Community

13. **Please list the number of nights you and your party have stayed/intend staying in each of the following types of accommodations:**

	Name of the Lodging	No. of nights stayed
Campground	_________	________
Hotel/Motel	_________	________
Bed & Breakfast Inn	_________	________
Rented house or condo	_________	________
Resort	_________	________

My own home☐___(nights) Friends/Relatives home☐___(nights)

14. **Please give the names of the restaurants you have dined/will dine in while visiting the GMHG.**

15. **Please (√) the names of other attractions you planned to visit while attending the Highland Games or after the event.**
☐Visited Grandfather Mountain ☐Shopped
☐Visited Tweetsie Railroad ☐Visited Mast Store
☐Visited Linville Caverns ☐Ate in a restaurant
☐Visited The Blowing Rock ☐ Played golf
☐ Visited the Blowing Rock ☐ Saw Horn In The West
☐Visited with friends/relatives ☐Went sightseeing
☐Visited Linville Falls/Gorge ☐Biltmore Estate
☐Other:______________________

16. **Would you like to give suggestions on lodging and food which can be passed on to area businesses who can help to serve you better for years to come?**

PART 4: The event itself

17. **What Games activities did you attend? Please circle the number which best describes your experience. If you did not see the particular activity listed, please (√) X.**

	Not Enjoyable				Very Enjoyable	
Thursday Night Opening Ceremony	1	2	3	4	5	X
Thursday Night "The Bear" Foot Race	1	2	3	4	5	X
Friday Nite Live Celtic Jam	1	2	3	4	5	X
Friday Ceilidh	1	2	3	4	5	X
Friday Piping Concert	1	2	3	4	5	X
Friday Scottish Country Dance Gala	1	2	3	4	5	X
SATURDAY GAMES:						
Watching marathon runners finish	1	2	3	4	5	X
Watching track & field events	1	2	3	4	5	X
Watching sheep herding demonstrations	1	2	3	4	5	X
Listening to the harp competition	1	2	3	4	5	X
Listening to Scottish fiddling	1	2	3	4	5	X
Watching the Opening Ceremony/parades	1	2	3	4	5	X
Watching/Listening to pipe bands	1	2	3	4	5	X
Listening to drum & pipe competition	1	2	3	4	5	X
Socializing with fellow clan members	1	2	3	4	5	X
Events in the Gaelic Tent	1	2	3	4	5	X
SUNDAY GAMES:						
Scottish Worship Service	1	2	3	4	5	X
Parade of Tartans	1	2	3	4	5	X
Kilted mile runs	1	2	3	4	5	X
Children's events	1	2	3	4	5	X
Watching highland dancing	1	2	3	4	5	X
Watching sheep herding demonstrations	1	2	3	4	5	X
Listening to Scottish entertainers	1	2	3	4	5	X
Scottish Country Dancing	1	2	3	4	5	X
Listening to Scottish fiddling	1	2	3	4	5	X
Watching Scottish athletic events	1	2	3	4	5	X
Watching/listening to pipe bands	1	2	3	4	5	X
Watching the Clan Tug of War	1	2	3	4	5	X
Listening to the Closing Ceremony	1	2	3	4	5	X
Socializing with fellow clan members	1	2	3	4	5	X
Events in the Gaelic Tent	1	2	3	4	5	X

18. **Comments about any of the above events of the Games:**

19. **How did you get to the Games?**
☐**Parked at MacRae Meadows** ☐ **Shuttle from Parkway**
☐ **Rode shuttle from Linville** ☐**Camped at MacRae Meadows**
☐**Other** ____________

PART 5: Total expenditure information

Please estimate your expenses related to this trip that you spent/will spend in communities located in the shaded area of the following map:

20. **For each activity listed below, please estimate total expenditure for those covered in this survey during the GMHG. Please give your best estimate.**

EXPENDITURE AT THE HIGHLAND GAMES SITE:

Admission/registration	**$**_____	**Camping at the site**	**$** _____
Food/drinks	**$** _____	**Arts and crafts**	**$** _____
Scottish shops	**$** _____	**Other items/souvenirs**	**$** _____
Camera/films	**$** _____	**Scottish clothing**	**$** _____

EXPENDITURE RELATED TO THE STAY

a. **Lodging expenses**
hotel/motel **$**__________
camping **$**__________
rental cottages/condominiums **$**__________
other(bed & breakfast, etc.) specify _______ **$**_______

b. **Food**
restaurants(including fast food, sit down, etc.) **$**_______
grocery(food and beverage from stores) **$**_______

c. **Transportation**
gas and oil **$**_______
other transportation costs specify _______ **$**_______
vehicle Rental **$**_______
vehicle Repair
camera/films **$**_______

d. **Hiking expenses** **$** _______

21. **What type of tickets did you purchase for the Games?**
☐ **Two-day advance ticket** ☐**Clan sponsorship ticket**
☐**Saturday ticket** ☐ **Sunday ticket** ☐**Patron ticket**

22. **How would you rate the price of the ticket?**
☐ **Good value** ☐ **Fair value** ☐ **Too high**

23. **If you purchased food at the Games, what type of food was it?**
☐ **American food** ☐**Scottish food** ☐**Soft drinks** ☐ **snacks**

Please rate the following	**Excellent**				**Poor**
Quality of the food was	**1**	**2**	**3**	**4**	**5**
Quality of the service was	**1**	**2**	**3**	**4**	**5**

24. **Please list the number of Scottish shops visited at the Games:**

PART 6: Scottish heritage

25. **Do you have any Scottish ancestors?** ______ **Yes** _____ **No**
If yes, please check the following:
☐ **1st generation** ☐ **2nd generation** ☐ **3rd generation**
☐**more than 4th generation** ☐ **unknown**

26. **Have you ever been to Scotland?** _____ **Yes** ____ **No**
If yes, how many times? ______________________________

27. **Are you a member of a clan?** _____ **Yes** ____ **No**
If yes, which one(s) ___________________________

28. **I learned history/information about our clan here. _Yes_ No**

29. **I was: (Please √ all that apply)**
☐**A general public spectator** ☐**A patron** ☐**A Clan sponsor**
☐ **A friend/family member of a participant of the Games**
☐ **Other: specify** ____________________________

30. **Have you attended other highland games?**____ **Yes** ____ **No**
If yes, please answer the following:
Estimated number of different ones ______
Estimated number of other games per year(average)_____
Name of the place where you have attended other highland games _______________

31. **What other features do you feel could be incorporated into the Grandfather Mountain Highland Games to make them better?**

32. **Do you play golf?** ________ **Yes** ________ **No**

33. **As you probably know, golf originated from St. Andrews in Scotland. How do you feel the game today is connected to Scottish culture and heritage? Please comment:**

PART 7: User profile

34. What is your primary home zip code? __________

35. Beginning with you, please write the age and gender of each member of your travel party and place√ in the appropriate column.

	Age	check one Male Female		Age	Check one Male Female
You:	____	☐M/☐F	Others		
Others	____	☐M/☐F		____	☐M/☐F
	____	☐M/☐F		____	☐M/☐F

Including yourself, how many people came with you to the GMHG? __________ Adults __________ Children

36. Which of the following best describes your present occupation? (√ one)

☐Managerial or professional specialty ☐Service occupation
☐ Operator, fabricator or laborer ☐Homemaker
☐Farming, forestry or fishing ☐Student
☐ Technical, sales support ☐Retired
☐Precision production, craft or repair occupation
☐Other (Please Specify)____________

37. What was your household income in 1996? $ ____ ,000

38. What is your last year of school completed? (Please circle theast year of school completed)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20+
grade school high school college graduate school

PART 8:Future plans

39. Do you plan to encourage your children to attend the Highland Games at the Grandfather Mountain and at other places in/outside North Carolina in the future?
________ Yes ________ No

40. Do you think your children will carry your interests and traditions when they grow up?________ Yes ________ No
If yes please comment:

41. Do you plan to attend the Grandfather Highland Games next year? ______________ Yes ______________ No

42. If you want us to include you on the Grandfather Mountain Highland Games mailing list for newsletters, future Games information, etc., please write your name and mailing address. We will pass it on to the Games officials. Your survey answers are confidential.

Name______________
Address:______________________________________
City: ______________ State: __________ Zip code _____

43. Please use this space for any additional comments about the Grandfather Mountain, the Highland Games or your experiei in this area.

Thank you for your help.

Please hand over this completed questionnaire to the *GMHG sales booth* and make sure you collect a gift from there as a token of oui appreciation for taking time to fill it. If you need more time, pleas fill the questionnaire at your leisure and mail it back to us at the address given below.

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