Changes in Resident Perceptions Over Time: A Theoretical Examination of a Mega-Event

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Dissertation submitted to the faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirement for the degree of

Doctor of Philosophy
in
Hospitality and Tourism Management

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August 5, 2009
Blacksburg, Virginia

Keywords: Resident Perceptions, Mega-event, Olympic Games, Longitudinal,
Social Exchange Theory

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ABSTRACT

Cities and countries increasingly seek mega-events to boost tourism, update local infrastructure, and improve the international standing of the host community. Benefits are actively promoted by the organizing committees, but these large-scale events also create significant economic, environmental and social costs for the host community. Measuring resident support is necessary because their support is required to secure the rights to the event, and to provide the necessary economic and human resources needed for hosting the event.

This study utilized existing data on the 1996 Atlanta Olympic Games to investigate the impact of a mega-event on the host community, and to measure resident support for the event. Social exchange theory provided the theoretical background for this dissertation. The theory states that the costs and benefits of an exchange are continually re-evaluated by the actors in the exchange relationship. The primary contribution of this study is support for the notion that social exchanges are temporal in nature; residents continually monitored the positive and negative impacts of the event on themselves and on their community. To reach this conclusion, this study utilized four data points in the year leading up to the Olympics to assess the changes in residents' perceptions of the impacts of the event over time. These changes were evaluated in light of residents' support for the event. A factor analysis reduced the fifteen impact statements into three factors: Benefits, Local Problems, and External Problems. Residents were segmented according to their assessment of the event impacts, resulting in three clusters: Supporters, Cynics, and Realists. Proximity to the main event location also was evaluated since this variable has had mixed results in previous resident studies.

Results showed that resident perceptions varied over time, thus providing support for monitoring residents over multiple time periods. In addition, residents' support and residents' plans to attend the event were contributing factors in the assessment of the Benefits and Local Problems. Supporters, Cynics, and Realists demonstrated significant differences over time in their assessment of External Problems, and proximity to the event was found to be a significant factor in residents' assessment of Local Problems.

DEDICATION

This work is dedicated to my best friend and the love of my life, Andrea Blosser.
I cannot thank you enough for your love, help, and encouragement through this part of our journey together.

…and to my parents, Leon and Carma Blosser,
who taught me by example the importance of faithfulness – to my God, to my wife and children, and to my profession.

"Whatever you do, work at it with all your heart, as working for the Lord, not for men."
Colossians 3:23

ACKNOWLEDGEMENTS

Thank you to my committee members who contributed so much to this dissertation and to my experience as a graduate student at Virginia Tech. I am honored to have had such distinguished faculty helping me.

Thanks especially to Dr. Brian Mihalik for all of your time, effort and direction in this project, and for your advice and support throughout my time at Virginia Tech. You convinced me to come to Virginia Tech and I am grateful for that. Thank you for your willingness to share your research without which this would never have been possible.

Dr. Uysal, Dr. McGehee, and Dr. DePauw: your suggestions for the direction of this dissertation were extremely beneficial and I appreciate the time and effort you spent reviewing this. It has been a pleasure to learn from you in the classroom and through the process of writing this dissertation. I appreciate the passion each of you has demonstrated for teaching and research.

Thank you to the Hospitality and Tourism Management Department faculty and staff. I truly enjoyed my time as a graduate student because of the excellence and professionalism of the people in this department.

Thank you to the administration at Liberty University who started me down this path and provided support during my pursuit of this Ph.D.

Finally, to Claire, Grace and Jacob: You bring so much joy to my life! I appreciate the sacrifices you made while Daddy was busy with "'ginia Tech". You have no idea what a big part each of you had in helping me through this. I love you so much!

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I
INTRODUCTION

Introduction

This study investigates the changing perceptions of the impacts from a mega-event by residents of the host community over a period of time leading up to the event. Chapter I begins with an explanation of why cities pursue mega-events, the role of the host city resident in the success of the mega-event, and the need to measure resident perceptions of the event and its impacts. Next, a statement of the problem and the specific research questions to be investigated in this study are presented. A brief explanation of the theoretical background of the study, the operational definitions, and the contribution of this study to the existing literature for tourism, events, and sport follows.

Background of the Study

As a result of the 1972 terrorist attack on the Israeli Olympic team in Munich, and the financial debacle of the 1976 Montreal summer games, Los Angeles had been the only city competing to host the Olympic Games in 1984. But when a privately organized Olympics turned a profit of $125 million, a new era began in which cities competed furiously to host large-scale sporting events. Only eight years prior, the city of Montreal accumulated a public debt of USD $1.5 billion on the Olympics, even after political leaders vowed not to spend a cent of public money for the games' preparations (Kidd, 2004). The financial windfall in Los Angeles was accomplished through the widespread use of corporate sponsorship for the event. With greater corporate involvement and rising television revenue helping to pay for stadia and games-related costs, public funds could be used to accomplish other objectives within the host community. The desired benefits from the event may be localized, or they may be geared toward "outward-oriented programs" (Iroegbu & Chen, 2001) which have an international focus. Urban transformation, economic stimulus (through job creation and increased tourism), international

promotion, and global positioning of the host city are now the key objectives in cities' pursuit of the Olympics, FIFA's World Cup in soccer, and other large-scale sporting events (Andranovich, Burbank, & Heying, 2001; Chalip, 2002; Essex & Chalkley, 1998, 2003; French & Disher, 1997; Hall, 1992; Madden, 2002; Preuss, 2004; Shoval, 2002).

The decision to bid on an event by a city or country is often undertaken by a select group of individuals. Referred to as a regime, this group of local elites usually consists of business owners and politicians (Andranovich & Burbank, 2004; Mossberger & Stoker, 2001). Through formal and informal relationships, these two actors primarily seek to bring about economic growth opportunities to a community. Political actors have the power to direct policy, while the private sector provides the necessary human and economic resources (Mossberger & Stoker, 2001). The hosting of a mega-event requires both political and private support. The support of local political leaders is a requirement for attracting a bid by the sport governing body; the support of private enterprise, particularly in the area of construction, is necessary to provide the required facilities and infrastructure (Horne & Manzenreiter, 2002).

The fact that a select group of political and business leaders are typically the driving force behind the bids for mega-events does not mean that the involvement of community members is unnecessary. While they may not be directly involved in the decision to pursue a mega-event, community support for the event is critical. Preuss and Solberg (2006) describe several reasons why political and resident support is critical to the success of a large-scale sporting event. First, financial support is required from both the public and private sector. In a democratic society residents must approve the use of public funds. Politicians, who also need public support, will back the bid if it is popular in the eyes of the host community. Most democratic countries will have elections that take place during the bid and/or preparation periods and public figures will likely need to either support or reject important issues involving the event. Second, residents make up a large percentage of the spectators at major sporting events. Finally, sport governing bodies are reliant on the competition between potential host cities to legitimize their existence and to provide them with revenue. Residents have the ability to influence the direction and success of the bids and the event. Their involvement can create an image for the event that adds to the overall event brand. Preuss and Solberg (2006) point out that the Los Angeles Olympics were privately managed as a result of a public opinion poll which opposed the use of public funds to host the games.

Residents are important for reasons beyond these, however. Residents will interact with the guests at an event as volunteers, or as part of the event staff. Organizers of mega-events are highly reliant on volunteers who fill critical needs, while helping to control costs. The 2010 World Cup tournament in South Africa expects to utilize 15,000 volunteers (Federation Internationale de Footbol Association [FIFA], 2007) and the Beijing Olympics and Paralympics utilized 70,000 and 30,000 volunteers respectively (Beijing 2008, 2008). Residents also fill critical tourism roles in the areas of transportation, accommodations, hospitality services, security and communications. Residents may, to some extent, participate in tourism planning and development (Ap, 1992) although in the context of planning a mega-event, direct involvement by community members is not a common occurrence (Haxton, 1999). Interactions between hosts and guests could contribute to either positive or negative perceptions of the event (Ap, 1992; Ohmann, Jones, & Wilkes, 2006; Preuss & Solberg, 2006). A study of urban Australian residents indicated that negative impacts of tourism led to reduced friendliness toward tourists by the host community (Ross, 1992).

Residents may also be one of the key sources of opposition to a mega-event. Increased attention is being paid to the opposition of mega-events by the residents of the host community (Kidd, 1992; Lenskyj, 1992, 2002) and on the negative impacts of events on communities (Centre on Housing Rights and Evictions, 2007; Olds, 1998; Shapcott, 1998). It was the residents of the state of Colorado, concerned over environmental issues and the public costs of the event, which voted down a key public funding measure in 1972 after the city of Denver was awarded the 1976 Winter Olympic bid (Kennedy Jr. & Patrick, 2004). As a result, the International Olympic Committee (IOC) removed the Olympic Games and awarded them to Innsbruck, Austria, who had hosted the games the decade before and already had the facilities and infrastructure in place.

Coordinated resident opposition has been documented in numerous cities that are either bidding for or preparing to host events. Environmental and social concerns over rising housing and real estate costs, displacement of residents and businesses, and lack of representation in the planning process by key community segments have joined economic-based objections such as the use of public funds, lack of job creation, and rising event costs as issues which motivate residents to oppose events. In some cases, opposition groups have been successful at diverting the event and preventing a successful bid, as in the case of Toronto's "Bread, Not Circuses

Coalition" (Lenskyj, 1992). Even after a successful award of the bid, opposition groups from within the community may serve as a check on organizers, forcing them to enact changes in venue location, as happened in Atlanta (Maloney, 2004) or to adopt environmentally friendly practices to minimize negative impacts on the natural surroundings. Opposition forces may also pressure organizers to allow greater involvement by minority groups in the planning or ceremonial aspects of the event (G. Cashman & Cashman, 2000).

Residents have the opportunity to get involved in the process of preparing for and hosting an event through direct or indirect means. It is therefore important to monitor the level of resident support for an event so that organizers have the best opportunity to minimize negative impacts and create a positive legacy. Measuring resident support and opposition is necessary for those mega-events that are of a recurring nature such as motorsports events which impact the host community year after year (Fredline & Faulkner, 2000). It is also needed for one-time events such as the Olympics, World Cup, and Super Bowl which move from one community to another and which may not return to the same community for decades. For this type of event, residents may base their decision to lend support on anticipated impacts of the event rather than direct experience (Fredline & Faulkner, 2000) and these perceptions may be different from the actual outcomes (Soutar & McLeod, 1993).

Resident perceptions have been the focus of study in the tourism field for several decades. As the number of studies has increased, different forms of tourism have received more specific attention. The area of event tourism focuses on recurring and one time events. These events, large or small, may be of a festival nature, or they may focus on a specific activity such as music, art, or sports (Getz, 2008). A "portfolio approach" (Figure 1.1) to using events as a tourism strategy includes periodic and one time local events, periodic and one time regional events, periodic hallmark events, and occasional mega-events (Getz, 2005).

While all forms of tourism have the possibility of creating positive or negative impacts, the mass tourism emphasis, the extensive preparation for, and the high costs of mega events make them particularly capable of impacting residents. These impacts may be economic, social or environmental. The event brings an influx of visitors from outside the area and the primary goal is usually providing an economic stimulus to the region. As such, much of the focus of event studies is on the economic impact of the event. However the social and environmental impacts also are being investigated more regularly (Essex & Chalkley, 1999; Gursoy & Kendall,

2006; May, 1995; Mihalik, 2000; Mihalik & Simonetta, 1999; Ohmann et al., 2006; Ritchie, 1984; Waitt, 2003).

This dissertation investigates the pre-event perceptions of residents toward the impacts of a mega-event in their community and the relationship between the perceived impacts and residents' support for the event. An attempt to identify and describe specific groups of residents who may have varied levels of support for the event will take place. While most resident studies of sporting mega-events have investigated resident perceptions during one point in time, a key feature of this dissertation is the ability to investigate resident perceptions over a series of time periods leading up to the event. Existing longitudinal data from Atlanta residents prior to the Atlanta Olympic Games is utilized for this dissertation. An additional feature of this study is an examination of the differences, if any, between the perceptions of residents in the host city of the mega-event and the perceptions of those who reside in regions surrounding the mega-event.

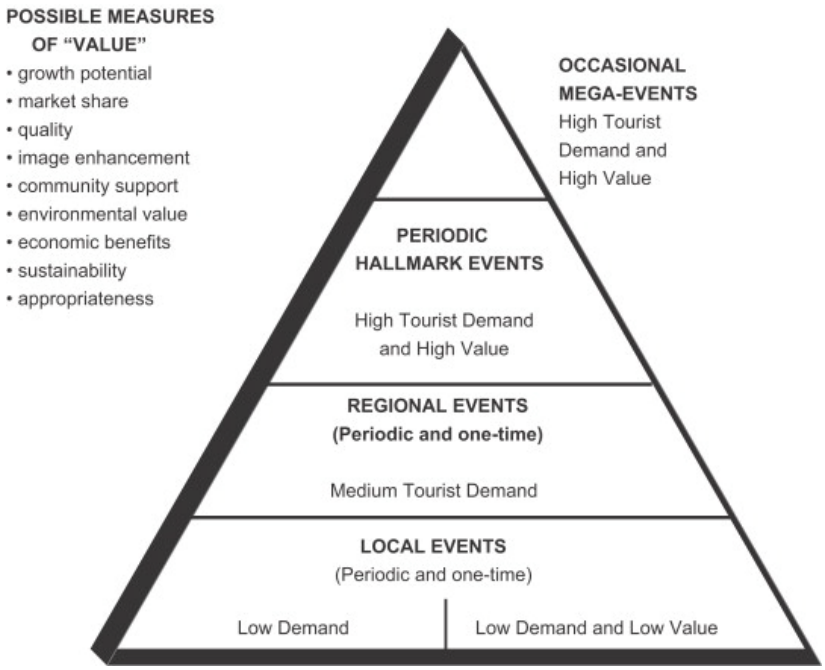

Figure 1.1 The portfolio approach to event tourism strategy-making and evaluation (*Source*: Getz, 2005, as shown in Getz, 2008. Used with permission[1]).

[1] Reprinted from *Tourism Management*, Volume 29, Issue 3, Getz, D., Event Tourism: Definition, Evolution and Research, pages 26, Copyright (2007), with permission from Elsevier." Also special credit - "Reprinted from *Event Management and Event Tourism*, 2nd Edition, Getz, D., Destination Planning and Marketing for Event Tourism, pages 520., Copyright (2005), with permission from Cognizant."

Statement of the Problem

The impacts of sporting events on the host community are receiving increased attention in the academic literature as the number of cities pursuing large-scale sporting events becomes more commonplace. Most of these studies have utilized the format of resident studies found in the tourism literature. Prior tourism studies on residents have examined resident characteristics (demographics, proximity to the tourism zone, and personal benefit from tourism), their support for increased tourism development, the role of government in supporting tourism, and the positive and negative economic, environmental and/or social impacts of tourism on the host community (Andereck, Valentine, Knopf, & Vogt, 2005; Andriotis & Vaughan, 2003; Gursoy, Jurowski, & Uysal, 2002; Gursoy & Rutherford, 2004; D. L. Jones, Jurowski, & Uysal, 2000; Jurowski & Gursoy, 2004; McGehee & Andereck, 2004; Mihalik & Simonetta, 1999; Perdue, Long, & Allen, 1990). Rural residents are often examined, since it is believed that tourism would have greater impacts in a rural community than in an urban setting.

Some resident studies have segmented residents into groups based on perceived impacts, demographics, or behavioral factors. The purpose in doing so is to examine the variety of opinions that residents hold and to better understand who supports tourism and why. Residents do not react to tourism's impacts as a homogenous group. Where perceived impacts have been utilized as the basis for segmentation, clusters of positive and negative residents have been identified. In most cases, additional clusters emerged which did not hold the extreme attitudes of the positive and negative segments. These "neutral" clusters have varied in number, and in their view of, and support for tourism.

Most studies of residents have utilized social exchange as the theoretical basis for the research (Andereck et al., 2005; Andriotis & Vaughan, 2003; Deccio & Baloglu, 2002; Jurowski & Gursoy, 2004; Jurowski, Uysal, & Williams, 1997; Kayat, 2002; Lee & Back, 2003; Madrigal, 1993; McGehee & Andereck, 2004; Mihalik & Simonetta, 1999; Perdue, Long, & Allen, 1987; Waitt, 2003). The theory is often used by tourism researchers because it incorporates an evaluation of costs and benefits prior to entering an exchange, and as the basis for continuing with the exchange relationship. Most tourism studies have used exchange theory to examine the

initial exchange or an exchange at one point in time; examining the on-going evaluation of the exchange relationship by residents requires a longitudinal study.

Although longitudinal studies often are called for in the tourism literature, there are few examples of longitudinal studies in the tourism literature that pertain to resident perceptions. There are even fewer studies which have examined sporting events as the tourism attraction and the impact these events have on residents. In the case of mega-events, the impacts on residents can be varied and quite substantial. These impacts also are likely to change over time as the community prepares for the event.

This study attempts to address several gaps in the literature by examining resident perceptions of the impacts of a mega-event – the summer Olympic Games – over multiple time periods. Resident data on the 1996 Atlanta Olympics will be utilized in this study. The relationship between perceived event impacts and resident support for the games, and the relationship between the event impacts and resident characteristics will be examined, including the question of whether distinct clusters of residents exist based upon the impacts of the event. These clusters will be described by examining resident characteristics (demographics) and their responses to the impact statements via data collected as a part of the quarterly Georgia Poll conducted by the Applied Research Center at Georgia State University in the years leading up to the Olympics. Proximity to the main location of the event also will be examined as a resident characteristic since this variable has previously resulted in contradictory findings. To date, the academic literature reveals no segmentation studies on events which have incorporated a longitudinal aspect in order to monitor changes in the exchange relationship.

Research Questions

As cities and countries compete for the right to host mega-events as a means of achieving economic and social goals, the need to understand the potential economic and social impacts of the event on residents continues to be necessary. However, it is unlikely that all residents view the mega-event impacts the same, and support for the event also is likely to vary among residents over time. The following research questions are addressed in this study:

Research Question 1:

Do residents' perceptions of the impacts of a mega event change over time based upon their support for the event?

Research Question 2:

Do residents' perceptions of the impacts of a mega-event change over time based on certain characteristics of the residents?

Theoretical Foundation

Social exchange theory has provided the theoretical basis for most studies of host communities and their response to tourism. It is a general theory that was formed from concepts in sociology, anthropology, economics, and psychology (Blau, 1964; Emerson, 1976; Homans, 1961; Levi-Strauss, 1969), and it has been applied to numerous fields. It is useful in explaining both individual and group exchanges. Tourism studies have adopted it for its flexibility in considering the evaluation of both costs and benefits in the decision-making process (Ap, 1992).

The theory holds that prior to entering into an exchange the actors involved will first seek to evaluate the costs and benefits of the potential relationship. It is based on the principle that reward-seeking is a key ingredient in the decision process to enter into an exchange (Homans, 1961). That is, actors rationally will enter into an exchange in which they perceive that benefits will accrue, or that costs will be minimized. In the tourism context, a community will support tourism if it is believed that benefits to the individual or to the community are possible, and that the costs incurred are not too great. While this evaluation often is based on an economic outcome (indeed, most studies on residents' perceptions of tourism have shown a positive relationship between a personal economic benefit from tourism and support for tourism) the evaluation is likely to include non-economic factors.

Each actor in an exchange possesses something that the other desires. These resources are referred to as power, and they are the key ingredient in the exchange process. The resources may be tangible or intangible (Homans, 1961), but their importance lies in the extent to which they are desired by the other actor. The distribution of power does not necessarily need to be

equal for an exchange to begin; a perfect balance of power in an exchange is rare (Ap, 1992). One actor may desire a resource possessed by another to such an extent as to make them dependent on the other (Searle, 1991). High levels of power by both actors is said to result in a balanced mutual exchange (Ap, 1992) and results in positive perceptions of the exchange (Waitt, 2003).

The exchange relationship is an ongoing process in which the exchange is regularly re-evaluated (Emerson, 1976). Because the exchange process has a temporal nature, the concepts of equity and justice are important aspects of social exchange theory. The exchange must continue to be seen as having an equitable distribution of benefits if it is to continue. For a host community, if perceived costs are seen as being too great, or if the benefits from tourism are not believed to be distributed in a fair manner, the resident is likely to have a negative perception of tourism. This negative perception may manifest itself through lack of support for public tourism initiatives, or through lack of tolerance for, or even hostility toward tourists.

Social exchange provides the theoretical basis for this study since it is proposed that the residents' perceptions of the costs and benefits of a mega-event will influence their level of support for the event. The positive and negative impacts of the event provide a framework with which to make a determination of the costs and benefits from hosting the mega-event. Residents who perceive the mega-event to have greater positive impacts in the community than negative impacts should be most in favor of hosting the event, and most likely to support the event. Those residents with predominantly negative perceptions toward the impacts should show lower levels of support for the event. The temporal nature of the exchange will be examined by monitoring residents' perceptions of the impacts at multiple points as the event draws near.

Research Hypotheses

The literature review shows that support for tourism, tourism development, or an event is related to residents' perceptions of the positive and negative impacts. Furthermore, the social exchange relationship based on the positive and negative impacts is continually re-evaluated, indicating a temporal dimension. In response to the first research question (Do residents'

perceptions of the impacts of a mega event change over time based upon their support for the event?) the following proposition and subsequent hypothesis are presented:

Proposition 1:

Perceptions of a mega-event's impacts are affected over time by resident's support.

Hypothesis 1:

The perceived benefits and perceived liabilities of a mega-event will vary over time as a function of residents' support for the mega-event.

The review of the resident perceptions and event tourism literature suggests that residents of a host community are not likely to have universal perceptions of the impacts from tourism in general, or event tourism in particular, even when evaluating the same event. These residents can be segmented based on their perceptions of the impacts. The resulting groups are likely to share some similar characteristics. In addition to differences in resident characteristics, the proximity to the tourism zone (event/venue location) has also had mixed findings as shown in the literature.

In response to the second research question (Do residents' perceptions of the impacts of a mega-event change over time based on certain characteristics of the residents?) the following proposition and hypothesis are presented:

Proposition 2:

Perceptions of a mega-event's impacts are affected over time by characteristics of the residents.

Hypothesis 2:

The perceived benefits and perceived liabilities of a mega-event will vary over time as a function of select resident characteristics.

Importance of the Study

This research makes several contributions to the current literature on tourism, events and sport. First, this study adds to the growing body of literature specific to mega-events and their

social impacts on the communities which host them. Each event has unique qualities, and the social impacts on the host community vary from one location and event to another. This study provides another example of residents' perceptions of mega-event impacts for future event organizers should consider.

This study also contributes to the growing body of literature which acknowledges that residents of a host community are not a homogenous unit. Within the same community there will be residents with varying degrees of support for tourism and events and they perceive the impacts of these events. These resident groups share common perceptions within the group which are very different from those perceptions shared by other groups in the same community. Knowing where the opposition to events is likely to come from is an important consideration for organizers of future events. To date, few studies of mega-events and their impacts on host communities have used segmentation methods to examine the differences in residents' perceptions of the event's impacts.

This study also makes an important contribution to the literature on social exchange theory. Numerous studies have utilized the theory to explain residents' perceptions of tourism and events. Most of these studies utilize snapshots of the host community at a single point in time and have made no attempt to monitor changes over time. Longitudinal studies in the tourism, event and sport literature are not commonplace. However, exchange theory is described as having a temporal nature; that is, exchanges continually are being monitored to assess the equity and distributive justice of the exchange. Of those studies which do utilize exchange theory and include a longitudinal aspect (Waitt, 2001, 2003) the perceptions of the host community typically are reported at the aggregate level and distinct resident segments are not identified.

The unique contribution of this dissertation is the combination of a segmentation study with a longitudinal study which is used to monitor the temporal nature of exchange theory. To date, no study utilizing social exchange as the theoretical basis has segmented the host community on the basis of perceived impacts and incorporated a temporal aspect to monitor the changes in the exchange relationship over time.

Functional Definitions of Terms

Mega-Event and Hallmark Event: In the tourism literature, these two terms often are used interchangeably. Getz (2008) described mega-events as occasional, globally-oriented events which have high tourist demand and high value. They are rewarded one time to a specific place following a competitive bid. Examples of sports mega-events are the Olympic Games, the FIFA World Cup in soccer, and American football's Super Bowl. Getz (2005) suggests "value" can potentially be measured through a number of concepts including growth potential, market share, quality, image enhancement, community support, environmental value, economic benefits, sustainability, and appropriateness. Hallmark events also incorporate the ideas of high tourist demand and high value. However the distinction between hallmark and mega-events lies in the fact that with hallmark events, the event and the host community become virtually synonymous over time. "'Hallmark events' cannot exist independently of their host community." (Getz, 2008, p. 408). Getz uses the example of Mardi-Gras and New Orleans as an example of a hallmark event. Two early definitions of hallmark events (Hall, 1992, p. 4; Ritchie, 1984) made no such distinctions and have been applied to other large-scale events such as the Olympics and even smaller local festivals. The distinction made by Getz (2008) provides the basis for discriminating between "hallmark" and "mega-events". For this study, the term "mega-event" is preferred and is utilized in describing the Olympic Games, the event used in this study.

Social Impacts: Defined in this study as "any impacts that potentially have an impact on quality of life for local residents" (Fredline, Jago, & Deery, 2003, p. 26). This definition recognizes that economic and environmental impacts also have a social dimension and it is not always possible to separate them from each other.

Perceptions: Few researchers in the tourism literature have made a distinction between attitudes and perceptions and the terms appear to be used interchangeably when investigating residents. McGehee and Andereck (2004) alluded to this and added that most resident studies use similar items of measurement regardless of the term being used. Lindberg and Johnson (1997) utilized a definition of attitude which was an expression of a degree of favor/disfavor with a statement. The term "perception" is utilized in this study as opposed to "attitude" in accordance with the

distinction made by Ap (1992) who described an attitude as "a person's enduring predisposition or action tendencies to some object", while a perception is more simply a "meaning that is attributed toward an object." (p. 671). Perception is thought to be a more general approach, and is appropriate in describing residents' disposition to tourism.

Support: Resident support for the mega-event is measured through two different variables in this study. The first is the residents' perception of whether it was a good idea for the city to host the event. The second variable is a more direct measure of the residents' intention of attending any of the Olympic events. It is proposed that there will be a relationship between these variables and the residents' perceptions of the costs and benefits of the event.

Longitudinal: A key feature of this dissertation is the utilization of data that covers multiple time periods. Longitudinal studies occur when respondents are surveyed at more than one point in time with the intent of monitoring changes in the responses over time (Zikmund, 2003, p. 187). The respondents may consist of the same individual at each point in time (a panel study) or surveys of different individuals in each time frame that represent the same groups (a cohort study). There are three aspects that distinguish longitudinal research: (1) variables must be measured over two or more time periods, (2) the respondents are either the same or comparable in each time period, and (3) the analysis compares data from one time period to another (Menard, 2002). For this study, the three aspects suggested by Menard are appropriate. Similar (but not the same) respondents are measured at four different time periods, with the intent of comparing results from one time period to another.

Olympic **G**ames and **g**ames: The term "Olympic" will be capitalized since it is the proper name of a sporting event. Although this is perhaps a matter of semantics, the spelling of "olympic" in all lowercase letters has been advocated, particularly from those who are most critical of the games in their recent form (Bale & Christensen, 2004). The term "games" will be capitalized when used in direct connection with the word Olympic as it is considered part of the event name, but not when used on its own (i.e. "Olympic Games" v. "the games").

Proximity: For this study, the issue of proximity is examined by segmenting respondents into two groups: metro residents and non-metro residents. These two groups are further defined below.

> Metro Resident: Defined for the purpose of this study as residents of the five counties surrounding Atlanta, Georgia, and which are intersected by Interstate 285. The five counties are Clayton, Cobb, Dekalb, Fulton, and Gwinnet. The Olympic venues for Atlanta were dispersed, but most Olympic events were held in an area which was labeled the "Olympic Ring" (Atlanta Committee for the Olympic Games, 1997, p. 500). The Olympic ring was an imaginary circle with a 1.5 mile radius situated in the heart of metro Atlanta.
>
> Non-Metro Resident: Defined for the purpose of this study as all Georgia residents who do not live within the five counties surrounding metro Atlanta as defined above. Several Olympic events were held in venues outside of the metro area, but these were widespread and no single location outside of the metro Atlanta area had a high concentration of venues.

Time: The element of time is a boundary in this study. The surveys in the Georgia Olympic Polls were conducted from the summer of 1992 (four years prior to the games) until the winter of 1997 (six months after the games). The four polls utilized in this study cover a time period of one year from the fall of 1995 until the summer of 1996 immediately prior to the Olympics. The selection of these four polls was based on the nature of the questions asked in the poll, and the nature of the research questions and statistical techniques used in this study.

Summary

The first chapter of this dissertation has presented the rationale for undertaking this study. The host community for an event is made up of residents whose perceptions of the event and its impacts may vary greatly. It is appropriate, therefore, to view residents with regard to these

differences. Social exchange is the most frequently used theoretical basis for examining resident perceptions of tourism. Although social exchange theory allows for changes in relationships over time, few studies which have utilized social exchange as the theoretical basis have examined the temporal nature of the tourist/resident exchange relationship. No longitudinal study utilizing exchange theory has examined residents by segmenting them according to their perceptions of the costs and benefits of the event. To examine these research concerns, resident data collected from multiple quarterly Georgia polls with regard to the summer 1996 Atlanta games will be utilized.

CHAPTER II
REVIEW OF LITERATURE

Introduction

The impacts of mega-events are both short and long-term even though the mega-event may only take place over a short time period; these impacts may also be far reaching even though the event is confined to a specific location (Fredline & Faulkner, 2000; Hall, 1992). The tourism literature provides an appropriate framework for evaluating the impacts of mega-events on the residents of the host community. A number of studies have examined the perceived impact(s) that tourism has on the residents of the host community.

This chapter begins with a discussion of social exchange theory which is the theoretical basis of this study. Following that is an overview of tourism studies examining the perceptions of the host-community toward the impacts of tourism in general. The chapter then moves into a discussion of tourism studies which have segmented residents using cluster analysis in order to better understand the differences in resident opinions. Finally, resident perceptions of the impacts of events and mega-events are examined with attention given to those studies which have included a longitudinal aspect. This will serve to better explain how residents' opinions of events may change over time.

Social Exchange Theory

The most commonly cited theoretical explanation for the tourist/resident relationship (or at the macro level, the tourism/host community relationship) has been social exchange theory. Drawing from the fields of psychology, sociology, anthropology and economics, the theory has been used to describe the interaction between parties when they enter into an exchange relationship. Social exchange theory was sometimes described as an economic theory (Pearce, Moscardo, & Ross, 1996), but it was explained by Emerson as "the economic analysis of noneconomic social situations" (1976). Turner maintained that economic exchanges "are only a

special case of more general exchange relations occurring among individuals in virtually all social contexts" (1991, p. 286). In its simplest form, the theory holds that actors evaluate a proposed relationship from a cost/benefit perspective. If the outcome is perceived to be positive by all parties (the benefits outweigh the costs), then an exchange is entered into. When there is an extreme imbalance in the exchange relationship, or if the costs outweigh the benefits for all actors, then no exchange occurs.

Social exchange theory incorporates concepts from the areas of utilitarian economics, anthropology, and behavioralistic psychology; it reflects both internal (psychological) and external (social) influences (Turner, 1991). Turner summarized the utilitarian economic concepts included in social exchange theory. They have been reformulated to include the following ideas:

1. The maximization of benefits is less important than achieving some level of profit in an exchange.
2. Exchanges are made after evaluating the costs and benefits of the social transaction.
3. While not all information is likely to be available to those evaluating an exchange relationship, costs and benefits are evaluated on some known alternatives.
4. There is competition for profit between actors in an exchange.
5. Profit is limited by the amount of resources (power) an actor possesses.
6. Economic transactions are a subset of social transactions.
7. Resources may be material, but exchanges often include "nonmaterial resources, such as sentiments, services, and symbols." (Turner, 1991, p. 286)

Coming from the field of anthropology, Levi-Strauss (1969) argued that there was a social cost involved in the exchange relationship based on customs, rules and values. He incorporated the concept of reciprocity: a social norm founded on equality where individuals feel compelled to offer some resource after they received a resource from another. This reciprocation need not be mutual. In some cases three or more actors may be involved in a "univocal reciprocity" (Ekeh, 1974, p. 48) where resources are exchanged among actors, but instead of reciprocating directly back to the originator, the resource is reciprocated to another party (e.g. A to B, B to C, etc.). In cases where a network of actors are involved in the exchange process, this

form of reciprocation may exist. Jurowski (1994) examined the tourism industry as an exchange system where resources were exchanged between the tourist, the host community and the tourism business/service industry.

The behaviorism principles incorporated in social exchange theory focused on the concepts of rewards and costs. Homans incorporated the behaviorist ideas of rewards and punishments in modern social exchange theory as rewards and costs (Homans, 1961; Turner, 1991). Homans' value proposition stated that the more valuable the reward of a person's actions, and the less likely the person would be to incur costs, the more likely the individual was to pursue that action. His rationality proposition built upon the idea of value by stating that a person's actions were measured as the value of the result, times the probability of achieving that result (Turner, 1991).

While Homans primarily focused on the relationships between individuals, Blau (1964) expanded the exchange relationship to include larger social systems. Blau's rationale was that the individual, and exchanges between individuals, created the larger social structures. These two forms of exchange have been described as *microstructures*, face-to-face interactions between individuals or small groups of individuals, and *macrostructures*, formal committees, organizations, etc. consisting of a large number of individuals (Skidmore, 1979, p. 95). Blau's view of social exchanges held that the possibility of future exchanges between parties was contingent on several factors: whether the exchange of rewards (reciprocity) was upheld or violated, the fairness of the exchange (justice principle), and the impact of one exchange on another (the imbalance principle) (Turner, 1991). The imbalance principle recognized that the individual, or the organization, were involved in numerous simultaneous exchange relationships, an idea held by both Blau and Homans. Both authors also reiterated the idea that the exchange could involve tangible and/or psychological resources. Therefore the exchange relationship involves multiple evaluations of rewards and costs, simultaneously between all actors, and the exchanges are regularly evaluated on the basis of fair exchange.

Perdue, Long and Allen (1987) and Ap (1990) were among the first tourism researchers to advocate social exchange theory for explaining the relationship between the tourism industry and the host community. Ap (1992) later provided the most thorough explanation of social exchange theory within the context of the tourism industry. A key advantage to using social exchange to explain tourism relationships was the flexibility of the theory in adapting to different

forms of relationships. Ap argued that the main advantages to applying social exchange theory to tourism, were that both positive and negative impacts could simultaneously be examined and that the theory was useful for examining group or individual reactions to tourism's impacts (1992, p. 667). At the community level, it was acknowledged that subgroups with differing perceptions were likely to exist. Examining these subgroups became an important aspect of investigating social exchange theory. Though the theory has been applied to individual and group exchange scenarios, the exchange relationship itself should be the unit of analysis (Emerson, 1976).

Multiple factors were involved prior to the decision to enter into an exchange (Figure 2.1). "With the exchange relationship as the unit of analysis, we see an actor engaged simultaneously in numerous exchange relations" (Emerson, 1976, p. 350). In an evaluation of power in the exchange process Kayat (2002) lent support to the complexity and multifaceted nature of the exchange process. "Power, moderated by other factors, such as respondents' general values, their level of dependence on tourism, and the ability and willingness to adapt to changes brought by tourism, influences respondents' evaluations of the impact of tourism" (p. 190).

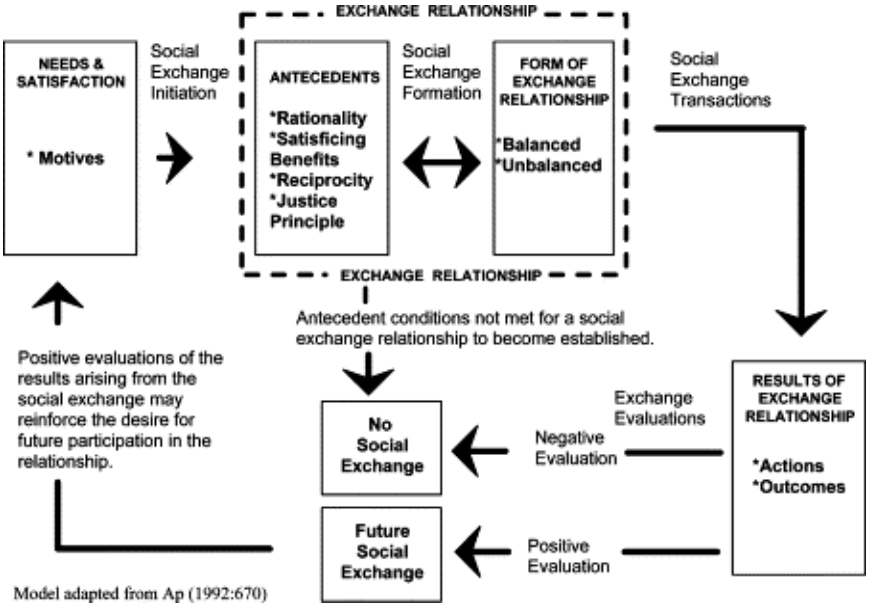

Figure 2.1 The social exchange process (Ap, 1992; as shown in Waitt, 2003. Used with Permission[2])

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Yoon, Gursoy and Chen (2000) also demonstrated the complexity of the tourism exchange evaluation when they found that the total impact of tourism was positively related to economic and cultural impacts, but negatively related to social and environmental impacts; and the total impact of tourism was positively related to the support for tourism development. Thus in deciding whether or not to support tourism development, the individual must consider multiple factors which may positively or negatively affect their view of tourism impact. Tourism impacts also affected residents' perceptions of the quality of life (K. Kim, 2002) adding another dimension to the exchange evaluation.

The antecedents to the formation of an exchange relationship were *rationality*, *satisficing of benefits*, *reciprocity* and the *justice principle* (Ap, 1992; Waitt, 2003). Rationality referred to the idea that the actor in an exchange would act based upon reward seeking. An actor must believe that entering into an exchange would result in a reward to them. In the tourism setting, if residents perceived positive economic, social or psychological rewards, they were more likely to view an exchange as beneficial (Ap, 1992). A reward did not necessarily need to be economic (Emerson, 1987; Searle, 1991); that view of rational decision-making was based more on an economic exchange than a social exchange. Emerson (1987) claimed that in economic theory, actors made decisions based on market conditions or other environmental factors, while social exchanges were made with another actor's decisions in mind. In the tourism literature there have been examples of exchanges not based on positive economic outcomes. Burgan and Mules (1992) discussed the idea of psychic income in which residents may value psychological benefits as being more valuable than economic costs. Mihalik and Simonetta (1999) found that Atlanta residents ranked anticipated intangible benefits more highly than anticipated economic benefits as the city prepared to host the Olympic Games.

Emerson (1976) explained that "exchange rules" may be utilized in making decisions that affect reward distribution. "An exchange rule or a distribution rule is a normative definition of the situation that forms among or is adopted by the participants in an exchange relation." (p. 353). Rationality was typically the part of exchange theory that received the most criticism (Pearce et al., 1996) because individuals do not always act in a rational manner, nor do they base their decisions on a logical evaluation of costs and benefits. However, as Emerson defined it, rationality can be one of a number of rules that may be adopted in making the decision to enter the exchange. Though it may be the most commonly used exchange rule, it was not necessarily

the norm. The concepts of altruism, competition, reciprocity and status keeping may also be used as exchange rules (Meeker, 1971).

> Whether or not people are rational needs no longer hamper our discussions. Rather, rationality (and altruism and equity) are seen as orientations people sometimes take, depending upon the social relation they have with each other. [Meeker] has brought the time-honored notion of the definition of the situation into the framework of exchange theory. (Emerson, 1976, p. 353)

The second antecedent, satisficing of benefits, was based on the notion of weighing costs and benefits. An actor would seek an exchange where benefits were enhanced, and/or costs were minimized. The reward needed to be seen as being "satisfactory, reasonable, or acceptable" (Ap, 1992) rather than maximized. This approach allowed varying levels of benefits and costs to be simultaneously evaluated. In the tourism context a resident would approve of tourism development if they perceived the benefits received from tourism were reasonable when compared to the costs. Faulkner and Tideswell's discussion of altruistic surplus phenomenon (1997) concluded that residents were willing to accept personal costs if benefits to the community were thought to be important. Waitt also found support for the concept of altruism among Sydney residents (2003).

In the third antecedent, reciprocity, benefits needed to be exchanged between all actors and viewed as roughly equivalent in order for there to be a positive perception of the exchange. Ap claimed that this concept was the "most central to social exchange theory" (1992, p. 675). In order for the exchange to continue, the tradeoff needed to be seen positively by all sides in a transaction. These evaluations continued to occur throughout the duration of the relationship and were not a one-time event. Residents of a community needed to continue to perceive benefits from tourism in order to lend their support for future development. In the mega-event context, even after the event has been awarded to a host city, continued resident support was necessary for numerous reasons, as previously stated in chapter one.

The final antecedent was the justice principle. This idea stated that the exchange must be viewed as following the norms of fairness. Does the exchange hold up to the notion of fairness if viewed by external sources (Searle, 1991), or when compared to the social context/environment in which the exchange takes place (Ap, 1992)? An unequal distribution of costs and benefits was likely to cause variations in the perceptions of residents (Ap, 1992). Residents may develop

negative perceptions of tourism if they perceived that benefits were distributed in an unfair manner, or if costs to them were thought to be excessive. Most of the arguments against cities hosting mega-events have focused on the justice principle. Costs and benefits of mega-events also were likely to be compared with those experienced by previous host cities.

Another component in exchange theory was the idea of *power*. Power was the influence that one actor in the exchange relationship had over another through the control of resources that the other actor desired (Ap, 1992). Kayat (2002) stated that it may not be necessary to know the exact nature of the exchange before entering into a relationship. Social exchanges differ from economic exchanges in that the power may exist in "unspecified obligations" (p.174), meaning that the actors decide to enter into an exchange on the basis of perceived rewards and perceived costs. Kayat explained power as a "residents' ability to take advantage of the opportunities offered by tourism development" (p. 179). This ability was represented by specific resources possessed by individuals that were seen as having utility to the tourism industry. In Kayat's study, the resources consisted of land, access to capital, knowledge, age, and position; these resources may not be transferrable to all other settings.

Madrigal (1993) explored the impact of power among rural residents in communities with differing levels of tourism development and found that residents' support for tourism development was related to the amount of influence they believed they had in tourism-related decisions. Residents with positive perceptions felt they had an influence over tourism decisions and outcomes and did not feel that the tourism industry had too much political power. Residents with negative perceptions did not feel they had power over decisions and felt the tourism industry had too much political power in the community.

The above examples showed power being demonstrated at the individual (micro) level. However, power may also be evident at the group (macro) level. The concept of a "productive exchange" (Kuhn, 1963, as cited in Emerson, 1976) involves numerous individuals, each possessing a valued resource, combining to create an exchange relationship. Through a division of labor, it was possible to form an exchange network and collectively enjoy a power that was not possible to attain at the individual level. The tourism industry is an example of this form of system. The tourism industry is made up of a number of inter-related industries, or stakeholders (Yoon, 2002), which may include transportation, accommodation, various tourism agencies, food and beverage, security, entertainment, and more. In addition, it typically has involvement from

the public sector (tourism taxes, policies and regulating agencies) and the private sector (investment, entrepreneurs, service providers, etc). While individual residents are a key component of the tourism exchange network, it is their collective involvement that allows the tourism system to operate. Thus a host community's approach to tourism consists of both micro- and macro-level exchanges.

In the mega-event context, power held by the host community may come in a variety of forms such as desirable geographical features, economic resources, hospitality services, public support of residents, and sport facilities and infrastructure. The mega-event may offer the host community an unprecedented amount of media attention, job creation during event preparations, increases in tourism during the event, a unique promotional and positioning opportunity, and a reason to pursue community improvements.

A balance of power in a relationship will result in a concept known as *cohesion*. Ap (1992) proposed that when an exchange relation was cohesive the attitudes of residents toward tourism would be related to the level of power. If power was high for both actors, then positive perceptions were the norm; if the power levels for both actors were low, then negative perceptions were more likely. Unbalanced exchange relationships resulted in one actor becoming disadvantaged and more likely to end the exchange.

Exchange theory holds that the evaluation of the exchange is an ongoing process which may take place at various points in the relationship, thus indicating a need for continued monitoring. "Residents constantly re-evaluate the perceived consequences of the exchange transaction within a dynamic social setting" (Waitt, 2003, p196). One way that exchange theory was said to differ from other economic theories is that exchange theory addressed exchanges over time (Emerson, 1976). "The longitudinal exchange relation between two specific actors is the central concept around which theory is organized" (Emerson, 1987). Relationships form, get evaluated, were altered, and re-evaluated sometimes over lengthy periods of time. This was the concept of "reinforcement" described by Emerson (1976, p. 347). The relationship may be renewed or disengaged based on changes in the exchange of resources (power) or based upon one actor's perception of the relationship. As seen in the social exchange model in Figure 2, a negative evaluation results in no future exchanges, while positive evaluations (positive reinforcements) result in future social exchanges.

We can see the concepts of positive and negative reinforcement within the context of the Olympic Games. When Colorado residents denied public funds to Olympic organizers after the city of Denver was awarded the winter Olympics in 1970, it was because residents perceived an economic and environmental imbalance in the exchange relationship (Kennedy Jr. & Patrick, 2004). The expected costs of hosting the Olympics were considered to be excessive when compared to the anticipated benefits. An examination of Sydney residents before and during the Olympics showed that support for the event changed over time in a positive direction (Waitt, 2003). Mihalik and Simonetta (1999) witnessed decreasing levels of overall public support for the Olympics in Atlanta during the initial years after having won the bid. Ritchie and Lyons (1987; 1990) saw some minor fluctuations in overall public support for the Calgary Games during the period as an Olympic host city. These examples showed that changes in the exchange relationship between the host community and the event do occur over time, and could be positive or negative. Therefore, longitudinal studies were, and continue to be necessary to monitor the changes.

Residents and Tourism's Impacts

Studies on the impacts of tourism have generally resulted in three categories of impacts: economic, social (or socio-cultural), and environmental. The economic impact of tourism has received the most focus over the years. This was reasonable since economic growth has been one of the primary reasons that communities engaged in and encouraged tourism, and there has been a need to monitor the return on investment. Natural resources (beaches, mountains, etc.) have often been key features of tourism destinations. The need to preserve these valuable natural resources has resulted in studies which measure the environmental impacts of tourism. Measures such as the new environmental paradigm scale have been used to assess how attitudes toward environmental issues impact residents' perceptions of tourism (D. L. Jones et al., 2000). The impacts of tourism on the host community have prompted studies which measure the social and cultural impacts. These impacts may or may not have economic or environmental components to them. Indeed there is some overlap between the three impacts. For example, decisions made to place a recreational and tourism development in a natural area will impact the natural

environment, the residents and the area economy. Some authors have proposed additional types of impacts. For example, in describing the impact of hallmark events, Ritchie (1984) proposed six types of impacts: economic, tourism/commercial, physical, sociocultural, psychological, and political.

Early tourism studies examined the response to tourism by the host community as if the host community shared the same opinions and reactions. The Irridex Model (Doxey, 1975) proposed a life-cycle of resident reaction to wide-scale tourism. The model showed a progression from an initial euphoria of tourism to apathy, to annoyance, and finally to antagonism between residents and tourists. A similar viewpoint of tourism's impact on a community showed the tourism location progressing from exploration to involvement, development, consolidation, stagnation, and eventually either decline or rejuvenation (Butler, 1980). Though useful in seeing how a community may be impacted as tourism became more prevalent, these models of tourism were limited because they assumed that the community was a homogenous unit in which residents share similar opinions on tourism (Faulkner & Tideswell, 1997; Fredline et al., 2003).

Perdue, Long and Allen (1990) examined resident support of tourism and the residents' perception of tourism impacts in a study of rural Colorado communities. They found that sociodemographic variables were unrelated to the positive and negative perceived tourism impacts when personal benefit from tourism was controlled. In addition, they found a negative relationship between support for additional tourism development and the perceived future of the community (the "doomsday" phenomena). They also found a negative relationship between support for additional tourism development and support for restrictions on tourism development.

McGehee and Andereck (2004) modified the model proposed by Perdue et al. (1990) to include the impact of community dependence on tourism as a predictor of resident attitudes and support for tourism development and planning. The variables age and personal benefit from tourism were positively related to the positive impact statements and had negative relationships with the negative impact statements. The authors found that the more dependent a community was on tourism, the more aware they were likely to be of tourism's negative impacts. Personal benefit from tourism, positive impacts, and negative impacts were all significant predictors of support for additional tourism (negative impacts had a negative relationship with support). However, only responses to the negative impacts were significantly related (in a positive direction) to support for tourism planning. The authors concluded that the model provided

general support for social exchange theory except for the lack of an expected relationship between personal benefit from tourism and support for tourism planning.

Mixed support for social exchange theory was found in a study investigating the relationships between tourism benefits, level of engagement with tourism, community attachment, and demographic variables (Andereck et al., 2005). The authors utilized factor analysis on a 38 item scale to identify the factors of Community Environment, Community Problems, Community Life, Community Image, Community Services and Community Economy. Results of a MANOVA showed that the Community Problems factor was not significant across the four predictor constructs despite a significant relationship with the positive impact statements. Support for exchange theory was found when residents who perceived personal and community benefits from tourism, and residents who felt tourism was important to the local economy had higher perceptions of tourism's positive impacts. A positive relationship was also found between residents who were more engaged with tourism and the positive impact statements.

Getz (1994) used different scales for attitudes and perceptions to compare residents' perceptions of tourism in a rural community over a fourteen year period. The study found that positive support for tourism continued over time though the attitudes did decrease. Changes in the economy, and the failure of recreational attractions of interest to locals, and lack of perceived benefits to locals were thought to play an important role in the decline of attitudes. Residents still showed support for tourism development, though that support appeared to be selective.

One of the first attempts at systematically measuring resident perceptions took place with the development of the Tourism Impact Attitude Scale (TIAS) (Lankford & Howard, 1994). In addition to perceived impacts and demographic information, Lankford and Howard examined length of residence, economic dependency on tourism, distance of tourism from the resident's home, resident involvement in tourism decision making, birthplace, level of knowledge, level of contact with tourists, and rate of community growth. After narrowing down the item list to 27 items and employing an exploratory factor analysis, two factors were identified: Concern for Local Tourism Development, and Personal and Community Benefits. The more knowledgeable of the tourism industry, and the more dependent a resident was on tourism for their economic well-being, the more positive were the perceptions of tourism. Loss of recreation opportunities or use of recreation facilities caused a reduction of positive attitudes to tourism.

The TIAS scale received criticism from Ap and Crompton (1998) who claimed that the two domains of the TIAS were not consistent with the framework of impacts found in the literature. Using belief components (the level of change of the variable) and evaluative components (their like or dislike of the item) along with perceptions of tourism impacts, Ap and Crompton developed their own tourism impact scale. In addition to the Social, Environmental and Economic impact domains, they found additional tourism impact domains of Crowding and Congestion, and Tourism Services. The authors claimed that this finding was more in line with the literature.

Lindberg and Johnson (1997) used structural equation modeling to test two common models of resident attitudes: "expectancy-value" models and "value-attitude" models. In both cases it was argued that values affected attitudes toward tourism. In this case, although economic impacts and congestion were significant predictors of attitudes, positive economic gain had a greater influence on resident attitudes than did concerns over congestion due to tourism and desires to minimize disruptions. This study also found that demographics did not directly impact attitudes, but they may have an indirect effect on attitudes through economic gain.

Gursoy, Jurowski and Uysal (2002) developed and tested a structural model which could be used in gauging residents' support for tourism development. They examined the relationships between the benefits and costs of development, the state of the local economy, the extent to which residents used the resource base, their level of environmental concern, and the attachment level to the community. They found that the most significant factor affecting residents' attitude toward tourist development was how they viewed the state of the local economy. Residents would be more willing to accept tourism development if they viewed the local economy as needing help, which was in line with the doomsday phenomenon discussed by Perdue et al. (1990).

Gursoy and Rutherford (2004) expanded the model proposed by Gursoy et al. (2002) to divide benefits and costs into five separate factors: economic benefits, social benefits, social costs, cultural benefits, and cultural costs. After revising the model, they found no significant direct relationship between support and cultural costs, between support and social costs, and between support and social benefits. Direct positive relationships were found between support and economic and cultural benefits. When residents perceived the local economy needed help, they showed an increased interest in the economic benefits and lower levels of perceived concern

for social costs, while supporting tourism development. In both Gursoy et al. (2002) and Gursoy and Rutherford (2004) rural areas were utilized as the sampling area. Support for development of cultural/historical attractions, cultural/folk events, and nature-based tourism (Gursoy & Rutherford, 2004 only) were used to measure the construct of support for tourism development. Under different circumstances (i.e. an urban environment) and with different form of tourism developments, results could vary.

Social Impacts of Tourism and Events

Social impacts have typically not been as quantifiable as economic impacts. They have often represented elusive concepts such as "disruption", a very real but difficult impact to measure. Despite the difficulty in finding an unambiguous measurement for some of these impacts, the need to do so exists. Collecting residents' perceptions of the impacts through surveys are one means of measuring social impacts. The same impact may be seen as a positive or negative impact by members of the same community, so measuring residents' perceptions continues to be necessary (Crandall, 1987). Social impacts affect quality of life immediately; cultural impacts affect hosts and guests gradually, although the two types of impacts were sometimes combined and referred to as sociocultural impacts (Brunt & Courtney, 1999).

Milman and Pizam (1988) performed one of the earliest studies of residents' perceptions of the social impacts of tourism. Utilizing regression analysis and factor analysis, they found strong support for tourism among Florida residents, and even a willingness to see the expansion of tourism. However, residents did not view impacts universally and the authors made the point that residents were not always objective in assessing tourism.

Faulkner and Tideswell's (1997) model of tourism's social impacts included extrinsic and intrinsic dimensions. Extrinsic dimensions consist of characteristics of the tourism location (stage of tourism development, tourist type, seasonality, tourist/resident ratio) while the intrinsic dimension consists of defining characteristics of the host community residents (level of involvement in tourism, socio-economic status, proximity to tourism center, length of residency). While some studies of destinations examined the community from the external perspective only (Butler, 1980; Doxey, 1975), Faulkner and Tideswell made the point that host communities consist of both intrinsic and extrinsic dimensions, and the characteristics of both dimensions can

impact positive and negative perceptions of tourism. Their model was useful in describing the complexity of the process by which resident perceptions were formed.

Social impacts have been most often examined in terms of a single, specific event (C. Jones, 2001; Ohmann et al., 2006; Waitt, 2003; Whitson & Macintosh, 1996). However, in some instances specific sociocultural impacts have been the focus of case studies to illustrate the depth of that particular impact. Perhaps one of the best known is Kris Olds' examination of resident displacement as a result of the preparations for several mega-events in Canada (Olds, 1998; Shapcott, 1998). Olds identified four different types of housing evictions experienced prior to the 1988 Calgary Olympic Games: stadium site evictions (houses), apartments and townhomes, residential hotels, and university student housing. According to a 2007 report by a human rights organization, more than 2 million residents have been evicted as a result of Olympic development over the past twenty years (Centre on Housing Rights and Evictions, 2007). The Centre on Housing Rights and Evictions (2008) recently estimated that the Beijing Olympic Games alone displaced 1.5 million residents for Olympic venues and improvements to local infrastructure. Positive sociocultural impacts also have been documented as evidenced by recent discoveries and improvements made to architectural sites as a result of the Athens Olympics (Lobell, 2004), and in the increase of jobs and wages as a direct result of the Atlanta Olympics (Hotchkiss, Moore, & Zobay, 2003).

In an attempt to develop a scale to measure the social impact of events on a host community, a nominal group technique, Delphi study and a factor analysis were utilized to create the Festival Social Impact Attitude Scale (Delamere, 2001; Delamere, Wankel, & Hinch, 2001). The initial scale was a 25 item instrument representing two social impact factors: Benefits and Costs. Benefits were thought to relate to community-level impacts, while Costs were applicable to impacts on a more personal level. The authors concluded that social benefits and social costs were two unique constructs "as opposed to opposite ends of a unidimensional construct (social impacts)" (Delamere, 2001, p. 33). A second factor analysis utilizing only the Expectancy statements (the initial instrument consisted of expectancy-value statements) resulted in 24 items representing three factors: General Benefits of Community Festivals, Amenity Loss from the Festival, and Loss of Community Control. This scale was later tested in different community events, using multiple delivery methods, item scales and measures (Rollins & Delamere, 2007) and was found to be modifiable and reliable.

Fredline et al. (2003) were critical of the Festival Social Impact Attitude Scale for only utilizing small events and for failing to include economic benefit statements that were more indicative of a larger event. The authors therefore examined three different medium and large events in an attempt to create a social impact scale that was applicable to a variety of situations and thus more flexible than Delamere's. Respondents were asked to provide their assessment of 42 different impact statements. A combination of methods was used in which respondents first indicated the direction of the change because of the impact (if any), then assessed the degree to which the respondent perceived a personal affect on their quality of life and the degree to which they perceived an effect on the community. Overall, impacts on the community were perceived to be greater than individual impacts. The instrument was found to be applicable to the three different events, but was reduced via factor analysis to incorporate 10-12 items (the specific items were not specified) representing six different factors.

Resident Segmentation Studies

While most studies of host communities have grouped residents together according to spatial characteristics (i.e. they all live within the same community), a number of studies have examined the host community in segments according to their interests, attitudes or other factors. The following host community studies have examined residents in smaller groups not based strictly on geography. These studies have assumed that the host community was heterogeneous; that the community was made up of a number of smaller groups whose members share strong commonalities within their group, but were very different from members of other groups. These groups may compete against each other for community resources or share very different opinions on community issues (Madrigal, 1995). Therefore it was advantageous to look at how the opinions of one group differed from another.

One of the early segmentation studies (Davis, Allen, & Cosenza, 1988) grouped residents based on their perceptions of the impacts of tourism. This is still the most common method of host community segmentation in tourism studies. Two resident groups (Tourism Haters and Lovers) showed the extreme ends of the tourism support continuum. Three other groups (Cautious Romantics, In-Betweeners and Love 'em for a Reason) held varying viewpoints on

tourism, but did not support or oppose tourism to the extent that the first two groups did. Madrigal (1995) also segmented residents based on their perceptions of tourism. The resident clusters were referred to as "nested communities" (p. 87). However, this study segmented residents of two cities (one rural, one urban) at different stages of tourism development (advanced and initial), in two different countries. Three clusters, Realists, Haters, and Lovers were found to exist in both locations. The differences in the resident's perception of government's role in tourism were not as great between the two locations as was the difference based on cluster membership. In both the Madrigal (1995) and the Davis et al. (1988) studies, the largest clusters were the ones in which both positive and negative benefits of tourism were acknowledged.

Perez and Nadal (2005) identified five clusters when examining the residents' attitudes concerning tourism development, positive and negative tourism impacts, tourism policies, and consequences. Segments of residents who were positive and negative in their support for tourism were identified along with three segments with varying levels of support. The authors found parallels for the positive and negative clusters in the literature (Davis et.al., 1988: Madrigal, 1995; Fredline & Faulkner, 2000). Although these authors did not find specific parallels for the remaining clusters in the tourism literature, Andriotis and Vaughan (2003) showed that there were a number of studies that have identified clusters in the middle of the continuum between high and low levels of support for tourism.

Personal values have been shown to be an important distinguisher between groups of residents (Williams & Lawson, 2001). Similar to previous resident segmentation studies, cluster analysis was used to group residents on the basis of their perceptions toward tourism's impacts. While demographic variables were not found to be significant in distinguishing the four clusters (labeled Lovers, Cynics, Taxpayers, and Innocents), the importance that residents placed on personal values (in this case a set of questions on community-related issues) was effective at distinguishing the clusters. Lovers were the most positive toward tourism, but they attached the least amount of importance on statements regarding community issues. Cynics, though not completely opposed to tourism, were described as being the most community oriented. Cynics attached the greatest importance to issues such as community control by locals, cost of living, negative tourism impacts (noise, litter, and traffic), facilities and attractions for locals to enjoy, and the environmental impact.

Residents' perceptions of environmental attitudes were measured to see what differences existed within the community (D. L. Jones et al., 2000). Using the New Environmental Paradigm scale, the authors identified three resident segments: Conservationists, Anthropocentrics, and Optimists. Large differences between clusters were identified on demographic variables except for gender and on the form of tourism development each group was likely to support. Conservationists were the most environmentally sensitive group of the three. The authors stressed the need for considering multiple viewpoints in the community when making tourism based decisions and suggested that communities adopt an environmental code of ethics to help guide future tourism development decisions.

Only one segmentation study in the tourism literature was found that incorporated a temporal element (Ryan & Montgomery, 1994) though the purpose was not to track changes in resident perceptions over time. Rather the study was designed to examine the difference in resident perceptions during off-peak and high-peak tourist seasons in Bakewell, UK, a rural tourist community. The sample consisted of 59 respondents who completed both surveys (approximately five months apart) allowing the authors to perform a matched-pairs analysis. The authors modified the Florida study by Davis et al. (1988) and identified three clusters from the initial survey: Enthusiasts made up 22.2% of the initial sample (25% in the second survey), Somewhat Irritated made up 23.5% (30% of the second sample), and Middle of the Roaders made up the majority of respondents with 54.3% of the initial sample (45% of the second sample). No differences between clusters were identified on the basis of socio-economic variables, and only one item out of the thirty attitudinal statements resulted in a statistically significant difference over the two time periods. The residents of this study had stable views of tourism in their community regardless of the tourist season.

The Bakewell study was repeated in an emerging tourist location in New Zealand where three clusters of residents were found once more: Moderate Enthusiasts, Extreme Enthusiasts, and Cautious Supporters (Ryan, Scotland, & Montgomery, 1998). Support for tourism growth was high for all clusters, even the Cautious Supporters. This was said to be related to stage of development since this was an emerging tourism destination and residents were expected to be excited over the positive benefits of tourism. By comparing the findings in New Zealand with those of the Bakewell residents, support was found for ideas from Doxey (1975) and Butler's (1980) views of tourism destination life cycles. Residents in the tourism destination which was

more established were less enthusiastic in their opinions toward tourism and future development. A more interesting conclusion was that in a destination at an initial stage of development, core values (related to community, conservation, need for socialization/privacy, etc.) were not as widely used to evaluate the impacts of tourism as in the mature tourism destination. The result was a set of perceptions in the mature tourism destination with a greater demarcation of opinions between those groups who were supportive or opposed to tourism development.

Despite an abundance of tourism-related activities in urban areas, much of the research on residents' perceptions of tourism has focused on rural communities and how those residents perceive tourism's impacts (Iroegbu & Chen, 2001). As the literature on event-related tourism has developed, more studies have been added regarding urban residents. This has been particularly true of those studies examining hallmark and mega-events, as these events have occurred most often in urban environments. It remains important to examine the perceptions of urban residents since the impacts of tourism could be perceived differently than by rural residents. A number of segmentation studies have also been undertaken on residents of urban areas to better understand these residents' perceptions of tourism development and impact (Andriotis & Vaughan, 2003; Fredline & Faulkner, 2000, 2001a, 2001b; Iroegbu & Chen, 2001; Lawton, 2005).

Iroegbu and Chen (2001) segmented urban residents based on their perceived impacts of tourism in general, and examined differences between the groups utilizing logistic regression, and chi square analysis on demographic data. The authors found that demographic differences did exist between two groups of urban residents (labeled Tourism Supporters and Tourism Skeptics) in terms of gender, education, income and marital status. Through the use of logit analysis, they further examined the income, marital status and education variables and found significant differences in the levels of these demographic variables. The authors called for continuing investigation of demographic variables in resident studies, particularly in an urban environment.

Andriotis and Vaughan (2003) researched urban residents of four cities on the Mediterranean island of Crete. They examined the influence of both single factors and multiple factors on residents' perceptions of tourism development. The single factors consisted of extrinsic and intrinsic dimensions. The extrinsic dimension (macro-level reactions) consisted of seasonality, type of tourist, and stage of development. Intrinsic (micro-level) dimensions

consisted of proximity to tourism zones, length of residence, dependency on tourism, and demographic variables. Among the single factors, education and employment reliance on tourism emerged as the best factors to discriminate attitude toward tourism development. The results showed a negative relationship between level of education and support for tourism development. Economic reliance on tourism showed a positive relationship with support for tourism development which was in line with previous findings. To examine multiple factors, the researchers employed cluster analysis based on 27 tourism impact statements (social, environmental, economic and overall tourism impacts). The resulting segments were named Advocates, Socially and Environmentally Concerned (SEC), and Economic Skeptics. The group with the most support for tourism development was the Advocates. Economic Skeptics saw the fewest positive economic benefits from tourism development while the SEC's were most negative in response to the social and environmental impacts of tourism. The only demographic variable that was found to discriminate between the three clusters was education, with Economic Skeptics being the least educated and SEC having the most highly educated respondents. This study was similar to other segmentation studies as far as identifying segments with positive and negative perceptions of tourism. However, the negative segments were not completely opposed to tourism development. While the most negative segments were divided between economic impacts and social/environmental impacts, they might be better described as being the least positive clusters.

The attitude of urban residents toward tourism attractions, rather than the development of tourism, was the focus of a recent segmentation study (Lawton, 2005). Attractions were defined as "named events, sites, areas, or linear phenomenon with specific human or natural features that provide the focus of manager and visitor attention" (p. 189). Using repertory grid analysis combined with cluster analysis, four distinct resident segments were identified: Nature-Biased, Unenthusiastic, Hinterland Hesitant, and Enthusiastic. These clusters varied on their preferences for twelve different tourism attractions. The Nature-Biased group preferred the natural attractions over built attractions, while the Hinterland Hesitant group preferred the attractions in urban environments over nature-based attractions. The Unenthusiastic and Enthusiastic cluster members showed low and high preferences, respectively, for attractions in urban and rural settings. Gender, age, and length of residence were found to be significant discriminators

between clusters as were visitation patterns to the various attractions, and quality of life assessments.

Most resident segmentation studies employed the residents' perceptions of positive and negative impacts as the basis for clustering. A different approach segmented residents first on the basis of demographic variables and behavioral statements (Inbakaran & Jackson, 2005, 2006). This approach was not in line with previous studies which found few statistically significant differences between groups based on demographics. After clustering residents by their demographic profile, a factor analysis was then performed on the impact statements resulting in five factors which were used to further discriminate the clusters. The four clusters were Tourism Industry Connection, Low Tourism Connection, Neutral Tourism Connection, and High Tourism Connection. While no differences between clusters appeared based upon the positive impact statements, significant differences did appear based upon the negative impact statements; the Low Tourism Connection cluster had the most negative perceptions of tourism. The basis of segmentation used in this study makes it difficult to make comparisons with other tourism segmentation studies. Furthermore, segmenting residents on the basis of demographic variables limits the utility of the study. It is very unlikely that results will be generalizable to other locations due to differing characteristics of residents and the tourism industry in other locales.

With one exception, the above studies have all examined segments of the host community at one point in time. In only one case has there been an attempt to monitor the individual segments within a community over time to see the extent to which a change in attitude toward tourism occurred. This study will attempt to fill this void in the literature by tracking resident segments over time to monitor the changes in perception of the impacts, and the subsequent support for a mega-event in their community.

Residents' Perceptions of Mega-Events

Studies of sporting events and their impact on host communities can be found in the sport, event, or tourism literature. Those resident impact studies which focus on mega-events are a subset of the larger collection of event studies (Getz, 2008), and they may be classified as

either sport-related, tourism-related, or placed into the growing body of literature on sport tourism (Hinch & Higham, 2008; Weed, 2008). In the past, most studies of the impacts of events on communities have focused on the economic impact. While economic impacts continue to be important, other equally important outcomes must be examined because of the positive and negative consequences for the host community. Social and environmental impacts from events occur to varying degrees and must be monitored. The monitoring of economic, environmental (or physical), and social impacts has been referred to as a *triple bottom line* approach to measuring event impacts (Fredline, 2008). The following studies have all examined the impacts of a mega event on the host community from the residents' standpoint, and most of them have taken a triple bottom line approach by attempting to measure more than just the economic impacts.

Mega-Events and Longitudinal Studies

Cashman (2002) stated that event impacts for the Olympic games may be measured at four different time periods: during the bid, during preparations for the games after having won the bid, during the event itself, and following the event. While the bidding and award process may vary for non-Olympic events, three time periods (before, during and after the event) may be used in resident studies. Hiller (1998) used these three event time frames when proposing his linkage model, though he applied only the idea of parallel linkages (discussed more fully later) in that article. In a few cases, the temporal aspect has been utilized in studies of mega-events in order to track changing resident perceptions. In the review that follows, the point in the event process at which the survey took place will be indicated. Resident perceptions of events have been shown to vary based on the time of the evaluation for pre-event studies (Mihalik & Simonetta, 1999), and perceptions may differ from outcomes when comparing pre- and post-event results (Souter & McLeod, 1993).

The Olympulse Series: Calgary, 1988

Perhaps the best known study concerning resident perceptions of a mega-event is the Olympulse series undertaken for the 1988 Winter Olympic Games (Ritchie & Aitken, 1984, 1985; Ritchie & Lyons, 1987, 1990). This study, published in a series of articles, sought to measure resident perceptions of the impacts of the games on the host community of Calgary,

Alberta, Canada over a period of years before and after the event. The specific objective of this series of research was to measure the impacts of the event in the following areas: economic impact, sports participation impact, cultural impact, physical and environmental impact, tourism and commercial impact, and infrastructure impact (Ritchie & Aitken, 1984). Another study, referred to as the International Olympulse, monitored the international image awareness of the city of Calgary from the announcement of the games being awarded to Calgary until 1989, the year after that particular Olympic Winter Games (Ritchie & Smith, 1991). The Calgary resident perception studies and the international awareness study were some of the few longitudinal studies in the area of mega-events. Though these studies served as a model for impact assessment of events, few attempts at measuring resident attitudes over such a broad time frame have been undertaken.

Prior to the Olympulse series, Ritchie had put out a call to use longitudinal research for evaluating the impacts of hallmark events on a host community (1984). He proposed a classification of hallmark events and a classification of event impacts that are frequently cited. The types of impacts consisted of economic, tourism/commercial, physical, sociocultural, psychological, and political impacts. For each of these six impacts, both positive and negative examples were provided. In addition, the issues related to data collection and the interpretations of the data were discussed for each impact. The non-tangible nature of the sociocultural domain resulted in a call for measuring this particular impact over time:

> The lack of accepted, ready-made measures leads to a further research problem, namely the non-existence of base-line data against which to measure progress or lack of progress. This implies that for the results of a study to be meaningful, the research will almost always have to involve a longitudinal design. (Ritchie, 1984, p.9)

This article has been used as a format for much research in the area of hallmark and event tourism. While most of these impacts have been included in event and tourism research, the domain of political impacts still receives little, if any, inclusion in current impact studies.

The Olympulse series began with a study of 557 Calgary residents in 1983, five years prior to the hosting of the games. Initial results indicated that most residents were aware that Calgary would be hosting the 1988 Winter Olympics, were supportive of the event, and hoped to attend some of the events during the 16 days of the games (Ritchie & Aitken, 1984). Only 9%

of residents were clearly opposed to Calgary hosting the event. This was somewhat surprising since the 1976 Montreal Summer Olympics, held seven years prior to this first survey, resulted in tremendous debt for the residents of Montreal and the Quebec province.

A key contribution of this first survey was the proposed benefits and liabilities of hosting the event, as perceived by the residents of Calgary. Perceived benefits consisted of the international and national recognition of Calgary, economic returns, new facilities for the city, increased tourism before, during and after the event, opportunities for local athletes to train in Olympic facilities after the event, increased pride and civic spirit, exposure to other cultures, good experience for the youth in Calgary, and finally, working together through volunteering in the games. Perceived liabilities consisted of the high cost of the event, traffic congestion and crime, problems related to poor facilities or locating them in the wrong place, environmental damage, price gouging, lack of post-games use of the facilities, and a bad image from the city if the games were not successful. Most of these benefits and liabilities have been addressed in subsequent resident research on tourism and events.

A year after the initial survey, Calgary residents were still supportive of the games, and of games organizers, and generally believed that the benefits from having hosted the winter games were more important to them than the costs (Ritchie & Aitken, 1985). This survey consisted of 365 respondents. Interestingly, the researchers also contacted 64 residents who participated in the initial survey and found that there were no statistically significant differences between participants in the 1983 survey and the 365 survey participants in 1984. This finding lends support to the use of cohorts to measure resident perceptions over time. While contacting the same respondents multiple times may be useful to track changes in resident perceptions over time, the risk of attrition in this method complicates the research design and necessitates including a high number of respondents initially to make up for the expected loss of contact. If cohorts could be used with no statistically significant difference then one important complication in the collection of data might be eliminated.

The third and fourth Olympulse studies (Ritchie and Lyons, 1987) found that resident support maintained a high level: 86.6% and 85.6% of residents supported the decision to host the games in the respective surveys. Residents' level of interest continued to be high with over 72% indicating a high or very high level. The residents' assessment of the performance of the federal government was low in the first two surveys (68.4 and 72.2% of respondents rated the

government's involvement as *fair* or *poor*), but the disapproval was reduced dramatically in the third (48.3%) and fourth (35.4%) surveys. While there was an increase in the number of residents who thought the government's performance was good or excellent, a larger increase was seen in those who were uncertain, perhaps indicating confusion as to the federal government's role in the process, or a lack of information. The percentage of those residents who thought the provincial government was doing an *excellent* or *good* job rose from 28.5% in the first survey to 53.4% in the fourth. The city of Calgary and the Organizing committee were rated consistently positive over the four surveys. Most residents continued to expect to attend some of the events during the games.

Resident perceptions of two specific social impacts were examined in the third and fourth Olympulse studies: relaxation of liquor laws and the opening of a casino (Ritchie & Lyons, 1987). Less than half of the residents in the third poll favored the relaxation of the laws (45.5%) and that number decreased in the fourth survey to 40.5%. An even smaller percentage of residents supported the development of the casino, and again, that percent decreased from 29% in the third poll to 26.1% in the fourth. The residents did overwhelmingly support the completion of a light rail train route for the games in the third and fourth studies (68.4 and 84.1% respectively), but were divided fairly evenly on their approval of the site for the downhill skiing event. These results indicated that even though residents highly supported the event and had a positive assessment of the organizations involved in making preparations for the event, their opinions on the specifics of the preparations varied from one project to another. The residents did not show across the board approval for all aspects of the event. They also did not seem to let one perceived negative impact dictate their entire approval of the mega-event at this point in the preparations for the games.

The post-event study on Calgary residents' reaction to the games (Ritchie & Lyons, 1990) was gathered in a phone interview (n = 400) one to three weeks following the conclusion of the games. The results of this cross-sectional study showed that overall Calgary residents were in near unanimous support (97.8%) of having hosted the games. This result was 9% higher than the next highest support level of 88.7% which happened approximately four months prior to the Olympics. While the level of public support for the games varied, at no point in the Olympulse studies did resident support for hosting the games go below 84%, and that result came in the very first poll in 1983 (Ritchie & Aitken, 1984). After overcoming some weather

related issues, and despite a less than hoped for medal count by the host country, the games were viewed as one of the better editions of the Winter games (Wamsley, 2004, p. 390). Problems with the weather, and two specific medals-related stories were selected by Calgarians as three of the top four disappointments of the games. Specific events, the various ceremonies, recognition for Calgary and the organization of the games were the top perceived success stories of the games by residents.

In terms of benefits from having hosted the games, the intangible benefits (recognition for Calgary [50%], enhanced image for the city [14.2%], citizen pride [8.8%], chance to meet other people [4.1%], and excitement/atmosphere [2.8%]) outweighed the more tangible outcomes of increased tourism (36.3%), perceived economic benefits (34%), and Olympic facilities (21.1%) in the mind of Calgarians. Because this poll came so quickly after the conclusion of the games, the items increased tourism and economic benefits would most likely be an anticipated or desired benefit rather than a known outcome. A majority (86.5%) of the residents agreed with the statement that the benefits outweighed the costs and difficulties associated with the event. Residents felt that the city should follow the games success by hosting more events and continued promotion of the city including hosting the winter games again (83.3%) and applying to host the summer games (66.3%). Strong resident support extended to the various organizations/entities involved in producing the games including the organizing committee, city of Calgary, provincial (Alberta) government and the federal government. This was an important outcome considering the financial failure of the Montreal Summer Olympics in 1976. While Calgary residents would not necessarily have been involved in paying for the debt that resulted from the Montreal games, there was a likelihood that they were aware of the problems caused by those games. Resident support was also manifested in a large percentage of the residents who actually attended some of the sporting (55%), cultural (21.8%) and awards ceremonies (63.8%). Financial support through the purchase of tickets was an important indicator of resident support for the games.

The Georgia Olympic Polls: Atlanta, 1996

A study of the residents of Atlanta prior to, during and after the 1996 Summer Olympic games was undertaken by the Georgia State Poll and based on the event impact items used in the Olympulse series (Ritchie & Aitken, 1984, 1985; Ritchie & Lyons, 1987, 1990). The Atlanta

study took place from the summer of 1992 to the winter of 1997 and consisted of 13 different poll dates and 10,356 completed telephone interviews; portions of this study have been previously reported (Frater & Mihalik, 2001; Mihalik, 1994, 2000; Mihalik, Cummings, & Simonetta, 1993; Mihalik & Madanoglu, 2007; Mihalik & Simonetta, 1999). Prior to the games, the residents were asked about their perceptions of six benefits and nine liabilities of hosting the summer games, as well as demographic information, their general level of support for the games and whether they intended to go to any of the events during the Olympics. The initial surveys indicated high levels of support and positive ratings for the benefits sought from the games, though residents were somewhat concerned about traffic congestion (Mihalik et al., 1993). Midway toward the games (from summer 1992 to winter 1995), the overall support for the games remained high, though that support had diminished, as did expected attendance as the games came closer (Mihalik & Simonetta, 1999). The authors surmised that the announcement of ticket prices and the ticketing procedure could have played a role in decreased expectations to attend Olympic events. Also at the midway point of preparations for the games, the mean scores for perceived benefits diminished (though they still remained positive) and perceived liabilities from hosting the event increased. Future Optimism Theory (Mowen & Mowen, 1991) was suggested as a way to explain the changing perceptions. The theory, which relates to perceived risks and opportunities, states that when an event occurs in the future, perceived opportunities will be weighted more heavily than perceived risks. This can result in greater risk taking by those involved in planning. But when an event is close to occurring, the perceived risks of the event will assume a more prominent role as the reality of dealing with the potential risks draws closer. Future optimism is useful in explaining changing perceptions of residents towards an event (Blosser & Mihalik, 2007; Mihalik & Simonetta, 1999). Waitt (2003) found the opposite of this trend when resident support continued to grow over time; however, Waitt's second survey was conducted during the event which may help to explain the differences in the findings.

Residents in the Atlanta survey also rated the intangible benefits higher than the economic and tourism benefits. The use of psychological factors in making decisions is a phenomenon which has been referred to as "psychic income" (Burgan & Mules, 1992). This finding also supports the idea that social exchanges may be based on non-economic factors.

A snapshot of Atlanta residents' perceptions of benefits prior to the games (Mihalik & Madanoglu, 2007) found that by and large there were no significant differences between

residents' perceptions of the benefits of hosting the games based on demographic variables, except in one instance. Statistically significant differences were found between male and female residents only on the basis of the international recognition benefit. Non-significant relationships between benefits and the demographic variables of income and level of education lends partial support to an earlier finding by Waitt (2003) who claimed that the civic boosterism arguments surrounding the Olympic games did not hold true for Sydney residents. In that study, residents had differing views of the games, but no statistically significant differences were found among residents' attitudes on the basis of their socio-economic status. The civic boosterism argument claimed that the least advantaged members of society would be the most likely to get caught up in the "circus" atmosphere of the games and be more likely to support the event (Waitt, 2001).

An examination of pre- and post-event perceptions of the benefits of hosting the Olympics by Atlanta residents was also carried out (Frater & Mihalik, 2001). Three benefits (economic benefit, citizen pride, and increased tourism), overall support for the games, and willingness to attend the event were examined to see if there were differences based on gender and proximity (metro residents v. non-metro residents). In regard to support for the games, statistically significant differences were observed based on both gender and proximity to the event. Metro residents showed more extreme responses by voicing support for the games before the event (75.7% in favor of hosting) and after the event (97% in favor of hosting), compared to non-metro residents who also showed strong support before the event (81.5%) and after (93.3%). For females, support for the games before the event (78% in favor of hosting) and after the games (96.5% in favor of hosting) was also more extreme than for males before (81.4%) and after (92.3%). Only females showed statistically significant differences in their willingness to attend the event before (24.3% said they planned to attend) and after the event (30.9% said they actually attended at least one Olympic event). Statistically significant differences were found in relation to the perceived economic benefits. Both male and female respondents as well as metro and non-metro respondents had higher expectations of economic benefits before the event than in the post-event survey.

Other Longitudinal Mega-Event Studies

The Linkage model proposed by Hiller (1998) attempted to view all event impacts as either forward, backward or parallel links. A forward linkage was described as generally

positive and assumed that the event itself caused the effect. These were planned impacts such as increased tourism (Morse, 2001), improvements to infrastructure and urban spaces (Chalkley & Essex, 1999; Essex & Chalkley, 1998), or the addition of recreation and sporting facilities (Shipway, 2007). Backward linkages explained the purposes for hosting the event and they may have been overt or covert. For example, the local growth regime of business and political leaders may want to pursue the event for their own personal political or financial gain (Andranovich & Burbank, 2004). International recognition for the host community may also be on the agenda (Jeong, 1988) as well as place marketing (Roulac, 1993), global positioning (Shoval, 2002), or image enhancement for the community, region or country (Cornelissen, 2004; Swart & Bob, 2004). Parallel linkages referred to unintended consequences of the event and may include impacts for which event organizers were not willing to accept responsibility. It was this issue that Hiller examined in more detail for the remainder of the article. He used the specific social impacts of displacement and rising housing costs (Olds, 1998; Shapcott, 1998) to demonstrate the parallel effects of an event. The article was theoretical in nature, and not an examination of a specific event and its impacts. Hiller proposed that backward linkages refer to the pre-event period, and that along with parallel linkages, they can be measured in the post-event period. During the event short-term impacts can be measured such as increased tourism, or crowding. These impacts may be positive or negative and are often utilized in resident impact studies.

Another example of a longitudinal study of resident attitudes toward a mega-event involved the America's Cup yacht race in Australia (Soutar & McLeod, 1993). This study tracked changes in residents' perceptions of the event over three time periods, two occurring before the event and one following the event. Discriminant analysis was used to map residents' opinions toward the event as measured by 14 impact statements. Results indicated that while residents anticipated positive impacts (increase in economic activity) and negative impacts (increased crowding and traffic congestion), as a direct result of the event, none of the impacts reached the anticipated levels. Overall, residents were pleased with the event and were supportive of hosting the America's Cup in the future. The authors speculated that this result is likely related to how public funds were spent for the event. Infrastructure-related spending for this event was focused more on general community facilities than on event-specific facilities; this may have resulted in more positive opinions by residents.

Pre- and post-event studies on the 1995 Nordic World Ski Championships were carried out to measure resident perceptions of the impact of the event three months prior, three days after, and eight months after the event (Twynam & Johnston, 2004). Support for the event was linked to attendance and level of interest. Interestingly, although support for hosting the event remained at over 70%, support decreased in the two post-event polls. At the same time, higher levels of interest in the event increased over time. Unfortunately, the authors offered no potential explanations for this seemingly contradictory result. As in Souter and McLeod (1993), perceived positive impacts and perceived negative impacts were over-rated in the pre-event survey when compared to the post-event assessments. Even the post-event studies showed changes over time, indicating that immediate reactions and later reflections on the event had the potential to elicit different responses.

The FIFA World Cup was the focus of a pre- and post-event study of resident perceptions (H. J. Kim, Gursoy, & Lee, 2006). Residents were polled one month prior to the tournament and three months after. The use of factor analysis reduced the 26 economic and sociocultural items to seven dimensions: Benefits of Cultural Exchange, Social Problems, Economic Benefits, Natural Resource and Cultural Development, Traffic Congestion and Pollution, Price Increase, and Construction Cost. These seven factors together explained 68.19% of the variance. Using MANOVA and then ANOVAs, all of the factors were found to have significant differences between the pre- and post-event surveys. As found in previous studies (Souter & McLeod, 1993; Twynam & Johnston, 2004) the anticipated benefits were greater than the actual (perceived) benefits measured in the post-event survey, with economic benefits showing the greatest discrepancy between pre- and post-event means. Anticipated negative impacts were also overstated and were not as problematic as residents feared before the tournament. The authors used prospect theory (Kahneman & Tversky, 1979) to explain the difference between the high pre-event benefit of facilities and the much lower post-event assessment of facilities. In prospect theory, the value of a choice was based on gains and losses when compared to prior expectations rather than on the actual outcomes of the decision. Outcomes which failed to measure up to prior expectations were treated as a loss even though the net result may have been positive. Following the logic of exchange theory, “residents treated the outcomes as losses because [the outcomes] were not good enough to justify the expense.” (p. 93).

Waitt (2001, 2003) looked at resident perceptions of a mega-event over a longer time span (two years prior to the 2000 Sydney Summer Olympics and once again during the games) to see if there were any differences in respondents' attitude toward the event based on their demographic profiles. A seven-item enthusiasm scale was created and combined with questions on economic and environmental impact statements. In the 1998 study (Waitt, 2001) 658 residents were polled (out of 2000 attempts); 456 respondents agreed to participate in the second survey during the games. Contact with only 178 residents was established for the 2000 survey. Tracking the same residents over time has been rare in the resident perceptions literature. Another unique feature of Waitt's Sydney studies was the use of open ended questions which were analyzed using content analysis to add further understanding of resident attitudes.

The 1998 study reported by Waitt (2001) showed strong support for the event overall, but resident support was not unanimous. Differences in resident attitudes were observed on the basis of age, marital status, country of origin and family status. Socio-economic status variables from the 2000 study (Waitt, 2003) did not differentiate among respondents' attitudes toward the event. Over time, Sydney residents' enthusiasm levels for the event grew stronger, while there were concerns over environmental issues, and declines in perceptions of increased taxes and increased living costs. This finding was in contradiction to those reported by Mihalik and Ritchie for the Atlanta and Calgary surveys respectively indicating a need to continue to look at resident support for mega-events in a longitudinal basis. As a further justification for examining perceptions over time, Waitt's initial study in 1998 indicated that there may be support for the civic boosterism argument, but the 2000 study ended up showing the opposite effect. This change in resident opinion could be related to the fact that the games were ongoing at the time of the second study. Nevertheless, it shows that perceptions change over time and attempts to follow those changes should be made. Other interesting findings from the 2000 survey show that the closer a resident was to the main cluster of Olympic venues (Homebush Bay), the higher their level of enthusiasm was toward the event. This finding contradicts previous tourism studies that have examined residents' support for tourism and their proximity to the tourism zone and found that proximity to the tourism zone resulted in negative perceptions (Jurowski & Gursoy, 2004; Korca, 1998). One potential reason for Sydney residents to differ from previous studies regarding proximity to the tourism center lies with the previous use of Homebush Bay. Prior to the Olympics, the

Homebush site was a dump for industrial and toxic waste (R. Cashman, 2004); residents may have been ecstatic to see the site developed for another use.

While fewer residents perceived broad economic gains from the first survey to the second, most respondents agreed that the psychological gains (community and national spirit, international promotion, and future business investment) outweighed the costs; enthusiasm levels were associated with a willingness to make personal sacrifices. This finding was in line with the theory of altruistic surplus proposed by Faulkner and Tideswell (1997). Altruistic surplus theory explained the exchange relationship when the cost-benefit ratio was not equitable. Personal costs were tolerated by the individual in the interest of achieving broader community benefits that may not directly affect the individual. Sydney residents appeared to have been willing to accept economic and social costs for the psychological benefit of being the host city of the Olympics.

Residents and Mega-Event Impacts

Although the temporal aspect was mentioned as a specific point of interest in the study of two Korean expos (Lim & Lee, 2006), no specific references to the time-frame of the study were actually made in the article. The authors proposed to measure the long-term impact of the expos on the two host communities, however the only temporal reference to the point of data collection was "after a lapse of some time" (p. 419). The authors did utilize a factor analysis to identify seven groups of impact statements which they labeled as follows: Positive Culture, Negative Culture, Positive Economic, Positive Social, Positive Image, Negative Economic, and Positive Environmental impacts. From these factors, three groups of residents were identified and described as Negative, Neutral, and Positive clusters. The clusters were examined to determine how willingness to collaborate varied by groups of residents. As would be expected, the Positive group showed the greatest willingness to collaborate on three of the four questions, while the Negative group had the lowest scores across all four of the collaboration questions.

Using the FIFA World Cup as a backdrop, Ohmann, Jones and Wilkes (2006) examined the social impact of the event. Both quantitative and qualitative data were collected in face to face interviews with 130 residents of Munich at the conclusion of the soccer tournament. Munich was one of a number of host cities for the 2006 World Cup, and the city was the host site for the final match. The authors found no significant differences in the responses of residents

based on the demographic data. Residents viewed the event as having positively influenced their sense of community. However, residents' views on specific improvements to the community were not all positive. While many residents agreed or agreed strongly with the statements that the event improved the city infrastructure (57.7%) and increased the number of cultural events (54.6%), a number of residents disagreed or disagreed strongly with the event's impact on the increase of shopping (67%) and leisure (47%) facilities. In other words, improvements to the community were not viewed to have occurred for all areas and residents made a distinction between the levels of improvements for each of these dimensions. These results cast some doubt on the improvements to the quality of life of residents from urban regeneration attributed to the event. Residents disagreed with the negative impact statements that the World Cup increased crime in the area (88%), that hooliganism was a negative issue (80%) during the contest and that displacement due to rent increases and housing costs occurred because of the event. Fears of terrorism and crowding were given as the main reasons that 41% of residents surveyed stayed away from public spaces. Some specific negative impacts as a result of this mega-event were perceived by residents, yet despite this the residents were positive of the event in general.

While Waitt (2003) acknowledged that the host community was not a homogenous unit and needed to be examined more closely, Fredline and Faulkner (2000) were some of the first to analyze the host community of a large-scale event on a more heterogeneous level. In their analysis of a motorsports event in Australia, they segmented the host community residents on the basis of perceptions of the event and its impacts. By using cluster analysis, residents could theoretically "choose" which cluster they belonged to based on their responses to the impact statements. Fredline and Faulkner argue that cluster analysis "has utility as a tool for investigating the underlying structure of community reactions to tourism and events" (p. 779). Five resident clusters were identified and named Ambivalent Supporters, Haters, Realists, Lovers, and Concerned for a Reason. While the Lovers and Haters represented the extremes by either strongly agreeing with positive impact statements or with the negative impact statements, the other three groups showed a more varied approach to the event. The Ambivalent Supporters tended to live outside of the area of the event, preferred the current location of the event and were generally supportive of the event; however they stayed close to the middle of the response choices for most of the impact statements. The Realists showed varied reactions by recognizing both the positive and negative impacts of the event. They tended to be low income and had ties

to the tourism industry through their occupation. The final group, Concerned for a Reason, had positive responses toward the economic and international image benefits, but also felt there were short term negative benefits to having the event. The majority of this cluster supported moving the event to a different location. Comparisons were made of the resident clusters found in this study to those found in Madrigal (1995) and Davis, et al. (1988). In all three studies, similar groupings were found. A group who was positive (supported the event or tourism in general) was identified, a group with negative perceptions was identified, and one or more groups who fell in the middle (who had varying degrees of support, either positive or negative, towards tourism or the event) were found.

Rather than drawing from social exchange theory as many resident studies had done, Fredline and Faulkner (2000) used the idea of social representations (Pearce et al., 1996) to examine resident perceptions in this study. Representations were used to help people better understand their surroundings. While personal experience made up part of a person's understanding, there were times when that person must make decisions, or relate to their surroundings without having direct personal experience. Under those circumstances, representations may come from a referent group, or from an external source such as the media. In the context of resident perceptions of an event, if the resident did not have prior experience with the event (as might happen in the case of a mega-event that was held in different locations) that resident may adopt the view held by their peers or base their perceptions on information learned from the local media. Pearce et al. (1996) argued that social representations better explained the response of a host community to tourism than an evaluation based on exchange, because humans do not always logically process and assess information to make decisions, and they get much of their information from those with whom they associate. In addition, Pearce et al. argued that the exchange framework was too simple to explain the complexities of resident perceptions.

In an extension of this study, and to further explore the utilization of social representation theory to explain resident reactions to a sports event, a similar study was undertaken in which comparisons were made between two motorsports events held in different locations (Fredline & Faulkner, 2001a, 2001b). The first article (Fredline & Faulkner, 2001a) described the research method and clustering procedure used to segment the residents based on their reactions to the impacts of the events. The use of the term reactions was appropriate since this survey took place

two weeks after each of the events and residents had already experienced the impacts. The objectives of the study were to find subgroups in the host community that had different perspectives of the event from other groups by using a clustering technique, and to profile the clusters and discover differences in the group opinions on response strategies and future preferences for the event. Both events were frequently occurring, large-scale events with similar event profiles: open wheel races through city streets rather than on a track. Sampling was disproportionate to ensure enough residents were selected who lived less than 1 kilometer from the race course. These residents were assumed to be more likely to be affected by the event. Respondents answered 38 impact statements which had three parts to each: the first indicated the direction of the change and the second and third parts measured the impact on the residents' quality of life and the impact on the whole community. This approach was different than the standard scales used in most other resident studies. Residents from both communities were combined due to the similarities of responses. Overall, there was positive support for both events. Five clusters were generated and labeled Most Positive, Moderately Positive, Ambivalent, Moderately Negative, and Most Negative. These clusters were similar to those found in previous resident studies from the general tourism literature.

In the second article from this study (Fredline & Faulkner, 2001b) the five clusters were collapsed to three in order to facilitate further analysis. This resulted in Positive, Negative and Ambivalent groupings of residents. These three clusters were then used as dependent variables in several logistic regression analysis using 11 different independent variables: distance, contact [with the event area], involvement [in tourism], use of park, materialism – sociopolitical values, attachment [to the community], age, education, identification with the [event] theme, perception of participation [in the planning process], and perception of justice. Three logistic regression analyses were carried out to compare the Negative and Ambivalent clusters, the Positive and Ambivalent clusters and the Negative and Positive clusters for differences. Positive clusters were identified with high levels of event contact, lower age, higher attachment levels, a high perception of justice and they identified highly with the theme of the event. Negative cluster members generally were older and had low levels of materialism, attachment to the community, perception of justice and they did not identify with the event theme. High levels of contact and perception of participation were characteristic of both the Ambivalent cluster and the Negative

cluster. However, the Ambivalent cluster had low levels of contact, and perception of participation and they were more moderate in their identification with the event theme.

Identification with the theme of the event seemed to best predict cluster membership based on the level of response; those who liked motorsports were likely to be in the Positive cluster. Contact with the area of the event was more complex since high levels of contact resulted in prediction of both Positive and Negative clusters. The impacts of noise and traffic were significant, which was not surprising since respondents in close proximity to the venue were purposefully selected, and the Indy car races were not a quiet event.

The authors stated that by identifying similar subgroups, support for social representations theory was found. However, support for ideas in exchange theory was also mentioned. The authors stated that "residents who identify with the theme are more likely to disregard or tolerate the negative impacts, because, in the manner suggested by social exchange theory, offsetting benefits are derived through being entertained" (Fredline & Faulkner, 2001b, p. 123). If this was true for a narrowly defined, single sport event such as Indy car racing, then the question of whether it would be true for events with a more widespread appeal can be asked. Events which have a large offering of activities, such as a cultural festival or the Olympic Games, may result in a greater number of residents who positively identify with the overall theme of the event, or one of the activities. These residents may also be more likely to accept the costs of the event for psychological reasons.

Another post-event study involving the impacts of an auto race event in Australia used intrinsic variables to segment the sample and assess resident opinions of the event based on those group differences (Cegielski & Mules, 2002). Differently from other impact studies, the negative impacts consisted only of physical disruptions (auditory, visual and physical barriers); the positive impacts were all psychological or intangible impacts such as city image/status, city promotion, civic pride, and quality of life. This was a departure from other tourism or event impact studies. Residents who attended the race were more positive in their support for the event; however, it was the residents who lived the furthest away who viewed the greatest tourism benefit for Canberra (88.6%). Those who lived closest to the race circuit were the least positive in their belief that the event had tourism benefits for the city at 76.9%. It should be noted that this was still a large majority of residents who believed the event was good for promoting the tourism potential of the city, and it would also seem to indicate support for tourism in general.

The variable of proximity also affected residents' view on whether the event created pride in the city with those residents living furthest (63.6%) perceiving greater city pride than those living in close proximity (44.3%). City pride also was measured positively by those who attended the event (77.5%) and those who liked motorsports (64.6%). Not surprisingly, those who lived furthest from the route of the race course were supportive of the race location, with 98% agreeing the race should be held in the same location the next year (compared to 71% of those who lived closest to the event). In general, the negative effects of the event were perceived greatest by those who lived in close proximity to the event and the benefits were perceived greatest by those who attended the event, lived furthest from the race zone, and those who liked the theme of the event (motorsports).

The Winter Olympic Games were once again the focal point of research in 2002 with several community studies occurring. In a different twist on event impacts and proximity, Deccio and Baloglu (2002) examined residents of counties 250 miles away from the Salt Lake City Olympic Games. This study, two years prior to the event, attempted to see if the nonresidents would expect any spillover effect(s) from the mega-event. Using path analysis, the authors proposed that economic gain, resource use, community attachment, and ecocentric attitude would directly impact support for the Olympic Games. Those variables would indirectly affect support through perceived opportunities and perceived concerns which represented the spillover effects of the event. The authors found that residents of the examined communities were neither negative nor positive in their support of the games. While perceived opportunities were found to have a significant positive impact, no relationship was found between support and perceived concerns. Residents did not believe they would see a direct benefit to their community from the event; however, they would be in favor of promoting the region during the games which could create potential future tourism opportunities. Similar to other resident studies, those who had an economic connection to tourism were supportive of the event, as were those who were interested in outdoor activities, a major theme of the event. Resource use and economic gain had a positive direct effect on support but no indirect support, and only economic gain had an indirect impact through perceived opportunities. The authors conclude that the results were consistent with social exchange theory: support for the event was related to the social, economic, or other perceived benefits to the community. However, the fact was that residents did not perceive much impact from the event. This study did not attempt to measure changing

perceptions over time. As noted earlier, change over time was an important factor in understanding resident opinions. This study was beneficial, however, because it recognized the range of impact (even if negligible) that a mega-event can have on a community that was some distance from the event center.

A study of the residents of Salt Lake City during the 2002 Olympic games was undertaken by Gursoy and Kendall (2006). Using structural equation modeling, Gursoy and Kendall proposed that perceived benefits would have a positive relationship with support for mega-events, and that perceived costs would have a negative relationship with support for mega-events, and that there would be a negative relationship between perceived costs and benefits. In addition, they proposed that community attachment, community concern, and ecocentric attitude would be related to both perceived costs and benefits, though no direction was specified for the relationship. Social exchange theory was also used as the theoretical basis for determining resident support in this study. The relationship between perceived costs and support was not supported, and the authors surmised that the level of tourism development in the community may have been a factor. The relationship between community attachment and perceived costs was also not significant. The authors concluded that the short nature of the event may explain this issue. However, given the extreme costs of mega-events,[3] and the amount of focus that the issue of cost receives, it does not seem likely that "residents may not be so concerned with its costs and may overlook those associated with the event" (p. 615). Another explanation for these two non-significant paths was that the relationship between perceived costs and perceived benefits, which was found to be significant, may have had an influence. Though no direction was specified, a negative relationship was found between perceived benefits and perceived costs. Perceived benefits were also positively related to support for mega-events, providing further support for exchange theory. Relationships also were found between benefits and costs and both community attachment and ecocentric attitudes. To what extent soliciting residents opinions during the event had on their perceptions of benefits and costs was not discussed. For example this was the first major international event since the terrorist attacks of September 11, 2001 took place, five months previously. Perceptions about security three months before the games may have been very different than perceptions of security six months prior to, or during the event as

[3] Salt Lake City had a games-related budget of USD $1.3 Billion (Hemphill, 2004). The total cost to host the 2004 Athens games was approximately 9 Billion euro, or USD $11.1 Billion (Embassy of Greece, 2004) and the Beijing games are speculated to cost over USD $40 Billion (Reuters, 2008).

residents would have had the opportunity to directly experience and reflect on this impact. The authors acknowledged that it would be useful to include a temporal aspect in future studies since perceived impacts have been shown to vary over time in other resident perception studies.

Preuss and Solberg (2006) have taken a different approach to monitoring residents' opinions of a mega-event. Rather than focusing on one event as most of the previous studies have done, the authors analyzed secondary data from opinion polls taken around the world from the 1988 Winter Olympics to 2006. Though not a longitudinal study, the different periods of the event (pre-bid period, bid period, preparation period, and post-event period) were compared, but no statistically significant differences were found. In all phases, public opinion was high (average mean for all periods was 75.7%; SD 15.36%) with the lowest mean occurring during the pre-bid period (69.7%; SD 15.75%). The data from the opinion polls were incorporated in a regression analysis along with the following variables: Gross Domestic Product Per Capita, Public Sector Debt, Growth in GDP, Gini-coefficient (a measure of inequality of income in a country), Unemployment Rate, Political System (democratic and non-democratic or formerly non-democratic countries), and Previous Experience with Major Sports Events. The authors found a negative effect of Gross Domestic Product Per Capita on the desire to host mega-events casting doubt on assumptions that sporting mega-events were a luxury good. A positive relationship was found between high per-capita Public Debt and skepticism for the event, while Growth was positively related to a desire to host the event. Unemployment, Previous Experience and Political System were not found to have significant relationships with the public polls.

Summary

This chapter has presented a review of the literature on residents and tourism including residents' perceptions of tourism's impacts (including event tourism), resident segmentation studies, the social impact of mega-events on host communities, and the few examples of longitudinal event research. In addition, an explanation of social exchange theory was presented. The following chapter presents the methods used in answering the research questions and proposed hypotheses.

CHAPTER III
RESEARCH METHODOLOGY

Introduction

This chapter presents the methods used to examine the research questions and hypotheses described in the previous chapters. The use of existing research data will allow the perceptions of residents to be examined over a period of time leading up to the planned mega-event. For this study, existing data from the1996 Olympic Games in Atlanta is utilized.

The chapter begins with an explanation of the sample to be used and the instrument developed to measure the residents' responses to having the Olympic Games in their community. Following that is an explanation of the statistical techniques required to test each of the stated hypotheses.

Sample

Existing data on Georgia residents' perceptions of the 1996 Olympic Games is utilized in this study due to the availability and the longitudinal nature of the data. Longitudinal data on resident perceptions of the impacts of a mega-event were necessary to answer the research questions. The data were collected over a period of time from the summer of 1992 until the winter of 1997 by the Applied Research Center at Georgia State University. In total, thirteen polling points occurred over the five year time-frame. The Olympic survey made up a portion of the Georgia State Poll, which was a regular examination of Georgia residents' opinions on various issues of local/regional importance.

The 1996 Atlanta Olympic Games were the last summer Olympic Games held in North America. In fact, no sports event in North America since the Atlanta games (including the 2002 Salt Lake City winter Olympics) has even come close to the scope and impact of the 1996 Olympics. While a number of cities have pursued or are pursuing the idea of hosting the Olympic games, only two cities in the United States since Atlanta have even made it to the point

of being considered as a host city candidate for the summer games: New York City, which lost its bid for the 2012 games, and Chicago, which is currently in the final group vying to host the 2016 games. And only three cities throughout the world (Sydney, Athens, and Beijing) have hosted the summer Olympic Games since Atlanta. The opportunity to examine the impacts on a host community of an event the size and nature of the summer Olympic Games are not commonly available. While the games themselves occur only briefly every four years, the impacts of the event on the host community are extensive and long-term. The existing data on the Atlanta residents are therefore an ideal and opportune source for examining the changing reactions of a host community to a mega-event over time.

The procedures for the collection of the sample have been previously reported (Frater & Mihalik, 2001; Mihalik, 2000; Mihalik & Simonetta, 1999) and are described here based on the descriptions in the literature and on personal conversations with the principle researcher in the original study. The sample consists of residents of the state of Georgia. Registered (listed) household phone numbers from across the state of Georgia, randomly selected, and supplied by Survey Sampling, Inc., constituted the base for the sample during each polling period. After duplicate numbers were eliminated, the list was stratified in proportion to the number of households in each county in Georgia. The purpose for stratifying a sample is to produce "a sample that is more likely to look like the total population than a simple random sample" (Fowler, 2002, p. 16). This is possible when some information is known about the respondents in the sample population. In this case, it was possible to know the county within which the respondent resides based on the telephone number. To identify the county with which each telephone number was associated, the working exchanges (the first three numbers) and working blocks (the next two numbers) were identified (Mihalik & Simonetta, 1999). "Almost all samples of populations of geographic areas are stratified by some regional variable so that they will be distributed in the same way as the population as a whole" (Fowler, 2002, p. 16). The elimination of yellow page numbers from the list restricted the final sample of eligible phone numbers to residences, and these numbers were entered into a computer-assisted telephone interviewing system (Frater & Mihalik, 2001). The final pool for each poll consisted of approximately 2400 eligible telephone numbers.

Telephone numbers in the sample were called between 8 and 16 times to increase the likelihood of making a contact. Once contact was made, the trained interviewer asked for the

person older than 18 who had the most recent birthday, adding to the randomness and objectivity of the selection process (Fowler, 2002). The number of people over 18 living in the household, and the number of phone lines to the household also were asked by interviewers to determine the likelihood of each home being called. Finally, the data was weighted to reflect the population of Georgia as determined by the 1990 census (Mihalik & Simonetta, 1999).

The procedure listed above was followed for each of the 13 polls in the Georgia Olympic Polls. In each poll, a representative sample of the residents of Georgia was collected; however, the same individuals were not contacted repeatedly as in a panel study. In a trend study such as this, each of the samples consisted of different respondents from the general population (Ary, Jacobs, & Razavieh, 2002). The benefit of a trend study is the ability to have a representative sample without tracking the same individual over time. While monitoring the responses of the same individual would be beneficial, there is often a loss in the number of responses over time. This mortality rate can be significant and can deter from the results (Ritchie, 2005). By using different individuals at each polling point, you lose the ability to see how particular individuals change over time; however, you can see how individuals with similar characteristics change over time. For this study, where the purpose is to identify sub-groups within the general population, a trend study is appropriate, so long as the sample gathered in each time frame is representative of the general population.

The Survey Instrument

The thirteen Georgia Olympic Polls were conducted from the summer of 1992 until the winter of 1997. The polls include 11 pre-event and two post-event surveys. Because of the array of topics covered in each of the Georgia polls, there was a requirement to restrict the overall length of the survey (Mihalik, personal communication, July 11, 2008). While telephone surveys have been shown to offer better response rates than many other methods of surveying, the length of telephone surveys is important to monitor. Response rates may decrease dramatically as the length of the telephone interview increases (Zikmund, 2003, p. 211). Therefore, for each of the Georgia polls a limited number of questions were dedicated to the topic of the Olympics in order to minimize the overall length of the telephone interview (Mihalik & Simonetta, 1999; Mihalik,

2000). In all polls, demographic data for the respondents were collected (see Table 3.1). In addition, each telephone number was labeled as either a "Metro" or "Non-metro" resident according to the distribution of the working exchanges as described previously.

TABLE 3.1
Demographic Information

Questions	Answer Categories
With which racial/ethnic group do you most strongly identify?	White Black Asian/Oriental Hispanic Native American/Eskimo/Aleut/etc. Refused
In what year were you born?	(19__)
Interviewer: Enter the sex of the respondent. Ask only if you are not absolutely sure.	Male Female Refused
In which of the following groups did your total family income fall last year before taxes?	Less than $15,000 $15,000 - $24,999 $25,000 - $34,999 $35,000 - $49,999 $50,000 - $74,999 $75,000 or more Refused
What is the highest level of education that you have completed?	Less than a high school graduate High school graduate Some college, Associate's degree College graduate, Bachelor's degree Some graduate school Professional or Graduate degree Refused
Do you usually think of yourself as a Democrat, Republican, or in Independent?	Democrat Republican Independent Don't think of myself in those terms No answer
Metro resident/Non-metro resident	Assigned based on the telephone working exchange

In each pre-event poll (polls 1-11), respondents were asked the following two questions related to their support for the event and their desire to attend the event: “All things considered, do you think it is a good idea for Georgia to host the 1996 Summer Olympic Games?” and “If you are still living in Georgia in 1996, do you expect to attend one or more of the Olympic events as a spectator?” Response choices for these two questions were “yes”, “no”, “don’t know” and “no answer”. Wording of the support and attendance questions was altered for the post-event polls.

The liabilities and benefits of the games with which Atlanta residents were presented were adapted from similar impact questions used by Ritchie in the Olympulse series for the 1988 Winter Olympics (Mihalik & Simonetta, 1999). They represent the six dimensions of impacts (Economic; Tourism/Commercial; Physical; Sociocultural; Psychological; Political) as presented by Ritchie (1984). Wording of the questions was altered slightly to make them applicable to Georgia residents, to the summer Olympic Games, and for the format of the Georgia Poll (Table 3.2).

TABLE 3.2

Perceived Event Impacts of the 1996 Atlanta Olympic Games

Benefits	Liabilities
International recognition	Civil unrest designed to attract national and international attention
Increased future tourism	Strain on law enforcement
Economic benefits	Price gouging by hotels, restaurants, vendors, etc.
Olympic facilities development	Bad attitude and lack of courtesy by residents towards visitors and tourists
Enhancing Georgia's reputation or image	Bad attitude and lack of courtesy by visitors and tourists towards residents
Increasing citizen pride in Georgia	Street crime
	Traffic congestion
	Unfair distribution of state resources to Atlanta and Savannah
	Terrorism

Respondents were asked to provide their perception of each of the event impacts based on a 10 point scale. For the benefit questions, the scale ranged from 1 (very small benefit) to 10 (very large benefit); for the liability questions, the responses ranged from 1 (very small problem) to 10 (very large problem). The 10 point scale utilized in this study was the standard format used by Georgia Poll administrators for all questions in which a scaled response was required, such as attitudinal questions. Therefore, it was necessary to conform to the guidelines for question format used by the Georgia Poll administrators in order to maintain continuity throughout the phone survey (Mihalik, personal communication, July 11, 2008).

Because of the concern for the length of the survey and budget constraints, questions regarding the benefits and liabilities of the games were separated in the earliest polls. Six questions related to benefits of the games were asked in the four summer polls from 1992 to 1995. Nine questions related to the liabilities were asked in the three winter polls from 1993 to 1995. Beginning in the fall of 1995, however, questions related to both benefits and liabilities were asked by poll administrators in all five remaining polls until the post-event poll in the fall of 1996 (Table 3.3).

TABLE 3.3

Schedule of Olympic Impact Questions

Poll	Poll Date	Questions Asked*
1	Summer 1992	Benefits
2	Winter 1993	Liabilities
3	Summer 1993	Benefits
4	Winter 1994	Liabilities
5	Summer 1994	Benefits
6	Winter 1995	Liabilities
7	Summer 1995	Benefits
8	Fall 1995	Benefits & Liabilities
9	Winter 1996	Benefits & Liabilities
10	Spring 1996	Benefits & Liabilities
11	Summer 1996	Benefits & Liabilities
12	Fall 1996 (post-event)	Benefits & Liabilities
13	Winter 1997 (post-event)	Rating of Organizers

* In all polls questions related to demographics, attendance and support were asked. Poll 12 contained additional respondent recall questions, not included as a part of this study.

With the Olympic Games fast approaching, the poll administrators made the decision to take more frequent measurements of resident perceptions and to allow more questions related to the event's impacts. Beyond the benefit and liability statements, the fall 1996 post-event poll contained a number of additional questions aimed at measuring the respondent's recall of sponsorship, stories from the games, television viewership, evaluation of the organizing committee and other relevant information. Some of the results from the post-event polls have been previously reported (Frater & Mihalik, 2001; Mihalik, 2000) or are being examined in a separate study.

Statistical Methods

The following section discusses the statistical methods and tests that will be necessary for testing the hypotheses associated with their respective research questions. The required techniques will include factor analysis, cluster analysis, Analysis of Variance (ANOVA), Multivariate Analysis of Variance (MANOVA), and chi-square analysis. Results from these procedures will be discussed in Chapter IV: "Results".

The Research Questions

Research Question 1

"Do residents' perceptions of the impacts of a mega event change over time based upon their support for the event?"

Proposition 1: "Perceptions of a mega-event's impacts are affected over time by residents' support."

Hypothesis 1: "The perceived benefits and perceived liabilities of a mega-event will vary over time as a function of residents' support for the mega-event."

To answer research question one, the event impact questions (the six benefit and nine liability statements) will first be subjected to a principal components factor analysis. This step is necessary to reduce the total number of variables and simplify further analysis. The 15 individual event impact statements will be reduced to several concepts which represent the underlying structure of those variables. Factor scores representing those underlying dimensions will be saved for use in the subsequent analysis.

Multivariate Analysis of Variance (MANOVA) techniques will be applied to evaluate the differences between the factor scores from the event impact statements by the two support questions ('good idea to host the Olympics', and 'expect to attend the Olympics') over the four time periods. The MANOVA technique measures the differences among groups on a number of metric dependent variables (Hair, Black, Babin, Anderson, & Tatham, 2006). Unlike an ANOVA which is restricted to a single dependent variable, MANOVA allows multiple metric dependent variables and multiple categorical independent variables to be evaluated simultaneously.

For this analysis the factor scores will serve as the continuous dependent variables, with the yes/no answers to the two support questions and the four time periods serving as the categorical independent variables. MANOVA will measure the effects of time and support across the dependent variables; but it also has the advantage of testing for an interaction between the time and support variables with respect to the event impact.

Research Question 2

"Do residents' perceptions of the impacts of a mega-event change over time based on certain characteristics of the residents?"

Proposition 2: Perceptions of a mega-event's impacts are affected over time by the characteristics of the residents.

Hypothesis 2: The perceived benefits and perceived liabilities of a mega-event will vary over time as a function of select resident characteristics.

Previous research has demonstrated that residents do not share universal opinions on the impacts of tourism or events. As the review of literature shows, residents can be segmented

according to their perceptions of the impacts of the events. The resulting groups have similar opinions within the groups, but different opinions between the groups. These groups can be further described on the basis of demographic variables. Cluster analysis is the appropriate statistical technique to examine differences between groups of residents based on their perceptions of the impacts of the mega-event.

Cluster analysis is a multivariate technique; it allows for the simultaneous evaluation of many variables at the same time. Multivariate techniques can be further divided into dependence techniques or interdependence techniques. Cluster analysis is classified as an interdependence technique, in that that the goal is to identify an underlying structure to the data that may not be outwardly obvious (Zikmund, 2003). Unlike factor analysis, which attempts to identify the underlying structure between variables, cluster analysis seeks to identify the inter-relationships among observations, in this case the residents which make up the sample population. The goal of cluster analysis is to segment the observations into groups, or clusters, which have a high degree of homogeneity within the cluster, and a high degree of heterogeneity between the clusters (Hair et al., 2006). The resulting groups must then be examined to find the differences between them.

There are some concerns with the cluster analysis technique. Most importantly, the technique is sometimes criticized for being atheoretical and too dependent on the assumptions of the researcher (Hair et al., 2006). Because cluster analysis will always identify clusters regardless of the variables that are entered, there is a need for the researcher to have a valid conceptual basis for using the technique. Determining the number of clusters that best reflect the underlying structure is subject to some interpretation by the researcher. Unless specified in advance by the researcher, there will be a number of potential cluster solutions from which to choose. The clusters must be selected carefully and evaluated to be sure that they are meaningful. The evaluation of clusters is typically done by comparing them on the basis of additional variables on which the clusters are thought to be different. Demographic and/or psychographic information is often used to describe the differences between clusters of individual respondents. Often, several cluster solutions must be considered and evaluated before the final number of clusters is determined. The subjective nature of the selection of clusters requires that the researcher use care and have a theoretical basis for making these decisions.

For this study, it is necessary to utilize data that includes both benefits and liabilities. The cluster technique used to segment residents on their perceptions requires that respondents answer the same set of questions. For this study, data from the fall 1995 to summer 1996 polls (polls 8-11 as shown in Table 3.3) is utilized. Although it would be possible to use the cluster technique over a greater period of time to include more of the available data, this decision would necessitate grouping residents on the basis of their perceptions of either the benefits or the liabilities of the Olympics, but not on both dimensions of impacts. Social exchange theory holds that positive and negative impacts are simultaneously evaluated by the respondent. Therefore both extremes of impacts will be utilized to better understand the full perception of residents toward the Olympic Games' impacts.

The data from poll 12 also contains perceptions from residents on both benefits and liabilities and therefore could be included in the cluster analysis in order to extend the time frame evaluated for this study. However, there is one distinct difference from the data collected in polls 8-11 as is shown in Table 3.3. The data for poll 12 were collected *after* the event, and residents' perceptions could be influenced by the fact that the event was concluded. For this reason, the data from poll 12 is excluded from this analysis; only the pre-event polls will be analyzed in the current study. A future study may evaluate the resident perceptions of poll 12 utilizing cluster analysis in order to draw comparisons to the results found in this dissertation.

It is assumed that groups of residents will form on the basis of positive and negative impacts from the mega-event. It may be possible that residents will evaluate the impacts of the event based on other criteria, however. For example, since the data is longitudinal and different impacts may have greater effects on the community as the city goes through the stages of preparation for the mega-event, residents may evaluate the impact statements on the basis of current and future impacts. A different criterion for evaluating the impacts could be on the basis of tangible versus intangible impacts, or impacts viewed by category. Residents could view the impacts as being economic, physical, psychological, social, environmental, etc. Previous studies have shown that when impacts have been evaluated by residents, the primary means of segmenting those impacts has been perceived positive impacts and perceived negative impacts. Thus it is assumed that the benefits and liabilities of the event will form the basis of segmentation, as is consistent with social exchange theory.

Because the number of clusters reported has varied in previous resident segmentation studies, no number of clusters will be specified in advance in this study. The following method will be used to identify the most likely number of clusters. A hierarchical clustering method will first be employed on a random subset of the data in order to identify the correct number of clusters. Hierarchical methods work best on smaller data; therefore a random sample will be utilized for this segment of the analysis. After selecting the ideal linkage method used to measure the distance between observations, the analysis will proceed with no specification of the number of clusters. By not pre-specifying the number of clusters, a range of potential clusters can be examined for the best fit. Although the literature suggests that groups will emerge which tend to view the impacts in a positive or negative light, there has been no consensus on the total number of clusters; therefore no cluster number will be specified for the first step in the clustering procedure. To select the best fitting number of clusters, a number of techniques, including agglomeration coefficients, dendrograms, and icicle plots can be examined. Results of the hierarchical clustering procedure will also be compared to previous segmentation studies and to the theoretical and conceptual framework of the study for practical implications.

After the number of clusters has been determined the same hierarchical procedure will be repeated on the subsample, but this time with the number of clusters specified as determined by the first run. Cluster centers can then be saved and will serve as the cluster seeds for a non-hierarchical (k-means) cluster analysis. The non-hierarchical analysis will proceed in a similar manner to the hierarchical cluster analysis with the primary advantage of using a large group of respondents. Clusters derived as a result of the non-hierarchical cluster analysis will be profiled (described) by using demographic data and a comparison of the groups' responses to the fifteen impact statements. Chi-square analysis will be utilized in the process of profiling the resulting clusters on the categorical demographic variables. Analysis of Variance (ANOVA) will be used in profiling the clusters on the basis of the continuous variables. Resident perceptions of impacts can be examined for each cluster and each time period to determine whether those perceptions change by each resident group as the event approaches. This can be measured using the MANOVA technique again. Factor scores can be used once more as the dependent variable and as a representation of the impact statements; the four poll dates and the clusters generated can be utilized as the independent variables. The MANOVA technique also offers the potential to see if there is any interaction between the four time periods and group membership.

Residents can further be characterized on the basis of their proximity to the event location. Previous research on resident perceptions of tourism's impacts has shown conflicting outcomes when the proximity to an event or tourism zone is evaluated. In some cases, those living closest to the tourism/event center have perceived the impacts positively (Belisle & Hoy, 1980; Fredline & Faulkner, 2000; Waitt, 2003). Other studies have shown that residents living close to the tourism/event center have negative perceptions of the impacts (Harrill & Potts, 2003; Korca, 1998; Madrigal, 1993). Jurowski and Gursoy (2004) found that certain resident characteristics (e.g. eco-centric attitudes, and resource users) combined with proximity to tourism played a role in determining resident perceptions. Fredline and Faulkner (2001a) showed that those residents who were active in areas near the event center were most affected by the impacts of the event.

To examine the impact of proximity to the event center on resident perceptions over time, the MANOVA technique will be applied. Once again, factor scores will be used to simplify the analysis. The factor scores will serve as the continuous dependent variables, with the proximity variable (metro/non-metro residents) and the four time periods serving as the categorical independent variables. MANOVA will measure any effects of time and proximity across the resident perceptions, and test for an interaction between the time and proximity variables with respect to the event impact.

Summary

This chapter discussed the sample of Georgia residents which is utilized in this dissertation, the development of the survey instrument, and the Georgia Poll's methods for collecting residents' perceptions on the Olympic Games impacts. The utilization of existing data in this study was explained as a unique opportunity to evaluate a longitudinal data set not normally available or possible to collect for the purpose of a dissertation. Relatively few opportunities exist to collect resident perceptions of a mega-event the size and scope of the summer Olympics. Finally, the appropriate statistical techniques which will be used to test the stated hypotheses and research questions were explained. The outcome of the analysis will be discussed in Chapter IV: "Results".

CHAPTER IV
RESULTS

Introduction

This chapter presents an explanation and the results of the statistical analysis used to test the research hypotheses. Descriptive characteristics of the data are presented first, followed by a description of the procedures used in testing the two hypotheses. Issues related to analyzing the longitudinal data are also discussed. The implications of the statistical analysis are presented in Chapter V "Discussion".

Response Rates and Non-Response

As previously reported in Chapter III, four of the original 13 poll dates were utilized in this study. These four polls were conducted over the course of one year prior to the 1996 Atlanta Olympic Games (fall 1995, winter 1996, spring 1996 and summer [July] 1996). For a complete list of polls and dates, refer to Table 3.3 in Chapter III. The selection of the four polls for this study was based on the desire of the researcher to examine pre-event perceptions of the impacts of the mega-event over time. Previous studies have examined the pre-event perceptions across the first six polls (Mihalik, 1994; Mihalik, Cummings & Simonetta, 1993; Mihalik & Simonetta, 1999). Another study has compared pre- and post-event perceptions from polls 11 and 12 (Frater and Mihalik, 2001).

The four poll dates selected for this study were the four pre-event polls in which resident responses to the benefits *and* liabilities of the event were collected. Having responses to both benefits and liabilities was consistent with social exchange theory, where positive and negative impacts were simultaneously evaluated when assessing a social transaction. The use of cluster analysis to segment residents also dictated the selection of data points in which similar questions were evaluated by all respondents. As stated in Chapter III, it is not possible to segment residents

on a dissimilar set of questions. Therefore the four pre-event polls in which the subjects provided responses to both benefit and liability statements were utilized in this study.

A disadvantage of utilizing existing data for research is the lack of access to all of the information originally collected. The study by Mihalik and Simonetta (1999) on the first six polls in this data reported response rates ranging from a low of 51% (winter 1993) to a high of 87% (summer 1994). These response rates were calculated by dividing the number of completed interviews by the sum of the number of completed interviews, the number of refusals, and the number of uncompleted call backs (Mihalik & Simonetta, 1999). For the current study, while the data representing the responses to the questionnaire items was available for analysis, the number of uncompleted calls and refusals is no longer available. For this reason it is not possible to provide a similar rate of response for any of the four data points used in this analysis. Furthermore, the Applied Research Center at Georgia State, the original administrators of the Georgia State Poll, discontinued the poll following 2003.

It is reported earlier, that an original pool of 2,400 numbers was utilized for each of the Georgia State Polls. Although it is unlikely that all 2,400 telephone numbers were utilized to reach the final sample sizes (an examination of the response rates and methods reported in Mihalik & Simonetta supports this), a response rate was devised utilizing the original pool of phone numbers. Sample sizes and response rates for each of the four polls are shown in Table 4.1.

Because the number of refusals and uncompleted callbacks was not available, the ability to provide an analysis of non-respondents was also not possible. Evaluating late respondents for potential non-response error was also not an option since no distinction in the data was made between early and late respondents.

TABLE 4.1

Response Rates for Polls 8-11

Poll	Poll Date	n	Response Rate
8	Fall 1995	777	32.4
9	Winter 1996	866	36.1
10	Spring 1996	798	33.3
11	Summer 1996	857	35.7
	Total (four polls)	3298	

Demographic Profile of Respondents

Table 4.2 provides a demographic profile of respondents across the four polls utilized in this study. Percentages changed from one poll to another, but with a few exceptions, a similar response pattern was maintained across the four time periods. The final columns provide a cumulative profile of all of the respondents across the four polls.

With all four polls grouped together, the overall sample reveals respondents who were predominantly white (75.8%) while African-Americans make up 22.6% of the sample. Females consisted of 55.4% of the sample (males – 44.6%). Most respondents had a high school degree (29.8%), some college (28.7%) or a college degree (20.9%). Household income increased gradually from less than $15,000 (11.4%) to a high of 23.3% for those making $35,000-$49,999 per year. Nearly 31% of respondents made over $50,000 household income per year (20.1% made $50,000-$74,999; 10.8% made over $75,000).

Political party affiliation is not normally included as a demographic in tourism studies, but was included here because the Georgia State Poll solicited feedback on a number of political topics and regularly collected this information. Most respondents were affiliated with a particular political party (Democrats – 32.5%; Republicans – 26%), but Independents (32.1%) and those who did not see themselves as affiliated with any party (9.5%) were a sizeable portion of the sample.

Residency was determined automatically based on the residents' phone number. The telephone working exchanges (first three numbers) and working blocks (next two numbers) were unique to each respondent's county of residence. Residents of the 5-county metro Atlanta area made up 34.7% of respondents. The remaining 65.3% were Georgia residents who resided outside of the Atlanta area.

Phone interviewers asked respondents to provide their year of birth, however, the mean age was not available for this study. The data does not include the original year of birth. This demographic variable was recoded by the poll administrator into age categories used by the Georgia State Poll. The largest group of respondents fell between 25 and 34 years of age (24.4%) followed by 35-44 years old (21.7%). The remaining respondents were 45-54 years (14.9%), 18-24 years (14.5%), 65 years and over (13.6%), and 55-64 years (10.8%). Table 4.2 displays the demographic description of respondents on the following pages.

TABLE 4.2

Demographic Variables: 4 polls

		Fall 1995		Winter 1996		Spring 1996		Summer 1996		Total - 4 polls	
Question		Freq.	Valid %	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %
Race/Ethnicity	White	593	77.5	655	75.6	583	76.0	635	74.1	2466	75.8
	African-American	165	21.6	192	22.2	178	23.2	201	23.5	736	22.6
	Asian	3	0.3	4	0.5	2	0.2	7	0.8	16	0.5
	Hispanic	2	0.2	7	0.8	2	0.3	11	1.3	22	0.7
	Native American	2	0.3	8	0.9	2	0.2	3	0.3	15	0.4
	Total	765	100.0	866	100.0	767	100.0	857	100.0	3258	100.0
Level of Education	< High School	89	11.5	85	9.9	92	11.6	68	8.0	334	10.2
	High School Graduate	233	30.1	262	30.5	210	26.6	272	31.9	978	29.8
	Some College	235	30.3	256	29.8	229	29.0	221	25.9	941	28.7
	College Degree	146	18.9	163	19.0	193	24.4	187	22.0	689	21.0
	Some Graduate School	14	1.7	45	5.3	28	3.6	36	4.2	123	3.8
	Prof - Graduate Degree	58	7.5	48	5.6	39	4.9	68	7.9	212	6.5
	Total	775	100.0	858	100.0	792	100.0	852	100.0	3276	100.0
Political Party	Democrat	237	30.7	260	30.3	275	34.8	288	34.1	1059	32.5
	Republican	191	24.7	217	25.4	192	24.2	248	29.5	848	26.0
	Independent	253	32.8	321	37.4	255	32.2	218	25.9	1046	32.1
	Don't think that way	91	11.8	59	6.9	70	8.8	88	10.5	309	9.5
	Total	771	100.0	857	100.0	792	100.0	842	100.0	3263	100.0

TABLE 4.2
(continued)

Demographic Variables: 4 polls

		Fall 1995		Winter 1996		Spring 1996		Summer 1996		Total - 4 polls	
Question		Freq.	Valid %	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %	Freq.	Valid %
Household Income	< 15,000	62	10.2	89	12.6	87	12.3	79	10.5	316	11.4
	15,000 - 24,999	105	17.2	118	16.7	106	15.0	121	16.2	450	16.3
	25,000 - 34,999	105	17.2	137	19.5	125	17.6	135	18.1	502	18.1
	35,000 - 49,999	135	22.1	161	22.9	170	24.0	178	23.8	644	23.3
	50,000 - 74,999	119	19.6	141	19.9	159	22.4	138	18.5	557	20.1
	< 75,000	83	13.6	59	8.4	61	8.6	95	12.8	299	10.8
	Total	610	100.0	706	100.0	706	100.0	746	100.0	2768	100.0
Sex	Male	346	44.6	392	45.3	355	44.4	377	44.0	1470	44.6
	Female	431	55.4	474	54.7	443	55.6	480	56.0	1828	55.4
	Total	777	100.0	866	100.0	798	100.0	857	100.0	3298	100.0
Residence	Non-Metro	515	66.3	561	64.7	532	66.7	545	63.6	2154	65.3
	Metro (5 County)	262	33.7	306	35.3	266	33.3	312	36.4	1144	34.7
	Total	777	100.0	866	100.0	798	100.0	857	100.0	3298	100.0
Age Categories	18-24	111	14.3	126	14.5	120	15.0	123	14.4	479	14.5
	25-34	188	24.2	229	26.4	204	25.6	185	21.6	805	24.4
	35-44	157	20.2	194	22.4	167	20.9	198	23.1	715	21.7
	45-54	122	15.7	121	14.0	100	12.5	149	17.5	492	14.9
	55-64	90	11.5	88	10.2	83	10.4	94	11.0	355	10.8
	> 65	109	14.0	108	12.5	124	15.6	106	12.4	448	13.6
	Total	776	100.0	866	100.0	798	100.0	855	100.0	3295	100.0

Data Analysis

The following section presents the results of the statistical analyses required to test the two hypotheses. The statistical techniques include Factor Analysis, Multivariate Analysis of Variance, Cluster Analysis, and Chi-square analysis. The descriptive information for the variables used in the analysis is presented first. The variables used in this study are the six statements measuring the benefits, the nine statements measuring the liabilities of hosting the Olympic Games, and two questions measuring the residents' support for the event. Tests for the individual hypotheses follow.

Descriptive Information for Event Impact Variables

Event impacts were measured through two questions asking respondents to rate a number of potential impacts. One question asked respondents to rate six potential benefits and the other question asked them to rate nine potential liabilities of hosting the Olympic Games. A 10-point scale was utilized with 1 indicating a very small benefit (or a very small problem) to 10 indicating a very large benefit (or a very large problem). This 10-point scale was consistent with the attitudinal scales used for the Georgia State Poll and required in these Georgia State Polls by Poll administrators.

Benefit Statements

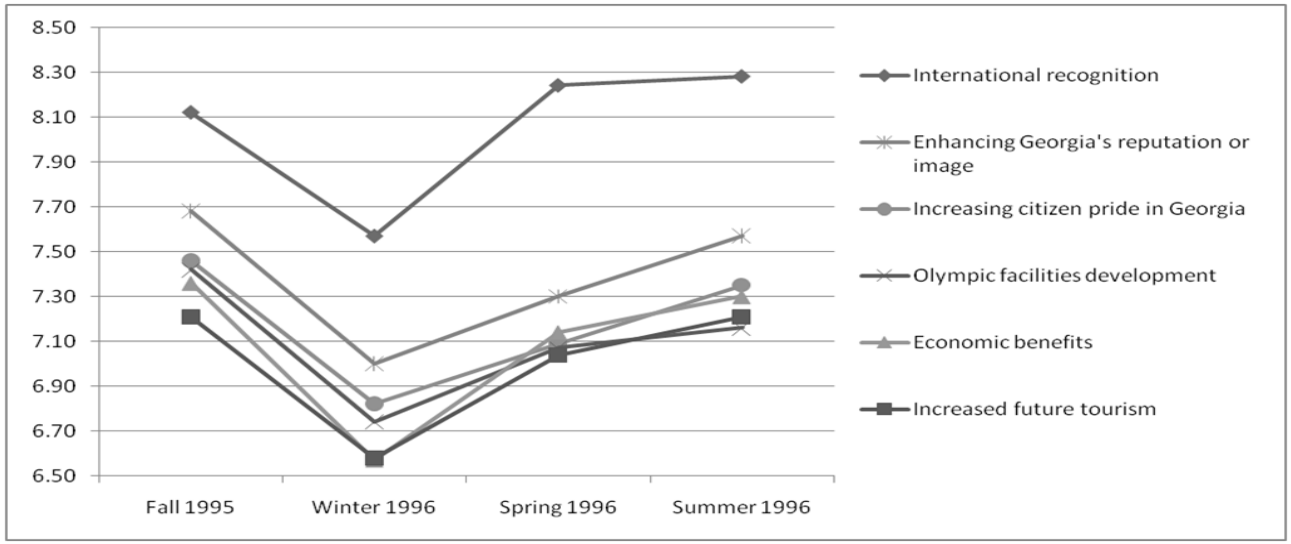
Descriptive data for the six benefit statements are presented in Table 4.3. A visual depiction of the means for the benefits over the four polls is presented in Figure 4.1. A similar pattern is observed for all six benefit statements over the four time periods. For all statements there was a decrease in values in the second poll (winter 1996) with a subsequent increase in scores over the final two polls. Mean scores were positive for all of the benefit statements with the highest perceived benefit across the four poll dates to be the "international recognition" for the host community.

TABLE 4.3

Benefit Statements Descriptives: 4 polls

	Fall 1995			Winter 1996			Spring 1996			Summer 1996		
Question	N	M	SD	n	M	SD	n	M	SD	n	M	SD
International recognition	717	8.12	2.17	835	7.57	2.71	782	8.24	2.37	820	8.28	2.34
Increased future tourism	717	7.21	2.15	835	6.58	2.57	783	7.04	2.32	826	7.21	2.30
Economic benefits	711	7.36	2.57	831	6.57	2.78	786	7.14	2.58	818	7.30	2.51
Olympic facilities development	673	7.42	2.24	807	6.74	2.48	769	7.07	2.39	800	7.16	2.42
Enhancing Georgia's reputation or image	698	7.68	2.22	829	7.00	2.59	774	7.30	2.37	819	7.57	2.35
Increasing citizen pride in Georgia	716	7.46	2.23	837	6.82	2.57	784	7.09	2.47	822	7.35	2.33

Note: Measurement scale is 1 = *very small benefit*, to 10 = *very large benefit*



1 = *small benefit* to 10 = *large benefit.* (Note: only part of scale is shown)

FIGURE 4.1. *Benefit Statements mean scores over 4 polls.*

Interestingly, the intangible benefits (international recognition, enhancing Georgia's reputation or image, and increasing citizen pride in Georgia) were the three highest perceived benefits across all four polls with one exception (economic benefit was rated higher than citizen pride in the Spring 1996 poll). This is a continuation of the trend shown in Mihalik and Simonetta (1999) where the psychological benefits were the most highly perceived positive impacts across time. It also verifies the notion that psychic income (Burgan & Mules, 1992) is a prime reason that cities pursue mega-events. Though positive, increased tourism, economic benefits, and Olympic facilities were typically the lowest perceived impacts. These tangible benefits are also more likely to occur during and after the time of the games.

Liability Statements

Descriptive data for the nine liability statements is shown in Table 4.4. A graphical depiction of the means for the liability statements over the four polls is shown in Figure 4.2. As happened for the benefit statements, a similar pattern can be observed across the four polls for the liability statements. In all four polls, the ranking of the top four problems expected stayed the same. Traffic congestion was easily the greatest perceived problem, followed by price gouging, strain on law enforcement, and street crime. Unfair distribution of state resources, civil unrest, and terrorism were consistently rated in the middle of the pack, occasionally exchanging places in the rankings. The two attitude questions, bad attitude by residents and bad attitude by visitors, rounded out the perceived liabilities. Neither attitude statement had a mean score over 5.0 indicating that residents did not perceive attitudes to be a significant concern for the upcoming event.

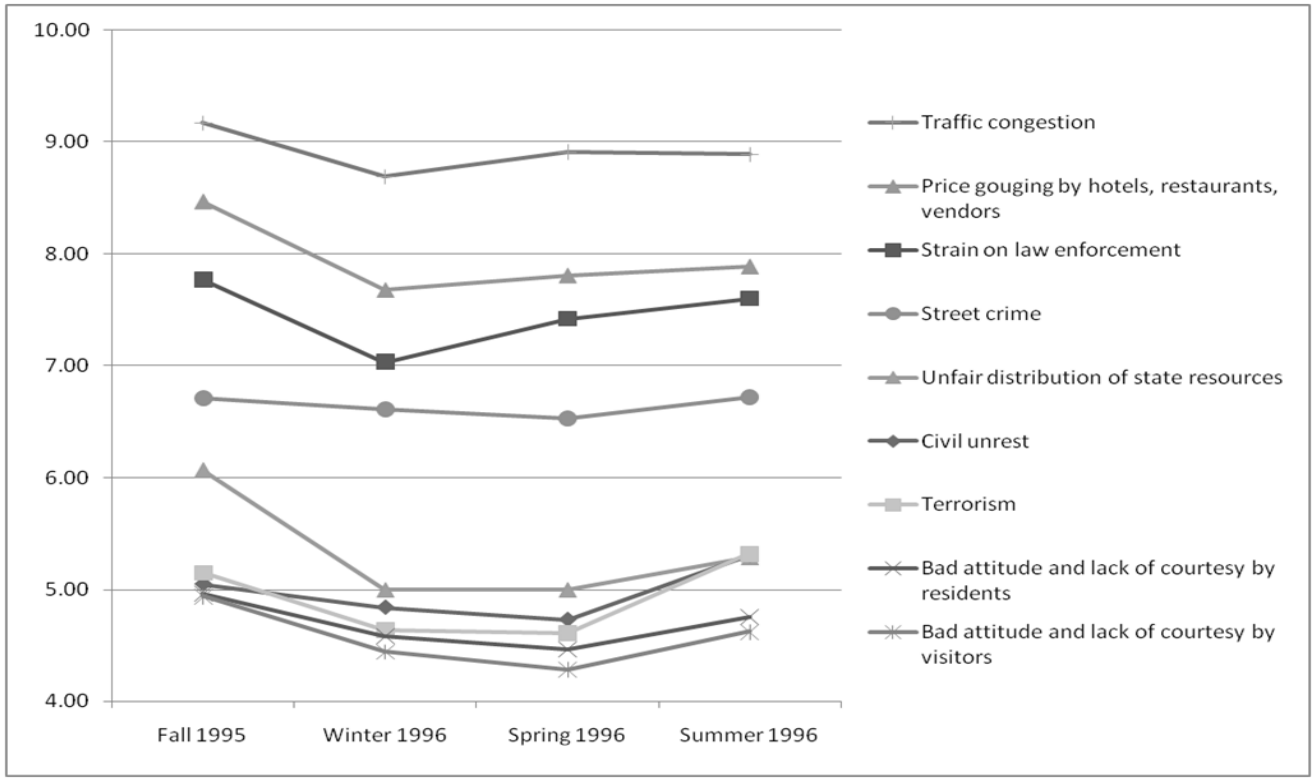
For all liability statements, mean scores dropped from the first poll in fall 1995 to the winter 1996 poll. A similar trend was observed for the benefit statements. Residents had lower expectations for both benefits and liabilities in the second poll compared to the first. The spring 1996 poll showed some increases in the mean scores of the perceived liabilities (strain on law enforcement, price gouging, and traffic congestion), and some decreases in mean scores (Civil unrest, street crime, terrorism, bad attitudes of residents, and bad attitudes of visitors). For the fourth and final poll, all mean scores increased except for traffic congestion, though this decrease was minor.

TABLE 4.4

Liability Statements Descriptives: 4 polls

	Fall 1995			Winter 1996			Spring 1996			Summer 1996		
Question	N	M	SD	n	M	SD	n	M	SD	n	M	SD
Civil unrest	703	5.05	2.62	794	4.84	2.53	753	4.73	2.47	772	5.31	2.61
Strain on law enforcement	729	7.77	2.24	828	7.03	2.59	785	7.42	2.43	823	7.60	2.50
Price gouging by hotels, restaurants, vendors	730	8.47	2.01	833	7.68	2.54	783	7.81	2.42	812	7.89	2.63
Bad attitude and lack of courtesy by residents	720	4.96	2.74	823	4.58	2.75	765	4.46	2.57	806	4.75	2.75
Bad attitude and lack of courtesy by visitors	708	4.94	2.58	806	4.44	2.62	765	4.28	2.56	794	4.62	2.59
Street crime	729	6.71	2.49	821	6.61	2.62	781	6.53	2.49	818	6.72	2.64
Traffic congestion	741	9.17	1.57	843	8.69	2.18	790	8.91	1.91	827	8.89	1.97
Unfair distribution of state resources	649	6.07	2.52	755	5.00	2.53	725	5.00	2.72	707	5.29	2.72
Terrorism	703	5.15	2.81	797	4.64	2.73	772	4.61	2.80	800	5.32	2.89

Note: Measurement scale is 1 = *very small problem*, to 10 = *very large problem*



1 = *small problem* to 10 = *large problem*. (Note: only part of scale is shown)

FIGURE 4.2. *Liability Statements: mean scores over 4 polls.*

Descriptive Information of Support Variables

Two questions measured resident's support for the Olympic Games: do you think it was a good idea to host the Olympic Games (referred to from here on as 'good idea to host'), and do you expect to attend one or more of the Olympic events ('plan to attend'). Answers consisted of yes/no responses. Descriptive information for the two support questions over the four polls is listed in Table 4.5.

Good Idea to Host

As can be seen from Table 4.5, the percentage of residents who thought it was a good idea to host the games dropped nearly ten percent from the first poll examined in this study (89%) to the last (79.5%) taken just prior to the games. Although still largely positive, it can be seen that a number of residents were not as certain in the year before the games that the Olympics were a good idea. Despite the decline over time, this finding is in keeping with previous Olympic host community studies. Mihalik and Simonetta (1999) reported that the initial surveys in the Georgia Olympic polls showed high levels of support, but that support decreased over the first three years following the award of the games to Atlanta. The Olympulse studies by Ritchie also showed high levels of overall resident support for hosting the Olympic Games over the time leading up to the games (Ritchie & Lyons, 1987). However, the Calgary residents did not see much change in the overall level of support.

Plan to Attend

A similar drop can be observed in the percentage of respondents who planned to attend one or more Olympic events. Over the course of the year leading up to the Olympics, those who planned to attend the Olympics declined from 37.2% to 28.1%. Mihalik and Simonetta (1999) also saw a decrease in those who planned to attend the games when they examined the first half of the Atlanta Olympic polls. They attributed this decline to the announcement of ticket prices and the procedures for requesting tickets. It could be that in the final year leading up to the games, resident responses went from a desire to attend in the earlier poll to an actual knowledge of whether or not they would be attending any of the Olympic events a few weeks before the Olympics.

TABLE 4.5

Support Statements Descriptives: 4 polls

		Fall 1995		Winter 1996		Spring 1996		Summer 1996	
Question		Frequency	Valid Percent	Frequency	Valid Percent	Frequency	Valid Percent	Frequency	Valid Percent
All things considered, do you think it was a good idea for Georgia to host the 1996 Summer Olympic Games?	Yes	655	89.0	683	83.5	649	86.3	636	79.5
	No	81	11.0	135	16.5	103	13.7	164	20.5
	Total	736	100.0	818	100.0	752	100.0	800	100.0
If you are still living in Georgia in 1996, do you expect to attend one or more of the Olympic events as a spectator?	Yes	276	37.2	277	33.8	228	28.9	232	28.1
	No	466	62.8	544	66.2	560	71.1	595	71.9
	Total	742	100.0	821	100.0	787	100.0	827	100.0

Normality of the Distribution

One assumption of Multivariate Analysis of Variance (MANOVA) is that the data is distributed normally. Although there is no direct test for multivariate normality, univariate normality of continuous variables can be tested through the analysis of kurtosis and skewness of the variables (Hair et al., 2006). Kurtosis is a departure from the normal distribution with regard to the peakness (leptokurtic) or flatness (platykurtic) of a variable's distribution. Skewness refers to whether the balance is unequally distributed to the right or the left. A positively skewed distribution is shifted to the left, with a tail that extends to the right of the peak; a negatively skewed distribution peaks on the right with a tail extending to the left. Normally distributed data are given a standardized value of zero; variables that exceed the critical value in either direction (± 1.96) are not considered to be normally distributed (Hair et al., 2006, p. 82).

In this study, traffic congestion was the only variable in violation of normality according to the ± 1.96 critical values for kurtosis (4.830) and skewness (-2.204) (see Appendix B). Violations of normality are minimized, however with larger sample sizes (Stevens, 2002). For the traffic congestion variable, the mean scores in all polls indicated that this was the event impact that was perceived by residents to have the greatest potential effect. Overall, the mean for this variable was 8.91with a standard deviation of 1.937. An examination of z-scores for this variable showed that all of the respondents who were in excess of ±4.0 (the value recommended by Hair et al. [p. 75] as an indicator of outliers for large data sets) were those who selected 1 (very small problem) on the 10-point scale.

No other event impact variable had z-scores in excess of the ±4.0 value. However boxplots for all variables were examined to determine if there were extreme cases among the respondents. Those cases that had extreme values for more than one of the event impact variables were examined further for irregular response patterns. Respondents who had selected "very small problem" for the traffic variable were also examined for irregular responses across all of the impact variables. In all, 20 cases were identified and deleted because of irregular response patterns across all of the event impact statements. Every effort was made to retain all relevant cases as they may represent a unique subset of residents. The characteristics of the traffic congestion variable will be considered in the subsequent analysis of the hypothesis.

Testing of Hypothesis 1

The first hypothesis examined the impacts of time and resident support on the perceived impacts of the Olympic Games. Hypothesis 1 was stated as follows:

> The perceived benefits and perceived liabilities of a mega-event will vary over time as a function of residents' support for the mega-event.

The appropriate statistical method to evaluate this hypothesis was MANOVA. MANOVA is a multivariate technique used to examine the differences between multiple categorical variables on a number of metric dependent variables. For this analysis the categorical independent variables were the two support questions (good idea to host, and plan to attend) and each of the four time periods (polls 8-11). Although the technique could be applied to all 15 impact statements (6 benefits and 9 liabilities) as the dependent variables, the large number of variables would have made the evaluation more complex.

Factor Analysis

Factor Analysis was used to reduce the number of dependent variables and to simplify the analysis. The purpose of employing factor analysis in this study was to provide a representation of the variables without keeping the original number of variables. Variables are grouped together based on similar response patterns (correlations). This technique has the advantage of keeping the underlying structure of the variables, but making interpretation easier.

One concern that arose in the application of factor analysis to this study is how to address the impact of the four different time periods. Because this study was a repeated cross-sectional design, it was possible that residents could have evaluated the event impacts differently over time. In other words, different correlations between variables were possible in each of the four time frames. Although it would be more parsimonious to generate factor scores on the combination of all four data sets, it was not advisable to do so without first making sure that the underlying structure of the variables was similar across all four polls. To address this concern, factor analysis was first applied to the fifteen event impact items in a single data set; poll 8 (Fall 1995) was selected. A second factor analysis was applied to the event impact items in the

remaining three combined polls (polls 9-11). The results of each factor analysis were then compared to determine if there were differences in the underlying structure of the variables when the data are combined. If a similar underlying structure could be identified in the single and the combined polls then it would be reasonable to combine all the poll dates for the purpose of data reduction and the testing of the hypotheses.

Factor Analysis of Poll 8

A principle components analysis with Varimax rotation was first applied to the 15 event impact statements from poll 8. Principle components analysis is appropriate for the purpose of data reduction, and the Varimax rotation is useful for minimizing variables that load highly on more than one factor according to SPSS version 16.0.1. The sample size of 545 easily surpasses the desired ratio of 10 observations for each variable (Hair et al., 2006).

The intercorrelation of variables is necessary for factor analysis. Hair et al. suggests a visual inspection of correlations to ensure that a sufficient number of variables have correlations greater than .30. An examination of the correlations showed that sufficient correlations among the impact statements existed for the application of factor analysis. Beyond a visual inspection of the data, two statistical tests, the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) and the Bartlett test of Sphericity, are used to determine the appropriateness of the data for factor analysis. The Bartlett test for poll 8 was significant at .001 ($\chi^2 = 2448.894$; df = 105) indicating that the data had a sufficient number of correlations for use in factor analysis. KMO tests for partial correlations, and as a rule, this number should exceed .60. The data for poll 8 showed a KMO value of .829 which qualifies as "meritorious" (Hair et al., 2006). Variables should also be evaluated by observing the individual MSA values which should exceed .50. The lowest MSA value for the event impact variables was .738 (bad attitude of tourists) so all variables were determined to be appropriate for inclusion in the factor analysis.

Since there was no a priori criterion for the number of factors to extract, the latent root criterion was selected. The latent root criterion is based on the eigenvalues of the factors; only those factors with eigenvalues greater than 1.0 are selected for inclusion. A scree plot was also examined to verify the number of factors selected and to determine if additional factors were necessary. According to Hair et al. (2006, pp. 120-121) when fewer than twenty variables are

used for factor analysis, the latent root criteria tends to extract fewer factors; scree plots typically result in one or more additional factors being considered.

The initial principal components factor analysis for poll 8 indicated that three factors had eigenvalues over the cutoff point of 1.0. Together, these three factors accounted for 53.68% of the total variance. Examination of the scree plot indicated that the potential for a fourth factor, however, the eigenvalue for that factor fell below the minimum of 1.0. Since the purpose of the factor analysis was data reduction, the 3 factor solution was examined further. Table 4.6 shows the rotated factor loadings for the three factors. Loadings greater than ±.400 are in bold to indicate on which factor they loaded.

TABLE 4.6
Rotated factor loadings for Poll 8

	Component		
	1	2	3
Civil unrest	0.019	**0.542**	0.281
Law enforcement strain	0.090	0.340	**0.650**
Price gouging	0.021	0.220	**0.641**
Bad attitude of residents	-0.116	**0.805**	-0.004
Bad attitude of tourists	-0.067	**0.842**	-0.004
Street crime	-0.117	**0.507**	**0.501**
Traffic congestion	-0.005	-0.004	**0.775**
Unfair distribution of state resources	-0.021	**0.575**	0.318
Terrorism	0.010	**0.499**	0.262
International recognition	**0.664**	-0.252	0.154
Increased tourism	**0.767**	0.052	0.040
Economic impact	**0.746**	-0.029	-0.040
Olympic facility development	**0.661**	-0.085	-0.108
Enhanced image	**0.790**	-0.023	0.020
Citizen pride	**0.813**	0.064	0.030

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

As can be seen from Table 4.6, each variable except for street crime loaded primarily on only one variable. Factor loadings exceeding ±.700 are indicative of good structure, those loadings exceeding ±.500 are considered practically significant, and those loadings below ±.400 are not as useful for interpretation of the factor because they lack practical significance and account for little of the total variance of the variable (Hair et al., 2006, p 128). Terrorism had a loading of .499 which is slightly lower than the level of practical significance. Street crime loaded on factor 2 (.507) and factor 3 (.501). Although it is not desirable to have variables which cross-load on more than one factor, both of the street crime loadings for factors 2 and 3 indicate practical significance. The decision was made to retain the terrorism and the street crime variables at this point until the factor analysis for the other polls could be completed and the results compared. All of the benefit statements loaded together on the first factor. Factor 2 consisted of the two bad attitude statements (tourists and residents), unfair distribution of state resources, civil unrest, street crime, and terrorism. Factor three consisted of traffic congestion, law enforcement strain, price gouging, and street crime.

Factor Analysis of Polls 9-11

The next step was to perform a factor analysis on the combined three remaining polls (polls 9-11). As with the initial factor analysis of poll 8, all 15 event impact variables were entered into the initial solution. The combination of the three polls resulted in more than sufficient responses (n = 1903) to perform the factor analysis according to the 10-1 cases-to-variables rule of thumb. Visual inspection of the correlations again revealed a sufficient number of correlations in excess of the .30 mark. The Bartlett test of sphericity was significant at .001 (χ^2 = 8249.412; df = 105) indicating that the data had a sufficient number of correlations for use in factor analysis. The KMO measure of sampling adequacy was .842, which again was considered meritorious (Hair et al., 2006) and examination of the MSA scores for the individual variables suggested that the data were sufficient for factor analysis. Utilizing the latent root criterion again for the selection of the number of factors, the analysis suggested a three factor solution which accounted for 54.12% of the total variance. The factor loadings for the initial factor analysis of polls 9-11 are shown in Table 4.7 with bold numbers indicating loadings in excess of .40.

As can be seen in Table 4.7, each of the variables had loadings indicative of practical significance on only one factor. The street crime variable, which loaded on factors 2 and 3 for poll 8, loaded primarily on factor 3 for polls 9-11. Terrorism, which had a factor loading of .499 for poll 8, was more distinct in polls 9-11 with a loading of .664.

In comparing Table 4.6 (poll 8) and Table 4.7 (polls 9-11) the factor structure of both analyses was reasonably consistent. Though some variation in the order in which the variables loaded on the factors occurred, the basic structure of each analysis was similar. With the exception of street crime, the same variables loaded on the same factors over the four polls, whether one poll or multiple polls were used. The street crime variable achieved practical significance for factor 3 in both analyses. This comparison indicates that a similar underlying structure to the event impact variables exists, and it appears reasonable to combine all four polls for a subsequent factor analysis in order to generate factor scores for the next phase of testing hypothesis 1. The three factor solution appeared to be a suitable choice since the purpose of the factor analysis was data reduction.

TABLE 4.7
Rotated factor loadings for Polls 9-11

	Component		
	1	2	3
Civil unrest	0.032	**0.622**	0.232
Law enforcement strain	0.033	0.251	**0.675**
Price gouging	0.047	0.198	**0.690**
Bad attitude of residents	-0.055	**0.760**	0.049
Bad attitude of tourists	0.000	**0.775**	0.004
Street crime	-0.066	0.477	**0.516**
Traffic congestion	0.029	0.025	**0.808**
Unfair distribution of state resources	-0.129	**0.567**	0.283
Terrorism	0.048	**0.664**	0.172
International recognition	**0.676**	-0.100	0.166
Increased tourism	**0.714**	0.038	0.040
Economic impact	**0.762**	-0.003	-0.005
Olympic facility development	**0.732**	0.014	-0.043
Enhanced image	**0.820**	-0.041	-0.013
Citizen pride	**0.779**	-0.025	-0.052

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Factor Analysis of Polls 8-11 Combined

The final factor analysis occurred on all four combined polls (n = 2448) for the purpose of data reduction and generating factor scores for use in the MANOVA technique. Inspection of the correlation matrix showed an adequate number of significant correlations. The Bartlett test of sphericity ($p<.001$; $\chi^2 = 10611.317$; df = 105), the KMO measure of sampling adequacy (.845) was again considered meritorious (Hair et al., 2006), and the MSA scores (the smallest value was .761 for traffic congestion) indicated that the data was sufficient for use in factor analysis.

The analysis was conducted using principal components analysis and a Varimax rotation method, with the latent root (eigenvalue) criterion as the cutoff criterion for factor selection. A three factor solution (Table 4.8) was extracted which explained 54.08% of the total variance. Hair et al. (2006, p. 120) commented that in the social sciences, it was common to accept a solution that accounts for 60% or less of the total variance.

TABLE 4.8
Rotated factor loadings for Polls 8-11

	Benefits	External Problems	Local Problems
Enhanced image	**0.816**		
Citizen pride	**0.787**		
Economic impact	**0.760**		
Increased tourism	**0.725**		
Olympic facility development	**0.722**		
International recognition	**0.674**		
Bad attitude of tourists		**0.791**	
Bad attitude of residents		**0.771**	
Terrorism		**0.635**	
Civil unrest		**0.603**	
Unfair distribution of state resources		**0.572**	
Traffic congestion			**0.807**
Price gouging			**0.685**
Law enforcement strain			**0.668**
Street crime		*0.490**	**0.503**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
* Does not achieve practical significance

Table 4.8 shows the three extracted factors; the variables were placed in the order in which they loaded on the factors. All of the benefits loaded together on the first factor. Two intangible benefits loaded first on this factor; enhanced image was the variable with the strongest loading followed by citizen pride. Factor 2 contained the liabilities bad attitude of tourists, bad attitude of residents, terrorism, civil unrest, and unfair distribution of state resources. The remaining liabilities of traffic congestion, price gouging, law enforcement strain, and street crime loaded last on factor 3. Two factor loadings for street crime are shown in Table 4.8; however the loading for factor 2 does not achieve the level of practical significance, therefore street crime is included only in factor 3.

It is customary to rename the factors to lend clarity to the interpretation. Names are subjective, but are based on the variables in the factors, and should be indicative of the underlying dimensions shared by the variables within the factor. With all of the benefits loading together on the first factor, this factor was simply named "Benefits". Factor 3 contained problems that were most likely to occur locally. These four variables had the highest means of the nine liability statements indicating that Georgia residents perceived these to be the greatest potential negative impacts. With this in mind, the third factor was named "Local Problems". Factor 2 contained the remaining five liabilities. All of the liabilities in this study had the potential to affect residents, but those in Factor 2 had the potential to reach beyond the host community to a greater extent. With this in mind, the second factor was named "External Problems".

The reliability of the items in each of the three factors was tested using Cronbach's alpha values (Table 4.9). The first factor, Benefits, had a coefficient of .841. The second factor, External Problems had a coefficient of .746. Both are higher than the .70 suggested lower limit for Cronbach's alpha. The third factor, Local Problems, had a coefficient of .684. Although this is below .70, the lower limit of Cronbach's alpha can be adjusted to .60 in exploratory research (Hair et al., 2006). It was determined that the three factors, Benefits, External Problems, and Local Problems were therefore suitable for use in further analysis.

TABLE 4.9

Cronbach's Alpha Scores for Three Components of Mega-Event Impacts

Factor	Items	Cronbach's Alpha
Benefits	Enhanced image	.841
	Citizen pride	
	Economic impact	
	Increased tourism	
	Olympic facility development	
	International recognition	
External Problems	Bad attitude of tourists	.746
	Bad attitude of residents	
	Terrorism	
	Civil unrest	
	Unfair distribution of state resources	
Local Problems	Traffic congestion	.684
	Price gouging	
	Law enforcement strain	
	Street crime	

MANOVA

The next step in testing hypothesis 1 was to perform a MANOVA test utilizing the factor scores generated in the final factor analysis as the continuous dependent variable with the responses to a support question and the four polls as the categorical independent variables. The purpose of this step was to evaluate the effects of time and resident support on the perceived event impacts. The two variables that are indicators of resident support are good idea to host, and plan to attend. Separate MANOVAs utilizing each of the support statements were performed because the combination of the two smallest groups (the respondents who did not think it was a good idea for Atlanta to host the Olympics, and the respondents who planned to go to the games) would result in cell sizes that were too small for a valid analysis. Those who did not support Atlanta's hosting of the Olympic Games would not be expected to indicate a desire to attend any of the Olympic events.

Good Idea to Host

The first MANOVA utilized the factor scores for the three factors as the dependent variables. The categorical variables poll date (4 poll numbers) and good idea to host (yes/no) served as the dependent variables. The number of subjects in all groups exceeded the recommended minimum cell size of 20 observations per cell (Hair et al., 2006, p. 402). Group sizes were not equal, which was common in the social sciences. The smallest group size was 57, and the largest was 540. This difference was not desirable, but was due to the fact that a vast majority (84.4%) of all respondents felt that hosting the Olympics was a good idea. The unequal sizes of the groups must be considered in the analysis as the size of the smallest group can affect the analysis.

The primary assumption for MANOVA was the independence of all observations, meaning respondents must only appear in one group. This assumption was met through the selection of the independent variables; respondents were randomly sampled in each of the four poll dates and could not select more than one response to the good idea to host question. A second assumption, the equality of variance-covariance matrices for the collective group of dependent variables was evaluated with the Box's M test. The Box's M test for this analysis was statistically significant [$F (42; 529{,}060) = 5.624$, $p < .000$] indicating that the variance-covariance matrices were not equal. While the MANOVA technique was robust with respect to violations of this assumption (Stevens, 2002), the Box's M test may be affected by the normality of the variables and the size of the database. As mentioned earlier, the traffic congestion variable (which loaded most highly on the third factor) was negatively skewed since most respondents felt this would be a large problem. Some outliers and extreme responses were deleted from the data; however most were retained because they may have represented unique segments of the population. Attempts at transforming this variable resulted in some correction to the amount of skewness and kurtosis, but did not affect the outcome of the analysis. With the large sample size, normality was not a concern, but the violation of the variance-covariance matrices will be considered in the analysis along with the size of the groups.

Homogeneity of the individual dependent variables was evaluated with the Levene's Test. Results of this test for the three factors were as follows: Benefits [$F (7; 2350) = 6.330$, $p < .000$], External Problems [$F (7; 2350) = 1.701$, $p = .104$], and Local Problems [$F (7; 2350) = 8.697$, $p < .000$]. The results were likely related to size of the database and the distribution of the

variables within the factors. The two factors in violation of this assumption had the highest mean scores. The most normally distributed variables (and the ones with the lowest mean scores, which tended toward the center of the 10 point scale) were in the External Problems factor. The size of the groups and the normality of the distribution should be considered in the interpretation. The Bartlett's Test of Sphericity examined the intercorrelation of the variables and was significant ($\chi^2 = 24.512$ [5 df]; $p < .000$) indicating that the dependent variables were sufficiently correlated.

Multivariate significance was tested using several tests; however, Pillai's Trace was reported here because it was considered robust with regard to unequal cell sizes and violations of the homogeneity of covariances (Hair et al., 2006, p. 414). An examination of the multivariate tests of significance (Table 4.10) showed a significant interaction effect between the poll and host variables. This meant that the two independent variables had a joint effect on the dependent variable, and their effects must be considered together. The differences in resident perceptions of the impacts of the event for the poll dates were affected by residents' support or non-support for the event. The interaction was considered to be ordinal for each dependent variable meaning that the levels for the factor scores maintained their order over time for the two groups (good idea to host). Those who thought it was a good idea to host the event had higher scores on perceived benefits over the year preceding the Olympics than those who opposed the event. Effect sizes (partial eta squared) indicated that the host variable had more of an impact on the dependent variables than either the polls or the interaction of the two independent variables. Power levels for the independent variables and the interaction variable were high indicating that it was more likely that a treatment effect for that variable would be identified if it existed.

TABLE 4.10
Multivariate Tests for Poll Date and Good Idea to Host

Effect	Pillai's Trace	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power
Poll date	.021	5.478	9	7050.000	.000	.007	1.000
Host	.174	164.522	3	2348.000	.000	.174	1.000
Poll date * Host	.010	2.586	9	7050.000	.006	.003	.947

Computed using alpha = .05

TABLE 4.11
Univariate Tests for Poll Date and Good Idea to Host

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Poll date	Benefits	15.195	3	5.065	5.816	.001	.007	.953
	External Problems	20.904	3	6.968	7.235	.000	.009	.984
	Local Problems	10.653	3	3.551	3.645	.012	.005	.801
Host	Benefits	276.335	1	276.335	317.293	.000	.119	1.000
	External Problems	76.129	1	76.129	79.045	.000	.033	1.000
	Local Problems	57.378	1	57.378	58.887	.000	.024	1.000
Poll date * Host	Benefits	15.769	3	5.256	6.036	.000	.008	.960
	External Problems	3.173	3	1.058	1.098	.349	.001	.299
	Local Problems	2.119	3	.706	.725	.537	.001	.206

With the multivariate interaction effect showing significance, the univariate effects (Table 4.11) for the interaction were then examined to determine which groups were significant. It could not be assumed that the significant interaction occurred in each combination of variables. Examination of the univariate tests (the between subjects effects) indicated that the only dependent variable for which a significant interaction existed was the Benefits factor. The interactions of the independent variables for each dependent variable also can be seen graphically in Appendix C.1.

Over the time period covered in this study, the greatest difference between perceived Benefits of those who supported and those opposed the Olympic Games occurred one year prior to the event in the fall of 1995. As the event approached the gap between the two groups closed with the closest point occurring in winter 1996. Although they did not perceive the Benefits of the Olympic Games as highly as those who supported the games, over the year leading up to the mega-event, those who did not think the Olympic Games were a good idea for Atlanta had a more significant increase in the overall perceptions of Benefits.

The multivariate test (Table 4.10) also showed significant main effects for each independent variable. Poll date and good idea to host were statistically significant from a univariate standpoint across all of the dependent variables (Table 4.11), indicating that their effects on the dependent variables could be interpreted individually. The differences between those who thought it was a good idea to host and those who did not were statistically significant. Those who did not support the event anticipated more External Problems and more Local

Problems over all of the time periods than those who supported the event. Plots for the variables can be seen in the figures in Appendix C.1. With respect to the impact of time on External Problems, mean scores for perceived External Problems decreased initially, but returned to approximately the same level by the final poll. Mean scores for Local Problems fluctuated over time. Post hoc tests show where the significant differences occurred between the four poll dates for all three dependent variables (Appendix C.2). These tests reveal that most of the differences occurred between the winter 1996 poll and the other three polls for all three factors.

In summary of the first MANOVA analysis using good idea to host as one independent variable to measure resident support, the interaction between time and good idea to host was significant on the Benefits factor, but both time and good idea to host had significant main effects across all three dependent variables. For all three factors, those residents who thought it was a good idea for Atlanta to host the games perceived greater benefits and lower liabilities than those who opposed the games, thereby supporting Hypothesis 1. The perceptions for both liabilities and benefits varied over time, although there was no consistent direction of change for either supporters or non-supporters on any of the dependent variables.

Plan to Attend

A second MANOVA was performed utilizing a resident's expected attendance at any of the Olympic events as a measure of resident support. Previous literature had suggested a connection between support and attendance for events (Mihalik & Simonetta, 1999; Ritchie & Aitken, 1984; Twynam & Johnston, 2004), and it was anticipated that planned attendance would be another indicator of support for the event; those who did not support the event were not expected to attend any of the events. The three factors (factor scores) from the earlier analysis of all four combined poll dates served as the dependent variable. The independent variables were poll and attend. Cell sizes once again exceeded the desired minimum number of 20 cases per cell; however as in the first MANOVA, the difference between cell sizes was not ideal. The smallest cell for this analysis was 170 and the largest was 452. Overall, 797 respondents (33.6%) planned to attend the games and 1578 respondents (66.4%) indicated that they did not plan to attend.

The Box's M multivariate test for equal variances was significant [$F (42, 4585587) = 4.444$; $p < .000$]. The Levene's test for equal variances on the univariate level was also

significant for all factors: Benefits [F (7, 2367) = 6.386; p < .000]; External Problems [F (7, 2367) = 2.593; p = .012]; Local Problems [F (7, 2367) = 5.652; p < .000]. These results are likely due to the data size and distribution. Bartlett's test of sphericity was non-significant (p = .972) indicating that for this analysis, the data did not show significant correlation, and the impact on the factors that the inclusion of the attendance variable had must be considered. The individual factors were based on similar responses to impact statements, but the groupings of those variables were necessarily different from each other.

Multivariate tests (Table 4.12) showed that an interaction effect existed between the two independent variables indicating that the time and attendance variables had a joint affect on the factor scores. Effect sizes (partial eta squared in Table 4.12) were not large for either of the independent variables, or for the interaction, but the level of power was high for each independent variable and the interaction.

Examination of the univariate tests (Table 4.13) showed that the interaction was significant (p = .006) for Local Problems, but not for the Benefits or External Problems factors. The interaction for Local Problems was ordinal; those who did not plan to attend the events anticipated greater local problems across each of the four time periods. A graphical depiction of the interaction was included in Appendix D.1. Although residents perceived nearly identical Local Problems one year before the event, in the last three polls those who did not plan to attend the event had a much more negative outlook regarding Local Problems. The negative perceptions of those who did not plan to attend remained fairly constant.

TABLE 4.12
Multivariate Tests for Poll Date and Plan to Attend

Effect	Pillai's Trace	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power
Poll date	.047	12.512	9	7101.000	.000	.016	1.000
Attend	.041	33.632	3	2365.000	.000	.041	1.000
Poll date * Attend	.008	2.235	9	7101.000	.017	.003	.904

Computed using alpha = .05

TABLE 4.13
Univariate Tests for Poll Date and Plan to Attend

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Poll date	Benefits	45.278	3	15.093	15.722	.000	.020	1.000
	External Problems	32.648	3	10.883	11.210	.000	.014	.999
	Local Problems	32.174	3	10.725	10.986	.000	.014	.999
Attend	Benefits	48.226	1	48.226	50.236	.000	.021	1.000
	External Problems	9.815	1	9.815	10.110	.001	.004	.888
	Local Problems	39.491	1	39.491	40.455	.000	.017	1.000
Poll date * Attend	Benefits	1.784	3	.595	.620	.602	.001	.181
	External Problems	5.774	3	1.925	1.982	.115	.003	.513
	Local Problems	12.199	3	4.066	4.166	.006	.005	.855

Computed using alpha = .05

In addition to the interaction between the independent variables, the multivariate (Table 4.12) and univariate (Table 4.13) tests for each of the two independent variables showed significant main effects. However, for the External Problems factor an examination of the group factor scores showed a disordinal interaction (shown in Appendix D.1), meaning that for one point in time, the order of factor scores for those who planned to attend switched places with those who did not plan to attend. The result was that the main effects for either independent variable could not be interpreted on the Local Problems factor because the treatments were not consistent across all levels.

For the Benefits factor, the differences in the responses of those who did and did not plan to attend were similar across all of the time frames (Appendix D.1). There was no interaction between the two independent variables. Those who planned to attend perceived greater benefits from the event than those who did not plan to attend. A sharp decrease occurred for both groups in the winter 1996 poll, but the groups saw similar increases in perceived benefits during the final two polls. Post hoc tests (Appendix D.2) for the differences in poll date for all dependent variables demonstrated that a number of significant differences occurred between the poll dates for each of the three factors.

In summary, a significant interaction between the independent variables poll date and do you plan to attend occurred for the Local Problems factor, but no significant interaction existed for the External Problems or for the Benefits factors at the .05 level (Table 4.13). It can be seen from the results that those who planned to attend the event perceived greater benefits and lower

liabilities than those who did not attend the event (Appendix D.1). With respect to the impact of time, the initial poll in this study (fall 1995) had the highest perceived impacts. Benefits and liabilities were perceived by those who planned to attend and by those who did not to be the greatest one year before the games. The winter 1996 poll saw decreases in both liabilities and benefits. However, the violation of the variance-covariance assumption and the disparity of the group sizes must be considered with respect to the interpretation of the results.

Overall, Hypothesis 1 was supported. The significant interaction for the poll dates and good idea to host, and the significant main effects in the first MANOVA indicated that the good idea to host variable was an appropriate measure of resident support, and over time those who supported the event had more positive perceptions of the event impacts. However, for the plan to attend variable, the non-significant result of the Bartlett's test of sphericity indicated that plan to attend may not be as well suited for representing resident support as good idea to host.

Testing of Hypothesis 2

The literature showed that host communities in previous studies were not made up of a homogenous group of residents with respect to their opinions of tourism development, tourism events, and the impacts of tourism on the community. Hypothesis 2 investigated whether time and certain characteristics of the host community residents had an effect on the perceived impacts of a mega-event on residents. Hypothesis 2 was stated as follows:

> The perceived benefits and perceived liabilities of a mega-event will vary over time as a function of select resident characteristics.

The first step in testing the hypothesis was identifying the groups of residents based on their perceptions of the impacts of the mega-event on the host community. For this, cluster analysis was the appropriate technique. Cluster analysis will segment residents according to their perceived impacts as measured on the fifteen impact statements. The resulting clusters of respondents will have similar perceptions of the event impacts within the groups, but be distinctly different from the perceptions held by other groups.

Cluster Analysis

The repeated cross-sectional design used in this study could not measure the responses of the same residents over time. Therefore, it could not be assumed that the same segments existed in each of the four time periods. Performing a cluster analysis on the entire group of respondents from all four time periods could not be performed unless it could be shown that a similar structure existed among residents. Menard (2002) states the following about dealing with the measurement of change over time:

> In repeated cross-sectional designs, measurement of change for individual cases is not really possible, but change may be measured for well-defined groups of cases as long as the cases are comparable at the group level from one cross-section to the next (p. 59).

A process for examining the underlying clusters of residents was utilized that was similar to the one described in the earlier factor analysis. First a cluster analysis was performed for a single data set (poll 8). Then a second analysis occurred for a combination of data sets (polls 9-11). The results of the two cluster analysis procedures were compared to determine if a similar profile of clusters existed for both analyses. For both sets of data, a hierarchical cluster analysis was performed to determine the potential number of cluster solutions that existed. Using cluster seeds generated by the hierarchical cluster analysis, a non-hierarchical (k-means) cluster analysis was performed to determine the final number of clusters. The purpose was to see if similar groupings of residents occurred over the different time frames.

The assumptions for cluster analysis were not the same as for other multivariate techniques. Normality, linearity and homoscedasticity were not as important for cluster analysis. An important assumption was that a representative sample was used. The randomness of the sampling process ensured that this was the case for the data collected by the Georgia State Poll. The selection of appropriate variables also was necessary because the cluster analysis technique would generate clusters regardless of the variables used in the analysis. The factors used to generate the cluster variate (the fifteen benefit statements) were similar to impact statements used in previous tourism segmentation studies, and were representative of the six dimensions of mega-event impacts (Economic; Tourism/Commercial; Physical; Sociocultural; Psychological; Political) discussed by Ritchie (1984). The final assumption was that substantial multicollinearity should be avoided. The factor analysis demonstrated that a degree of

multicollinearity did exist for these variables (in order for the variables to group together as factors). The concern was that a disproportionate group of variables would have an impact on the clustering process. Since the three factors consisted of a relatively similar number of variables in each factor (Benefits = 6 variables; External Problems = 5 variables; Local Problems = 4 variables), this was not a concern for this analysis.

Cluster Analysis of Poll 8

A hierarchical cluster analysis of the respondents during poll 8 in fall 1995 was first performed to determine the number of potential cluster solutions that exist. A smaller number of responses were needed in order for the software to perform the hierarchical cluster analysis (Hair et al., 2006, p. 591) therefore 25% of the poll 8 respondents were selected in order to reduce the sample to a manageable size. Demographic information for the sample, and responses to the good idea to host and plan to attend questions were compared to all poll 8 respondents to ensure that the sample was representative. The random sample resulted in 124 usable responses. This number was sufficient for performing the hierarchical cluster analysis. A Ward's method with a squared Euclidean distance measure was selected for performing the analysis. Ward's method can result in the selection of homogenous clusters, though the clusters may have more similarity in size than those produced by other methods (Hair et al., 2006). The number of clusters was not specified since it was not known how many clusters would emerge. The review of literature indicated that between 3 and 5 clusters was most likely.

To determine the number of clusters, a stopping rule was necessary. The most common was an examination of the agglomeration coefficients for large increases in the percentage of change in the heterogeneity measure. Large increases indicated the joining of two different clusters, while smaller percentage changes in the coefficient indicated the joining of two similar groups. The largest increase usually occurred with the joining of the final two clusters, so it was necessary to look beyond that grouping for other potential solutions. The agglomeration coefficient for the poll 8 cluster analysis indicated the potential for either three or four clusters. An examination of the dendrogram verified the potential for the three and four cluster solutions. The analysis was run once more to save the cluster membership for the three and four cluster solutions. The means of each cluster on all fifteen of the impact statements were computed and

saved as their own SPSS files (one file for the three clusters and one for four clusters). The mean scores were used as cluster seeds for the non-hierarchical analysis.

A k-means analysis was first run for the three cluster solution utilizing the full number of responses from poll 8. A k-means cluster procedure allows respondents to be reclassified (or switch clusters) as the clustering process occurs, which the hierarchical procedure does not. This allows the respondents to have a greater likelihood of being correctly classified. The distance measures between clusters indicated that the greatest distance (9.271) existed between clusters 1 and 3 indicating that they were the most dissimilar. The distances between clusters 1 and 2 (7.903) and between clusters 2 and 3 (7.992) were closer. The final cluster centers represented the mean scores of the three clusters on each of the clustering variables (Table 4.14). The clustering variables (impact statements) were arranged by the three factors to assist with the interpretation of the cluster solution.

TABLE 4.14
Poll 8 Final Cluster Centers - 3 Clusters

		Cluster				
Factor		1 (n = 117)	2 (n = 214)	3 (n = 214)	F	Sig.
Benefits	Enhanced image	5.24	8.62	8.17	150.678	.000
	Citizen pride	5.24	8.47	7.84	136.779	.000
	Economic impact	4.54	8.39	8.08	159.717	.000
	Increased tourism	5.29	8.05	7.59	98.710	.000
	Olympic Facilities	5.46	8.03	8.15	91.233	.000
	International Recognition	6.05	8.75	8.89	111.125	.000
External Problems	Bad Attitude of Tourists	5.77	6.15	3.22	109.058	.000
	Bad Attitude of Residents	6.09	6.23	3.07	120.728	.000
	Terrorism	5.42	6.46	3.63	70.457	.000
	Civil Unrest	5.36	6.27	3.48	86.569	.000
	Unfair Distribution	6.54	7.33	4.53	94.677	.000
Local Problems	Traffic Congestion	9.39	9.61	8.81	17.718	.000
	Price Gouging	8.79	9.23	7.51	47.334	.000
	Law Enforcement Strain	7.94	9.00	6.39	106.083	.000
	Street Crime	7.45	8.07	4.87	146.750	.000

Scale: 1 = *very small benefit (very small problem)* to 10 = *very large benefit (very large problem)*

As expected, the clusters showed significant differences on each of the clustering variables. Cluster 1 was the smallest of the three clusters and as a group of respondents, they had the least positive outlook regarding the Benefits of the Olympic Games with most of the mean scores hovering in the middle of the 10-point scale. Cluster 1 ranked second on all of the liability questions, however, External Problems were not perceived by this group to be as important as Local Problems. Cluster 2 expected the most benefits from the event, ranking all benefits greater than 8.00. Cluster 2 also ranked all of the liabilities higher than the other two clusters. They expected the event to have big impacts, both positive and negative. Cluster 3 expected positive impacts from the event with most of the benefit statements ranking second. They were most similar to cluster 2 on the Benefits however they differed greatly from the other two groups on the liabilities factors. While they anticipated that Local Problems would occur, they did not agree that External Problems were a concern – all of cluster 3's mean scores for External Problems were below 4.53.

The clusters in the four cluster solution (Table 4.15) also showed significant differences on the clustering variables among all clusters. The distance measures between the cluster ranged from 6.827 between clusters 1 and 3 to 13.518 between clusters 3 and 4. Cluster 1 (n = 138) viewed the Local Problems to be more important than either the External Problems or Benefits. International recognition (7.58) was viewed as the most positive expected Benefit. Unfair distribution of state resources was the only variable among the External Problems to be perceived by cluster 1 as being important. Cluster 2 respondents (n = 170) could be characterized as perceiving all of the impacts to be likely. They had the highest mean scores on all but one of the Benefit variables, and on all but one of the Local Problems variables with all cluster centers greater than 8.0. Cluster 2 had mean scores between 6.38 and 7.42 on External Problems. Cluster 3 (n = 194) was the largest of the four groups and their cluster centers indicated that they were the most positive group. Cluster 3's means for the Benefit variables were highest of the four groups for Olympic facilities and international recognition while all of the other variables for that factor ranked second, but were still very positive. External Problems were not perceived to be a concern for cluster 3 and were lowest of the four groups. Local Problems also had the lowest centers for cluster 3 although the mean scores varied widely; traffic congestion, price gouging and law enforcement strain were thought to be problems, but street crime was not. Cluster 4 (n = 43) was the smallest cluster and the cluster with the most negative

perceptions. Cluster 4 was the only group with Benefit means below 5.00 for any variable, and only Olympic facilities (5.30) exceeded that mark. In contrast, both External Problems and Local Problems were perceived by cluster 4 to be concerns with all cluster centers greater than 6.50.

A few interesting observations can be made when comparing the analysis for poll 8. For both the three cluster and four cluster solutions, the smallest group expected low to moderate Benefits but high Local Problems. Traffic congestion was the only impact, positive or negative, to be relatively similar across all of the clusters; all groups of residents perceived traffic to be a potentially large problem, thus this variable does not do as well at discriminating between the groups. In fact, almost all of the Local Problems variables were perceived to be a concern by all groups with only one mean score for street crime dropping below 6.0.

TABLE 4.15
Poll 8 Final Cluster Centers - 4 Clusters

		Cluster					
		1	2	3	4		
Factor		(n = 138)	(n = 170)	(n = 194)	(n = 43)	F	Sig.
Benefits	Enhanced image	6.66	8.79	8.34	4.07	111.476	.000
	Citizen pride	6.43	8.69	7.98	4.40	97.339	.000
	Economic impact	5.54	8.91	8.28	4.00	143.113	.000
	Increased tourism	6.24	8.30	7.75	4.40	83.745	.000
	Olympic Facilities	6.05	8.35	8.35	5.30	77.778	.000
	International Recognition	7.58	8.88	8.96	4.37	102.554	.000
External Problems	Bad Attitude of Tourists	4.83	6.38	3.11	7.58	103.285	.000
	Bad Attitude of Residents	5.17	6.42	2.89	7.80	109.478	.000
	Terrorism	4.84	6.72	3.61	6.60	55.210	.000
	Civil Unrest	4.75	6.45	3.50	6.57	62.255	.000
	Unfair Distribution	6.28	7.42	4.39	7.55	72.040	.000
Local Problems	Traffic Congestion	9.07	9.66	8.93	9.66	9.914	.000
	Price Gouging	8.91	9.24	7.42	8.64	32.257	.000
	Law Enforcement Strain	7.92	9.08	6.34	8.25	66.495	.000
	Street Crime	7.02	8.07	4.81	8.52	95.870	.000

Scale: 1 = *very small benefit (very small problem)* to 10 = *very large benefit (very large problem)*

Cluster Analysis of Polls 9-11

Nine percent of the responses from polls 9-11 were selected for inclusion in a hierarchical cluster analysis procedure resulting in 222 responses. This percentage was selected to reduce the number of responses to a manageable number for the software program (Hair et al., 2006, p. 591), while allowing for a good representation of the three polls. Demographic data for the subsample was compared to that of polls 9-11 to ensure a representative sample. In addition, the percentages of the responses from each poll were examined to ensure a representative sample from each time period, and it was determined that the sample was representative of the overall data. Following the method used for poll 8, the Ward's method and squared Euclidean distance measure were utilized for clustering. The number of clusters desired was not specified during the initial analysis, and a similar stopping rule was utilized to determine the potential number of clusters. The percent change in the agglomeration coefficients again suggested that three or four clusters were the most likely solutions. An examination of the dendrogram also confirmed the possibility for three or four clusters. The analysis was run once more, and the three and four cluster solutions were saved to the data set. Mean scores of the impact statements for the three and four cluster solutions were saved for use in the k-means analysis of all respondents in polls 9-11.

The k-means analysis was performed first for the three cluster solution. The distance between each of the cluster centroids was relatively similar. Clusters 2 and 3 were the least similar (8.95); while the most similar clusters (1 and 3) had a difference score of 8.127. Cluster 1 (n = 662) had the highest cluster centers for both Local Problems and External Problems, though only Local Problems were perceived to be a large concern (Table 4.16). Cluster 1 also perceived the positive impacts to be a large benefit with all scores ≥ 7.70; international recognition (8.70) was the most positive Benefit. Cluster 2 (n = 440) perceived Local Problems to be most significant, and had the lowest mean scores for Benefits; only international recognition had a positive mean (5.85). External Problems were not a concern among cluster 2. Cluster 3 (n = 801) was the largest group and the most positive overall. Cluster 3 believed the games would be a Benefit to the community and although their mean scores for Local Problems ranged from 5.08 (street crime) to 8.27 (traffic) their scores ranked lowest of the clusters on this factor. External Problems were perceived to be of low concern to cluster 3.

TABLE 4.16
Polls 9-11 Final Cluster Centers - 3 Clusters

		Cluster				
		1	2	3		
Factor		(n = 662)	(n = 440)	(n = 801)	F	Sig.
Benefits	Enhanced image	8.06	4.52	8.15	630.086	.000
	Citizen pride	7.70	4.57	7.89	457.539	.000
	Economic impact	7.88	4.26	7.77	497.682	.000
	Increased tourism	7.74	4.79	7.50	344.289	.000
	Olympic Facilities	7.71	4.73	7.63	356.493	.000
	International Recognition	8.70	5.85	8.87	350.533	.000
External Problems	Bad Attitude of Tourists	5.83	4.42	3.12	270.031	.000
	Bad Attitude of Residents	6.10	4.79	3.08	329.512	.000
	Terrorism	6.74	4.70	3.26	410.251	.000
	Civil Unrest	6.47	5.03	3.66	304.955	.000
	Unfair Distribution	6.51	5.62	3.62	316.288	.000
Local Problems	Traffic Congestion	9.62	8.88	8.27	102.667	.000
	Price Gouging	8.97	7.64	6.74	170.942	.000
	Law Enforcement Strain	8.61	7.47	6.23	212.490	.000
	Street Crime	8.02	6.90	5.08	345.620	.000

Scale: 1 = *very small benefit (very small problem)* to 10 = *very large benefit (very large problem)*

The distance measures for the four group solution ranged from 6.101 (the distance between clusters 3 and 4) to 11.665 (the distance between clusters 1 and 3). Table 4.17 showed the cluster centers for the four cluster analysis. In describing the clusters, cluster 1 (n = 380) was the smallest group and they can be characterized as regarding all impacts to be important. Benefits were rated from 7.26 to 8.23, and External Problems and Local Problems were rated higher by cluster 1 than by any other cluster. Cluster 2 respondents (n = 403) did not believe that positive impacts would occur because of the event; their scores on the Benefits were lowest of all clusters. Cluster 2 believed that the Local Problems would occur, but did not place any importance on the External Problems. Cluster 2 was the most negative group of residents. Cluster 3 (n = 486) was the most positive of all resident segments. While the Benefits variables ranked second or third for this cluster, the lowest mean score of 7.23 (increased tourism) indicated that this group felt that benefits would happen as a result of hosting the event. In contrast, cluster 3 ranked the lowest on both External Problems and Local Problems. Cluster 4 (n = 634) was the largest group and rated the Benefits highly, but did not feel that External Problems would occur. Local Problems however were also thought to be a problem among cluster 4.

TABLE 4.17
Polls 9-11 Final Cluster Centers - 4 Clusters

		Cluster					
Factor		1 (n = 380)	2 (n = 403)	3 (n = 486)	4 (n = 634)	F	Sig.
Benefits	Enhanced image	7.60	4.47	7.86	8.42	393.886	.000
	Citizen pride	7.33	4.50	7.59	8.10	298.743	.000
	Economic impact	7.44	4.16	7.31	8.29	346.149	.000
	Increased tourism	7.60	4.68	7.23	7.80	232.066	.000
	Olympic Facilities	7.26	4.71	7.30	8.02	229.299	.000
	International Recognition	8.23	5.70	8.56	9.23	266.374	.000
External Problems	Bad Attitude of Tourists	6.92	4.38	2.83	4.01	283.790	.000
	Bad Attitude of Residents	7.38	4.73	2.85	3.96	356.184	.000
	Terrorism	7.70	4.64	3.01	4.55	312.071	.000
	Civil Unrest	7.10	4.97	3.19	5.01	242.470	.000
	Unfair Distribution	7.19	5.61	3.20	4.94	242.033	.000
Local Problems	Traffic Congestion	9.64	8.89	7.59	9.41	137.683	.000
	Price Gouging	9.09	7.62	5.69	8.53	226.107	.000
	Law Enforcement Strain	8.81	7.43	5.47	7.85	197.894	.000
	Street Crime	8.59	6.90	4.30	6.76	325.234	.000

Scale: 1 = *very small benefit (very small problem)* to 10 = *very large benefit (very large problem)*

In determining whether all of the polls could be combined, there must be a similarity in the structure of the resident responses. The emphasis was on data reduction for the factor analysis, therefore selecting the smallest number of factors helped to simplify subsequent analysis. For the cluster analysis, the concern was not in selecting the smallest number of clusters, per se, but in selecting groups that were meaningful and which could be interpreted in a practical manner. For both poll 8 and polls 9-11, the four cluster solution identified groups of residents which were difficult to differentiate from each other in a meaningful way. For example in poll 8 clusters 1 and 2 had similar patterns across the three factors with the only difference being the mean scores for cluster 2 were higher. The same pattern occurred in polls 9-11 for clusters 3 and 4. Those clusters had the same perceptions of the impacts; they only varied in the degree to which they believed the impacts would occur.

With regard to the three cluster solution, there were similarities in the groupings between poll 8 and polls 9-11. Cluster 3 for both analyses was nearly identical with regard to their cluster centers; residents perceived Benefits to be high, External Problems to be low, and expected moderate Local Problems with the exception of traffic congestion. Cluster 2 in poll 8 and cluster 1 in polls 9-11 both had high perceptions of Benefits and Local Problems, and moderate

perceptions of External Problems. Cluster 1 in poll 8 and cluster 2 in polls 9-11 had moderate perceptions of Benefits and External Problems and high perceptions of Local Problems. The agglomeration coefficients indicated that for both analyses a three cluster solution was viable. Examination of the cluster centers confirms that this was true for both analyses. Therefore it appeared reasonable to combine all of the polls and to perform the cluster analysis once more.

Cluster Analysis of Polls 8-11 Combined

A random sample of 7% of the full number of respondents from polls 8-11 was selected to generate a small enough subsample for SPSS to perform the final hierarchical analysis. The smaller percentage was selected due to the increase in the overall sample size when all polls were combined. Even though the previous steps suggested that the three cluster solution was the most practical, performing this initial step was necessary to generate the cluster seeds for the k-means analysis. It also served as a means of verifying the combination of all four of the polls. After verifying that the sample of 239 respondents was representative of the entire set of respondents, a hierarchical cluster analysis was performed using the Wards method and the Squared Euclidean distance measure. No specific number of clusters was specified in advance, but an examination of the dendrogram suggested a three cluster solution. The change of percentage in the agglomeration coefficients as the clusters joined together verified that the three cluster solution was ideal for the combined polls. The hierarchical analysis was run a second time and cluster memberships for each respondent were saved. Mean scores for the fifteen impact statements were generated for each cluster and saved for use as cluster centers in the k-means analysis.

The k-means analysis was run on the entire set of respondents from polls 8-11. The distance measures were 8.937 (clusters 1 and 2); 8.638 (clusters 2 and3); and 8.128 (clusters 1 and 3) indicating that the cluster centers were spread somewhat equally. Labeling the clusters helps to provide an understanding of the resulting groups. For this analysis, cluster 1 was labeled as “Supporters”. Cluster 2 was called the “Cynics”, and cluster 3 was labeled “Realists” (Table 4.18). The clusters will be referred to by these names for the remainder of the study.

TABLE 4.18
Polls 8-11 Final Cluster Centers

		Cluster				
Factor		1 Supporters (n = 1033)	2 Cynics (n = 573)	3 Realists (n = 843)	F	Sig.
Benefits	Enhanced image	8.13	4.68	8.28	807.280	.000
	Citizen pride	7.85	4.74	7.96	586.634	.000
	Economic impact	7.84	4.33	8.06	684.434	.000
	Increased tourism	7.52	4.89	7.87	465.036	.000
	Olympic Facilities	7.72	4.88	7.87	472.719	.000
	International Recognition	8.88	5.97	8.70	440.605	.000
	Mean - Benefits	*7.99*	*4.91*	*8.12*		
External Problems	Bad Attitude of Tourists	3.13	4.74	5.99	395.573	.000
	Bad Attitude of Residents	3.08	5.05	6.23	466.791	.000
	Terrorism	3.34	4.96	6.70	472.517	.000
	Civil Unrest	3.67	5.10	6.44	371.899	.000
	Unfair Distribution	3.81	5.88	6.75	420.248	.000
	Mean - External Problems	*3.41*	*5.15*	*6.42*		
Local Problems	Traffic Congestion	8.41	9.02	9.61	112.455	.000
	Price Gouging	6.91	7.91	9.07	216.961	.000
	Law Enforcement Strain	6.33	7.64	8.66	273.294	.000
	Street Crime	5.08	7.08	8.02	458.022	.000
	Mean - Local Problems	*6.68*	*7.91*	*8.84*		

Scale: 1 = *very small benefit (very small problem)* to 10 = *very large benefit (very large problem)*

A chi-square analysis was used to profile the clusters based on the demographic information; this could aid in the interpretation of the segments (Table 4.19). The low number of Asian, Hispanic, and Native American respondents caused too many cells in the chi-square analysis to fall below the expected count of 5 cases per cell. Therefore, these three racial categories were combined and the results for the combined racial categories (along with white and African-American respondents) were presented here. Demographic variables with more than four levels were also combined to a smaller number of levels in order to simplify the interpretation and description of the clusters. Level of education, household income, and age were reported in this section using the recoded variables.

TABLE 4.19
Resident Perception Clusters by Demographics (% within cluster)

Demographics		Supporters (n = 1033)	Cynics (n = 573)	Realists (n = 843)	Chi-Square	Sig.
Race	White	78.9%	78.5%	68.4%	36.290	.000
	African American	18.3%	19.6%	29.2%		
	Other	2.8%	1.9%	2.4%		
Level of Education	High School or Less	27.4%	36.5%	45.5%	77.626	.000
	Some College	30.9%	29.6%	28.7%		
	College or more	41.7%	33.9%	25.7%		
Political Party	Democrat	32.3%	27.3%	32.5%	22.750	.001
	Republican	30.7%	26.3%	24.5%		
	Independent	31.4%	37.5%	34.1%		
	Don't think in that way	5.7%	8.9%	8.9%		
Household Income	< 25,000	20.2%	22.6%	28.1%	19.564	.001
	25,000 - 49,999	43.0%	42.7%	43.5%		
	> 50,000	36.8%	34.7%	28.5%		
Sex	Male	50.6%	49.3%	40.8%	19.658	.000
	Female	49.4%	50.7%	59.2%		
Residency	Metro	41.6%	36.7%	32.7%	15.937	.000
	Non-metro	58.4%	63.3%	67.3%		
Age	18-34	43.6%	39.3%	46.7%	13.491	.009
	35-54	39.2%	38.1%	37.2%		
	> 55	17.2%	22.6%	16.0%		

Supporters were the largest cluster (n = 1033) and on the whole they were the most positive cluster with respect to the impacts of the mega-event (Table 4.18). Their cluster centers for Benefits were all high, though not the highest of the three clusters. External Problems were not seen as a concern by this group, and both External Problems and Local Problems were the lowest among the three clusters. Traffic congestion was a concern for Supporters as it was for all of the clusters, but the other Local Problems were of moderate concern. Although some segmentation studies had used the term "Lovers" for their most positive group of residents, the term Supporters has been adopted here instead because this segment of residents did not have the highest means for Benefits, and they also acknowledged that some local liabilities were a concern. All three clusters could be described as predominantly white, but Supporters (78.9%) consisted of the highest percentage. They were the cluster with the highest overall level of education (only 27.4% of respondents had high school education or less) and the cluster with the highest household income, though most respondents (43%) fell into the middle range. Supporters were almost evenly distributed across the three political affiliations and by gender.

Although most of the respondents resided outside of the metro area, Supporters had the highest percent (41.6%) living inside the metro Atlanta area. Most respondents in this cluster were between 18 and 34 years old (43.6%).

Cynics were the smallest cluster (n = 573) though they made up nearly a quarter of the respondents. Like all of the clusters, they perceived the Local Problems to be of greater importance to them than the External Problems. It was their perception of the Benefits that set the Cynics apart from the other two clusters. While Supporters and Realists perceived Benefits to be likely, the Cynics had only one mean score (international recognition – 5.97) above the midpoint on the scale. They were not labeled "Haters" as was done in previous studies simply because their most negative cluster centers still could be described as moderately negative. Traffic congestion was the variable that this group felt the most passionately about. Cynics shared a similar profile as the Supporters on several variables: race, household income, and gender, were nearly identical between Supporters and Cynics. Cynics were fairly evenly distributed across the levels of education ranking second among all clusters on each of the education levels. Politically, the Cynics were much more likely to be independent than Republican or Democrat. Metro residents consisted of 36.7% of Cynics. They were the cluster with the highest percentage of seniors; 22.6% of residents were over 55 years of age.

The Realists (n = 843) got their name because of similarities to a group found by Madrigal (1995) in his resident segmentation study; Fredline & Faulkner (2000) also uncovered a similar group and utilized the same name. Those authors found segments of residents who rated positive and negative impacts highly, as did the Realists in this study. They were given the name because of their assessment that positive and negative impacts were possible and not mutually exclusive. The External Problems, though ranked first among the three groups, were not viewed by Realists to be as big of a concern as Local Problems. Though most respondents were white, Realists had the highest percentage of African-Americans (29.2%) among the three clusters. Nearly half of respondents (45.5%) had a high school education or less. Most respondents fell into the $25-50,000 household income category. The upper income level was virtually the same as the lower income level among Realists; however the Realists' upper income level was the lowest of the three clusters, while the Realists' lowest level of income was the highest for the three clusters. This cluster was the only one showing a difference among genders (59.2% were female). They were the youngest cluster with the highest percentage of 18-34 year

olds (46.7%) and the smallest percentage of those over 55 years of age (16%). The Realists had the smallest percentage of Republicans (24.5%), and the smallest percentage of metro Atlanta residents (32.7%) of the three resident segments.

The clusters can also be profiled with respect to the two support variables (Table 4.20). All of the clusters agreed with the statement that it was a good idea to host the Olympics, but not surprisingly the Supporters were nearly unanimous (95.5%) in their assessment of this question. Supporters also indicated that they planned to attend an Olympic event (41.7%) to a greater degree than Cynics or Realists. The Cynics did agree that it was a good idea to host the Olympics (66.3%), but they did not plan to attend the Olympic events (78.4%). More Realists agreed that it was a good idea to host the Olympics (83.6%) than did not, and 33.9% planned to attend some of the Olympic events.

TABLE 4.20
Resident Perception Clusters by Support Questions (% within cluster)

Question		Supporters	Cynics	Realists	Chi-Square	Sig.
Good Idea to Host	Yes	95.5%	66.3%	83.6%	233.422	.000
	No	4.5%	33.7%	16.4%		
Plan to Attend	Yes	41.7%	21.6%	33.9%	64.525	.000
	No	58.3%	78.4%	66.1%		

Finally, the clusters could be examined in each of the four time periods to determine how the cluster distribution varied over time (Table 4.21). In fall 1995, the Realists were the largest group, but Supporters dominated the final three polls. Cynics had the most dramatic increase from one poll to the next with an 11.4% increase in respondents from the fall 1995 poll to the winter 1996 poll. All of the polls showed variation between each of the three clusters.

TABLE 4.21
Resident Perception Clusters by Poll Date (% within poll date)

		Supporters	Cynics	Realists	Chi-Square	Sig.
Poll Date	Fall 1995	37.2%	18.3%	44.4%	54.600	.000
	Winter 1996	42.1%	29.7%	28.3%		
	Spring 1996	48.3%	21.7%	30.1%		
	Summer 1996	40.3%	23.0%	36.7%		

MANOVA

The next step in testing Hypothesis 2 was to perform a MANOVA using the factor scores generated in testing the first hypothesis as the dependent variable. Several variables could be utilized to represent the unique characteristics of the residents. The literature review showed that residents were not a homogenous set of individuals who felt the same about tourism, events and their impacts. The cluster analysis was performed to identify the underlying dimensions of resident perceptions toward the Olympic Games and its impacts. Each cluster consisted of groups of residents who felt similarly about the event's impacts, and the cluster memberships could be used to represent distinct segments of the host community. Another characteristic of residents that had resulted in different findings in the literature was the proximity of residents to the tourism/event zone. The geographical proximity of the resident to the event may have an impact on the residents' perceptions of the event impacts. Two MANOVA techniques, the first using cluster membership, and a second using proximity, were utilized in assessing changes in the factor scores over the four time poll dates.

Cluster Membership

With the clusters set, the MANOVA technique could then be applied to determine the change in resident perceptions over time based on the resident groups. The three factor scores were used as the dependent variables representing the residents' perceptions of the event impacts. The four poll dates served as one independent variable and the cluster memberships, which were assigned to the respondents, was the other independent variable. Group sizes were not equal; the smallest group was 105 respondents and the largest consisted of 303 respondents. The assumption of independence was met through the assignment of respondents to only one cluster for only one time period. The Box's M test was statistically significant [$F (66; 3705727) = 7.400$, $p < .000$]. The Levene's test for the homogeneity of the dependent variables was significant for all factors ($p < .000$); Benefits [$F (11; 2429) = 4.313$], External Problems [$F (11; 2429) = 5.599$], and Local Problems [$F (11; 2429) = 18.917$]. As mentioned before, both the Box's M test and the Levene's test were affected by either the normality of variables or the size of the database, however, the MANOVA technique was considered robust with regard to violations of these assumptions (Stevens, 2002). The Bartlett's Test of Sphericity was

acceptable (χ^2 = 643.665 [5 df]; p < .000) indicating that the variables showed sufficient correlation.

The interaction between the clusters and the polls was significant in the multivariate tests (Table 4.22) indicating that the two variables collectively had a greater effect on the dependent variable than they did individually. Resident opinions of the event were affected over time by the cluster membership. The interaction was considered ordinal: for all three factors, the clusters maintained their order on the factor scores across each of the four time periods. Effect sizes (partial eta squared) for the two independent variables and their interaction showed that cluster membership was the variable with the greatest effect on the factor scores. Power levels for both independent variables and for the interaction were high indicating that it was likely that a treatment effect would be identified if present.

The univariate tests (Table 4.23) for the interaction showed that the only factor for which a significant interaction occurred was factor 2 – External Problems. The interaction for the three factors was shown graphically in the figures found in Appendix E.1. Over the year leading up to the Olympics, the Realists had the highest expectation that External Problems would occur, and those perceptions stayed relatively the same over time. Supporters had the lowest perception of the External Problems. The group with the biggest change in opinion of the External Problems over time was the Cynics. During the winter 1996 poll, their perception of External Problems decreased, while the Supporters saw a slight increase. In the spring poll the Supporters believed that External Problems were less of a concern, while the Cynics perception of the External Problems increased over the final two polls. The perceptions of Cynics and Supporters moved in different directions in all but the final poll.

TABLE 4.22
Multivariate Tests for Poll Date and Cluster Membership

Effect	Pillai's Trace	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power
Poll date	.038	10.433	9.000	7287.000	.000	.013	1.000
Clusters	1.128	1046.871	6.000	4856.000	.000	.564	1.000
Poll Date * Clusters	.021	2.823	18.000	7287.000	.000	.007	.999

Computed using alpha = .05

TABLE 4.23
Univariate Tests for Poll Date and Cluster Membership

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Cluster	Benefits	1286.157	2	643.078	1492.946	.000	.551	1.000
	External Problems	1079.434	2	539.717	988.925	.000	.449	1.000
	Local Problems	301.400	2	150.700	173.055	.000	.125	1.000
Poll date	Benefits	15.399	3	5.133	11.916	.000	.015	1.000
	External Problems	12.930	3	4.310	7.897	.000	.010	.990
	Local Problems	21.157	3	7.052	8.098	.000	.010	.992
Cluster * Poll date	Benefits	4.855	6	.809	1.878	.081	.005	.705
	External Problems	14.079	6	2.346	4.299	.000	.011	.983
	Local Problems	6.628	6	1.105	1.269	.268	.003	.506

Computed using alpha = .05

Main effects were significant for both poll date and cluster membership (Table 4.22) and the univariate tests (Table 4.23) showed that for both independent variables those effects were significant across all three factors. Realists and Supporters had consistently high perceptions of the Benefits (shown in Appendix E.1), while the Cynics maintained a negative perception of the benefits across all time periods despite the increase in the factor scores over the final two polls. Realists maintained the highest perception of the Local Impacts while Supporters did not agree that Local Problems would be a concern. Cynics believed that Local Problems were a concern, but not to the extent that the Realists did. Post hoc tests for cluster membership (Appendix E.2) and poll date (Appendix E.3) were examined since both groups had more than two levels. Significant differences can be seen between cluster membership and between the four poll dates.

In summary, the MANOVA technique using the clusters and poll dates as independent variables showed significant interaction between the independent variables with respect to the External Problems factor. Thus, Hypothesis 2 was supported with respect to using resident clusters as a distinguishing characteristic of residents. As expected from the literature review, a group of residents who were largely positive in their assessment of the potential impacts and a group who felt the event would have negative impacts were identified. The third group that emerged did not have scores that fell in between the two groups; the Realists felt that both positive and negative impacts would result from the event – and they held those perceptions to a

greater extent than Supporters or Cynics. Realists rated the Benefits, External Problems and Local Problems higher than the other two clusters, indicating that they perceived great positive and negative impacts over all of the time periods covered in this study. Supporters consistently rated the Benefits high over the four time periods, but not quite to the extent that the Realists did. Cynics rated Benefits the lowest of the three groups. With regard to the liabilities of the event, Supporters rated these impacts lower than the other clusters across each time period. In most cases, variations in the factor scores are present over time for each of the clusters of residents.

Proximity

The second MANOVA technique examined whether the perception of event impacts by residents living in and out of the Olympic "zone" varied over time as a result of their proximity to the event. The three factor scores were used as the dependent variables with the four poll dates and proximity (metro and non-metro) serving as the independent variables. Group sizes were again unequal with the largest group consisting of 457 residents and the smallest consisting of 186 residents. The Box's M test for equality of the variance-covariance matrices was significant [F (42; 5431672) = 3.420; $p < .000$]. The Levene's test for the equality of variances for the individual dependent variables was significant for Benefits [F (7; 2433) = 2.512; $p = .014$] and for Local Problems [F (7; 2433) = 6.727; $p < .000$], but was non-significant for External Problems [F (7; 2433) = 1.012; $p = .421$]. The External Problems variables were the most normally distributed of the three dependent variables. The Bartlett's test of sphericity was non-significant ($\chi^2 = .990$ [5 df]; $p = .963$) indicating that the data did not show significant correlation among the variables in the analysis. These results must be considered in the analysis of the results.

Multivariate tests of significance (Table 4.24) showed that the interaction between the poll dates and proximity was non-significant indicating that the two independent variables did not jointly affect the dependent variable. The univariate tests (Table 4.25) confirmed non-significant interactions for Benefits ($p = .364$) and Local Problems ($p = .585$). External Problems did have a significant for interaction ($p = .045$), however the interaction was considered disordinal due to the change of order in the responses of metro and non-metro residents for the winter 1996 poll. Disordinal interactions for External Problems and for Benefits could be seen in Appendix F.1, therefore, the main effects could only be interpreted for Local Problems.

TABLE 4.24
Multivariate Tests for Poll Date and Proximity

Effect	Pillai's Trace	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power
Poll date	.044	12.207	9.000	7299.000	.000	.015	1.000
Proximity	.006	5.091	3.000	2431.000	.002	.006	.922
Poll date * Proximity	.005	1.464	9.000	7299.000	.155	.002	.711

Computed using alpha = .05

The Local Problems factor was not significant for interaction, but the univariate tests (Table 4.25) showed that both poll date ($p < .000$) and proximity ($p = .013$) were significant. Over time the residents had changing opinions on the local impacts of the event. Surprisingly, metro residents felt less strongly about the impact of Local Problems than non-metro residents in each of the polls (Appendix F.1), though both groups felt less concerned immediately before the event than they did one year prior to the event. It should be remembered that while the metro Atlanta area hosted most Olympic events, there were some events scheduled outside of the metro area. Non-metro residents could have been in proximity with event venues outside of Atlanta, but this was not possible to know for certain due to the initial coding of respondents by Georgia State Poll administrators. Post hoc tests for the differences between the poll dates (Appendix F.2) once again showed a number of significant differences over the four time periods.

TABLE 4.25
Univariate Tests for Poll Date and Proximity

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Poll date	Benefits	41.440	3	13.813	14.066	.000	.017	1.000
	External Problems	42.912	3	14.304	14.495	.000	.018	1.000
	Local Problems	24.195	3	8.065	8.106	.000	.010	.992
Proximity	Benefits	2.459	1	2.459	2.504	.114	.001	.353
	External Problems	6.272	1	6.272	6.355	.012	.003	.712
	Local Problems	6.100	1	6.100	6.131	.013	.003	.697
Poll date * Proximity	Benefits	3.128	3	1.043	1.062	.364	.001	.290
	External Problems	7.972	3	2.657	2.693	.045	.003	.658
	Local Problems	1.929	3	.643	.646	.585	.001	.187

Computed using alpha = .05

In sum, while resident perceptions of Benefits and Local Problems were shown to vary over time, no significant interaction existed between proximity and time with respect to resident perceptions. However, there were significant main effects for both poll date and proximity that could be interpreted. Thus, while Hypothesis 2 received some support from the inclusion of the proximity variable in this study, the violations of the equality of the variance-covariance matrices assumption must be considered. This is likely due to the non-normality of some of the variables and the disparity in group sizes. Non-metro residents did perceive greater Local Problems from the event than did metro residents. This result could be affected by the large size of the non-metro group. As was shown in the profile of the cluster analysis, the Cynics and Realists had larger percentages of non-metro residents than Supporters; and both Cynics and Realists were more likely than Supporters to agree that the Local Problems were a large concern.

Overall, Hypothesis 2 is supported when using cluster membership based on residents' perceptions of the event impacts as a distinguishing resident characteristic. However, the lack of interaction between poll date and proximity, and the violation of assumptions suggest that the proximity variable is not as well suited as cluster membership in representing a distinct characteristic of residents. A summary table of the hypotheses and the results is presented in Table 4.26.

TABLE 4.26

Summary of Hypotheses Tests

	Research Hypotheses	Statistical Methods	Result
H1	The perceived benefits and perceived liabilities of a mega-event will vary over time as a function of residents' support for the mega-event.	Factor Analysis, MANOVA	Supported
H2	The perceived benefits and perceived liabilities of a mega-event will vary over time as a function of select resident characteristics.	Cluster Analysis, MANOVA	Supported

Summary

This chapter presented the results of the statistical analysis for the two hypotheses and an explanation of the steps taken to address concerns of applying the factor and cluster analyses on data collected over four time periods. The analyses showed that while some variation occurred over time, a similar structure could be identified for the variables and the respondents which allowed the data from the different polls to be combined. The factor analysis resulted in three factors identified as Benefits, External Problems and Local Problems. Hypothesis 1 was supported through the inclusion of the good idea to host variable. While significant interactions occurred with the use of the plan to attend variable, the Bartlett's Test of sphericity indicated that this variable is not as well suited as good idea to host for inclusion in the MANOVA.

The cluster analysis resulted in three groups of residents: Supporters, Cynics and Realists. Hypothesis 2 received support from the MANOVA utilizing the poll dates and cluster memberships to identify changes in resident perceptions. The non-significant interaction between the poll dates and the proximity variable indicated that proximity was not as well suited as cluster membership for representing distinct resident characteristics. Main effects for poll date and proximity were statistically significant. A further discussion of the results is presented in Chapter V: Discussion and Conclusion.

CHAPTER V
DISCUSSION AND CONCLUSIONS

Introduction

This study evaluated the effect that resident support and certain distinct resident characteristics had on residents' perceptions of a mega-event's impacts. It filled a unique spot among tourism and mega-event research. Many studies had emphasized the need for longitudinal studies in tourism, but few longitudinal studies existed in the area of resident perceptions of tourism and events. The study also added to the growing body of literature on the topics of mega-event impacts, and resident segmentation studies. Residents of host communities were not homogenous in their assessment of tourism and mega-event impacts; therefore, strategies to identify distinct clusters of residents who shared similar impressions of events and the impacts of those events were necessary.

Social exchange theory provided the theoretical basis for this study. Most studies of residents which utilized social exchange theory have taken place at a single moment in time. The primary contribution of this study to the literature on social exchange theory is support for the notion that social exchanges are temporal in nature; residents continually monitor the positive and negative impacts of the event on themselves and on their community. Support for the Olympics in Atlanta varied over time as did residents' assessment of the event's impacts, which demonstrates that resident's perceptions of events must be regularly monitored. Resident support for tourism and mega-events is tied to their evaluation of the event impacts, and this study adds to the literature that demonstrates this connection.

This chapter presents a discussion of the results from the two hypothesis tests in Chapter IV. A discussion of the general findings from this study is followed by a review and discussion of more specific findings from the two research questions. Practical implications for the organizers of future mega-events are explored. The limitations of the study are discussed and the chapter is concluded with suggestions for future research with regard to the impacts of tourism and mega-events.

Discussion of the Research Findings

Existing data collected before the Atlanta Olympic Games was utilized in this study. The data points selected for use in this study were generated as a part of a wider research program on the Atlanta Olympic Games conducted by the Georgia State Poll at Georgia State University from 1992 to 1997. The focus of this dissertation has been the four polls in the year prior to the Olympic Games (from fall 1995 to summer 1996). Post games impressions were not considered as a part of this study. Before a discussion of the two research questions occurs, some general comments can be made about the aggregate data gathered during the four poll dates covered in this analysis.

General Findings

Over the year leading up to the Atlanta Olympic Games, residents maintained strong support for the event, although the level of support fluctuated over the four dates in this study. The number of people who thought it was a good idea for Atlanta to host the Olympic Games was lowest in the final pre-event poll (79.5%). This was reported previously (Mihalik, 2000) and continued the downward trend discussed by Mihalik & Simonetta (1999) in their evaluation of the Atlanta Olympic Polls from spring 1992 to the winter of 1995.

The number of those who planned to attend the games declined steadily in each of the last four pre-event polls covered in this study, which continued the trend reported by Mihalik and Simonetta (1999). With regard to both indicators of support, the residents' level of enthusiasm for hosting the Olympic Games and for attending the games slipped as the event approached. This was in keeping with future optimism theory as explained by Mowen and Mowen (1991) and discussed with regard to the Atlanta Olympic Games by Mihalik & Simonetta (1999). Future optimism theory stated that when an event was perceived to be in the future, benefits were given more weight than costs in the evaluation of the event; but as the event approached, costs took on a greater role in the assessment of the event.

In the observation of the residents' perceptions of the benefits of the mega-event, the means for all six of the benefit statements remained largely positive over the four polls in the

study, and each benefit increased during the last two polls. Thus as the event approached, the residents became more hopeful of the anticipated benefits than they were in the winter of 1996, six months prior to the event. This finding appeared to be in contrast with the decline in the level of resident support. However, the mean scores for the benefits in the final two polls were lower than those in many of the previous polls reported by Mihalik & Simonetta (1999). By far the highest perceived benefit in all polls was international recognition followed by enhancing Georgia's reputation or image. Residents continued to value the psychological benefits (image, pride, and recognition) more highly than the tangible benefits of facility development and economic impacts.

For the perceived liabilities of the event, the top four liabilities were traffic congestion, strain on law enforcement, street crime, and price gouging by hotels, restaurants and vendors. Three of the four had means above 7.0 indicating that residents perceived these to be larger problems; the means for street crime were between 6.0 and 7.0 in each of the polls. Each of the variables increased slightly in the final poll, except for traffic congestion, which was already the highest perceived negative impact. The variables bad attitude of residents, bad attitude of tourists, terrorism, civil unrest, and unfair distribution of government resources to Atlanta and Savannah were all seen by the majority of Georgia residents as a mild concern. The means for all of the benefit statements and the means for all of the liability statements dropped in the second poll. The difference in resident perceptions for these two time periods were identified as statistically significant by many of the post-hoc tests applied in testing the two research questions. A potential explanation for this finding is provided below in the discussion of Research Question 2.

Research Question 1

The factor analysis of the 15 event impact statements showed that the same underlying structure occurred over the four polls in which the data were collected. Three factors were extracted from the impact statements. The factors correlated together on the basis of positive and negative impacts, rather than on other criteria such as tangible/intangible (psychological) impacts. All six benefit statements loaded together in one factor and were named Benefits. The nine liability statements split into two factors and were named External Problems and Local

Problems based upon residents' evaluation of these impacts. These three factors were used in the subsequent hypothesis tests.

In evaluating the first research question (Do residents' perceptions of the impacts of a mega-event change over time based upon their support for the event?), a significant interaction was found between the four poll dates and the good idea to host variable on the Benefits factor. Over time, residents' support or lack of support was an important factor in their evaluation of the benefits of the event. Changes over time in the level of support, and in the residents' assessment of the benefits and liabilities of the event provided support for the temporal nature of social exchange theory and its application to tourism and event studies. These findings indicated that residents continued to monitor the impacts that the mega-event were having on the host community, and that their level of support and their assessment of the impacts were subject to change as the event approached.

While the interaction for the External Problems and Local Problems variables was not statistically significant, the differences in resident perceptions over the four time periods, and the differences between those who supported/did not support the event were significant. Consistent with social exchange theory, those who thought it was a good idea to host the event rated Benefits significantly higher, and rated Local Problems and External Problems significantly lower than those who did not think it was a good idea for Atlanta to host the event in each of the four time periods leading up to the games. Those who planned to attend the games also perceived Benefits more highly and perceived the liabilities to a lesser extent than those who did not plan to attend any Olympic events.

One of the more surprising findings in the testing of the first hypothesis was that for the Benefits factor, a greater increase in the importance of the Benefits occurred from fall 1995 to summer 1996 for the group of residents who did not feel it was a good idea to host the event. While their mean scores remained much lower than those who supported the Olympics, this finding was interesting since the increase in the perception of Benefits occurred during the same time period that overall support for the games among all residents declined, as was indicated in the discussion of the general findings (and shown in Table 4.5). Some potential reasons for this finding are possible. Because support was already high the residents that supported the games may not have had as much room for an increase in their perception of the Benefits as did those residents who did not feel it was a good idea to host the event. It appeared that those who

opposed the games became hopeful that some of the Benefits from hosting the event would occur. Given the extreme amount of media exposure that the Olympics receive, international recognition (the highest anticipated benefit) was a given; it was simply a matter of how positive or negative the media coverage would be. Positive exposure could also likely influence Georgia's image and citizen pride, the next two highest rated Benefits.

Although the plan to attend variable did not appear to be as good a measure of resident support as the good idea to host variable, there was a significant interaction on the Local Problems Factor. Those who planned to attend one or more of the Olympic events perceived Local Problems to be less of a concern than those who did not plan to attend any events. This makes practical sense, as those who planned to attend would likely be willing to accept some of the inconveniences such as traffic congestion, summer heat during the outdoor events, and higher prices for food at the events. The wording of this question was whether the resident perceived the liability to be a large problem or a small problem to the state and its citizens. The perception that a liability was likely to occur and a residents' willingness to put up with the inconvenience are not necessarily the same. Future studies of residents may take this into consideration and include multiple-stage questions to differentiate between whether a resident believed an impact was likely to occur, and the extent to which they believed that impact would affect them and/or the host community (Ap & Crompton, 1998; Fredline & Faulkner, 2001a).

Research Question 2

In evaluating the second research question (Do residents' perceptions of the impacts of a mega-event change over time based on certain characteristics of the residents?) it was first necessary to segment residents. Three distinct clusters of residents were identified over the four time periods based on their perceptions of the benefits and liabilities of the mega-events' impacts. Based on the residents' perceptions of the mega-event impacts, and the demographic profile of the groups, these clusters were labeled Supporters, Cynics, and Realists. Each cluster contained groups of residents with homogenous perceptions of the event impacts, but a great degree of heterogeneity was present between the clusters.

The largest group, the Supporters, had positive perceptions of the Benefits and perceived the External Problems and Local Problems to be of less importance than the other two clusters.

Supporters were the most educated, had the highest household income of the three clusters, and had the highest percentage of Metro residents. Supporters were the most likely to feel that the Olympics were a good idea for Atlanta, and were the most likely to attend one or more of the Olympic events. Cynics were the smallest group and they had a negative perception of all the Benefits except for international recognition. Cynics were also the oldest of the three clusters, and were the least likely to support the games, or to plan on attending the event. Realists had the highest perceptions of event impacts on all three Factors. The Realists were the youngest, the least educated, had the lowest overall household income, were predominantly female, and had the smallest percentage of metro residents. Realists believed it was a good idea for Atlanta to host the games, and a third of them planned to attend.

The percent of respondents in each cluster varied over the four time periods. In fall 1995, the Cynics had their lowest percentage of residents (18.3%), while at the same time Realists had their highest level of respondents (44.4%). But the winter 1996 poll saw the Cynics increase to their highest level (29.7%) and the Realists drop to their lowest percent (28.3%). This change in percent coincides with the drop in both perceived benefits and liabilities from the fall 1995 to the winter 1996 poll and may help in explaining that result. Realists had the highest perception of Benefits, Local Problems and External Problems; they saw that potential benefits and potential liabilities were possible. Given the wording of the benefits and liabilities questions (the questions did not consist of mirror image responses, or positive/negative views of the same impact) it would not be contradictory to assume both great potential benefits and great potential harm. It could be that the Realists saw the Olympic Games as such an extensive and consequential event for the host community, that any impacts were expected to be substantial.

There was a significant interaction between the four time periods and the three clusters with regard to the External Problems factor. Over time, cluster membership had an effect on the perception of the External Problems from the Olympic Games. The Cynics were the group that had the most variety over time in their perception of the External Problems. Main effects were significant for cluster membership, meaning that significant differences existed between the clusters for each of the three factors. Significant differences in the resident perceptions of the event impacts also were found in each of the factors over the four time periods. Overall, the use of the clusters as a distinguishing feature of residents was supported. Residents were not unanimous in their support for the event or in their perception of the event's impacts.

Proximity to the event was not as well suited as a distinguishing characteristic of residents; no significant interaction occurred between proximity and time with regard to the three factors. Once again, there was a significant main effect for poll date among all three factors, emphasizing the importance of evaluating resident perceptions over multiple time periods. Main effects for proximity were valid for the Local Problems and External Problems factors; no significant difference regarding Benefits occurred between metro and non-metro residents. The most unexpected finding regarding the proximity of residents to the event location was that non-metro residents perceived Local Problems to be greater problems than did the metro residents. Group size may have contributed to this finding, however. Cynics and Realists were more likely than Supporters to agree that the Local Problems were a large concern. Cynics and Realists also consisted of larger percentages of non-metro residents than Supporters. It should also be recalled that some Olympic venues were outside of the Olympic ring in the five-county metro Atlanta area. Residents in Athens, Savannah and Columbus, Georgia also may have been in close proximity to Olympic venues, but would have been classified as non-metro residents based on the telephone exchanges. Due to the way that the data was coded by the Georgia State Poll administrators, it is not possible to know the exact location of the respondents, only whether they were in a metro or non-metro location. Proximity to tourism and event locations must be monitored in future resident studies; but a multiple-stage question could be useful in determining whether or not a resident (or non-resident) believed an impact would occur and the extent to which they felt they would personally be impacted.

Managerial Implications from the Research

No two host cities face the same challenges in their preparations for a mega-event. It is important that organizers of future mega-events continue to monitor resident support for the event. The following section presents concepts and ideas that organizers of future mega-events, host community leaders, or others should bear in mind for evaluating the perceptions of residents while pursuing, or preparing for a mega-event. The suggestions are based upon the findings from this study.

The Impact of Time

The support of residents is critical for the organizers of mega-events because residents play an important role in winning bids and hosting events. This support is tied to residents' perception of event impacts. Thus there is a need for monitoring resident support and perceptions. These evaluations should take place over the life-cycle of the event from the early bid stage through the post-event period. The most important finding from this study is that resident support for the event does vary over time in the pre-event stage. In each of the MANOVA tests for both of the research questions, the poll date variable had a statistically significant main effect in the multivariate and univariate tests. Monitoring changing resident opinions was in keeping with social exchange theory which held to the idea that the evaluation of social exchanges was an ongoing process, and that the residents of the host community continued to reevaluate the positive and negative impacts.

Few studies of residents have included a longitudinal dimension. It is important to understand that residents' perceptions of event impacts and the degree of support for an event can change significantly over time. This is consistent with the concept of reinforcement from social exchange theory. Studies of residents which utilize only one point in time for the collection of data cannot provide a complete picture of residents' perceptions. The differences between the fall 1995 and winter 1996 polls in this study are an example of this. Post hoc tests for all of the MANOVA tests (Appendices C-F) showed that the winter 1996 poll was often significantly different than other polls with regard to evaluation of the Benefits, Local Problems and External Problems. In addition, the difference in the percentage of residents in each of the three clusters for the fall 1995 and winter 1996 polls (shown in Table 4.21) highlighted the need for capturing a more complete understanding of residents. It is likely that cross-sectional studies which occur at one point in time will continue to be the norm in tourism and event research. However, researchers must understand the impact of time, and make sure that findings are presented with that limitation in mind. Though longitudinal studies can be expensive and time-consuming, tourism and event research should include a temporal aspect whenever possible for measuring resident perceptions.

Psychological Impacts

Residents understood the psychological value that the mega-event provided to the host community. In fact, as the event approached residents continued to rate the intangible benefits as the most important. This finding lends support to the idea that psychic income (Burgan & Mules, 1992) is an important consideration for mega-event planners to consider and promote to the host community. Organizers must continue to promote these psychological benefits through the entire event process (as a bid city and as a host city) since these benefits are important to residents' overall evaluation of the event. The public relations/communications branch of the organizing committees must include as a part of their stated purpose the transmission of messages designed to promote the psychological benefits of the games, such as those valued by Atlanta residents: civic pride, international recognition and enhanced image of the host community.

Civic pride can be enhanced in several ways by organizers. They should use a variety of mediums for transmitting messages specifically intended to build psychic income for the host community. The use of technologies such as social networking mediums and viral marketing campaigns – using electronic communications which encourage recipients to pass along favorable messages (Dobele, Toleman & Beverland, 2005) – could greatly assist in building connections with residents. On a more tangible level, hosting pre-Olympic events is a strategy often used by organizers to build rapport with residents. Events designed with the specific intent of demonstrating the sport and providing a high level of interaction with spectators should be utilized by organizers in the years prior to the Olympics. This would be most beneficial for those sports that are not known well by the host community or that traditionally have undersold tickets for the Olympics. In the U.S., sports such as handball, shooting, rowing, and badminton receive little attention, even in Olympic years. National governing bodies for these sports could use demonstration events in the years prior to the games to introduce the sport to the host community, to provide spectators with an explanation of the rules and strategies, to allow residents to interact with potential U.S. Olympic athletes, to pre-sell Olympic tickets, and to raise funds for continued sport development and promotion.

Events centered on competition also may be utilized for connecting with residents. Test events for Olympic facilities are held for many of the Olympic sports in the year prior to the

Olympic Games. These events provide organizers with the opportunity to see the facilities in an operational state and they provide residents with a first look inside new facilities. These events provide a unique opportunity for organizers to connect with locals. Test events often include world class athletes, thus providing residents with a glimpse of the sporting competition to come.

Sports events are not the only opportunity to connect with residents. A variety of non-sporting events occur in the host community in the years prior to the games as a part of the Cultural Olympiad. The events which are included in the Cultural Olympiad are determined by the local organizing committee, but they consist of a variety of cultural activities (concerts, theater, art exhibits, etc.) which organizers can use to transmit the Olympic message to the host community. The Cultural Olympiad can be utilized to promote public interest in the games as well as to promote the non-sporting benefits of hosting the Olympics. Connecting with locals through technology, sporting and cultural events may also be useful for soliciting volunteers for the games.

The Sydney Olympics were praised by Olympic officials for their plans to promote Sydney and Australia, and to optimize tourism before, during and after the games (Morse, 2001), though there was some debate as to the extent with which all of those strategies were successful (Chalip, 2002). Coordination between event organizers, public and private tourism sectors, and all relevant tourism stakeholders (e.g. transportation and hospitality firms) is necessary if the host community is to successfully promote itself internationally. Ironically most experts feel that Atlanta failed to achieve this goal and did not capitalize on the international attention provided by the Olympics (Maloney, 2004). Future organizers of mega-events must understand how important the psychological impacts are for residents, and they should take steps to assist the host community with leveraging the event. Organizers should make community members aware of their efforts to promote the host community in the external environment.

Organizers also should promote the positive aspects of the physical transformation that occurs in a host community while addressing specifically the plans to alleviate disruption to residents during the transformation. The creation of public spaces for use during and after the games is a strategy used successfully in several host cities, including Atlanta, for image enhancement. Despite the tragic bombing that occurred there, Centennial Olympic Park became a rallying place for Olympic visitors during the games, and it continues to be a popular location for visitors, and a defining image of Atlanta.

Interestingly, while some psychological impacts were highly perceived, the two psychological impacts among the liabilities (bad attitudes of residents and bad attitudes of tourists) were the two lowest rated liabilities in each of the four polls. The inclusion of additional psychological impacts (both positive and negative) should be considered in future resident perception studies since not all psychological impacts are evaluated the same.

The Importance of Attendance

In this study the variables plan to attend and poll date had a significant interaction with regard to resident perceptions of Local Problems, and planned attendance was connected to resident support. Those who planned to attend Olympic events did not perceive the Local Problems caused by the event to be of great concern. It appears reasonable then that organizers should strive to find ways to encourage greater attendance from the local population as this has an impact on residents' perceptions of Local Problems. Demographic variables should be analyzed in greater detail to focus on residents in close proximity (those who have the greatest chance to attend) who were supportive of the event, but did not plan to attend. In this study, the Supporters cluster was the largest cluster and was largely positive of the games; yet a large percentage of them did not plan to attend even though this cluster had the highest percentage of metro residents. Future studies should include measures to determine the reason for non-attendance, such as finances/cost of tickets, not enough time, traffic congestion, not interested in sports, small chance of getting tickets to desirable events, etc. Through a better understanding of what is keeping supportive locals from attending the event, specific strategies can be implemented to address those concerns. This must be assessed early in the process as ticketing prices and policies are determined by organizers several years before the games.

The fact that this study measured residents in the year before the game likely had an impact on those who did not plan to attend. Ticket prices and the procedures for allocating tickets had been disclosed prior to this study, and residents would have likely been more aware of their plans during the games than had this study covered the initial years of the host city process. Ticketing problems have occurred in recent summer Olympic Games. Organizers have had no problem filling seats for key events, but non-mainstream events have suffered. Providing low-cost (or no cost) tickets to residents would not only help to fill seats, but also may have an

impact on resident perceptions of the impacts. Encouraging the attendance of the local youth would tie in with promoters' promises to leave a sporting legacy in the city by encouraging grassroots participation. Tickets could be made available through individual sport governing bodies with the stated purpose of promoting grassroots programs in the host community. Non-mainstream sports could benefit from the added attention during the event and have a chance to create new participants. This type of outreach program could also result in increased post-games use of athletic facilities.

Traffic congestion was one of the main concerns of all residents. Locals often are the beneficiaries of increased public transportation services after the games are concluded. Athens, Greece and Beijing, China made significant improvements to its airports and trains, to its subway systems, built roadways, and in Athens, a tram now used by extensively by locals. Preparing additional public transportation options for residents to use before the games may increase residents' familiarity with the public transportation options during the games. In addition to removing a physical barrier, early preparation of transportation alternatives also may remove a psychological barrier for not attending events. Ironically, Atlanta's improvements to the subway system did not include extensions to the main Olympic stadium and baseball venue.

Segmenting the Host Community

It has been shown in the literature that host communities do not consist of residents who share the same opinion of the impacts of tourism or events. Residents with similar perceptions of impacts have been identified in other segmentation studies. In the case of Atlanta, two clusters (Supporters and Realists) showed similar perceptions on the Benefits of the event. However Realists were more similar to the Cynics in their evaluation of the liabilities; Realists rated both Local Problems and External Problems more highly than the Cynics. Thus a high perception of the negative impacts of an event may not exclude someone from being willing to support the event. And despite their high perception of Local Problems and External Problems, many Realists indicated a willingness to attend the event and believed it was a good idea for Atlanta to host the Olympics. The largest and most positive cluster, Supporters, still felt that Local Problems were a concern, though not to the extent of the other clusters. Organizers of future mega-events should not believe that those who support their efforts to host the event are blind to

the potential negative impacts, or believe that those who are concerned deeply about the liabilities will automatically refuse to support or attend the events.

Though Cynics were the smallest cluster, they should not be overlooked. Small, but vocal groups of residents can have an impact on the organization of mega-events. Groups who oppose the Olympic Games on the basis of social or environmental concerns are becoming more prevalent. The concerns of these groups should not be viewed as unfounded. In some cases, these groups help to point out inequities, or misrepresentations that take place in the process of hosting events. They force event organizers to be more accountable with regard to the spending of public funds and the evaluation of the environmental impacts. They also may promote and protect the rights of disadvantaged populations that may not be represented adequately in the regimes that usually promote the use of mega-events as a growth strategy for cities. Cynics were still largely supportive of hosting the Olympics, but they had the lowest percentage of those planning to attend the games. Cynics' skepticism over the Benefits from hosting the event and concerns over Local Problems would likely keep more respondents from this group from attending, as could their proximity to event locations. The only benefit they rated positively was international recognition. Addressing solutions to Local Problems in a specific manner may be the only way to encourage even supportive Cynics to attend the games.

Supporters had the greatest number of residents in the metro Atlanta area. It is good news for organizers that the cluster with the lowest perception of liabilities, and a high perception of benefits, had the greatest number of residents in close proximity to the main Olympic center. More Supporters planned to attend the event than any other cluster. However, given the size of the clusters, there were more Supporters who did not plan to attend the event than Cynics who did not plan to attend. Further analysis of this group of Supporters could have provided organizers with specific strategies for reaching them. Even though Supporters had the highest household income level of all clusters, making event tickets more readily available to the residents in close proximity to the event (as described before) would likely have been a good strategy for reaching more Supporters. They are already positive in their assessment of the event and do not have a high perception of Local Problems. By clearly communicating plans to deal with traffic congestion and providing additional transportation options for residents, organizers would be addressing the primary liability feared by Supporters. Organizers of future events are likely to find a group similar to the Supporters in this study. Groups that are largely supportive of

tourism and events have been found in most resident segmentation studies and they often make up a large percentage of residents. Organizers would be better served to concentrate their efforts on reaching Supporters who did not plan to attend the event, than on Cynics who supported the games.

Demographic variables may help to describe the clusters, but they cannot be used on their own to identify groups of residents who are more likely to support or attend the event. For example, in this study Supporters and Cynics (the two most different clusters) shared an almost identical demographic profile on race, household income, and gender, but had very different perceptions of the event impacts. A process similar to the one employed in this study, where changes in resident perceptions can be evaluated over time as a function of support may be necessary for organizers to get a more complete idea of residents' beliefs about the event.

Identifying resident clusters based on perceived impacts of the event also may be useful to groups beyond the organizing committee. Groups who oppose the Olympic Games have received increased attention in the event literature over the last decade. Identifying clusters of concerned residents, such as the Cynics, and the specific impacts that are important to them could be a useful strategy by opponents of mega-events. Opponents could utilize this form of analysis to hold organizers accountable for addressing potential negative local impacts, and to protect underprivileged groups whose concerns may be overlooked during the preparations to host the event.

Addressing Perceived Liabilities

In Atlanta, all three clusters of residents felt strongly about the Local Problems factor. This should not be surprising that residents would be more concerned about the negative impacts that are most likely to affect them directly. Addressing such local concerns as traffic congestion and law enforcement strain with a comprehensive plan is already a requirement of candidate cities by the mega-event governing bodies. While most candidate cities try to keep as much of the details of their bids secret in order to maintain a competitive advantage over other candidate cities, this study suggests that certain aspects of the plan that pertain directly to residents should be communicated in order to limit resident concerns. Early identification of Local Problems is necessary, as is a policy of openness and transparency by organizing committees with respect to

issues that have the most potential to affect locals. Georgia residents feared the potential increase in traffic; well designed and well communicated transportation plans could alleviate traffic concerns of future host cities. Host cities are unique; therefore not all host cities face the same challenges. Atlanta utilized a number of existing facilities such as the Georgia Dome, Fulton County Stadium, and the World Congress Center in their bid. Thus, construction of new venues was minimized resulting in lower costs and less disruption to residents during the preparation for the games. In contrast, Beijing organizers built a large number of new facilities resulting in higher costs and more disruption to residents.

External Problems was of low or moderate concern at best among Georgia residents. However, this does not mean that games organizers can or should write these off as being less important. Civil unrest and terrorism are important considerations in the preparation for games, and lack of preparation can reduce the psychological benefits of citizen pride and image promotion. As Atlanta found out, despite the vast preparation to secure the games, the bombing in Centennial Olympic Park by a lone individual, is one of the lasting memories of those particular games (Maloney, 2004). Unfair distribution of resources also can result in resident backlash and a reduction in the level of support.

Limitations and Suggestions for Future Research

The following section presents a discussion of the limitations of this study and the suggested changes for future research. This discussion is carried out simultaneously, as limitations often reveal means for refining future research. The discussion is arranged around the following topics: the use of an existing data set, methodology and statistics, and the concept of proximity.

Use of Existing Data

Existing data from the Georgia State Poll was utilized in this study. While there were benefits from using existing data such as the size of the database and the time frame covered by the study, there also are some limitations. The first limitation comes in the framing of the

questions. It was not possible to ask additional questions, or to structure response choices in a manner that would provide a deeper understanding of the research question. For instance, resident support for the games (good idea to host and plan to attend) allowed respondents to only select yes/no for their answer. The use of dichotomous response choices did not allow residents to describe the degree to which they supported the Olympic Games. By including a variable measure (e.g. a Likert Scale) for the degree of support, greater insight could have been gained with regard to the differences among the clusters. Degrees of support also could be examined in light of perceived benefits and liabilities, and measured over time, thus providing additional insights into the application to social exchange theory. Though the Georgia State Poll did not solicit open ended questions, future mega-event studies can include open-ended questions, or have residents select from a variety of pre-determined reasons for why they did not think it was a good idea to host, or for why they did not plan to attend the games. Additional measures of support could be examined such as the degree to which a person would be willing to serve as an Olympic volunteer.

An important limitation in this study was the restricted number of questions by the Georgia State Poll administrators. This meant that some concepts with potential relevance to the host community could not be explored. Examples of missing concepts were the role that personal benefit from tourism plays in the evaluation of tourism (Perdue, Long & Allen, 1990), community dependence on tourism (McGehee & Andereck, 2004), environmental concerns (Jones, et al, 2000), and the level of community attachment, which could be measured by asking the number of years a resident has lived in the community, or the degree to which residents are personally involved in the community (Gursoy & Kendall, 2006; Jurowski, et al, 1997). These concepts have been shown to be important factors in the evaluation of tourism and events by residents of the host community. They also may have an impact on a person's likelihood to want to be an Olympic volunteer, thus providing additional information on Olympic involvement and support that typically is not measured in mega-event studies.

Another limitation of using existing data was the inability to address mega-event issues which are relevant at this point in time, but were not as big of a concern during the preparations for the Atlanta games. Recent changes to the host city requirements by the International Olympic Committee were not reflected in this particular study. In Atlanta, games-related costs were privately financed by the Atlanta organizing committee, but the overly commercial

approach that the city of Atlanta took in order to raise capital for non-games development resulted in a change of IOC policy for candidate cities. Candidate cities are now required to arrange for public financial backing of game management costs. This requirement places a greater financial burden on residents by requiring them to provide contingency funds in the event of cost overruns as happened in Montreal, Canada. This is in addition to the public funds that are sought in advance for venues and civic improvements used to strengthen the cities' bid. Tax payers in the host community and in the state or province will be relied on more heavily to provide financial support. Thus winning residents over early in the bid process will be even more critical for future Olympic organizers. Resident perceptions of the post-event facility plans also should be addressed in future studies since addressing the sustainability of Olympic facilities is now required of organizers by the IOC (International Olympic Committee, 2004).

One concept that receives much more attention today than it did at the time of data collection for this study is the emphasis on environmental impacts. No impact statements in this study identified a residents' concern over the impacts to the physical or natural environment within the host community. While Olympic organizers since Atlanta have tried to actively promote the steps taken to minimize environmental damage, this issue continues to draw much attention and sharp criticism from environmental groups.

Social impacts were measured in this study, but more variables need to be added in future studies to include a wider variety of social impacts. For instance items could be added to measure resident concerns over the displacement of residents and businesses, impacts on underprivileged groups, and improving accessibility for participants and spectators with physical disabilities. While the Americans with Disabilities Act addressed some of the accessibility concerns in the U.S., the Olympics and Paralympics provide an opportunity to demonstrate the highest standard of accessibility. Games organizers around the globe should make a point of going beyond the requirements of local legislation to provide the most accessible venues and services possible and to encourage greater sport participation among disabled populations.

Methodology and Statistical Analysis

While the same residents were not surveyed in each time period, the sampling technique did ensure that a representative sample of residents occurred for each poll. Utilizing the same

residents over time may result in fewer responses over time, but future research on the same residents, similar to that performed by Waitt (2001, 2003), could examine the changes in an individual's perceptions over time and whether those changes would result in a resident being 'reclassified' within a different cluster of residents.

The data used for this study was collected from the fall of 1995 through the summer of 1996 – the last year of preparation for the Olympic Games. However, the games were awarded seven years before the event occurred. The current study represented only one phase of the preparations for the Olympic Games. A previous study had examined resident perceptions over the initial years of preparations (Mihalik & Simonetta, 1999) but in those years, residents were presented with a limited number of questions related to benefits or liabilities, but not both. This study focused on the time periods where both benefits and liabilities were assessed at the same time, but it did not represent the full spectrum of resident perceptions over the life-span of an Olympic host city's preparation. Future studies of mega-events may need to begin before the bid for the event is awarded since this is a time when a number of key decisions are made regarding transportation, venues, and funding of the event. Monitoring residents' perceptions of an event during the bid phase may be more difficult as many residents may be unaware of the plans that are taking place until the bid reaches a certain point. For example, a city wishing to host the Olympic Games is designated first as a bid city, then as a candidate city, and finally as the host city. Media attention increases through each of these phases. Previous mega-event studies have looked at resident perceptions only after the bid had been awarded.

Differences existed in the demographic makeup of the clusters as compared to the demographics of the entire data set. For example, those residents 34 years of age and younger made up a larger percentage of each of the clusters (Supporters 43.6%; Cynics 39.3%; Realists 46.7% - shown in Table 4.19) than they did in the general population (38.9% - shown in Table 4.2). Reasons for this are not known, but the younger demographic for the clusters may have influenced results. As younger residents made up the clusters, it may be anticipated that Supporters and Cynics should both have had lower levels of education and income. However, the Supporters had a high level of education and income, while Realists had the lowest levels of education and income. These clusters also varied greatly on the basis of race and proximity. A future investigation could further explore the differences in the demographic profiles of the

clusters. By examining layers of the demographics, perhaps a greater understanding of these groups could be attained.

Identifying the disparity in group sizes was one of the features of this study, though it did have an effect on the statistical assumptions. The violation of assumptions in the MANOVA tests for plan to attend in testing Research Question 1, and for the proximity variable in testing Research Question 2 must be considered in the discussion of the results. As mentioned in Chapter IV, these violations were most likely due to non-normality of some of the variables (e.g. traffic congestion and international recognition) and the disparity in group sizes for the independent variables. Unlike experimental research where subjects are assigned randomly to a particular treatment, respondents in this study essentially selected their own treatment group by indicating their support/non-support, or by the location of their residence. While it would have been possible to select an equal number of respondents from each group to run an analysis, this would have had an effect on the representativeness of the responses.

Proximity

Proximity for this study was defined as metro and non-metro residents. Metro residents were those respondents living in the five-county metro Atlanta area; non-metro residents were Georgia residents living outside of those five counties. This coding was automatically recorded by the Georgia State Poll administrators based on a portion of the residents' telephone numbers. While it is known that residents classified as metro were within a specified distance from Olympic venues, it cannot be said with certainty that those who were classified as non-metro residents were distant from the impacts of Olympic venues. Additional Olympic venues were located in Athens, Columbus, and Savannah, which are three of the larger population centers in Georgia, outside of the metro Atlanta area. Because telephone numbers were stratified in relation to the population of Georgia counties, it is very likely that these locations were adequately represented in the polls; however it cannot be determined how many respondents were from those locations. A specific means of identifying the location of residents was not included in the database. It is conceivable that a number of non-metro residents actually were in closer proximity to Olympic venues and development than some metro respondents.

In this study, one of the more surprising findings was that non-metro residents had higher perceptions of Local Problems than did metro residents. Having more specific data on how close all residents were to specific event locations may provide additional understanding for this result. Future resident studies should utilize a more specific measure of proximity than what was defined in this study. By collecting residents' zip codes (postal codes) a much closer determination could be made as to the proximity of a resident to the location of the event. This could provide a greater insight on the relationships between proximity and the perceptions of benefits and liabilities, the make-up of resident clusters, the level of support for the event, and the likelihood to attend an event. Evaluating these relationships may provide additional insights into social exchanges at a sub-group level (between the individual and the collective levels). A specific measure of proximity also could be used to evaluate the effects of different forms of Olympic development such as the following: proximity to games-related development versus development of infrastructure, proximity to larger and smaller sporting venues, proximity to non-sporting venues such as the Olympic village, and a comparison of proximity to natural versus built venues. Measuring residents over time in light of more specific location parameters could yield additional insights into the changing perceptions of residents over the life-cycle of the event.

Despite the limitations of the definition of non-metro residents, and the lack of interaction between proximity and time in this study, researchers and event organizers must continue to strive for a full understanding of residents. The concept of proximity continues to be an important consideration for future resident and mega-event studies. Monitoring the differences over time between residents in close proximity and those further from the event/tourism location is necessary.

Summary

This study evaluated the effect that resident support and distinct resident characteristics had on residents' perceptions of a mega-event's impacts over a period of time. The study was unique because it combined elements of a resident perception study, mega-event impact study,

resident segmentation study, and longitudinal study, and thus added to the literature in each of these areas. Support for both research questions was found.

Strong support for evaluating the temporal nature of resident perceptions was an important contribution of this study. In each of the MANOVA tests, the main effects for the poll date variable were statistically significant for the Benefits, the External Problems and the Local Problems factors. A significant interaction between the four time periods and resident support was found to exist with respect to the evaluation of the Benefits of the event. Significant interactions also were found between the poll dates and plan to attend, and between poll dates and cluster membership. The connection between resident support and resident evaluation of event impacts, and the significance of measuring impacts over time were consistent with the tenants of social exchange theory.

It also was established that the host community was made up of groups of residents who held differing opinions of the event. The need to segment these residents based on their evaluation of the event impacts and to monitor the perceptions of these clusters over time was demonstrated, and was more valuable than analyzing residents' demographic characteristics alone. In this study, Cluster membership had a significant effect on the External Problems over the year leading up to the event.

Proximity had been measured in other resident studies; however this study provided additional insights into the proximity of residents to event locations and the impact on social exchanges. Despite the limitations in the definition of non-metro residents, significant differences did exist between metro and non-metro residents' evaluation of the event impacts and their support for the event. In addition, resident clusters showed significant differences on the basis of proximity to the main Olympic center. More specific means of identifying a residents' proximity to the event should be included in future studies to provide a richer understanding of resident perceptions.

While this study was focused on the residents of Georgia, it was hoped that the results would be useful to future mega-event planners. Future event organizers should be aware of the connection between resident support and residents' evaluation of event impacts. They should understand that a host community consists of residents with varied perceptions, and efforts should be made to identify these clusters of residents. Finally, there is a need to monitor these variables consistently over time and to assess the changes in resident perceptions and support.

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APPENDICES

Appendix A

Survey Instrument

(Used with permission of Dr. Brian Mihalik, 2009)

Georgia Olympic Poll Questions for the 1996 Atlanta Summer Olympics

Research conducted by:

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I. Summer Olympic Poll Questions: Collected every June/July since 1992:

Q: golyl

All things considered, do you think it is a good idea for Georgia to host the 1996 Summer Olympic Games?

1 Yes
2 No
9 No Answer

Q: goly2

If you are still living in Georgia in 1996, do you expect to attend one or more of the Olympic events as a spectator?

1 Yes
2 Uncertain/Don't Know
3 No
9 No Answer

Q: goly3

People often mention many different benefits that are associated with the 1996 Olympic Games.

On a scale from 1 to 10, where '1' is a very small benefit and '10' is a very large benefit, please rate how much benefit you think that the state and its citizens will receive in the following areas as a result of hosting the games.

International recognition

Increased future tourism

Economic benefits

Olympic facilities development

Enhancing Georgia's reputation or image

Increasing citizen pride in Georgia

SMALL 1-----2----3----4----5----6----7----8----9----10 GREAT

xx

99 No Answer

II. Winter Olympic Poll Questions: Collected every January/February since 1993:

<OLY1>

All things considered, do you think it is a good idea for Georgia to host the 1996 Summer Olympic Games?

<1> Yes
<2> No
<9> DK/NA

People often mention many different benefits that are associated with the 1996 Olympics. However, there are some possible negative consequences of the Olympics as well. On a scale from 1 to 10, where 1 is a very small problem and 10 is a very large problem, please rate how much of a problem you think the state and its citizens will have in the following areas as a result of hosting the games.

<OLY2> Civil unrest designed to attract national and international attention.

<OLY3> Strain on Law Enforcement

<OLY4> Price gouging by hotels, restaurants, vendors, etc.

<OLY5> Bad attitude and lack of courtesy by residents towards visitors and tourists.

<OLY6> Bad attitude and lack of courtesy by visitors and tourists towards residents.

<OLY7> Street Crime.

<OLY8> Traffic congestion.

<OLY9> Unfair distribution of state resources to Atlanta and Savannah.

<OLY10> Terrorism.

SMALL 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 GREAT

99 No Answer

<OLY11>

If you are still living in Georgia in 1996, do you expect to attend one or more of the Olympics events as a spectator?

<1> Yes
<2> Uncertain/Don't Know
<3> No
<9> No Answer

III. Demographic Data: Collected in both Summer and Winter Olympic Polls

Q: drace

With which racial/ethnic group do you most strongly identify:

1 White
2 Black
3 Asian, Oriental
4 Hispanic
5 Native American, Eskimo, Aleut, etc.
9 Refused

Q: dyear

In what year were you born?

19xx 00 to 75 allowed

99 No answer

Numeric 00 99 2 0 7 25

If (answer > 75)

If (answer <99) reask

Q: dsex

Interviewer: Enter the sex of the respondent. Ask only if you are not absolutely sure.

1 Male
2 Female
9 Refused

Q: dincome

In which of the following groups did your total family income fall last year before taxes? I will read a number of income ranges, please stop me at the one that best describes your family's income:

1 Less than $15,000
2 $15,000 – 24,999
3 $25,000 – 34,999
4 $35,0000 – 49,999
5 $50,000 – 74,999
6 $75,000 or more
9 Refused

Q: deduc

What is the highest level of education that you have completed?

1	Less than a high school graduate
2	High school graduate
3	Some college, Associate's degree
4	College graduate, Bachelor's degree
5	Some Graduate School
6	Professional or Graduate degree
9	Refused

Q: departy

Do you usually think of yourself as a Democrat, Republican, or in Independent?

1	Democrat
2	Republican
3	Independent
4	Don't think of myself in those terms (volunteered)
	No Answer

Appendix B

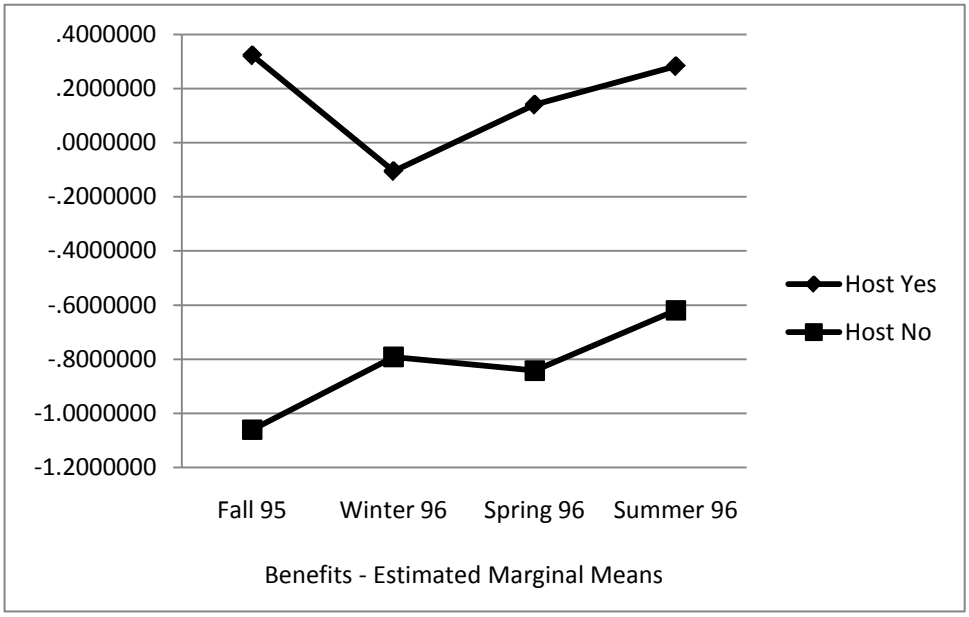
Skewness and Kurtosis Data for Impact Statements

	N	Mean	SD	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Civil unrest	3023	4.98	2.566	.316	.045	-.689	.089
Law enforcement strain	3165	7.44	2.466	-.779	.044	-.235	.087
Price gouging	3158	7.95	2.439	-1.133	.044	.435	.087
Bad attitude of residents	3116	4.68	2.713	.400	.044	-.814	.088
Bad attitude of tourists	3074	4.56	2.597	.483	.044	-.605	.088
Street crime	3149	6.64	2.562	-.332	.044	-.801	.087
Traffic congestion	3200	8.91	1.937	-2.204	.043	4.830	.087
Unfair distribution of state resources	2835	5.32	2.657	.151	.046	-.834	.092
Terrorism	3071	4.92	2.825	.327	.044	-.990	.088
International recognition	3153	8.04	2.432	-1.308	.044	.958	.087
Increased tourism	3161	7.00	2.360	-.644	.044	-.135	.087
Economic impact	3147	7.08	2.623	-.697	.044	-.399	.087
Olympic facility development	3050	7.09	2.398	-.609	.044	-.256	.089
Enhanced image	3119	7.38	2.407	-.848	.044	.099	.088
Citizen pride	3159	7.17	2.422	-.657	.044	-.217	.087
Valid N (listwise)	2464						

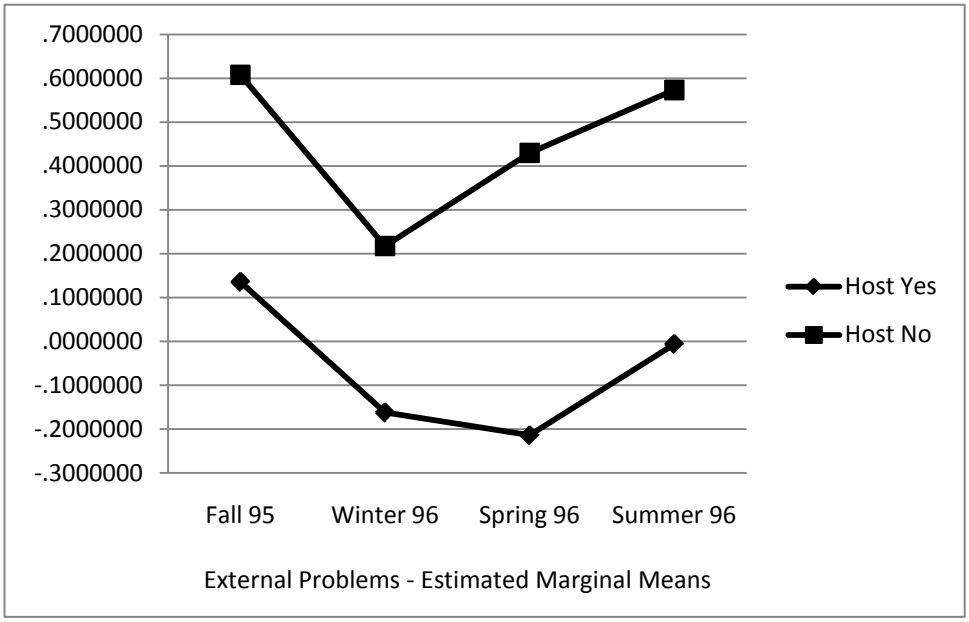
Appendix C.1

Hypothesis 1: MANOVA – Interaction of poll date and good idea to host on factor scores

Benefits by poll date and good idea to host



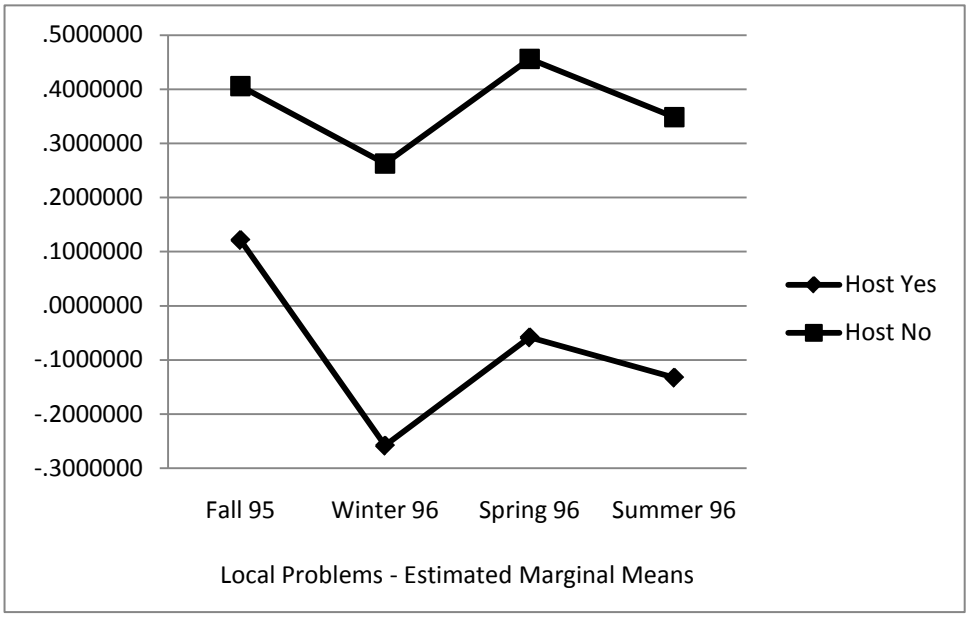
External Problems by poll date and good idea to host



Appendix C.1 (continued)

Interaction of poll date and good idea to host on factor scores

Local Problems by poll date and good idea to host



Appendix C.2

Hypothesis 1: MANOVA – Post Hoc Tests – Poll Date

Dependent Variable	(I) Poll Date	(J) Poll Date	Mean Difference (I-J)	Std. Error	Sig.
Benefits	FL 95	WI 96	.3904447*	.05449188	.000
		SP 96	.1586682*	.05499392	.021
		SU 96	.0924468	.05630974	.355
	WI 96	FL 95	-.3904447*	.05449188	.000
		SP 96	-.2317765*	.05261266	.000
		SU 96	-.2979979*	.05398655	.000
	SP 96	FL 95	-.1586682*	.05499392	.021
		WI 96	.2317765*	.05261266	.000
		SU 96	-.0662214	.05449324	.617
	SU 96	FL 95	-.0924468	.05630974	.355
		WI 96	.2979979*	.05398655	.000
		SP 96	.0662214	.05449324	.617
External Problems	FL 95	WI 96	.2869886*	.05730388	.000
		SP 96	.3190908*	.05783183	.000
		SU 96	.0640407	.05921555	.701
	WI 96	FL 95	-.2869886*	.05730388	.000
		SP 96	.0321022	.05532768	.938
		SU 96	-.2229480*	.05677247	.001
	SP 96	FL 95	-.3190908*	.05783183	.000
		WI 96	-.0321022	.05532768	.938
		SU 96	-.2550502*	.05730531	.000
	SU 96	FL 95	-.0640407	.05921555	.701
		WI 96	.2229480*	.05677247	.001
		SP 96	.2550502*	.05730531	.000
Local Problems	FL 95	WI 96	.3267142*	.05763744	.000
		SP 96	.1455410	.05816846	.060
		SU 96	.1781489*	.05956024	.015
	WI 96	FL 95	-.3267142*	.05763744	.000
		SP 96	-.1811732*	.05564974	.006
		SU 96	-.1485653*	.05710293	.046
	SP 96	FL 95	-.1455410	.05816846	.060
		WI 96	.1811732*	.05564974	.006
		SU 96	.0326079	.05763888	.942
	SU 96	FL 95	-.1781489*	.05956024	.015
		WI 96	.1485653*	.05710293	.046
		SP 96	-.0326079	.05763888	.942

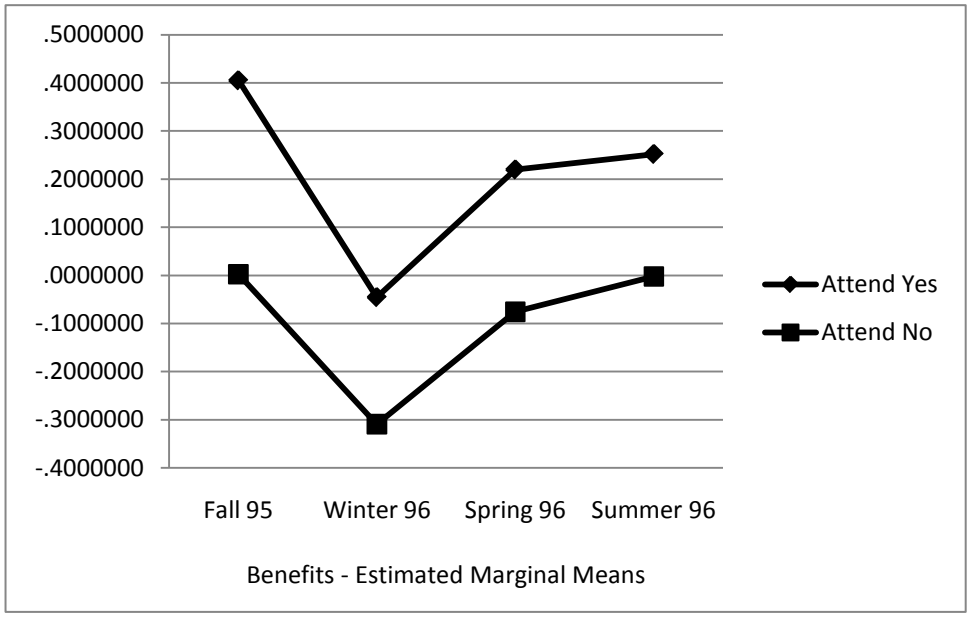
Tukeys HSD

*. The mean difference is significant at the .05 level.

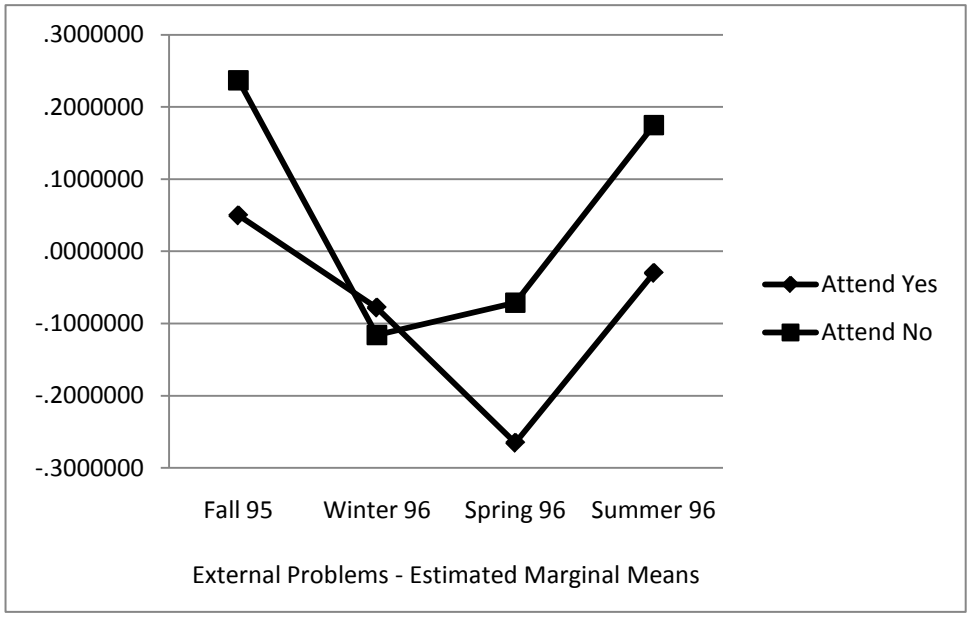
Appendix D.1

Hypothesis 1: MANOVA –Interaction of poll date and plan to attend on factor scores

Benefits by poll date and plan to attend



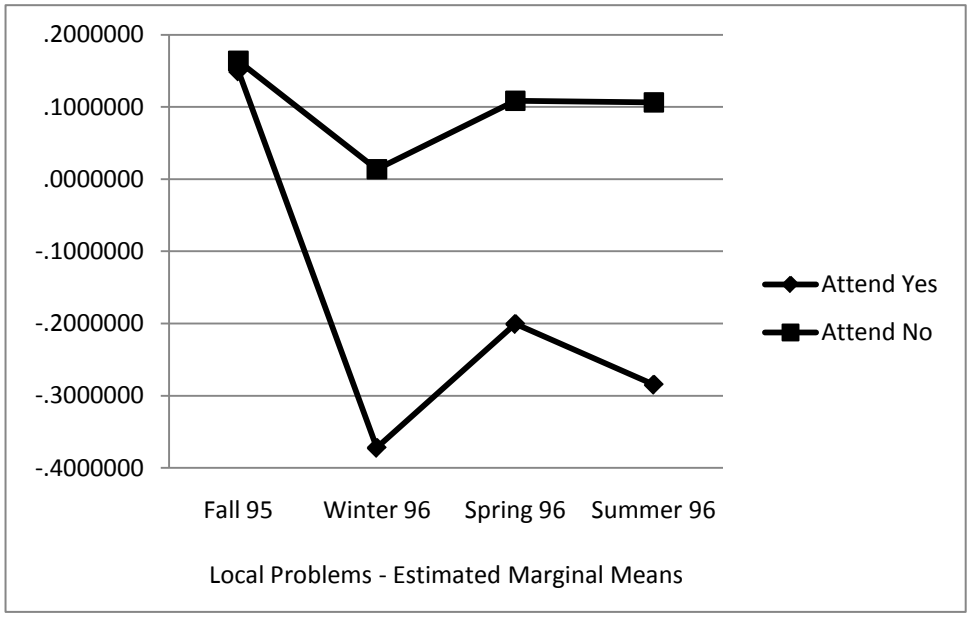
External Problems by poll date and plan to attend



Appendix D.1 (continued)

Hypothesis 1: MANOVA –Interaction of poll date and plan to attend on factor scores

Local Problems by poll date and plan to attend



Appendix D.2

Hypothesis 1: MANOVA – Post Hoc Tests – Poll Date

Dependent Variable	(I) Poll Date	(J) Poll Date	Mean Difference (I-J)	Std. Error	Sig.
Benefits	FL 95	WI 96	.3773327*	.05758440	.000
		SP 96	.1531451*	.05760491	.039
		SU 96	.0896488	.05912249	.428
	WI 96	FL 95	-.3773327*	.05758440	.000
		SP 96	-.2241876*	.05487907	.000
		SU 96	-.2876839*	.05646995	.000
	SP 96	FL 95	-.1531451*	.05760491	.039
		WI 96	.2241876*	.05487907	.000
		SU 96	-.0634963	.05649086	.675
	SU 96	FL 95	-.0896488	.05912249	.428
		WI 96	.2876839*	.05646995	.000
		SP 96	.0634963	.05649086	.675
External Problems	FL 95	WI 96	.2643120*	.05790878	.000
		SP 96	.2895199*	.05792940	.000
		SU 96	.0482727	.05945553	.849
	WI 96	FL 95	-.2643120*	.05790878	.000
		SP 96	.0252080	.05518821	.968
		SU 96	-.2160393*	.05678805	.001
	SP 96	FL 95	-.2895199*	.05792940	.000
		WI 96	-.0252080	.05518821	.968
		SU 96	-.2412473*	.05680908	.000
	SU 96	FL 95	-.0482727	.05945553	.849
		WI 96	.2160393*	.05678805	.001
		SP 96	.2412473*	.05680908	.000
Local Problems	FL 95	WI 96	.2832446*	.05806749	.000
		SP 96	.1391099	.05808817	.078
		SU 96	.1682390*	.05961848	.025
	WI 96	FL 95	-.2832446*	.05806749	.000
		SP 96	-.1441347*	.05533946	.046
		SU 96	-.1150055	.05694369	.181
	SP 96	FL 95	-.1391099	.05808817	.078
		WI 96	.1441347*	.05533946	.046
		SU 96	.0291292	.05696477	.956
	SU 96	FL 95	-.1682390*	.05961848	.025
		WI 96	.1150055	.05694369	.181
		SP 96	-.0291292	.05696477	.956

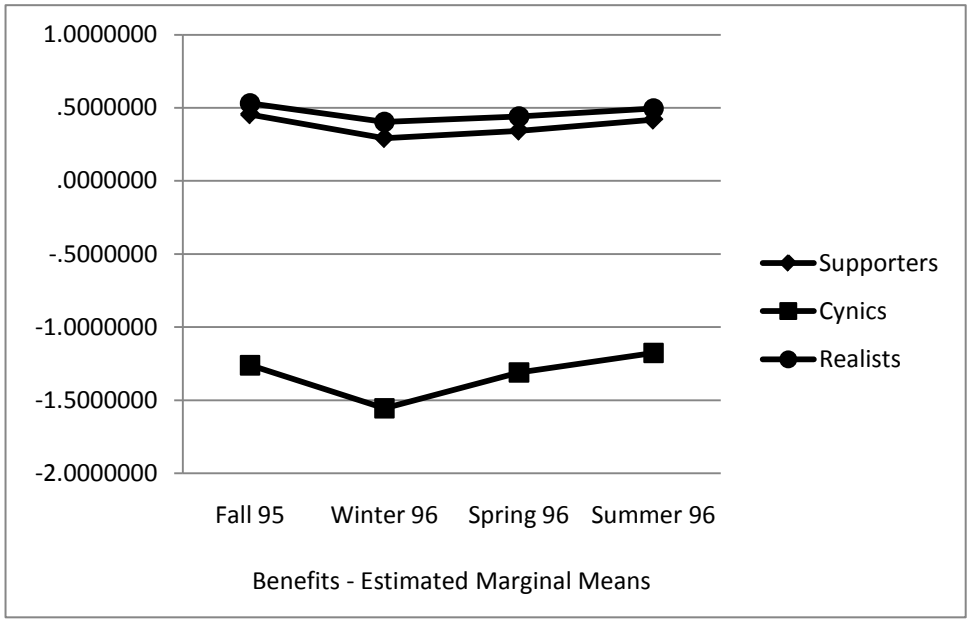
Tukeys HSD

*. The mean difference is significant at the .05 level.

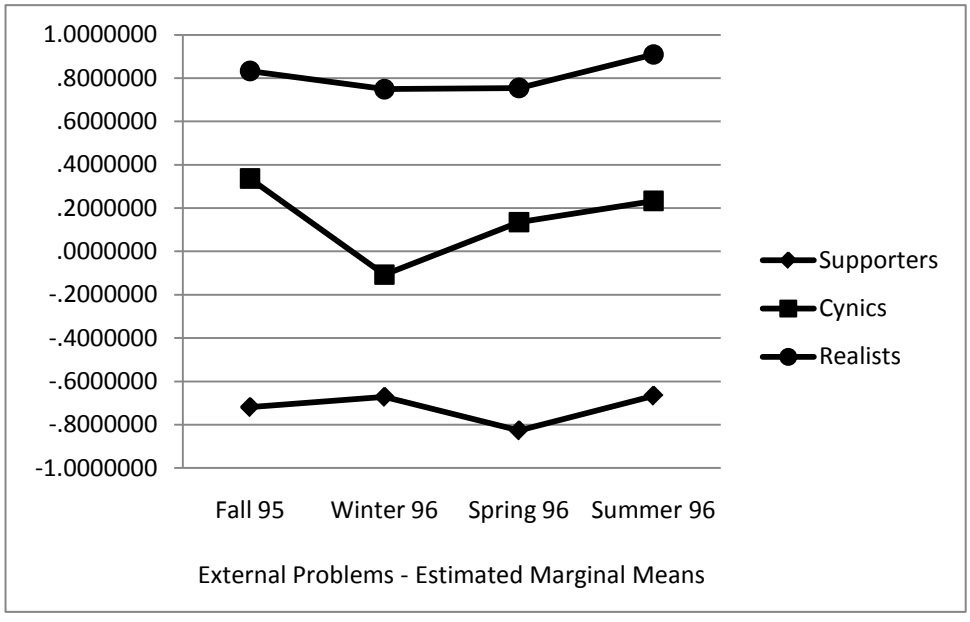
Appendix E.1

Hypothesis 2: MANOVA – Interaction of poll date and cluster membership on factor scores

Benefits by poll date and cluster membership



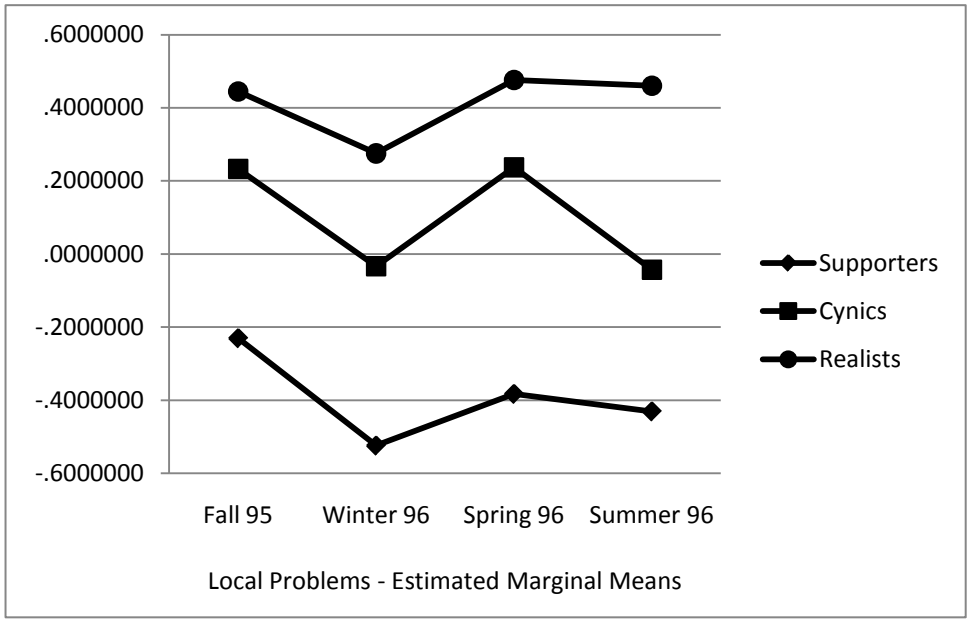
External Problems by poll date and cluster membership



Appendix E.1 (continued)

Hypothesis 2: MANOVA – Interaction of poll date and cluster membership on factor scores

Local Problems by poll date and cluster membership



Appendix E.2

Hypothesis 2: MANOVA – Post Hoc Tests – Cluster Membership

Dependent Variable	(I) 3 Clusters	(J) 3 Clusters	Mean Difference (I-J)	Std. Error	Sig.
Benefits	Supporters	Cynics	1.7205154*	.03428153	.000
		Realists	-.1041792*	.03049219	.002
	Cynics	Supporters	-1.7205154*	.03428153	.000
		Realists	-1.8246946*	.03543166	.000
	Realists	Supporters	.1041792*	.03049219	.002
		Cynics	1.8246946*	.03543166	.000
External Problems	Supporters	Cynics	-.8392505*	.03858794	.000
		Realists	-1.5409496*	.03432258	.000
	Cynics	Supporters	.8392505*	.03858794	.000
		Realists	-.7016991*	.03988254	.000
	Realists	Supporters	1.5409496*	.03432258	.000
		Cynics	.7016991*	.03988254	.000
Local Problems	Supporters	Cynics	-.4822713*	.04874330	.000
		Realists	-.8214441*	.04335541	.000
	Cynics	Supporters	.4822713*	.04874330	.000
		Realists	-.3391728*	.05037860	.000
	Realists	Supporters	.8214441*	.04335541	.000
		Cynics	.3391728*	.05037860	.000

Tukeys HSD

*. The mean difference is significant at the .05 level.

Appendix E.3

Hypothesis 2: MANOVA – Post Hoc Tests – Poll Date

Dependent Variable	(I) Poll Date	(J) Poll Date	Mean Difference (I-J)	Std. Error	Sig.
Benefits	FL 95	WI 96	.3748157*	.03778286	.000
		SP 96	.1484487*	.03810051	.001
		SU 96	.0863854	.03904374	.120
	WI 96	FL 95	-.3748157*	.03778286	.000
		SP 96	-.2263670*	.03627247	.000
		SU 96	-.2884303*	.03726201	.000
	SP 96	FL 95	-.1484487*	.03810051	.001
		WI 96	.2263670*	.03627247	.000
		SU 96	-.0620633	.03758406	.350
	SU 96	FL 95	-.0863854	.03904374	.120
		WI 96	.2884303*	.03726201	.000
		SP 96	.0620633	.03758406	.350
External Problems	FL 95	WI 96	.2844012*	.04252910	.000
		SP 96	.3088488*	.04288665	.000
		SU 96	.0620357	.04394837	.492
	WI 96	FL 95	-.2844012*	.04252910	.000
		SP 96	.0244476	.04082898	.932
		SU 96	-.2223655*	.04194281	.000
	SP 96	FL 95	-.3088488*	.04288665	.000
		WI 96	-.0244476	.04082898	.932
		SU 96	-.2468131*	.04230532	.000
	SU 96	FL 95	-.0620357	.04394837	.492
		WI 96	.2223655*	.04194281	.000
		SP 96	.2468131*	.04230532	.000
Local Problems	FL 95	WI 96	.3153714*	.05372167	.000
		SP 96	.1436557*	.05417332	.040
		SU 96	.1761098*	.05551446	.008
	WI 96	FL 95	-.3153714*	.05372167	.000
		SP 96	-.1717157*	.05157412	.005
		SU 96	-.1392616*	.05298109	.043
	SP 96	FL 95	-.1436557*	.05417332	.040
		WI 96	.1717157*	.05157412	.005
		SU 96	.0324541	.05343900	.930
	SU 96	FL 95	-.1761098*	.05551446	.008
		WI 96	.1392616*	.05298109	.043
		SP 96	-.0324541	.05343900	.930

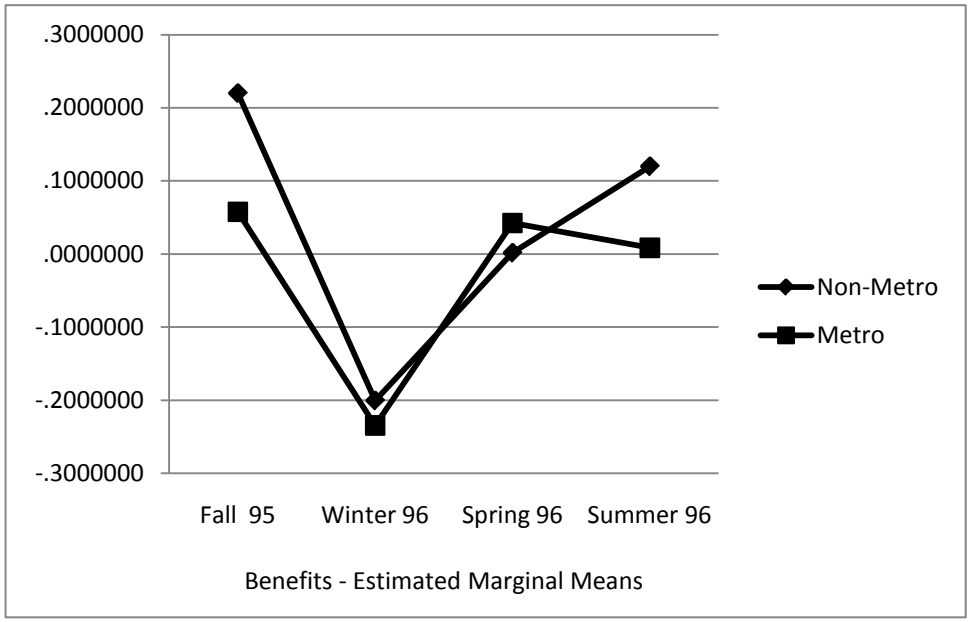
Tukeys HSD

*. The mean difference is significant at the .05 level.

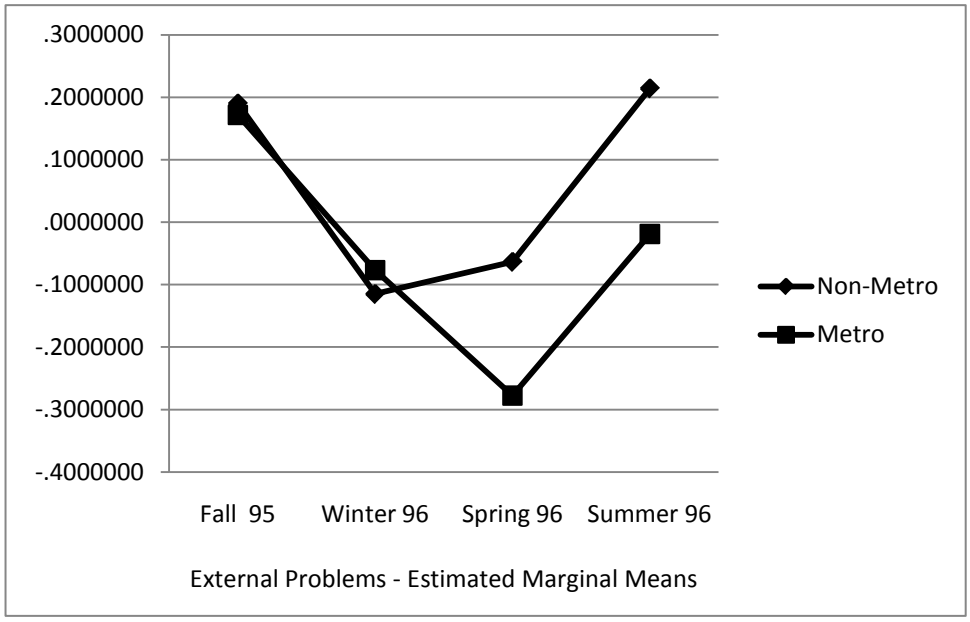
Appendix F.1

Hypothesis 2: MANOVA – Interaction of poll date and proximity on factor scores

Benefits by poll date and proximity



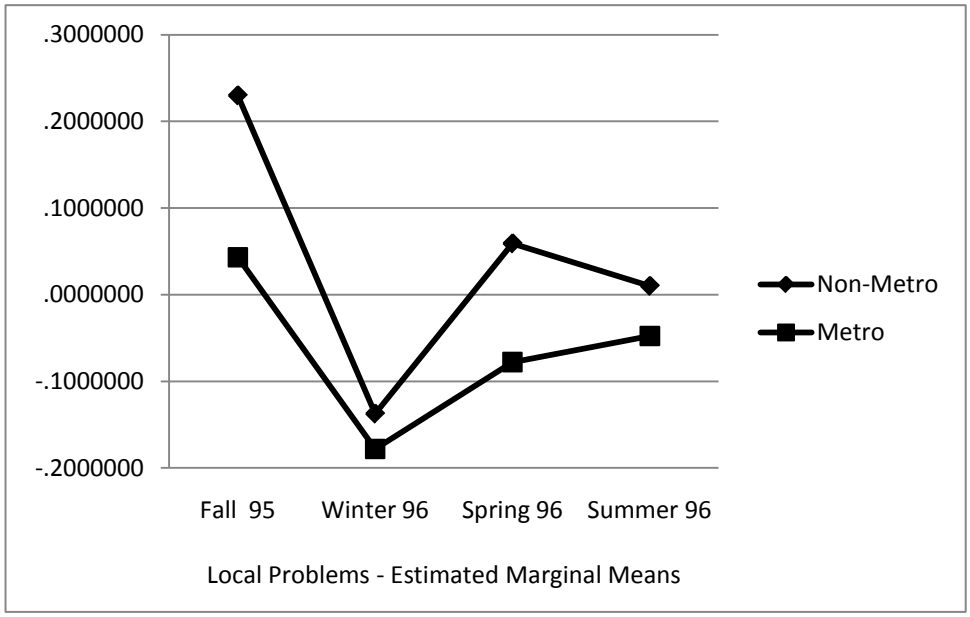
External Problems by poll date and proximity



Appendix F.1 (continued)

Hypothesis 2: MANOVA – Interaction of poll date and proximity on factor scores

Local Problems by poll date and proximity



Appendix F.2

Hypothesis 2: MANOVA – Post Hoc Tests – Poll Date

Dependent Variable	(I) Poll Date	(J) Poll Date	Mean Difference (I-J)	Std. Error	Sig.
Benefits	FL 95	WI 96	.3748157*	.05705008	.000
		SP 96	.1484487*	.05752972	.049
		SU 96	.0863854	.05895395	.459
	WI 96	FL 95	-.3748157*	.05705008	.000
		SP 96	-.2263670*	.05476948	.000
		SU 96	-.2884303*	.05626362	.000
	SP 96	FL 95	-.1484487*	.05752972	.049
		WI 96	.2263670*	.05476948	.000
		SU 96	-.0620633	.05674990	.693
	SU 96	FL 95	-.0863854	.05895395	.459
		WI 96	.2884303*	.05626362	.000
		SP 96	.0620633	.05674990	.693
External Problems	FL 95	WI 96	.2844012*	.05718875	.000
		SP 96	.3088488*	.05766955	.000
		SU 96	.0620357	.05909724	.720
	WI 96	FL 95	-.2844012*	.05718875	.000
		SP 96	.0244476	.05490260	.971
		SU 96	-.2223655*	.05640038	.000
	SP 96	FL 95	-.3088488*	.05766955	.000
		WI 96	-.0244476	.05490260	.971
		SU 96	-.2468131*	.05688784	.000
	SU 96	FL 95	-.0620357	.05909724	.720
		WI 96	.2223655*	.05640038	.000
		SP 96	.2468131*	.05688784	.000
Local Problems	FL 95	WI 96	.3153714*	.05742255	.000
		SP 96	.1436557	.05790531	.063
		SU 96	.1761098*	.05933884	.016
	WI 96	FL 95	-.3153714*	.05742255	.000
		SP 96	-.1717157*	.05512705	.010
		SU 96	-.1392616	.05663095	.067
	SP 96	FL 95	-.1436557	.05790531	.063
		WI 96	.1717157*	.05512705	.010
		SU 96	.0324541	.05712040	.942
	SU 96	FL 95	-.1761098*	.05933884	.016
		WI 96	.1392616	.05663095	.067
		SP 96	-.0324541	.05712040	.942

Tukeys HSD

*. The mean difference is significant at the .05 level.