

EXPLORING CAMPERS' PERCEPTIONS OF THEIR OWN IMPACTS AT A
MOUNTAIN PARK DESTINATION

BY

CHRISTINE M. COULDWELL

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**Exploring Campers' Perceptions of Their Own Impacts
At A Mountain Park Destination**

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Christine M. Couldwell

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Manitoba in partial fulfillment of the requirement of the degree
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ABSTRACT

The broad purpose of this research was to explore visitors' perceptions of their own impacts at a common destination setting. This line of research provides destination managers with valuable information useful in developing appropriate management and communication strategies to minimise negative outcomes and maximise the benefits of tourism. Self-serving bias research was used as a framework to understand how visitors perceive their own behaviour. Specifically, this study examined campers' perceptions of their own impacts at three campgrounds in the Canadian Rocky Mountain Parks. During a one-week period in August 2001, self-administered questionnaires were delivered to campers at their campsites. The questionnaires contained questions about visitor demographics, camping profile, past camping experience and perceptions of impacts. Factor analysis was used to reduce the initial 13 impact items to three main factors: impacts that occur immediately, impacts that occur gradually, and economic impacts. Generally, visitors felt that both immediate and economic impact factors were likely to increase as a result of their visit. Results of two-way analysis of covariance suggested that visitors' perceptions of their contribution to gradual impacts depended upon an interaction between experience camping and destination experience. The results of this study support the cognitive interpretation of the self-serving as a framework to explain how visitors perceive their own impacts. As well, past experience was found to be useful variable in explaining differences in the way visitors perceive gradual impacts at a destination. Finally, if destination managers are concerned about gradual impacts they should ensure that communication efforts raise awareness of these issues since visitors

are not likely to see the results of their contribution to these types of impacts during their stay and therefore do not feel they contribute to these conditions.

CHAPTER I

Introduction

Research has shown that there are numerous positive and negative impacts of tourism on host societies, the economy and the environment. The type and amount of impact relate to the type of destination and type of tourist activity.

Managers responsible for tourism destinations must find ways to minimise the negative impacts that tourism has on their locale while maximizing the benefits. To effectively manage these impacts, research is needed. Various studies have examined positive and negative implications of tourism, as well as visitors' perceptions of impacts in outdoor recreation settings. Research on visitors' perceptions of their own impacts on a destination has not been addressed. This overlooked area of research is an essential perspective needed by planners and destination managers to inform decisions when managing impacts. Without knowledge of visitors' perceptions of their impacts at a destination, it is difficult to develop strategies to minimise negative impacts and to maximise positive benefits that visitors may have at a destination.

To effectively influence visitors' behaviour, planners and managers must gain insight into visitors' perceptions of their impacts on a destination. With this information, they will be better able to develop effective visitor communication programs and resource management strategies to target and minimise negative impacts while optimising desired outcomes. For example, if visitors are unaware and do not perceive impacts that result from tourism, managers will need to begin by raising awareness of negative impacts. However, if visitors are aware of the presence of impacts but do not recognize that their behaviour contributes to those impacts, destination managers need to ensure that visitors understand the consequences of their behaviour. Finally, if

visitors are aware that their behaviour results in a negative contribution to the destination, managers will want to ensure visitors are aware of how they can modify their behaviour.

For the purpose of this study the *destination* refers to the campgrounds where visitors were camping during their trip. Since the visitors in this study were campers, the terms *visitor* and *camper* are used interchangeably. *Impacts* are considered contributions to change, either positive or negative, in the local economy, natural environment or social/cultural condition at the destination.

CHAPTER II

Literature Review

Past research related to the impacts of tourism has identified the type and degree of impacts that exist, factors that affect those impacts and in some cases, researchers have attempted to understand residents' and visitors' perceptions of impacts. Accordingly, the focus of the literature review is firstly on the impacts of tourism (social/cultural, economic, and environmental) and secondly on how visitors may perceive their own impacts. In the last section a series of research questions, derived from this past research, are presented.

Impacts of Tourism

The impact of tourism has been a common theme in past tourism research. In this research, different emphasis has been placed on economic, socio-cultural, and environmental issues (Pearce, 1989). The issue of tourism impacts made the transition from an economic one in the 1960s to a more holistic view in the 1980s, when it was recognised that all impacts, whether economic, socio-cultural or environmental, or either positive or negative should be taken into consideration (Pearce, 1989). A brief description and review of each of these areas provides a clearer understanding of the impacts that have been attributed to tourism as well as the factors that affect the type, amount, and perceptions of impacts. Each of the areas, socio-cultural, economic, and environmental, will be discussed separately; however, it is important to note that these three different types of impact are not independent. Each type of impact may affect the others.

Socio-cultural Impacts of Tourism

Survey research and case studies at one or multiple destinations have been common methods used to demonstrate the socio-cultural changes that can occur as a result of tourism (Andereck & Vogt, 2000; King, Pizam, & Milman, 1993; Snepenger & Reiman, 1998). It is difficult to be certain of the socio-cultural impacts that directly result from tourism because there have not been experimental studies to link cause and effect; however, there appears to be general consensus among researchers that certain socio-cultural impacts are consistently associated with tourism development (Cohen, 1978).

The literature has revealed two types of socio-cultural impacts: those that result from visitor interaction with residents and the destination, and those that result from the development of infrastructure (Keogh, 1989). The type and amount of impact can vary greatly depending on the characteristics of the destination and characteristics of the visitor (Butler, 1974).

Transformation of values, traditional ways of life, and consumption patterns have been noted as impacts that result from visitor interactions with the local population and the destination (Robinson, 1999). For example, in Indonesia, local residents became resentful of the tourism industry when sacred funeral ceremonies were being adapted for viewing by tourists (Robinson, 1999). Behaviour common to tourists may be not appropriate for local residents and may negatively transform local cultural values. Dogan (1989) provides an example of how tourism can negatively transform local values. He suggested that when tourism develops in a community, its traditional cultural activities are commonly presented for economic gain, when they were previously engaged in for community cultural reasons.

The impacts of tourism on traditions, cultural activities, and values are not always negative. Tourism can reinforce traditional culture, thereby providing residents with a sense of greater cultural pride (Boissevain, 1979). Liu and Var (1986) found that 71 % of Hawaii residents agreed that tourism has a positive impact on cultural identity and that tourism resulted in cultural exchange.

Transformation of forms and types of occupations has been a common area of investigation in the socio-cultural impact research (Liu & Var, 1986; Pizam, 1978; Sheldon & Var, 1984; Wall & Alli, 1977). In general, studies have shown that residents think tourism increases employment opportunities (Liu & Var, 1986; Pizam, 1978; Sheldon & Var, 1984; Wall & Alli, 1977). De Kadt (1976) provided an example of the changes that occur in employment opportunity. He stated that because early tourism development draws on local people to fill positions, migrants from surrounding areas may be needed to fill other positions. This results in changes in the population structure of a community. Tsartas (1992) found that residents of a Greek island, which had experienced substantial growth in tourism, had abandoned a number of traditional occupations to open tourism-related businesses. Lever (1987) found that female residents from a Spanish rural community who migrated to resort areas to gain employment in the tourism industry as waitresses were able to earn three times the amount of money that they would have by embroidering.

Both residents and visitors use common facilities and infrastructure, so when tourism growth occurs, additional pressure is placed on local resources and facilities. Congested roads and lack of parking have been common concerns among residents of various destinations (Belisle & Hoy, 1980; Liu & Var, 1986). However, tourism can benefit the development of

infrastructure through visitor demands for goods and services that provide an economic incentive to develop and maintain facilities and resources (Keogh, 1989).

Land use and space available for local use are also issues relevant to the socio-cultural impacts of tourism. Wall and Ali (1977), in their study of the impacts of tourism in Trinidad and Tobago, reported that the government had developed policies to prevent granting of exclusive beach rights, and that development that would limit beach access to local residents was not permitted. These policies were implemented in order to avoid tension between the visitors and residents. Keogh (1989) also raises this issue and states that when visitors buy land for recreational purposes it may cause inflation. This inflation may lead to resentment among local residents attempting to purchase land affected by inflation. However, this increase in purchasing and investment in the local area results in additional development and improved facilities, which are often perceived as a benefit (Keogh, 1989).

Butler (1974), one of the first researchers to write about the socio-cultural impacts of tourism, argued that factors which determine the nature and extent of socio-cultural change can be considered as either characteristics of the tourists or characteristics of the destination and local population.

Tourist Characteristics.

A variety of factors related to the characteristics of the tourists are believed to affect the socio-cultural impacts that may result from tourism. Boissevain (1979) found that length of stay at the destination in conjunction with the number of visitors received at the destination determines the degree and type of impact they will have while visiting. Increasing numbers of

visitors can affect the quality of the resource and in turn affect the recreation experience of local users and other visitors (Keogh, 1989). This can result in conflicts among user groups and decreasing opportunities for solitude (McCool, 1978).

The degree of demographic, socio-cultural, ethnic and linguistic differences between the local population and the visitors also can affect the type and extent of socio-cultural impacts (Boissevain, 1979; Keogh, 1989; Pearce, 1989; Wall & Ali, 1977).

As Keogh observes, "When visitors have an insufficient knowledge of the lifestyle and culture of the community they are visiting, they frequently adopt behaviour patterns which are viewed negatively by the indigenous population and may arouse resentment." (Keogh, 1989, p. 257).

Destination characteristics.

The type of tourism activity and development as well as the length of time over which tourism develops can affect the amount of socio-cultural impact (Pearce, 1989; Tsarttas, 1992). Seasonality of the industry also may affect the socio-cultural impact of tourism (Cohen, 1984; Donatos & Zairis, 1991; Sheldon & Var, 1984). For example, Donatos and Zairis found that there was a large variation in numbers of tourists to Crete, Greece between seasons, thereby affecting the type of jobs available and pressure on local resources.

Residents' perceptions of socio-cultural impacts.

The research conducted to date generally has explored various factors affecting community members' attitudes towards tourism, but not necessarily the factors that affect the amount of socio-cultural impact according to Butler (1974). Numerous studies of residents'

attitudes towards tourism development have yielded varying results regarding the factors that affect their perceptions of and attitudes towards tourism.

Attitudinal surveys have been a commonly employed method to investigate the socio-cultural impacts of tourism (Pearce, 1989). Studies designed to understand residents' perceptions of the types and extent of socio-cultural impacts of tourism, attitudes towards tourism and support for future tourism development, as well as cross-cultural comparison of the socio-cultural impacts of tourism have been frequent areas of past investigation (Jurowski, Muzaggar & Williams, 1997; Lankford & Howard, 1994; Liu & Var, 1986; Perdue, Long, & Allen, 1987). Perceptions of impacts typically have been measured using a series of Likert-type scales.

Several factors have been identified that affect residents' perceptions of tourism and their attitudes towards tourism. These include economic gain, use of the resource (activity pursuit), attachment to the community, attitudes toward the environment, length of residence, economic dependency, birthplace, knowledge level, social status, and other demographic variables (Jurowski et al., 1997; Lankford & Howard, 1994; Liu & Var, 1986; Perdue et al., 1987). It is due to this variety of results that Ap (1990) suggests research in this area has been unable to arrive at a sound body of knowledge. The diverse operationalization and lack of comparability between various studies has led Ap to suggest that there is a need to link relevant concepts and theory to aid in developing a conceptual framework.

Research relating to visitors' perceptions of socio-cultural impacts of tourism frequently has focused on perceptions of crowding in parks and outdoor recreation areas. This line of research identifies crowding as a negative subjective evaluation of use level (Manning, Valliere,

Minteer, Wang, & Jacobi, 2000). Three factors are said to influence judgements of crowding. These are: characteristics of the visitors, characteristics of those encountered, and situational variables (Manning et al., 2000).

Visitors' perceptions of crowding are subject to differences between individuals. Both the activities being pursued and the setting influence crowding (Manning et al., 2000). Additional research on crowding has shown that motivation for outdoor recreation, expectation for use level, and activity type also influence perceptions of crowding (Manning, 1985; Manning et al., 2000; Vaske, Donnelly, & Heberlein, 1980). Demographic characteristics have been proposed to affect perceptions of crowding; however, this has not been verified empirically (Manning, 1985). Beyond the characteristics of the individual, Manning has suggested that situational variables including the type of area, location within the area, and environmental factors may also have an effect.

One of the most commonly studied factors identified to affect visitors' perceptions of crowding is experience level (e.g., general experience in the activity, rate of participation, experience on site). The literature has indicated that users who are more experienced at a site and in an activity are more sensitive to crowding (Manning, 1985). Manning also noted that this was true regardless of how experience is measured. Vaske et al. (1980) reasoned that past experience at the destination affected what visitors expected at the destination during subsequent visits.

Economic Impacts of Tourism

Tourism often is considered an economic development strategy, as it can lead to increased spending in an area. However, it also places additional demand on services required. The economic impact of tourism results from the balance of these costs and benefits (Pearce, 1989). Studies investigating the economic impact of tourism have concentrated primarily upon the impact of visitor expenditures, the multiplier effect of expenditures, and the employment that is generated as a result of tourism (Butler, 1974).

There are three general types of economic expenditures: direct, indirect, and induced expenditures. Direct expenditures are expenditures by tourists on goods and services. Indirect expenditures are due to the money that remains in the area and the business transactions that result from direct expenditures. Induced expenditures result from the income of local people employed or benefiting from the environment which affects local consumer spending (Pearce, 1989). The multiplier effect is the way expenditures filter through the economy. It is a measure of the impact of extra expenditures introduced into an economy.

Tourism has been identified as a labour intensive industry (Pearce, 1989). Therefore, economic impacts of tourism include the creation of new employment. However, many of the jobs in tourism are low paying and low status, and are often part-time (Pearce, 1989). It is believed that this employment structure, in some circumstances, creates a servant class at the destination (King et al., 1993). Fluctuation in levels of employment due to seasonality of the industry is also a concern at certain destinations (Mathieson, 1982).

Negative economic impacts that can result from tourism include the need to improve infrastructure requiring the local government to cover costs. This results in an increase in local

taxes, which can produce inflationary pressures (Pearce, 1989). As well, if tourist demand is seasonal, the destination may find that the infrastructure is underused and this may decrease profitability (Foster, 1985). The impact that tourism may have on a destination will depend on the destinations' economic state. The local economy may be developed, developing, depressed or in decline. As well, the economy may be broadly based or it may be dependent on a single industry (Pearce, 1989).

Studies designed to understand residents' perceptions of the economic impacts of tourism have been incorporated in larger studies focusing on residents' perceptions of impacts, attitudes towards impacts, and support for further tourism development, noted above. Generally residents recognise and value the increase in spending in a community that results from tourism (Liu, Sheldon, & Var, 1987; Liu & Var, 1986).

Environmental Impacts of Tourism

Research has shown that often it is the environmental impacts of tourism that create the most concern among local residents (Liu, Sheldon, & Var, 1987). Tourism can have both positive and negative impacts on the environment. Some believe that tourism degrades the environment while others believe that tourism can benefit the natural environment as long as planning and appropriate management takes place (Pigram & Jenkins, 1999). Tourism can be a benefit to the environment by providing an economic incentive to maintain and protect natural areas. It also provides a unique opportunity to educate the public about the natural environment (Pigram & Jenkins, 1999). Understanding the environmental impacts of tourism is critical, considering that the success of tourism is often dependent on sensitive environments.

Visitation to natural areas can result in impacts to soil, vegetation, wildlife and water.

Soil erosion and compaction are the two major impacts of recreational use on soil (Pearce, 1989; Wall, 1989). Examples of impacts that affect vegetation include trampling and clearing for trails (Pearce, 1989; Wall, 1989). Tourism and recreational activities can result in both direct and indirect impacts on the wildlife of a natural area (Pearce, 1989; Mathieson & Wall, 1982). Direct impacts include disturbance, human interaction and harassment, where as indirect impacts are a result of habitat destruction and other environmental damage caused by recreational use (Pearce, 1989; Mathieson & Wall, 1982). Recreational use of waterways can affect oxygen supply and species composition of aquatic environments, as well as increased coliform bacteria and water quality degradation (Pearce, 1989; Wall, 1989).

Factors that contribute to environmental impacts are a result of the intensity of human use, the resiliency of the eco-system and the time perspective of the developer (Cohen, 1978). Environmental impacts will increase with use of the area (Hammitt & Cole, 1998). As well, certain areas may be more sensitive and become degraded with low levels of use requiring an increase in use re-distribution, while impact resistant areas may allow for higher density. Hammitt and Cole found that the longer campers stayed in an area, the more resources they tended to use. As well, they may have intensely concentrated use and impact.

Activity type may also affect the amount of impact users have on a destination. For example, Hammitt and Cole (1998) found that canoeists tended to be more destination oriented, spent more time in camp, and carried more equipment and nonburnable materials than backpackers, resulting in an increased source of potential litter. Party size is another visitor factor related to environmental impact. For example, larger parties tend to contribute to the

expansion of campsite boundaries and clear areas for additional equipment and space, hence potentially increasing the rate at which impacts occur (Hammitt & Cole, 1998).

Certain environments are better able to withstand tourist use. Cohen (1978) notes that compared with the countryside, large cities are better able to handle large numbers of tourists. Certain environments are particularly sensitive to tourism, for example, islands, coral reefs and other delicate ecologies. Unfortunately, it is also these areas that are highly valuable as destinations (Cohen, 1978). Hall (1992) tells of impacts in Antarctica where cruise travel in the summer coincides with breeding periods for many species and may disturb wildlife breeding sites, feeding areas and watering areas.

Characteristics of the natural environment vary among destinations and will play a role in determining the amount and type of environmental impact experienced in a particular eco-system. Specifically these characteristics are: vegetation resistance and durability of the plants; characteristics of the soil (texture, stoniness and organic matter); topographical characteristics (trail slope steepness); ecosystem productivity; the ability of the environment to support growth and wildlife breeding grounds (Hammitt & Cole, 1998).

The creation of contrived attractions or the transformation of existing natural areas can reduce the amount and type of impact on the environment. It is possible to harden sites through development in order to make them more resistant to degradation (Cohen, 1978). For example, boardwalks are used at beaches to harden the areas where visitors walk in order to minimise environmental impacts (Cohen, 1978).

Past research regarding impacts and depreciative behaviour (i.e. littering and vandalism), attempts to understand the extent to which visitors are able to identify certain

environmental impacts of recreational use. This research has provided some insight into visitors' perceptions of environmental impacts.

Generally, researchers have found that visitors have difficulty identifying impacts (Hammitt & McDonald, 1983; Manning, 1986; Roggenbuck, 1992). Visitors often fail to notice impacts, and when they do notice, they are not bothered by the impact (Knudson & Curry, 1981; Roggenbuck, 1992). Impacts that do elicit negative reactions from visitors tend to be the direct result of human activity (i.e. littering and vandalism) (Moscardo, 1999).

Past experience and familiarity have been identified as factors that affect how visitors will perceive the environment. Individuals who have similar levels of past experience in the same recreational environments have access to the same information, and therefore similar perceptions about the natural environment (Ibitayo & Virden, 1996; Schreyer, Lime & Williams, 1984). As well, it has been noted in the literature that visitors can be arranged from least frequent to most frequent visitor with differing perceptions of impacts (Hammitt & McDonald, 1983; Ibitayo & Virden, 1996). To measure past experience, Ibitayo and Virden asked visitors how often they visited the park and then categorized visitor experience as high, medium or low. Hammitt and McDonald (1983) examined the amount of on site experience to measure exposure to and familiarity with a resource. They reasoned that experience might determine how individuals evaluate a recreational resource. In order to measure experience they created an experience index, which combined the number of years involved in an activity and the frequency of participating in an activity per summer. They also looked at years involved in the activity at a particular destination and frequency of participation per summer at the destination. This study confirmed that level of past experience and perception of disturbances to

the river environment were positively related. Experienced users also had a greater need to control adverse impacts of recreational use.

Schreyer, et al. (1984) also investigated the relationship between past experience and recreational behaviour. They argued that present situations are interpreted by visitors in reference to previous experience (Schreyer, et al., 1984). When visitors were questioned about environmental impact, novices were least likely to perceive environmental impacts, while veterans were most likely. Knudson and Curry (1981), using a singular measure of experience, did not find a significant difference in perceptions of damage to natural areas between first-time campers and repeat campers.

From the literature reviewed to this point, it is clear that there are a variety of impacts related to tourism. There are also a number of factors that affect those impacts. Researchers have attempted to understand residents' and visitors' perceptions of impacts, however, they have not investigated how visitors might perceive their own contribution to these impacts. When people reflect on their own behaviour, there are factors that affect how they perceive. Perception theory and specifically the theory of self-serving bias provide a framework to understand how visitors perceive their own impacts on a destination.

Understanding Visitors' Perceptions of Their Own Impacts

Destination managers must begin to understand visitors' perceptions since without this information it may be difficult to address their communication needs. Tourism occurs in a stimulating and complex environment, often unique compared to the individual's daily environment (Mayo & Jarvis, 1981). Mayo and Jarvis identify two factors that affect how we

perceive our surroundings: these are stimulus factors and personal factors. Stimulus factors include the size, colour, noise and shape of the object or environment we perceive. Frequency, intensity, movement change and number are additional factors noted by Krech, Crutchfield and Ballard (1962). Personal factors include interests, needs, motives, expectations, personality, social position, general demographics and past experience. These factors have the potential to affect the number of stimuli that are perceived, selectively sensitize perceptual mechanism of the individual, lower the threshold for recognizing and paying attention to relevant stimuli objects, and distort stimuli so that they fit certain requirements (Krech et al., 1962). Simply stated, the way in which people perceive is not necessarily a direct or accurate reflection of reality but a combination of their own attributes and characteristics of their surroundings.

When attempting to understand how visitors perceive their own impacts on a destination, specific information about how people perceive themselves and their behaviour is needed. Attribution theory attempts to address how people arrive at an explanation for behaviour in others and themselves (Fishbein & Ajzen, 1975; Tetlock, 1981). Various factors that affect causal attributions have been identified, including biases in attribution. For the purpose of this study the self-serving bias of attributions, provides a theoretical framework to understand how people might perceive their own impacts.

Self-serving bias

The basic premise of the self-serving bias is that people tend to accept responsibility for praiseworthy behaviour and attribute those successes to internal causes, and deny responsibility for blameworthy behaviour and attribute those failures to external forces (Arkin, Appelman &

Burger, 1980; Bradley, 1978, Myers, 1990; Tetlock, 1981). Myers presents three general explanations for the self-serving bias. Firstly, individuals are motivated to protect and enhance their self-esteem (Bradley, 1978). Secondly, individuals like to present a good image to external audiences (Tetlock, 1981). Finally, self-serving biases are a by-product of the way individuals process and remember information about themselves.

Researchers have proposed that these causal attributions are a result of a motivation to protect and enhance one's self-esteem (Arkin et al., 1980; Bradley, 1978; Myers, 1990). Various researchers have conducted research in this area and have found self-serving biases to exist in a variety of situations including; teachers' explanations of students' successes and failures, individuals' beliefs about their own health, and explanations for one's own task achievement (Arkin et al., 1980; Bradley, 1978; Dunn, 1989; Larwood, 1978; Miller & Ross, 1975).

Miller and Ross (1975) have questioned the proposition that the self-serving bias is motivated by a need to protect and enhance self-esteem. Instead, they propose that these biases reflect logical, not motivational, inferences. Miller and Ross suggest that the self serving bias may occur because "people are more likely to accept responsibility for expected outcomes than for unexpected outcomes and, in general, people intend and expect success not failure" (Miller & Ross, 1975, p.223). In part, this contention was based on research that revealed situations where people exaggerated responsibility for poor performance or behaviour producing the reverse outcome of what would be anticipated if self-serving biases existed. Also, Miller and Ross noted that in studies investigating attribution of success and failure in situations where others were involved (i.e. cooperative and competitive games), people were

not more likely to attribute failure to the other participant as one might expect, considering the self-enhancement aspect of the self-serving bias. Bradley (1978) addressed this criticism through an expansion of her initial explanation of the self-serving bias. To enhance and preserve self-esteem, it is sometimes necessary to accept responsibility for poor performance or behaviour. In certain situations "the potential for present or future invalidation of individuals' self-presentation tends to make them more modest about their own abilities and attributes" (Bradley, 1978, p.66). Therefore, individuals may accept responsibility for undesirable behaviour. Tetlock (1981) supported the self-presentation motive and found that subjects' public attributions for their own behaviour were more flattering than their anonymous attributions suggesting self-presentation motive for self-serving biases. Myers (1990) adds that although individuals are likely to see themselves as good or better than others, this is particularly true in situations that are open to interpretation and that are less easily verified. However, if verifiable (as in the case of the examples provided by Miller and Ross) people may not deny their contribution for failure, because they risk being exposed and therefore accepting responsibility for failure enhances self-presentation and protects their self-esteem. A study conducted by Arkin et al. (1980) demonstrated this point. This study found that regardless of their level of social anxiety, people presented themselves in a more favorable light when little public scrutiny of their actual results was anticipated; however, when public scrutiny was present, highly socially anxious individuals were more modest about their outcome assuming more personal responsibility (Arkin et al., 1980). This supports Bradley's defense of the self-esteem motive behind the self-serving bias.

Since the present study is an attempt to understand individuals' perceptions of their own behaviour, the self-serving bias research may provide insight into the outcome of the study.

Purpose of the Research

Much of the tourism impact research to date that has explored peoples' perceptions of impacts has focused on residents' perceptions. This research has been useful to gain a thorough understanding of impacts related to tourism. Although this past research is valuable, it is also important to understand the perspectives of tourists who impact the destination. When investigating visitors' perceptions of the impacts of tourism, researchers have concentrated on perceptions of depreciative behaviour in outdoor settings and perceptions of crowding, which are impacts perceived by visitors while at a destination. One factor in particular has been shown empirically to affect both perceptions of depreciative behaviour as well as perceptions of crowding. Although measured in a variety of ways, past experience (both in an activity and at a destination) plays a role in impacts perceived by visitors.

One aspect of tourism impact research that has not been examined is visitors' perceptions of their own impacts. Self-serving bias research is valuable in understanding visitors' perceptions of their own behaviour. Biases about one's own behaviour are not only affected by our need to present ourselves in a positive manner but also to protect and enhance our self-esteem. As well, self-serving biases may be a result of the way individuals process information about the social world.

The broad purpose of this research is to explore visitors' perceptions of their own impacts at a destination. As well, this study is an initial attempt to explore the relationship

between past experience and variations in perceptions of one's own contribution to impacts. Self-serving bias as a framework may guide our understanding of perceptions of one's own behaviour.

Two sets of research questions were devised. The first set of research questions outlined below is related to the types, the direction (increase, decrease), and assessment (positive, negative) of impacts perceived by visitors. The second set of questions addresses factors potentially affecting visitors' perceptions, as derived from past visitor perception research.

Research Questions

1. How do visitors perceive their own impacts at a destination?
 - a) To which impacts do visitors perceive they contribute?
 - b) How do visitors feel their contribution will affect the direction (increase, decrease) of the impacts, compared to the average camper?
 - c) What is their assessment (positive, negative) of these impacts to the destination?

2. How is past experience in an activity at a particular destination related to visitors' perceptions of their own impacts?
 - a) How does past experience in an activity affect visitors' perceptions of their own impact?
 - b) How does past experience in an activity at a particular destination affect visitors' perceptions of their own impact?
 - c) How do the two factors outlined above interact to affect visitors' perceptions of their own impact?

This study addressed these research questions to provide a preliminary understanding of visitors' perceptions of their own impacts. This chapter has provided a rationale for this line of research as well as outlined aspects of the past research that will be useful in exploring visitors' perceptions. The following chapter presents the methods used to explore these research questions.

CHAPTER III

Method

Research Design

A cross-sectional survey research design with a self-administered questionnaire was used to gather the data. This type of questionnaire permits respondents to spend their desired amount of time thinking about each answer. Also, a self-administered anonymous questionnaire assures confidentiality. Due to the sensitive nature of asking respondents to reveal their perceptions of their own impact, assurance of privacy may make respondents more willing to reveal undesirable behaviour (Fowler, 1993).

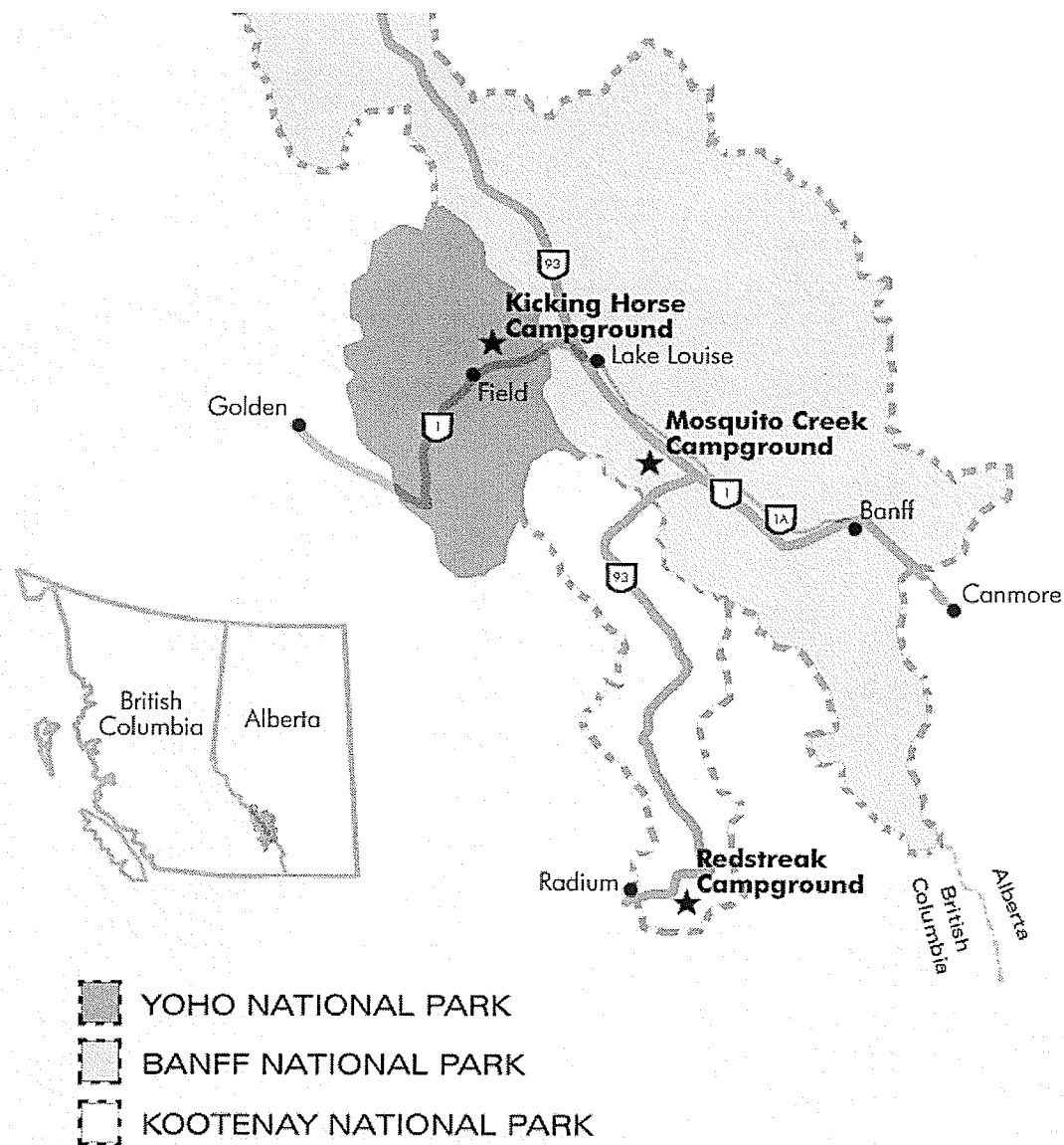
Setting

To understand and compare the way visitors perceive their own impact at a destination, it was necessary to select visitors from a common setting in order to ensure that the impact items included in the questionnaire were appropriate to the destination.

The Canadian Rocky Mountain Parks were selected as the destination of interest because the area is a major Canadian tourist destination that attracts over nine million visitors annually (Parks Canada, 2002). Campgrounds in particular were selected because they offered a discernable area with a large number of visitors participating in a common activity at the destination. Data collection occurred at three different campgrounds; Mosquito Creek, Kicking Horse and Redstreak, located in Banff, Yoho and Kootenay National Parks, respectively. The campground locations are identified in Figure 1.

Figure 1

Map of Study Area



These three campgrounds were selected to ensure a sufficient number of respondents and also to ensure campers involved in various forms of camping were included to represent the types of campers to the area. Table 1 provides a detailed account of the differences in service levels available at the campgrounds.

Table 1

<i>Campground Service Level</i>				
Campground	Flush toilets	Showers	Hook-ups	Kiosk
Serviced	✓	✓	✓	✓
Semi-serviced	✓	✓	✗	✓
Unserviced	✗	✗	✗	✗

Note. ✓ = present, ✗ = absent

Sampling

A non-probability sample was used to answer the research questions under investigation. Quota sampling was used at the campgrounds to obtain participants. Quota sampling requires that respondents be selected on the basis of criteria set by the researcher (Fowler, 1993). In total, 80 respondents from each type of campground were sought, for a total of 240 respondents. To perform a factor analysis, approximately ten times the number of respondents to the number of variables is required (O'Guinn, Faber, McCarty, & Meyer, N.D.). There were 13 impact items, therefore the target number of 240 respondents was sufficient to conduct a factor analysis. As well, 240 was deemed an attainable number of

respondents to survey at these campgrounds during a one-week period. Respondents volunteered to participate and were required to be over 18 years old. They were offered a small gift (tea or cookies) for their participation in the study (see Appendix A).

Common drawbacks to non-probability sampling noted in the literature include a lack of control for investigator bias in the selection of subjects, and difficulty predicting the pattern of variability (Singleton & Straits, 1999). It is therefore impossible to calculate sampling error or estimate sample precision. Non-probability sampling is, however, appropriate for this exploratory study. Non-probability sampling is appropriate as long as the research is not an attempt to generalize to the larger population. During the early stages of investigating a problem, when the objective is to become more informed about the problem, probability sampling is not necessary because it is not intended to provide precise statistical generalizations (Singleton & Straits, 1999).

Data Collection

Self-administered questionnaires were delivered personally to respondents at their campsites (see Appendix B). One camper per campsite was selected to participate. The camper with the birthday, which most closely followed the date, was asked to complete the questionnaire. Respondents were provided with an envelope to place their survey in upon completion to ensure anonymity. Surveys were collected at the respondents' campsites at a predetermined time. Dropping off (and later picking up) questionnaires was advantageous because it provided the researcher with the opportunity to explain the study and answer any questions. This procedure has also been noted to have a high response rate (Jackson, 1999).

The instrument was pre-tested at the Riding Mountain National Park campground on a weekend day. In total, 42 campers participated in the pre-test. Campers were asked to identify any comprehension problems, additional impacts not listed, or impacts not appropriate for campers. The results of the pre-test suggested that the instrument was appropriate in terms of impact items and comprehension.

Measurement and Instrumentation

The questionnaire contained questions to obtain information about visitor demographics, camping profile (e.g. shelter type), past experience and perception of impacts. Both closed-ended and open-ended questions were used to gather the data. Additional questions were included by Parks Canada for their campground report and are beyond the scope of this study.

Impacts.

A seven-point likert-type scale was used to measure visitors' perceptions of their own impacts. According to Weisberg and Bowen (1977) people may be able to make as many as 7 distinctions and 7 point scales allow for additional variability in responses. Campers were asked 'Compared to the average camper, please indicate how likely you think your visiting the campground will affect the conditions listed below'. Scale anchors were 1 – extremely likely decrease through 7 – extremely likely increase, with 4 representing no impact. This question was selected because it gave visitors a point of reference (compared to the average camper), it allowed them to indicate whether they felt they had an impact and the direction of that impact item (increase or decrease). The tourism impact items (conditions) included in the survey were

generated from a review of the impact literature and represented the three dimensions of impact: environmental, economic, and socio-cultural. This list of impacts was narrowed through discussions with Parks Canada researchers and campground staff to select relevant items for the destination setting under investigation. In total, 13 impact items were included in the perceived impact scale. These were; water quality, amount of waste/garbage, benefits to native wildlife, campfire smoke in the air, quality of the natural environment, the quality of native vegetation, crowding, noise levels, growth of the local economy, level of traffic, employment opportunities, condition of roads, and quality of other campers' experiences.

To answer the first set of research questions (how campers perceive their own impacts), each of the individual impact items were explored using descriptive statistics. As well, an exploratory factor analysis was used to determine underlying dimensions from the scale items selected. To understand the second set of research questions (relationship between past experience and perceptions of impact), the factors obtained during the factor analysis were treated as the dependent variables.

Experience levels.

An experience index was created using an equation similar to one developed by Hammitt and McDonald (1983). In their study, Hammitt and McDonald included experience in an activity, frequency per year participating in the activity, experience in the activity at the site and frequency per year participating in the activity at the site. Their study subjects were not campers and therefore the researchers were not interested in length of stay (in terms of number

of nights). However, since length of stay can vary significantly between campers, this item was incorporated into the index.

In this study, past experience in an activity (camping) and at the destination (the study campground), was measured using a series of questions. To measure activity experience (camping), campers were asked, 'In total, how many years have you gone on a camping trip?', 'On average, how many times per year do you usually go camping?' and 'On average, how many nights do you usually stay when you are camping?'. To measure experience camping at the destination they were asked, 'In total, how many years have you gone on a camping trip at this campground?', 'On average, how many times per year do you usually go camping at this campground?' and 'On average, how many nights do you usually stay when you are camping at this campground?'. From these questions, two experience indices were created, an activity experience index and a destination experience index. This has been done in past research to capture various aspects of experience (Hammit & McDonald, 1983; Schreyer et al., 1984). As well, an index provides a more reliable measure of experience than less comprehensive measures (Hammit & McDonald, 1983). A detailed review of the process used to create the index will be presented in the result section.

Data Analysis

Data were analyzed in three stages to answer the research questions proposed. First, demographic and camping profile variables were analyzed using descriptive statistics. This allowed for a detailed description of the respondents.

Next, data were prepared to answer the research questions. Specifically, factor analysis was conducted on the perceived impact variables to determine underlying factors within the perceived impact items. These factors were then used as the dependent variables to understand how past experience affects campers' perceptions of their own impacts. The camping experience index was created using the experience variables following the method outlined by Hammitt and McDonald (1983) described further in the results section.

Finally, to understand how visitors perceive their own impacts, an examination of descriptive data (means and modes) was conducted. This revealed which impacts visitors felt they contributed to and whether their contribution was likely to result in a decrease or increase in the condition. Respondents' assessments of the nature of these impacts (i.e. positive or negative) were also explored.

To determine if there were significant differences in the way campers with different levels (low, medium and high) and types (activity and destination specific) of experience perceived their own impact, two-way analysis of covariance (ANCOVA) was employed. Past activity experience and past destination experience were the independent variables. The dependent variables examined included each of the impact factors determined from the factor analysis. The criterion for accepting that a significant relationship existed between past experience and perceived impact was $p < .05$. Variables selected as covariates included demographic variables that were correlated with the dependent variables. Specifically, the demographic covariates included in the ANCOVA were nights camping during this trip, party size, age and education. Additional covariates were included based on previous literature. Since party size has been shown to affect the amount of impact a group might have on a

campground and therefore may affect the type and amount of impact visitors perceive they have at the campground, it was included as a covariate (Hammit & Cole, 1998). As well, characteristics of the destination also influence the amount of impact that occurs and, in turn may affect visitors' perception of their own impacts. As a result, campground was also selected as a covariate (Hammit & Cole). Shelter type was included since the type of equipment used during an activity has been shown to affect the type of impact exerted on a destination and therefore may affect the impact campers perceive they have. County of origin is also included because studies exploring residents' perception of impacts have shown that the distance people live from the tourism destination and their familiarity with the culture can affect their attitudes towards tourism (Liu & Var, 1986). Party size, age, education and nights spent camping at the campground during this trip were all ordinal level variables however, shelter type, origin and campground type were categorical variables. To include these categorical variables they were re-coded to reflect ordinal level. Shelters were coded with regards to their level of complexity, tents were the simplest form of shelter and were given a score of 1 while motorhomes were the most complex form of shelter and were assigned a score of 5. Visitors were asked to record their country of origin and these were later collapsed into three categories to be included as a covariate, Canadians were coded as 1, Americans 2 and other international visitors were coded as 3. Campground type included unserviced, semi serviced and fully serviced and were therefor coded as 1,2 and 3 respectively to represent increasing levels of service.

The following chapter presents the results in detail, beginning with a description of the respondents' demographic and camping profile information, followed by data preparation and finally addressing the research questions.

CHAPTER IV

Results

The previous chapter presented a detailed account of the methods required to obtain the data and conduct the data analysis. Chapter IV is focused on providing a detailed description of the results and is presented in three distinct phases. The first section includes visitor characteristics and camping profile. Next, the camping experience and perceived impact data are presented in preparation for answering the research questions. Finally, research questions are addressed.

Survey Response

Surveys were distributed at three campgrounds in the Canadian Rocky Mountain Parks during a one-week period in August 2001. Campgrounds were selected to represent the various campground service levels available to campers including serviced, semi-serviced and unserviced campgrounds. As an exploratory study, a nonprobability sample of 240 (80 respondents per service level) was sought. In total, 246 surveys were distributed in person at campsites, five individuals refused to participate because they did not read English fluently. In total, 241 questionnaires were returned to achieve the overall target of 240 with response variation by campground (see Table 2).

Table 2

Response Rate by Campground Type

	Target	Number	Number	Response
Service level	number	distributed	returned	rate
Unserviced	80	84	83	99%
Semi-serviced	80	81	79	98%
Fully-serviced	80	81	77	95%
Total	240	246	241	97%

Respondent Characteristics

The majority of respondents were between 35 and 64 years old (68%) and from Canada (62%). Approximately half of the respondents were female (49%). Respondents were well educated, the majority had either University or post-graduate degrees (55%). Almost three-quarters of respondents (71%) had an annual household income above \$50,000 Canadian (see Table 3 and Table 4).

Table 3

Summary of Camper Demographics (Age and Country of Origin)

Variable	Frequency	Percentage
Age		
18-24	14	5.9
25-34	49	20.6
35-44	78	32.8
45-64	84	35.3
65+	13	5.5
Total	238	100.0
Country		
Canada	147	62.0
USA	42	17.7
Germany	21	8.9
Other	27	11.4
Total	237	100.0

Table 4

Summary of Camper Demographics (Education and Income)

Variable	Frequency	Percentage
Education		
Less than high school	2	.8
High school graduate	33	14.0
Some post secondary training	53	22.5
Some University	18	7.6
University graduate	71	30.1
Post-graduate	59	25.0
Total	236	100.0
Income		
Under \$15000	11	5.0
\$15000 - \$24999	6	2.7
\$25000 – \$34999	22	10.0
\$35000 – \$49999	25	11.4
\$50000 - \$74999	49	22.4
\$75000 - \$99999	46	21.0
\$100000 +	60	27.4
Total	219	99.9

Note. Percent may not equal 100 due to rounding.

Camping Profile

On average, campers had already been camping at this campground during this trip for two nights and were planning to camp for a total of 5 nights (see Table 5). Tents were the most frequently used shelter type (42%). The average group size was 3 campers however, the most common camping party size was 2 people. Overall, party size ranged from individuals camping alone to groups of 11 (see Table 6). Most campers were staying in the campsite type they preferred (86.4%). The majority of visitors (62%) were at the campground for the first time.

When asked to rate their own level of camping experience, the majority of respondents indicated that they had a high level of experience (59%). As shown in Table 7, over 1/3 of respondents indicated that they had a medium level of camping experience (37%) and few respondents felt they had a low level of camping experience (5%). When asked to rate their level of experience at the campground, 24% of respondents felt that they had a low level of experience, 38% rated themselves as medium and 38% had a high level of experience.

Table 5

Summary of Camping Profile (Length of Stay)

Variable	Frequency	Percentage
Current length of stay (nights at the campground)		
0	34	14.2
1	111	46.1
2	44	18.4
3	16	6.7
4	10	4.2
5	9	3.8
6+	15	6.2
Total	239	99.6
Expected length of stay (nights at the campground)		
1	72	30.5
2	60	25.4
3	48	20.3
4	13	5.5
5	11	4.7
6	10	4.2
7+	22	9.2
Total	236	100.0

Note: Percentage may not equal 100 due to rounding

Table 6

Summary of Camping Profile (Shelter Type and Group Size)

Variable	Frequency	Percentage
Shelter type		
Tent	100	41.7
Travel trailer	60	25.0
Motorhome	38	15.8
Tent trailer	20	8.3
Truck camper	20	8.3
Other	2	8
Total	240	99.9
Group size		
1	7	2.9
2	103	43.3
3	31	13.0
4	57	23.9
5	22	9.2
6+	18	7.5
Total	238	99.8

Note: Percentages may not equal 100 due to rounding

Table 7

Self Rated Levels of Past Experience

Variable	Frequency	Percentage
Self rated level of experience camping		
In general		
Low	11	4.7
Medium	85	36.5
High	137	58.8
Total	233	100
At the campground		
Low	21	24.1
Medium	33	37.9
High	33	37.9
Total	87	99.9

Note: Percentages may not equal 100 due to rounding

To explore level of experience camping, respondents were asked to indicate the amount of time they have spent camping. On average, they had gone on a camping trip 22 years, about 10 times per year and stayed an average of 6 nights. Respondents also were asked about their experience at the campground where they were staying. Respondents had been to the campground an average of 4 years, visiting less than once a year and staying for an average of approximately 2 nights (see Table 8).

Table 8

Amount of Time Spent Camping

Variable	Range	<i>M</i>	<i>SD</i>	<i>N</i>
Years went camping	0 - 50	21.46	13.07	237
Times per year camping	0 - 365	9.75	34.53	237
Average number of nights per trip	0 - 30	5.65	5.39	237
Years went camping at the campground	0 - 37	3.99	8.15	227
Times per year at the campground	0 - 6	.49	.83	226
Average number of nights at the campground	0 - 33	1.86	3.91	228

Identification of Impacts

When asked to list impacts that result from campers staying at the destination, most respondents were able to identify at least one impact (81%). They noted both negative and positive impacts that resulted from visitation as well as impacts from economic, environmental and social domains. Disturbing wildlife was the most frequently cited impact (68% of those who stated an impact indicated wildlife). Other commonly identified impacts are displayed in Table 9 and include; waste/litter (39%) and disturbing vegetation (27%).

Table 9

Commonly Identified Impacts

Impact	Total responses	Percent of responses	Percent of cases
Disturbing wildlife	132	23.1	68.0
Waste / litter	76	13.3	39.2
Disturbing vegetation	52	9.1	26.8
Economic	30	5.3	15.5

Among the more distinctive impacts listed were multicultural experience, human injuries and lack of recycling. A complete accounting of impacts reported on the open-ended question is provided in Appendix C.

Answering the Research Questions

The purpose of this study was to explore visitors' perceptions of their own impacts at a common destination setting. Specifically campers' perceptions of their impacts at a mountain park destination were examined in two stages. First, how visitors perceive their own impacts was explored by answering the following questions, 'Which impacts do visitors feel they contribute to?' and 'Do they feel that their contribution is likely to result in an increase or decrease on the conditions?'. Next, the effect of past experience on visitors' perceptions of their own impacts was explored by answering the following questions, 'How does past

experience in an activity affect visitors' perceptions of their own impacts?' 'How does past experience at a campground affect visitors' perceptions of their own impacts?' and finally, "How do the two factors outlined above interact to affect visitors perceptions of their own impacts?'.

Results of Research Question One

To reveal respondents' perceptions of their own impacts, specifically the impacts that visitors feel they contribute to and in what way they are likely to contribute (increase or decrease), they were asked the following: 'Compared to the average camper, please indicate how likely you think your camping at this campground will affect the following conditions'. Scale items ranged from 1 - extremely likely to decrease through 7 - extremely likely to increase, with the mid-point representing no impact.

An exploration of the modes, shown in Table 10, indicates that the most frequently selected response by campers surveyed was 'no impact' for 8 of the 13 impact items. The majority of respondents indicated that compared to the average camper, they had no impact on water quality and the quality of other campers' experience and over one third of respondents felt that they had no impact on campfire smoke, noise, roads, vegetation, the natural environment and wildlife. The most frequently selected response for the remainder of the items listed was slightly likely to increase. Over one third of respondents thought that compared to the average camper, crowding, waste, employment, local economy, and traffic were slightly likely to increase as a result of their visiting the destination.

Table 10

Visitors' Perception of the Direction (Increase, Decrease) of Impact

Impact item	Mode	SD
Water quality	4.00	.91
Crowding	5.00	1.17
Noise levels	4.00	1.32
Amount of waste / garbage	5.00	1.34
Growth of local economy	5.00	1.15
Benefits to native wildlife	4.00	1.12
Level of traffic	5.00	1.20
Employment opportunity	5.00	1.01
Campfire smoke in the air	4.00	1.43
Condition of roads	4.00	1.15
Quality of the natural environment	4.00	1.27
Quality of native vegetation	4.00	1.18
Quality of other campers' experiences	4.00	.89

Note. Based on scale 1= Extremely likely decrease; 7=Extremely likely increase

Visitors were also asked the following: 'Please indicate what you think the effect of the following conditions are on the park. Scale anchors included 1 - extremely negative through 7 - extremely positive with 4 being neutral.

The modes indicated that increased noise levels, increased waste, increased traffic, increased crowding and increased campfire smoke were most frequently perceived as negative (see Table 11). Conditions frequently viewed as positive included increased employment, increased economic growth, increased road quality, increased quality of vegetation, increased benefits to wildlife and increased quality of the natural environment. Increased water quality and increased quality of other campers' experience were most commonly perceived as neutral.

Table 11

Visitor Assessments (Positive, Negative) of the Impacts

Impact item	Mode	SD
Increased water quality	4.00	1.39
Increased crowding	2.00	1.31
Increased noise levels	2.00	1.30
Increased amount of waste / garbage	2.00	1.44
Increased growth of local economy	5.00	1.55
Increased quality of native wildlife	7.00	1.78
Increased level of traffic	2.00	1.39
Increased employment opportunity	5.00	1.38
Increased campfire smoke in the air	3.00	1.20
Increased condition of roads	5.00	1.28
Increased quality of the natural environment	7.00	1.66
Increased quality of native vegetation	6.00	1.70
Increased quality of other campers' experiences	4.00	1.19

Note. Scale items ranged from 1 – extremely negative to 7 – extremely positive.

Preliminary Analysis

To understand the relationship between past experience and campers' perceptions of their impacts two way analysis of covariance was conducted. Several preliminary analyses were required to prepare the data for addressing the research questions. First, the camping

experience data were used to create a camping experience index that allowed the respondents to be placed into low, medium and high experience index categories. Next, factor analysis was employed to reduce the initial number of impact variables into a smaller number of factors.

Experience index.

For the purpose of this study two past experience indices were created, activity experience and destination experience. First, to create the activity experience index (experience camping) visitors were asked in open-ended questions to indicate the number of years they had gone on a camping trip, the average number of trips per year and the average nights stay per trip. Campers were divided into low, medium and high levels of experience camping within each of these variables. To determine the low, medium and high categories, the distribution of the frequencies for each question was examined. Where there was a substantial decrease or increase in the distribution of frequencies, a category was created (see Appendix D). Campers were given a score of 1 if they were within the low category, 2 for medium and 3 if they were within the high range. The assigned scores for each of the variables (years camping, the number of trips per year and the number of nights stayed) were multiplied to create the activity experience index. For example, a visitor who had a high number of years camping (3), goes on a high number of trips in a year (3) and camps for a low number of nights (1) would produce the following equation $3 \times 3 \times 1 = 9$. The composite experience scores ranged from 1 through 27. Next, following Hammitt and McDonald (1983), these composite scores were divided into the three activity experience categories (low (1), medium (2) and high (3)). To determine which respondents were within the low (1) activity experience category, the average of, the percent of

respondents within low years camping (19.4%), the percent of respondents within low trips per year (58.2%) and the percent of respondents within the low nights per trip (48.1%) was calculated (Table 12). This average percentage within the low category (29.1%) was used to determine respondents to be included in the low category. From the composite index from 1 – 27 the approximately the lowest 29% were considered to have a low level of activity experience. This was also done to determine the percent of respondents to be included in the medium and high categories (Table 12).

This same procedure was also used for destination experience (campground), except in this case the variables used were years camping at the campground, trips per year to the campground and nights per trip at the campground. In total, two different indices (ranging from 1-3) were created. Results of the experience index were correlated with respondents self rated level of experience indicating that the index reflects how visitors perceive their own experience level (see Appendix E).

Table 12

Number of Respondents Within Each Experience Category

Variable	Percent of respondents		
	Low	Medium	High
Years camping	19.4	66.3	14.3
Trips per year	58.2	30.0	11.8
Nights per trip	48.1	41.4	10.5
Average % (Activity Experience)	29.1	57.4	13.5
Years camping at the campground	77.5	16.3	6.2
Trips per year at the campground	62.4	31.8	5.8
Nights per trips at the campground	61.8	21.5	12.3
Average % (Destination Experience)	62.7	21.3	16.0

Factor analysis.

Exploratory factor analysis using principal components with varimax rotation, was used to reduce the initial 13 impact items into a smaller number of factors and to reveal underlying impact dimensions. Three factors emerged with eigenvalues greater than 1 (see Table 13), explaining 60% of the total variance. Factors that emerged appeared to be differentiated by time and human use. The first factor included impact items that occur instantly and are clearly attributable to human use (i.e., noise, waste crowding traffic and campfire smoke), the second factor was composed of impacts that occur gradually and are not directly attributable to human use (i.e., vegetation, wildlife, water, the environment, campers and roads). The final factor included items that occur gradually and are more clearly attributed to human use; that is,

employment and impacts on the economy. Cronbach's alpha reliability coefficient for factor one was .82, for factor two was .77 and for factor 3 was .73. These suggest good internal consistency (George & Mallery, 2000). The factor scores were saved and used in the subsequent analyses (ANCOVA).

Summated means for these factors revealed that immediate impacts were slightly likely to increase ($M = 4.58$). Delayed impacts were neutral ($M = 3.85$) and economic impacts were slightly likely to increase ($M = 4.89$) (see Table 14).

Table 13

Impact Factors

Impact factor	Factor loading	Eigen value	Variance explained	Alpha
(Factor 1) Immediate		4.07	31.32	.82
Noise	.852			
Waste	.768			
Crowding	.764			
Traffic	.599			
Campfire smoke	.497			
(Factor 2) Gradual		2.56	19.67	.77
Environment	.864			
Vegetation	.823			
Campers	.668			
Wildlife	.586			
Water	.520			
Roads	.454			
(Factor 3) Economic		1.11	8.50	.72
Employment	.807			
Economy	.705			

Table 14

Summated Means for Each Factor

Factor	<i>M</i>
Factor 1 Immediate	4.58
Factor 2 Gradual	3.85
Factor 3 Economic	4.89

Note. Scale items ranged from 1 – extremely likely decrease to 7 – extremely likely increase.

Selection of covariates.

As discussed in the previous chapter, variables selected as covariates were based on the results of correlations with the dependent variables (see Appendix F). Variables that significantly correlated with at least one of the dependent variables included education, party size, number of nights camping at this site during this trip, education, shelter type and type of campground. Although age did not correlate significantly with any of the dependent variables it was still included as a covariate because intuitively experience level is related to age and therefore age should be accounted for in the analysis.

Results of Research Question Two

To understand the relationship between past experience and campers' perceptions of their impacts a two way analysis of covariance was conducted for each of the dependent variables; immediate impacts, gradual impacts and economic impacts (see Appendix G).

Specifically results are provided to understand: how past activity experience affects visitors' perceptions of their own impacts; how past destination experience affects visitors' perceptions of their own impacts; and finally, how the two types of experience interact to affect visitors' perceptions of their own impacts at a destination. These two types of experience are not operationally independent of each other. Activity experience includes destination experience however, an examination of the results indicates that the proportion of low, medium and high destination experience is the same across the levels of activity experience. Whether campers are in low, medium or high activity experience categories is not affected by their destination experience. Assumptions of homogeneity of variance and normality were not violated, however the sample was not randomly drawn. This could result in no significant results being detected when a significant relationship exists.

The analysis of covariance results revealed no interaction effect or main effects between the types of experience and visitors' perception of immediate impacts (e.g. noise, waste, crowding, traffic and campfire smoke). Both group size and education, which were included as covariates, did have significant relationships with immediate impacts (Appendix G).

There was no significant interaction effect or main effects between the types of experience and visitor's perceptions of economic impacts (e.g. economic growth and employment opportunities). However, country of origin, campground type, group size, shelter type and nights spent camping, which were included as covariates, did have significant relationships with economic impacts (Appendix G).

Again, results of the analysis of covariance revealed no main effects between experience types and gradual impacts (i.e., environment, vegetation, campers, wildlife, water and roads);

however, there was an interaction effect between the types of experience and campers' perceptions of gradual impacts (Table 15). An interaction effect occurs when the influence of one independent variable changes according to the level of another independent variable. Visitors' perceptions of their own impacts depends on an interaction between their level of activity experience (camping) and their level of destination experience (camping at the study campground) (Figure 2). Campers perceive that gradual impact is likely to decrease when in they have a low level of experience camping and they have moderate experience at the location. As well, when campers have a high amount of experience camping and a high amount of experience camping at the study campground, they perceive their impact to result in a decrease in the quality of gradual impacts.

Campers perceive that they do not contribute to gradual impacts when their camping experience is low and their campground experience is either low or high. Interestingly, when their camping experience is medium they do not perceive they have an impact compared to the average camper, regardless of their campground experience. Also, when their camping experience is high and their campground experience is low or moderate, they indicated that they do not have an impact compared to the average camper.

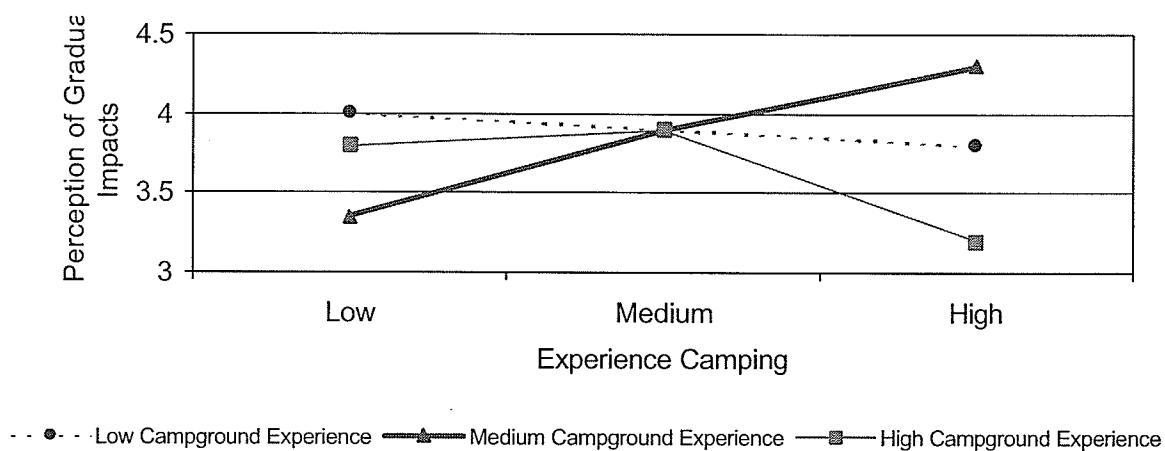
Table 15

Two Way Analysis of Variance for Gradual Impact

Gradual Impacts - Factor 2	<i>df</i>	F	<i>p</i>
Activity Experience	2	.49	.62
Destination Experience	2	.42	.66
AE X DE	4	2.5	.04*
Within group error	213	(.58)	

* $p < .05$.

Figure 2

Interaction effect between experience camping and destination experience

CHAPTER V

Discussion

The purpose of this study was to explore visitors' perceptions of their own impacts at a common destination setting. Specifically, it explored how campers perceived their own impacts at a mountain park campground and how past experience in an activity (camping) and at a destination (campground) affects campers' perceptions of their own impacts. A discussion of the findings, including how they relate to previous research, followed by the implications and suggestions for future research are provided in chapter V.

Discussion of Findings

Tourism often takes place in sensitive environments where the impacts of human use can result in both beneficial and detrimental contributions to the destination. Destination managers must find ways to maximise the benefits and minimise the negative outcomes of tourism use to ensure a sustainable tourism operation that will not only provide benefits to the local area presently, but will continue to be a valuable endeavor in the future. The actions of visitors who travel to the destination can result in both negative and positive impacts and therefore destination managers must ensure that the visitors' activities are managed appropriately. Communication and education often have been suggested as unobtrusive methods to effectively manage visitors' impacts (Manfredo & Bright, 1991). However, for these communication activities to be successful, it is important to understand the visitors' perspective so that communications address their perceptions. An understanding of their perceptions will be useful in guiding communication programs. The following discussion of the findings, which offers a preliminary understanding of

visitors' perceptions, is presented in three sections: a profile of the campers, understanding their perceptions of impacts, and the effects of past experience on their perceptions.

Profile of the Campers

Where possible, data from studies conducted by Parks Canada (2001) at these campgrounds, were used to verify the similarity between the campers included in this study to other campers to the area. Results from the general camping literature were also employed to explore ways in which campers in this study relate to campers in general.

The results of this study suggest that campers to these campgrounds are middle-aged, well-educated Canadians who have high household incomes. Interestingly, the results of this study found that most campers were over 35 years old. This is not consistent with other studies where campers are commonly under 35 years old. White, Hall & Farrell (2001) also conducted a study involving campers at a mountain park destination and found that the most common age bracket was 30-35 years old. Another study of campers found that campers tended to be under 30; however, the researcher simply observed campers and assigned age based on subjective opinion and therefore may not be accurate (Herberlein & Dunwiddie, 1979). These studies took place in backcountry or remote campgrounds. It is possible that front country campers differ from backcountry campers in terms of age. Campers' gender was evenly distributed in this study, however past research has found significantly more males than females at the destinations (Herberlein & Dunwiddie, 1979; White et al., 2001). Again, this could be attributed to the more rugged backcountry campground explored in these studies. Respondent origin was consistent with other research occurring at the Canadian Rocky

Mountain Parks campgrounds. A study conducted during the same year at the same campgrounds revealed similar results (Parks Canada, 2001). In both studies, the majority of respondents originated from Canada, almost one fifth of the respondents were from the USA, and one fifth of the campers were overseas visitors.

Camping profile results appear to be consistent with past camping research. Campers expected length of stay was similar to the length of stay reported by Herberlein & Dunwiddie (1979), where the majority of campers stayed 1 or 2 nights. Group size results also appear to be consistent. Groups ranged from 1 to 11, with a median of 2, which was similar to the results reported by White et al. (2001). Shelter type results resembled those collected by Parks Canada (2001) at the same campgrounds. The most frequently selected shelter in both studies was tents, followed by travel trailers. The majority of the respondents were at the campground for the first time (62%). This is not consistent with the results from the 2001 Parks Canada report, which indicated only 48% first time visitors. However, in the 1999 Parks Canada report, 75% were visiting for the first time.

Past research investigating campers has not commonly placed campers in experience categories. There is also a lack of research that investigates destination specific experience camping. One study which did classify campers as low, medium and highly experienced, did so based on subjective researcher observation (Herberlein & Dunwiddie, 1979). It is therefore not surprising that there was a substantial difference in the proportions of campers within the different experience categories between that initial study and the present study. The study by Herberlein and Dunwiddie reported 42% as highly experienced, 44% were moderately experienced, and only 11 % were considered inexperienced. The present study classified

13.5% as highly experienced, 57.4% as moderately experienced, and 29% as inexperienced.

However, the classification into experience levels in this study does not necessarily reflect visitors' actual level of experience but instead classifies individuals in relation to each other.

Visitors' Perceptions of Impacts

The first set of research questions explored in this study is related to how visitors perceive their own impacts. Of interest are; which impacts they perceive they contribute to, in what way they feel they contribute and whether that contribution is perceived as being positive or negative. Although, visitors' perceptions of their own impacts have not been explored empirically until now, this line of questioning may provide a much-needed perspective to help manage impacts.

Before visitors' perceptions of their own impacts were explored, visitors were asked to indicate impacts resulting from campers visiting the destination. This open-ended question provided insight into the impacts that visitors think exist at the destination. The majority of respondents were able to identify at least one impact, indicating that they are aware that camping contributes to changes in the destination. Most respondents identified disturbing wildlife (68%). The next most commonly identified impact was waste or litter (39%). The literature that has explored the impacts perceived by campers has generally found that campers tend to identify impacts that are obviously a result of human use (Farrell, Hall & White, 2001). This is consistent with the high number of individuals who listed waste or litter as an impact, but would appear to conflict with the result that most campers identified wildlife. Interestingly, at the time of the study there were substantial educational public relations materials made available to

visitors about how to minimise their impacts on wildlife, which could explain their heightened awareness of this issue. One component of the message being conveyed to visitors was to avoid leaving garbage where it could be accessed by animals. This could explain the frequency of litter and waste as a listed impact.

Visitors' Perceptions of their Own Impacts

As demonstrated above, most campers are aware that camping can result in impacts to the destination, but which impacts do they perceive they contribute to while camping? In total, 8 of the 13 impact items had scores in the no impact range. Campers did not feel that compared to the average camper, they contributed to impacts on; water quality, quality of other campers experiences, noise, roads, native vegetation, the natural environment, wildlife and campfire smoke in the air. According to the impact literature, it is unlikely that visitors have no impact on any of these (Hammitt & Cole, 1998). Notably, the majority of respondents cited wildlife as an impact that results from camping, but when asked about their own contribution they frequently reported 'no impact' compared to others. Again, this could have been due to the large amount of information made available to campers about wildlife. Radio programs, brochures and newspaper articles frequently advised visitors not to feed animals and to stay a safe distance from wild animals. Campers may have been in a heightened state of awareness with regards to wildlife impact, but felt that they complied with the behaviour requests made in these publications and therefore reduced their own contribution o impacts and so compared to others had no impact.

Although campers did not feel that compared to the average camper they contributed to the majority of the impact items, they did feel they had an impact on 5 of the items included in the scale. When reflecting on their contribution to these items, campers felt the items were likely to increase as a result of their camping at the destination. Crowding, economic growth, traffic level, amount of waste/garbage, and employment were within the 'slightly likely to increase' range.

Now that it is clear to which impacts visitors felt they contributed and the way in which they contributed, their assessment (positive or negative) completes the picture of how campers perceive impacts. Increased employment opportunities, quality of the natural environment, quality of the native vegetation, quality of wildlife and road quality were considered positive by respondents. In contrast, increases in crowding, noise levels, amount of waste and garbage, traffic levels, and campfire smoke in the air, were perceived to be negative by respondents. When asked about increased quality of other campers' experiences and increased water quality responses were neutral.

Factor analysis was employed to condense the initial 13 impact items into a smaller number of dimensions. In total, 3 factors emerged. The first factor represented impacts that occur immediately and are easily attributable to campers. The second factor consisted of items that tend to occur gradually and are not easily attributable to campers. The final factor represented economic impacts that occur gradually and are easily attributable to campers. These 3 factors differ from the traditional way that impacts are classified as social, environmental and economic. However past impact research that has explored the dimensions used residents as subjects, not visitors (Liu, Sheldon & Var, 1987). A study that investigated

how impacts affect visitors' experience reduced initial impact items into factors which were similar to the dimensions revealed in resident perception research, they included site/sound impacts (environmental), people encounters (social), wild animals and horse encounters (Roggenbuck, Williams & Watson, 1993). It is possible that the factors that emerged were simply a function of the impact items included in the scale. However, it is also possible that campers perceive how they impact the destination differently than how the impacts affect their experience. Also, residents and campers may conceptualize impacts differently. When reflecting on their own behaviour, campers' ability to see the result of their own actions (immediate vs. gradual) and to attribute it to themselves (directly resulting from human use) may hold greater meaning than the traditional concept of social, environmental and economic dimensions of impacts.

An examination of the summated means of the factors revealed that campers' perceived immediate and economic impact factors as likely to increase as a result of their visit, while they felt they had no impact on the gradual impact items. Farrell, Hall, & White (2001) suggest that it is easier for visitors to recognize impacts that obviously and intentionally result from human use. It is reasonable to conclude that campers are able to recognise their contribution to immediate impacts because they occur immediately and they are easily attributable to their own behaviour. As well, economic impacts are easily attributable to human use and therefore campers perceive that their camping affects those conditions. However, the gradual impacts change over time and therefore visitors are not likely to see the result of their own impact unless they return to the destination. As well, gradual impacts are not easily directly attributable to

human use: many factors affect changes in these items and visitors may not take responsibility for their role in affecting the changes.

Relationship between past experience and perceived impacts

The second set of research questions explored in this study investigated the effects of past experience on visitors' perceptions of their own impacts. Two way analysis of covariance revealed evidence of this relationship. Specifically, an interaction effect was present between the types of experience (activity and destination) and their effect on the gradual impact factor (i.e. impacts to the natural environment, vegetation, wildlife, water, roads and other campers). Farrell et al. (2001) suggested that for impacts to affect campers' evaluations of campsites, they first must be perceived before they can be evaluated. It is reasonable to expect this concept is true regarding to campers' perceptions of their own impacts. They must first be aware that impacts result from camping before they can attribute impacts to their own behaviour. Therefore, repeated destination experience (visitors with moderate or high destination experience) may be required for visitors to gain awareness of impacts that occur gradually. This is because only when they see the difference in the conditions at the destination, will they attribute those conditions to camping. Activity (camping) experience may affect the way they feel they contribute to those impacts when they do perceive them. This would account for those individuals with little experience at the destination who do not perceive gradual impacts regardless of their overall camping experience because they have not seen the changes at the destination. Those campers that have experience at the destination and therefore are aware that camping can result in changes to the destination will perceive those impacts differently based on

their overall activity experience. It is possible that inexperienced campers may feel that they do not know how to prevent their impacts so any amount of camping affects the destination, whereas moderately experienced campers may think that they know how to minimise their own impacts and highly experienced campers may feel that they camp so often that they inevitably impact the destination. This interpretation of the results would certainly explain the outcome of the two-way analysis of covariance, however it does not explain why visitors with moderate destination experience and low camping experience perceive impacts differently than those with high destination experience and low camping experience. One variable that has not been included in measuring past experience that may explain these differences is the date of first visit. There has been research to suggest that this variable can affect the way visitors perceive impacts (Vaske et al., 1980). There has not been enough research in this area to fully understand the way in which past experience affect visitors perceptions of their own impacts.

The interpretation discussed above also provides insight into why past experience did not affect the way visitors perceived the other two dimensions of impact. Impacts that are immediately visible and easily attributable to human use would not be dependent on past destination experience since visitors would notice the change in the dimension within their first visit to the destination; there would be no need for repeated exposure. Past experience did not affect the third factor, which contained the economic variables that are gradual impacts easily attributed to human use. Again, the above explanation proves helpful in understanding possible reasons for this result. Since this type of impact is easily attributable to people visiting the destination, repeated destination experience may not be necessary for awareness.

Support for self-serving bias

The results relating to campers' perceptions of their impacts compared to the average camper may be an example of a self-serving bias. According to existing research about self-serving bias, people tend to accept responsibility for positive outcomes and deny responsibility for negative consequences unless their responses were subject to public scrutiny or easily verified (Myers, 1990). Generally, there have been two explanations for the self-serving bias. The first is that the self-serving bias is motivated by individuals' need to protect and enhance their self-esteem. The other explanation is that the bias is logical, not motivational. The results of this study provide additional support for the cognitive (logical) explanation for the self-serving bias. Visitors accept responsibility for impacts that they are aware they contribute to, such as impacts that occur immediately and are a direct result of human use. Whereas, when they are unable to see their contribution to particular impacts, such as those that occur gradually, visitors do not accept responsibility for their own contribution. The way campers perceived the gradual impact factor depended on their past experience, and varied according to an interaction between activity experience and destination experience. In most circumstances, visitors perceived that they did not have an impact on gradual impacts. However, two situations existed where visitors accepted responsibility for a decrease in the quality of the gradual impacts. When activity experience was low and their destination experience was moderate and when both their camping experience and destination experience were high. It is possible that when visitors are exposed to and become aware of their contribution to impacts (through repeat visits) they take responsibility for their part.

If a self-serving bias does exist in the way campers perceive their impacts, past experience may alter the way the self-serving bias affects campers' perceptions of gradual impacts.

CHAPTER VI

Implications and Conclusions

The purpose of this thesis was to explore visitors' perceptions of their own impacts at a common destination setting. This was considered an important perspective to gain, since to date it has been left unexplored and this knowledge has the potential to facilitate and enhance the development of communication activities to manage impacts. To gain a preliminary understanding of visitors' perceptions, campers were surveyed at three campgrounds in the Canadian Rocky Mountain Parks. Information about the campers' perceptions of their own impacts and factors that affect those impacts was gathered and analyzed.

Theoretical Implications

The results reported in this study may support the self-serving bias as a way to explain how visitors perceive their own impacts. Although the purpose was not to empirically test the self-serving bias, and therefore questions were not designed to directly answer this question, it did provide additional insight into how the self-serving bias might be applied to real world scenarios. The majority of the past self-serving bias research has been conducted in controlled settings to verify its existence and to explore how it operates (Arkin et al., 1980; Miller & Ross, 1975). The current study suggests a need for additional research exploring the self-serving bias outside of the lab.

This study was the first to explore how visitors conceptualize their own impacts and the results imply that the way visitors perceive their own impacts may be quite different from how they perceive impacts in general. As noted earlier, there has been research to suggest that

visitors more readily perceive impacts resulting directly from human use (Farrell, et al., 2001), however the time dimension found in the present study has not been discussed elsewhere. Further research exploring visitors at various destinations and including a variety of impacts needs to be conducted to determine if visitors consistently perceive their own impacts in the manner found in this study.

The effect of past experience on recreationists' perceptions frequently has been explored in past research. It has been employed both as a variable on its own and as a component of specialization (Hammitt & McDonald, 1983; Virden & Schreyer, 1988). This study confirms that past experience is a useful variable in explaining differences in perceptions of impacts at destinations. However, the way that past experience has been measured is varied and the possibility exists that the results would be quite different if this variable were measured differently. Past research has not explored possible interaction effects of different experience types. Instead, these two types of experience have been combined and explored as a single variable or various combinations of general and site-specific experience were combined to create distinct categories of experience (Hammitt & McDonald, 1983; Schreyer et al., 1984). In the present study, the influence of destination experience (experience at the campground) on visitors' perceptions of gradual impacts changes according to respondents' level of activity experience (experience camping). This suggests that these two dimensions of experience are unique but interact. Additional research should be conducted to explore the effects of different measures of experience on visitors' perceptions.

Practical Implications

This line of research provides invaluable insight to destination managers who must find effective ways to communicate with visitors in an attempt to minimise the negative outcomes that can result from campers visiting the destination. Communication activities are unobtrusive and offer managers an alternative to more direct management control (i.e. zoning, site closures and fines). Communication has been effective as a means to manage visitors and their impacts (Moscardo, 1999). Evidence of this exists in the current study in which the majority of the campers were able to identify impacts to wildlife, which, as noted above, was prevalent in signage, educational and communications materials at the time of the study.

All of the impacts contained in the scales were impacts identified in discussions with Parks Canada research staff as impacts that occur at the destination. However, visitors believed that their camping had no impact on most of the impact items. Although it is possible that visitors are taking precautions to minimise their impact at the destination, it is unlikely that they have no impact on the seven items identified. Past research confirms that visitors often do not notice impacts to the destination (Roggenbuck, 1992). If visitors are not aware of some impacts, therefore unaware of their contribution to these impacts, they will have no reason to modify their behaviour to minimise their impacts. Park management should begin by raising visitors' awareness of how they affect these impact items. Although, campers were aware of their contribution to 6 impact items, they do not necessarily understand what alternatives exist to minimise their impacts. Moscardo (1999) suggests that besides alerting visitors of the impacts that exist, they should be informed of appropriate behaviour. Again, ensuring programs are available to inform visitors of their behavioral options will increase their ability to minimise their

impacts. Roggenbuck suggests that in situations where impacts result from unskilled or uninformed actions the individuals would prefer to behave appropriately, but are not aware of their options. He suggests programs emphasizing education, demonstration and audience participation could be useful to these visitors (Roggenbuck, 1992).

The way campers' perceive the gradual impact factor is affected by an interaction between activity experience and destination experience. In most cases, campers' felt that they did not contribute to gradual impacts. Since they are not likely to see the results of their contribution during their stay at the destination managers should ensure that impact information raises awareness of these impacts. Under certain conditions (low camping experience with medium destination experience and high camping experience with high destination experience) visitors felt they would contribute to a decrease in the quality of the gradual impact factor, indicating that for these visitors, programs aimed at providing behavioural alternatives would be appropriate. When trying to change visitor behaviour, persuasive communication techniques can be useful in changing behavioural intentions (Roggenbuck, 1992). The literature reveals that strong relationships exist between past experience, knowledge and recreationists' response to persuasive messages (Roggenbuck, 1992). First-time visitors respond more readily to persuasive messages than do more experienced users (Roggenbuck, 1992). This suggests that messages targeted at first-time visitors can employ a simpler persuasive communication technique where visitors are offered prompts, rewards and punishments to encourage appropriate behaviour (Roggenbuck, 1992). On the other hand, experienced visitors will require more complex communication techniques that employ strong arguments. When using persuasive messages, managers should be aware that past research in outdoor recreation

settings has suggested that messages need to be specific and clear, occur early in the trip, and be delivered by a source perceived as credible by visitors (Roggenbuck, 1992). Additional research needs to be conducted to understand whether various forms of communication will affect the way visitors perceive their own impacts.

This study provided the first opportunity to explore how visitors perceived their own impacts at a tourism destination. The value of this line of research has been clearly demonstrated as well as its theoretical and practical implications.

Further research is required to advance our understanding of how visitors perceive their own impacts. Research employing additional variables would enhance our knowledge of the factors that affect visitors' perceptions. Qualitative studies would allow for an in-depth understanding of visitors' perceptions. As well, different destinations (i.e. urban, rural, coastal and developing countries) could provide additional insight into this aspect of tourism impact research.

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APPENDIX A

Introductory Script

Hello, My name is Christine and I am a graduate student at the University of Manitoba. I am conducting research in conjunction with ____ campground and would like to ask the individual with the next birthday if they would be willing to complete a questionnaire on their opinion about their potential impact on the park.

As well, Campers who participate in the study will receive a bottle of bug repellent as a thank you for their participation. Are you interested in participating? When would be a convenient time for me to return to collect the questionnaire. Once you have finished answering all of the questions please place the survey in the envelope provided so that your responses can be kept anonymous. Thank you, I will return at ____.

APPENDIX B

Questionnaire

**Camper Opinion Survey**

The purpose of this study is to gain insight into campers' opinions about their possible impacts while visiting the park. The data being collected will be used for graduate study research at the University of Manitoba and will be available to Parks Canada. If you are camping with a group, the person with the next birthday should complete the survey.

Your individual responses will be kept strictly confidential.

Thank you for your participation!

Camping Experience

1. During this visit
 - a. How many nights have you been camping at this campground? ____
 - b. In total, how many nights do you plan to camp at this campground? ____

2. Which type of camping shelter did you use at this campground on this trip? (Check all that apply)
 - ☐ Tent
 - ☐ Tent trailer
 - ☐ Truck camper or van
 - ☐ Travel trailer / Fifth wheel
 - ☐ Motorhome
 - ☐ Other (please specify) _____

3. What type of campsite are you staying at?

Campsite type:

 - ☐ Serviced (flush toilets, shower, hook-ups and kiosk)
 - ☐ Semi-serviced (flush toilets, showers and kiosk)
 - ☐ Unserviced (none of the above mentioned amenities)

4. Are you staying in the campsite type you prefer?
 - ☐ Yes
 - ☐ No

If you answered no to question 4, what type of campsite would you prefer?

Campsite type:

 - ☐ Serviced (flush toilets, shower, hook-ups and kiosk)
 - ☐ Semi-serviced (flush toilets, showers and kiosk)
 - ☐ Unserviced (none of the above mentioned amenities)

5. Is this your first time camping?
 - ☐ Yes
 - ☐ No

If yes, please proceed to the section entitled "Impacts" on the next page.
If no, please proceed to question 6.

6. Overall how much experience would you say that you have camping?
 - ☐ Low level of experience
 - ☐ Medium level of experience
 - ☐ High level of experience

7. In total, how many years have you gone on a camping trip? ____
8. On average, how many times per year do you usually go camping? ____
9. On average, how many nights do you usually stay when you are camping? ____
10. Is this your first time camping at **this particular campground?**
☐ Yes
☐ No
 If yes, please proceed to the section entitled "Impacts" below.
 If no, please proceed to question 11.
11. How much experience would you say that you have camping **at this campground?**
☐ Low level of experience
☐ Medium level of experience
☐ High level of experience
12. In total, how many years have you gone camping **at this campground?** ____
13. On average, how many times per year do you usually go camping **at this campground?** ____
14. On average, how many nights do you usually stay when you are camping **at this campground?** ____

Impacts

We are interested in learning about the impacts campers feel they may have while visiting the park. For the purpose of this study, impacts refer to contributions to change (either positive or negative). Please answer the following questions in the order that they are presented.

15. Please list any impacts that you think might occur as a result of campers visiting the park:

- _____
 - _____
 - _____
 - _____
 - _____

16. Compared to the average camper, please indicate how likely you think your camping at the park will affect the conditions listed below. Circle the number that best represents your opinion from (1) extremely likely decrease to (7) extremely likely increase.

	Extremely likely decrease	Quite likely decrease	Slightly likely decrease	No impact	Slightly likely increase	Quite likely increase	Extremely likely increase
Water quality	1	2	3	4	5	6	7
Crowding	1	2	3	4	5	6	7
Noise levels	1	2	3	4	5	6	7
Amount of waste/garbage	1	2	3	4	5	6	7
Growth of the local economy	1	2	3	4	5	6	7
Benefits to native wildlife	1	2	3	4	5	6	7
Level of traffic	1	2	3	4	5	6	7
Employment opportunities	1	2	3	4	5	6	7
Campfire smoke in the air	1	2	3	4	5	6	7
Condition of roads	1	2	3	4	5	6	7
Quality of the natural environment	1	2	3	4	5	6	7
Quality of native vegetation	1	2	3	4	5	6	7
Quality of other campers' experiences	1	2	3	4	5	6	7

17. Please indicate what you think the effect of the following conditions are on the park.

Circle the number that best represents your opinion from (1) extremely negative to (7) extremely positive.

	Extremely negative	Quite negative	Slightly negative	Neutral	Slightly positive	Quite positive	Extremely positive
Increased water quality	1	2	3	4	5	6	7
Increased crowding	1	2	3	4	5	6	7
Increased noise levels	1	2	3	4	5	6	7
Increased amount of waste/garbage	1	2	3	4	5	6	7
Increased economic growth	1	2	3	4	5	6	7
Increased benefits to native wildlife	1	2	3	4	5	6	7
Increased level of traffic	1	2	3	4	5	6	7
Increased employment opportunities	1	2	3	4	5	6	7
Increased campfire smoke in the air	1	2	3	4	5	6	7
Increased road quality	1	2	3	4	5	6	7
Increased quality of the natural environment	1	2	3	4	5	6	7
Increased quality of native vegetation	1	2	3	4	5	6	7
Increased quality of other campers' experiences	1	2	3	4	5	6	7

18. For this camping trip, please rate the importance of the following reasons for your visit.
Circle the number that best represents your opinion from (1) extremely unimportant to (7) extremely important.

	Extremely unimportant	Quite unimportant	Slightly unimportant	Neutral	Slightly important	Quite important	Extremely important
To enjoy nature	1	2	3	4	5	6	7
To relax	1	2	3	4	5	6	7
To experience fresh air	1	2	3	4	5	6	7
To enjoy quality time with friends and family	1	2	3	4	5	6	7
To be challenged	1	2	3	4	5	6	7
To learn about the environment	1	2	3	4	5	6	7
To experience the destination	1	2	3	4	5	6	7
To get away from crowds	1	2	3	4	5	6	7
To learn about Canada and Canadian heritage	1	2	3	4	5	6	7
Please list any additional reasons							
	1	2	3	4	5	6	7
	1	2	3	4	5	6	7
	1	2	3	4	5	6	7

Visitor Information

19. How many people, other than yourself, are you camping with during this visit? _____
20. In which age category do you fall?
- ☐ 18 - 24
 - ☐ 25 - 34
 - ☐ 35 - 44
 - ☐ 45 - 64
 - ☐ 65 or older
21. Gender
- ☐ Male
 - ☐ Female
22. Country of Residence _____
23. Postal / zip code _____
24. What is the highest level of education you have received?
- ☐ Less than high school
 - ☐ High school graduate
 - ☐ Some post - secondary (not university)
 - ☐ Some university (no degree)
 - ☐ University graduate
 - ☐ Post - graduate
25. What is your total household income before taxes?
- ☐ Under \$15,000
 - ☐ \$ 15,000 - \$24, 999
 - ☐ \$ 25,000 - \$34, 999
 - ☐ \$ 35,000 - \$49, 999
 - ☐ \$ 50,000 - \$74, 999
 - ☐ \$ 75,000 - \$99, 999
 - ☐ Greater than \$100,000
26. How many people contribute to that income? _____
27. Do you have anything else you would like to say about your experience camping at this campground? Please write any additional comments on the back of this survey.

Thank You

Comments

Thank you for your participation!

APPENDIX C

Impacts Listed by Respondents

Category label	Code	Pct of Count	Pct of Responses	Cases
Trails	2	9	1.6	4.6
Noise	3	28	4.9	14.4
Disturb wildlife	4	132	23.1	68.0
Water pollution	5	29	5.1	14.9
Smoke	6	11	1.9	5.7
Appreciation of nature	7	17	3.0	8.8
Waste	8	76	13.3	39.2
Vegetation	9	52	9.1	26.8
Fire	10	21	3.7	10.8
Air pollution	11	25	4.4	12.9
Crowding	12	8	1.4	4.1
Pollution	13	22	3.9	11.3
Cars/traffic	14	23	4.0	11.9
Economic	16	30	5.3	15.5
Increased sense of responsibility	17	5	.9	2.6
Overuse of certain areas	18	3	.5	1.5
Learn about environment	19	23	4.0	11.9
Tourism	20	9	1.6	4.6
Enjoy nature	21	1	.2	.5
Protection of the area	22	7	1.2	3.6
Need for services	24	6	1.1	3.1
Water use	25	2	.4	1.0
Erosion	26	10	1.8	5.2
No recycling	29	1	.2	.5
Harm environment	30	14	2.5	7.2
Multicultural experience	31	1	.2	.5
Better roads	32	1	.2	.5
Roads	33	2	.4	1.0
Injuries	34	1	.2	.5
Employment	35	2	.4	1.0
		-----	-----	-----
Total responses		571	100.0	294.3

47 missing cases; 194 valid cases

APPENDIX D
Past Experience Distribution

Activity Experience - Years		Frequency	Percent	Valid Percent	Cumulative Percent
Low 1	.00	3	1.2	1.3	1.3
	1.00	4	1.7	1.7	3.0
	2.00	5	2.1	2.1	5.1
	3.00	2	.8	.8	5.9
	4.00	7	2.9	3.0	8.9
	5.00	7	2.9	3.0	11.8
	6.00	6	2.5	2.5	14.3
	7.00	6	2.5	2.5	16.9
	8.00	4	1.7	1.7	18.6
	9.00	2	.8	.8	19.4
Medium 2	10.00	25	10.4	10.5	30.0
	12.00	1	.4	.4	30.4
	13.00	2	.8	.8	31.2
	14.00	2	.8	.8	32.1
	15.00	19	7.9	8.0	40.1
	16.00	2	.8	.8	40.9
	17.00	1	.4	.4	41.4
	18.00	2	.8	.8	42.2
	20.00	31	12.9	13.1	55.3
	21.00	1	.4	.4	55.7
	22.00	1	.4	.4	56.1
	23.00	2	.8	.8	57.0
	24.00	2	.8	.8	57.8
	25.00	20	8.3	8.4	66.2
High 3	27.00	1	.4	.4	66.7
	28.00	2	.8	.8	67.5
	29.00	1	.4	.4	67.9
	30.00	23	9.5	9.7	77.6
	31.00	2	.8	.8	78.5
	32.00	3	1.2	1.3	79.7
	33.00	1	.4	.4	80.2
	34.00	1	.4	.4	80.6
	35.00	8	3.3	3.4	84.0
	36.00	1	.4	.4	84.4
	38.00	2	.8	.8	85.2
	39.00	1	.4	.4	85.7
	40.00	18	7.5	7.6	93.2
	41.00	1	.4	.4	93.7
	43.00	1	.4	.4	94.1
	45.00	4	1.7	1.7	95.8
	47.00	2	.8	.8	96.6
	48.00	1	.4	.4	97.0
	49.00	1	.4	.4	97.5
	50.00	6	2.5	2.5	100.0
Missing Total	Total	237	98.3	100.0	
	System	4	1.7		
		241	100.0		

Activity Experience – Times per Year

		Frequency	Percent	Valid Percent	Cumulative Percent
Low 1	.00	3	1.2	1.3	1.3
	1.00	56	23.2	23.6	24.9
	2.00	46	19.1	19.4	44.3
	3.00	33	13.7	13.9	58.2
Medium 2	4.00	14	5.8	5.9	64.1
	5.00	20	8.3	8.4	72.6
	6.00	18	7.5	7.6	80.2
	7.00	3	1.2	1.3	81.4
	8.00	3	1.2	1.3	82.7
	9.00	2	.8	.8	83.5
	10.00	11	4.6	4.6	88.2
High 3	12.00	3	1.2	1.3	89.5
	13.00	1	.4	.4	89.9
	14.00	2	.8	.8	90.7
	15.00	3	1.2	1.3	92.0
	16.00	2	.8	.8	92.8
	20.00	4	1.7	1.7	94.5
	22.00	1	.4	.4	94.9
	25.00	1	.4	.4	95.4
	30.00	4	1.7	1.7	97.0
	40.00	1	.4	.4	97.5
	50.00	1	.4	.4	97.9
	140.00	1	.4	.4	98.3
	180.00	1	.4	.4	98.7
	200.00	1	.4	.4	99.2
	250.00	1	.4	.4	99.6
	365.00	1	.4	.4	100.0
	Total	237	98.3	100.0	
Missing	System	4	1.7		
Total		241	100.0		

Activity Experience – Nights per Trip

		Frequency	Percent	Valid Percent	Cumulative Percent
Low 1	.00	3	1.2	1.3	1.3
	1.00	11	4.6	4.6	5.9
	2.00	47	19.5	19.8	25.7
	3.00	53	22.0	22.4	48.1
Medium 2	4.00	22	9.1	9.3	57.4
	5.00	33	13.7	13.9	71.3
	5.50	1	.4	.4	71.7
	6.00	5	2.1	2.1	73.8
	7.00	15	6.2	6.3	80.2
	8.00	2	.8	.8	81.0
	9.00	2	.8	.8	81.9
	10.00	18	7.5	7.6	89.5
High 3	12.00	3	1.2	1.3	90.7
	14.00	7	2.9	3.0	93.7
	15.00	2	.8	.8	94.5
	20.00	5	2.1	2.1	96.6
	21.00	3	1.2	1.3	97.9
	25.00	2	.8	.8	98.7
	30.00	3	1.2	1.3	100.0
	Total	237	98.3	100.0	
Missing	System	4	1.7		
Total		241	100.0		

Destination Experience - Years

		Frequency	Percent	Valid Percent	Cumulative Percent
Low 1	.00	141	58.5	62.1	62.1
	1.00	7	2.9	3.1	65.2
	2.00	15	6.2	6.6	71.8
	3.00	13	5.4	5.7	77.5
Medium 2	4.00	3	1.2	1.3	78.9
	5.00	2	.8	.9	79.7
	6.00	6	2.5	2.6	82.4
	7.00	3	1.2	1.3	83.7
	8.00	1	.4	.4	84.1
	9.00	1	.4	.4	84.6
	10.00	6	2.5	2.6	87.2
	12.00	2	.8	.9	88.1
	14.00	1	.4	.4	88.5
	15.00	2	.8	.9	89.4
	16.00	3	1.2	1.3	90.7
	17.00	1	.4	.4	91.2
	18.00	2	.8	.9	92.1
	20.00	4	1.7	1.8	93.8
High 3	25.00	1	.4	.4	94.3
	27.00	1	.4	.4	94.7
	28.00	2	.8	.9	95.6
	30.00	7	2.9	3.1	98.7
	34.00	1	.4	.4	99.1
	35.00	1	.4	.4	99.6
	37.00	1	.4	.4	100.0
	Total	227	94.2	100.0	
Missing	System	14	5.8		
Total		241	100.0		

Destination Experience – Times per year

		Frequency	Percent	Valid Percent	Cumulative Percent
Low 1	.00	141	58.5	62.4	62.4
Medium 2	1.00	72	29.9	31.9	94.2
High 3	2.00	7	2.9	3.1	97.3
	3.00	2	.8	.9	98.2
	4.00	2	.8	.9	99.1
	5.00	1	.4	.4	99.6
	6.00	1	.4	.4	100.0
	Total	226	93.8	100.0	
Missing	System	15	6.2		
Total		241	100.0		

Destination Experience – Nights per trip

		Frequency	Percent	Valid Percent	Cumulative Percent
Low 1	.00	141	58.5	61.8	61.8
Medium 2	1.00	11	4.6	4.8	66.7
	2.00	19	7.9	8.3	75.0
	3.00	19	7.9	8.3	83.3
High 3	4.00	10	4.1	4.4	87.7
	5.00	5	2.1	2.2	89.9
	6.00	4	1.7	1.8	91.7
	7.00	6	2.5	2.6	94.3
	8.00	1	.4	.4	94.7
	10.00	5	2.1	2.2	96.9
	14.00	4	1.7	1.8	98.7
	20.00	1	.4	.4	99.1
	21.00	1	.4	.4	99.6
	33.00	1	.4	.4	100.0
	Total	228	94.6	100.0	
Missing	System	13	5.4		
Total		241	100.0		

APPENDIX E

Past Experience Correlations

		Self Rated Activity Experience	Self Rated Destination Experience
Activity Experience Index	Pearson Correlation	.365**	.227*
	Sig. (2-tailed)	.000	.035
	N	231	87
Destination Experience Index	Pearson Correlation	.150*	.524**
	Sig. (2-tailed)	.025	.000
	N	222	84

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

APPENDIX F

Covariate Correlations

Factor		Campground type	Nights	Group size	Age	Education	country	shelter
Factor 1 Immediate	Pearson	-.087	.058	.166*	.009	-.162*	-.036	.087
	Correlation							
	Sig. (2-tailed)	.178	.369	.011	.886	.013	.585	.182
Factor 2 Gradual	N	240	238	237	237	235	236	237
	Pearson	-.048	.083	.071	.012	-.061	.029	-.001
	Correlation							
Factor 3 Economic	Sig. (2-tailed)	.462	.202	.276	.860	.355	.658	.987
	N	240	238	237	237	235	236	237
	Pearson	-.327**	.144*	.228**	.027	-.126	-.156*	.210**
	Correlation							
	Sig. (2-tailed)	.000	.027	.000	.678	.054	.017	.001
	N	238	236	235	235	234	234	235

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

APPENDIX G

Analysis of Covariance Results

Dependent Variable: Factor 1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18.778	10	1.878	1.985	.036
Intercept	402.745	1	402.745	425.776	.000
Group size	7.199	1	7.199	7.611	.006
Education	4.477	1	4.477	4.733	.031
Activity Exp	.542	2	.271	.287	.751
Destination Exp	1.213	2	.607	.641	.528
AE * DE	3.514	4	.879	.929	.448
Error	194.857	206	.946		
Total	4708.807	217			
Corrected Total	213.635	216			

a R Squared = .088 (Adjusted R Squared = .044)

Dependent Variable: Factor 2

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	6.631	8	.829	1.424	.188
Intercept	1393.714	1	1393.714	2393.687	.000
Activity Exp	.568	2	.284	.488	.615
Destination Exp	.493	2	.246	.423	.656
AE * DE	5.891	4	1.473	2.529	.042
Error	124.018	213	.582		
Total	3435.119	222			
Corrected Total	130.649	221			

a R Squared = .051 (Adjusted R Squared = .015)

Dependent Variable: Factor 3

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	40.070	13	3.082	3.677	.000
Intercept	173.325	1	173.325	206.781	.000
Campground	5.852	1	5.852	6.981	.009
Nights	.108	1	.108	.129	.720
Group size	5.602	1	5.602	6.683	.010
Country	3.634	1	3.634	4.335	.039
Shelter	2.694	1	2.694	3.215	.074
Activity Exp	1.430	2	.715	.853	.428
Destination Exp	2.646	2	1.323	1.578	.209
AE * DE	3.456	4	.864	1.031	.393
Error	167.641	200	.838		
Total	5305.750	214			
Corrected Total	207.711	213			

a. R Squared = .193 (Adjusted R Squared = .140)

APPENDIX H

Frequencies

How many nights have you been camping during this trip?

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	34	14.1	14.2	14.2
1.00	111	46.1	46.4	60.7
2.00	44	18.3	18.4	79.1
3.00	16	6.6	6.7	85.8
4.00	10	4.1	4.2	90.0
5.00	9	3.7	3.8	93.7
6.00	6	2.5	2.5	96.2
7.00	3	1.2	1.3	97.5
9.00	2	.8	.8	98.3
10.00	2	.8	.8	99.2
11.00	1	.4	.4	99.6
12.00	1	.4	.4	100.0
Total	239	99.2	100.0	
Missing System	2	.8		
Total	241	100.0		

In total, how many nights are you planning to camp during this trip?

	Frequency	Percent	Valid Percent	Cumulative Percent
1.00	72	29.9	30.5	30.5
2.00	60	24.9	25.4	55.9
3.00	48	19.9	20.3	76.3
4.00	13	5.4	5.5	81.8
5.00	11	4.6	4.7	86.4
6.00	10	4.1	4.2	90.7
7.00	4	1.7	1.7	92.4
8.00	5	2.1	2.1	94.5
9.00	1	.4	.4	94.9
10.00	6	2.5	2.5	97.5
12.00	1	.4	.4	97.9
14.00	3	1.2	1.3	99.2
15.00	1	.4	.4	99.6
20.00	1	.4	.4	100.0
Total	236	97.9	100.0	
Missing System	5	2.1		
Total	241	100.0		

Shelter type

	Frequency	Percent	Valid Percent	Cumulative Percent
Tent	100	41.5	41.7	41.7
Tent trailer	20	8.3	8.3	50.0
Truck camper	20	8.3	8.3	58.3
Travel trailer	60	24.9	25.0	83.3
Motorhome	38	15.8	15.8	99.2
other	1	.4	.4	99.6
truck	1	.4	.4	100.0
Total	240	99.6	100.0	
Missing System	1	.4		
Total	241	100.0		

Is this your first time camping?

	Frequency	Percent	Valid Percent	Cumulative Percent
yes	3	1.2	1.3	1.3
no	236	97.9	98.7	100.0
Total	239	99.2	100.0	
Missing System	2	.8		
Total	241	100.0		

How would you rate your level of experience camping?

	Frequency	Percent	Valid Percent	Cumulative Percent
low	11	4.6	4.7	4.7
medium	85	35.3	36.5	41.2
high	137	56.8	58.8	100.0
Total	233	96.7	100.0	
Missing System	8	3.3		
Total	241	100.0		

Group size

	Frequency	Percent	Valid Percent	Cumulative Percent
1.00	7	2.9	2.9	2.9
2.00	103	42.7	43.3	46.2
3.00	31	12.9	13.0	59.2
4.00	57	23.7	23.9	83.2
5.00	22	9.1	9.2	92.4
6.00	7	2.9	2.9	95.4
7.00	5	2.1	2.1	97.5
8.00	3	1.2	1.3	98.7
9.00	1	.4	.4	99.2
10.00	2	.8	.8	100.0
Total	238	98.8	100.0	
Missing System	3	1.2		
Total	241	100.0		

How many years have you gone camping?

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	3	1.2	1.3	1.3
1.00	4	1.7	1.7	3.0
2.00	5	2.1	2.1	5.1
3.00	2	.8	.8	5.9
4.00	7	2.9	3.0	8.9
5.00	7	2.9	3.0	11.8
6.00	6	2.5	2.5	14.3
7.00	6	2.5	2.5	16.9
8.00	4	1.7	1.7	18.6
9.00	2	.8	.8	19.4
10.00	25	10.4	10.5	30.0
12.00	1	.4	.4	30.4
13.00	2	.8	.8	31.2
14.00	2	.8	.8	32.1
15.00	19	7.9	8.0	40.1
16.00	2	.8	.8	40.9
17.00	1	.4	.4	41.4
18.00	2	.8	.8	42.2
20.00	31	12.9	13.1	55.3
21.00	1	.4	.4	55.7
22.00	1	.4	.4	56.1
23.00	2	.8	.8	57.0
24.00	2	.8	.8	57.8
25.00	20	8.3	8.4	66.2
27.00	1	.4	.4	66.7
28.00	2	.8	.8	67.5
29.00	1	.4	.4	67.9
30.00	23	9.5	9.7	77.6
31.00	2	.8	.8	78.5
32.00	3	1.2	1.3	79.7
33.00	1	.4	.4	80.2
34.00	1	.4	.4	80.6
35.00	8	3.3	3.4	84.0
36.00	1	.4	.4	84.4
38.00	2	.8	.8	85.2
39.00	1	.4	.4	85.7
40.00	18	7.5	7.6	93.2
41.00	1	.4	.4	93.7
43.00	1	.4	.4	94.1
45.00	4	1.7	1.7	95.8
47.00	2	.8	.8	96.6
48.00	1	.4	.4	97.0
49.00	1	.4	.4	97.5
50.00	6	2.5	2.5	100.0
Total	237	98.3	100.0	
Missing System	4	1.7		
Total	241	100.0		

How many years have you gone camping?

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	3	1.2	1.3	1.3
1.00	4	1.7	1.7	3.0
2.00	5	2.1	2.1	5.1
3.00	2	.8	.8	5.9
4.00	7	2.9	3.0	8.9
5.00	7	2.9	3.0	11.8
6.00	6	2.5	2.5	14.3
7.00	6	2.5	2.5	16.9
8.00	4	1.7	1.7	18.6
9.00	2	.8	.8	19.4
10.00	25	10.4	10.5	30.0
12.00	1	.4	.4	30.4
13.00	2	.8	.8	31.2
14.00	2	.8	.8	32.1
15.00	19	7.9	8.0	40.1
16.00	2	.8	.8	40.9
17.00	1	.4	.4	41.4
18.00	2	.8	.8	42.2
20.00	31	12.9	13.1	55.3
21.00	1	.4	.4	55.7
22.00	1	.4	.4	56.1
23.00	2	.8	.8	57.0
24.00	2	.8	.8	57.8
25.00	20	8.3	8.4	66.2
27.00	1	.4	.4	66.7
28.00	2	.8	.8	67.5
29.00	1	.4	.4	67.9
30.00	23	9.5	9.7	77.6
31.00	2	.8	.8	78.5
32.00	3	1.2	1.3	79.7
33.00	1	.4	.4	80.2
34.00	1	.4	.4	80.6
35.00	8	3.3	3.4	84.0
36.00	1	.4	.4	84.4
38.00	2	.8	.8	85.2
39.00	1	.4	.4	85.7
40.00	18	7.5	7.6	93.2
41.00	1	.4	.4	93.7
43.00	1	.4	.4	94.1
45.00	4	1.7	1.7	95.8
47.00	2	.8	.8	96.6
48.00	1	.4	.4	97.0
49.00	1	.4	.4	97.5
50.00	6	2.5	2.5	100.0
Total	237	98.3	100.0	
Missing System	4	1.7		
Total	241	100.0		

On average, how many nights do you stay when you are camping

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	3	1.2	1.3	1.3
1.00	11	4.6	4.6	5.9
2.00	47	19.5	19.8	25.7
3.00	53	22.0	22.4	48.1
4.00	22	9.1	9.3	57.4
5.00	33	13.7	13.9	71.3
5.50	1	.4	.4	71.7
6.00	5	2.1	2.1	73.8
7.00	15	6.2	6.3	80.2
8.00	2	.8	.8	81.0
9.00	2	.8	.8	81.9
10.00	18	7.5	7.6	89.5
12.00	3	1.2	1.3	90.7
14.00	7	2.9	3.0	93.7
15.00	2	.8	.8	94.5
20.00	5	2.1	2.1	96.6
21.00	3	1.2	1.3	97.9
25.00	2	.8	.8	98.7
30.00	3	1.2	1.3	100.0
Total	237	98.3	100.0	
Missing System	4	1.7		
Total	241	100.0		

Is this your first time camping at this campground?

	Frequency	Percent	Valid Percent	Cumulative Percent
yes	146	60.6	61.9	61.9
no	90	37.3	38.1	100.0
Total	236	97.9	100.0	
Missing System	5	2.1		
Total	241	100.0		

How would you rate your level of experience camping at this campground?

	Frequency	Percent	Valid Percent	Cumulative Percent
low	21	8.7	24.1	24.1
medium	33	13.7	37.9	62.1
high	33	13.7	37.9	100.0
Total	87	36.1	100.0	
Missing System	154	63.9		
Total	241	100.0		

How many years have you gone camping at this campground?

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	141	58.5	62.1	62.1
1.00	7	2.9	3.1	65.2
2.00	15	6.2	6.6	71.8
3.00	13	5.4	5.7	77.5
4.00	3	1.2	1.3	78.9
5.00	2	.8	.9	79.7
6.00	6	2.5	2.6	82.4
7.00	3	1.2	1.3	83.7
8.00	1	.4	.4	84.1
9.00	1	.4	.4	84.6
10.00	6	2.5	2.6	87.2
12.00	2	.8	.9	88.1
14.00	1	.4	.4	88.5
15.00	2	.8	.9	89.4
16.00	3	1.2	1.3	90.7
17.00	1	.4	.4	91.2
18.00	2	.8	.9	92.1
20.00	4	1.7	1.8	93.8
25.00	1	.4	.4	94.3
27.00	1	.4	.4	94.7
28.00	2	.8	.9	95.6
30.00	7	2.9	3.1	98.7
34.00	1	.4	.4	99.1
35.00	1	.4	.4	99.6
37.00	1	.4	.4	100.0
Total	227	94.2	100.0	
Missing System	14	5.8		
Total	241	100.0		

On average, how many times per year do you go camping at this campground?

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	141	58.5	62.4	62.4
1.00	72	29.9	31.9	94.2
2.00	7	2.9	3.1	97.3
3.00	2	.8	.9	98.2
4.00	2	.8	.9	99.1
5.00	1	.4	.4	99.6
6.00	1	.4	.4	100.0
Total	226	93.8	100.0	
Missing System	15	6.2		
Total	241	100.0		

On average, how many nights do you usually stay when you are camping at this campground?

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	141	58.5	61.8	61.8
1.00	11	4.6	4.8	66.7
2.00	19	7.9	8.3	75.0
3.00	19	7.9	8.3	83.3
4.00	10	4.1	4.4	87.7
5.00	5	2.1	2.2	89.9
6.00	4	1.7	1.8	91.7
7.00	6	2.5	2.6	94.3
8.00	1	.4	.4	94.7
10.00	5	2.1	2.2	96.9
14.00	4	1.7	1.8	98.7
20.00	1	.4	.4	99.1
21.00	1	.4	.4	99.6
33.00	1	.4	.4	100.0
Total	228	94.6	100.0	
Missing System	13	5.4		
Total	241	100.0		

Water likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	5	2.1	2.1	2.1
quite likely decrease	19	7.9	7.9	10.0
slightly likely decrease	57	23.7	23.8	33.8
no impact	139	57.7	57.9	91.7
slightly likely increase	12	5.0	5.0	96.7
quite likely increase	7	2.9	2.9	99.6
extremely likely increase	1	.4	.4	100.0
Total	240	99.6	100.0	
Missing System	1	.4		
Total	241	100.0		

Crowd likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	4	1.7	1.7	1.7
quite likely decrease	8	3.3	3.5	5.2
slightly likely decrease	19	7.9	8.3	13.5
no impact	71	29.5	30.9	44.3
slightly likely increase	82	34.0	35.7	80.0
quite likely increase	38	15.8	16.5	96.5
extremely likely increase	8	3.3	3.5	100.0
Total	230	95.4	100.0	
Missing System	11	4.6		
Total	241	100.0		

Noise likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	7	2.9	2.9	2.9
quite likely decrease	18	7.5	7.5	10.5
slightly likely decrease	20	8.3	8.4	18.8
no impact	93	38.6	38.9	57.7
slightly likely increase	63	26.1	26.4	84.1
quite likely increase	24	10.0	10.0	94.1
extremely likely increase	14	5.8	5.9	100.0
Total	239	99.2	100.0	
Missing System	2	.8		
Total	241	100.0		

Waste likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	7	2.9	2.9	2.9
quite likely decrease	20	8.3	8.4	11.3
slightly likely decrease	22	9.1	9.2	20.5
no impact	47	19.5	19.7	40.2
slightly likely increase	101	41.9	42.3	82.4
quite likely increase	33	13.7	13.8	96.2
extremely likely increase	9	3.7	3.8	100.0
Total	239	99.2	100.0	
Missing System	2	.8		
Total	241	100.0		

Economy likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	3	1.2	1.3	1.3
quite likely decrease	6	2.5	2.5	3.8
slightly likely decrease	8	3.3	3.4	7.2
no impact	47	19.5	19.9	27.1
slightly likely increase	103	42.7	43.6	70.8
quite likely increase	49	20.3	20.8	91.5
extremely likely increase	20	8.3	8.5	100.0
Total	236	97.9	100.0	
Missing System	5	2.1		
Total	241	100.0		

Wildlife likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	11	4.6	4.7	4.7
quite likely decrease	26	10.8	11.0	15.7
slightly likely decrease	62	25.7	26.3	41.9
no impact	102	42.3	43.2	85.2
slightly likely increase	26	10.8	11.0	96.2
quite likely increase	7	2.9	3.0	99.2
extremely likely increase	2	.8	.8	100.0
Total	236	97.9	100.0	
Missing System	5	2.1		
Total	241	100.0		

Traffic likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	2	.8	.8	.8
quite likely decrease	6	2.5	2.5	3.4
slightly likely decrease	20	8.3	8.4	11.8
no impact	42	17.4	17.6	29.4
slightly likely increase	109	45.2	45.8	75.2
quite likely increase	34	14.1	14.3	89.5
extremely likely increase	25	10.4	10.5	100.0
Total	238	98.8	100.0	
Missing System	3	1.2		
Total	241	100.0		

Employment likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	2	.8	.8	.8
quite likely decrease	4	1.7	1.7	2.5
slightly likely decrease	2	.8	.8	3.4
no impact	86	35.7	36.4	39.8
slightly likely increase	92	38.2	39.0	78.8
quite likely increase	37	15.4	15.7	94.5
extremely likely increase	13	5.4	5.5	100.0
Total	236	97.9	100.0	
Missing System	5	2.1		
Total	241	100.0		

Smoke likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	12	5.0	5.0	5.0
quite likely decrease	10	4.1	4.2	9.2
slightly likely decrease	13	5.4	5.4	14.6
no impact	72	29.9	30.1	44.8
slightly likely increase	69	28.6	28.9	73.6
quite likely increase	44	18.3	18.4	92.1
extremely likely increase	19	7.9	7.9	100.0
Total	239	99.2	100.0	
Missing System	2	.8		
Total	241	100.0		

Roads likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	7	2.9	2.9	2.9
quite likely decrease	3	1.2	1.3	4.2
slightly likely decrease	66	27.4	27.7	31.9
no impact	94	39.0	39.5	71.4
slightly likely increase	42	17.4	17.6	89.1
quite likely increase	21	8.7	8.8	97.9
extremely likely increase	5	2.1	2.1	100.0
Total	238	98.8	100.0	
Missing System	3	1.2		
Total	241	100.0		

Environment likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	8	3.3	3.4	3.4
quite likely decrease	20	8.3	8.4	11.8
slightly likely decrease	74	30.7	31.2	43.0
no impact	75	31.1	31.6	74.7
slightly likely increase	39	16.2	16.5	91.1
quite likely increase	13	5.4	5.5	96.6
extremely likely increase	8	3.3	3.4	100.0
Total	237	98.3	100.0	
Missing System	4	1.7		
Total	241	100.0		

Vegetation likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	8	3.3	3.4	3.4
quite likely decrease	23	9.5	9.7	13.0
slightly likely decrease	63	26.1	26.5	39.5
no impact	101	41.9	42.4	81.9
slightly likely increase	26	10.8	10.9	92.9
quite likely increase	11	4.6	4.6	97.5
extremely likely increase	6	2.5	2.5	100.0
Total	238	98.8	100.0	
Missing System	3	1.2		
Total	241	100.0		

Campers' likely impact

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely likely decrease	2	.8	.8	.8
quite likely decrease	4	1.7	1.7	2.5
slightly likely decrease	12	5.0	5.1	7.6
no impact	150	62.2	63.3	70.9
slightly likely increase	50	20.7	21.1	92.0
quite likely increase	12	5.0	5.1	97.0
extremely likely increase	7	2.9	3.0	100.0
Total	237	98.3	100.0	
Missing System	4	1.7		
Total	241	100.0		

Water effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
extremely negative	1	.4	.4	.4
quite negative	6	2.5	2.6	3.0
slightly negative	30	12.4	12.9	15.9
neutral	65	27.0	28.0	44.0
slightly positive	41	17.0	17.7	61.6
quite positive	54	22.4	23.3	84.9
extremely positive	35	14.5	15.1	100.0
Total	232	96.3	100.0	
Missing System	9	3.7		
Total	241	100.0		

Crowd effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	47	19.5	19.9	19.9
quite negative	82	34.0	34.7	54.7
slightly negative	61	25.3	25.8	80.5
neutral	24	10.0	10.2	90.7
slightly positive	14	5.8	5.9	96.6
quite positive	5	2.1	2.1	98.7
extremely positive	3	1.2	1.3	100.0
Total	236	97.9	100.0	
Missing System	5	2.1		
Total	241	100.0		

Noise effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	51	21.2	21.5	21.5
quite negative	79	32.8	33.3	54.9
slightly negative	62	25.7	26.2	81.0
neutral	23	9.5	9.7	90.7
slightly positive	15	6.2	6.3	97.0
quite positive	5	2.1	2.1	99.2
extremely positive	2	.8	.8	100.0
Total	237	98.3	100.0	
Missing System	4	1.7		
Total	241	100.0		

Waste effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	64	26.6	27.2	27.2
quite negative	71	29.5	30.2	57.4
slightly negative	55	22.8	23.4	80.9
neutral	16	6.6	6.8	87.7
slightly positive	17	7.1	7.2	94.9
quite positive	9	3.7	3.8	98.7
extremely positive	3	1.2	1.3	100.0
Total	235	97.5	100.0	
Missing System	6	2.5		
Total	241	100.0		

Economy effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	10	4.1	4.2	4.2
quite negative	28	11.6	11.8	16.0
slightly negative	32	13.3	13.5	29.5
neutral	36	14.9	15.2	44.7
slightly positive	73	30.3	30.8	75.5
quite positive	47	19.5	19.8	95.4
extremely positive	11	4.6	4.6	100.0
Total	237	98.3	100.0	
Missing System	4	1.7		
Total	241	100.0		

Wildlife effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	8	3.3	3.4	3.4
quite negative	24	10.0	10.2	13.6
slightly negative	32	13.3	13.6	27.1
neutral	38	15.8	16.1	43.2
slightly positive	36	14.9	15.3	58.5
quite positive	48	19.9	20.3	78.8
extremely positive	50	20.7	21.2	100.0
Total	236	97.9	100.0	
Missing System	5	2.1		
Total	241	100.0		

Traffic effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	60	24.9	25.3	25.3
quite negative	83	34.4	35.0	60.3
slightly negative	55	22.8	23.2	83.5
neutral	17	7.1	7.2	90.7
slightly positive	10	4.1	4.2	94.9
quite positive	7	2.9	3.0	97.9
extremely positive	5	2.1	2.1	100.0
Total	237	98.3	100.0	
Missing System	4	1.7		
Total	241	100.0		

Employment effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	8	3.3	3.4	3.4
quite negative	13	5.4	5.5	8.9
slightly negative	19	7.9	8.0	16.9
neutral	55	22.8	23.2	40.1
slightly positive	76	31.5	32.1	72.2
quite positive	53	22.0	22.4	94.5
extremely positive	13	5.4	5.5	100.0
Total	237	98.3	100.0	
Missing System	4	1.7		
Total	241	100.0		

Smoke effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	31	12.9	13.2	13.2
quite negative	42	17.4	17.9	31.2
slightly negative	94	39.0	40.2	71.4
neutral	53	22.0	22.6	94.0
slightly positive	4	1.7	1.7	95.7
quite positive	8	3.3	3.4	99.1
extremely positive	2	.8	.9	100.0
Total	234	97.1	100.0	
Missing System	7	2.9		
Total	241	100.0		

Road effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	4	1.7	1.7	1.7
quite negative	20	8.3	8.5	10.2
slightly negative	42	17.4	17.8	28.0
neutral	61	25.3	25.8	53.8
slightly positive	70	29.0	29.7	83.5
quite positive	35	14.5	14.8	98.3
extremely positive	4	1.7	1.7	100.0
Total	236	97.9	100.0	
Missing System	5	2.1		
Total	241	100.0		

Environment effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	6	2.5	2.6	2.6
quite negative	15	6.2	6.4	9.0
slightly negative	25	10.4	10.7	19.7
neutral	32	13.3	13.7	33.3
slightly positive	43	17.8	18.4	51.7
quite positive	56	23.2	23.9	75.6
extremely positive	57	23.7	24.4	100.0
Total	234	97.1	100.0	
Missing System	7	2.9		
Total	241	100.0		

Vegetation effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	7	2.9	3.0	3.0
quite negative	15	6.2	6.4	9.4
slightly negative	30	12.4	12.9	22.3
neutral	33	13.7	14.2	36.5
slightly positive	35	14.5	15.0	51.5
quite positive	60	24.9	25.8	77.3
extremely positive	53	22.0	22.7	100.0
Total	233	96.7	100.0	
Missing System	8	3.3		
Total	241	100.0		

Other Campers effect on the park

	Frequency	Percent	Valid Percent	Cumulative Percent
extremely negative	2	.8	.9	.9
quite negative	1	.4	.4	1.3
slightly negative	18	7.5	7.8	9.1
neutral	93	38.6	40.1	49.1
slightly positive	55	22.8	23.7	72.8
quite positive	39	16.2	16.8	89.7
extremely positive	24	10.0	10.3	100.0
Total	232	96.3	100.0	
Missing System	9	3.7		
Total	241	100.0		

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
	18-24	14	5.8	5.9	5.9
	25-34	49	20.3	20.6	26.5
	35-44	78	32.4	32.8	59.2
	45-64	84	34.9	35.3	94.5
	65+	13	5.4	5.5	100.0
	Total	238	98.8	100.0	
Missing	System	3	1.2		
Total		241	100.0		

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	male	115	47.7	50.7	50.7
	female	112	46.5	49.3	100.0
	Total	227	94.2	100.0	
Missing	System	14	5.8		
Total		241	100.0		

County

		Frequency	Percent	Valid Percent	Cumulative Percent
	Canada	147	61.0	62.0	62.0
	USA	42	17.4	17.7	79.7
	Germany	21	8.7	8.9	88.6
	Australia	2	.8	.8	89.5
	Belgium	2	.8	.8	90.3
	Austria	1	.4	.4	90.7
	Switzerland	4	1.7	1.7	92.4
	Netherlands	5	2.1	2.1	94.5
	Israel	1	.4	.4	94.9
	Spain	1	.4	.4	95.4
	England	5	2.1	2.1	97.5
	Denmark	1	.4	.4	97.9
	Holland	2	.8	.8	98.7
	France	2	.8	.8	99.6
	New Zealand	1	.4	.4	100.0
	Total	237	98.3	100.0	
Missing	System	4	1.7		
Total		241	100.0		

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
	less than high school	2	.8	.8	.8
	high school grad	33	13.7	14.0	14.8
	some post secondary	53	22.0	22.5	37.3
	some university	18	7.5	7.6	44.9
	University graduate	71	29.5	30.1	75.0
	post-graduate	59	24.5	25.0	100.0
	Total	236	97.9	100.0	
Missing	System	5	2.1		
Total		241	100.0		

Income		Frequency	Percent	Valid Percent	Cumulative Percent
	under 15000	11	4.6	5.0	5.0
	15000 - 24999	6	2.5	2.7	7.8
	25000 - 34999	22	9.1	10.0	17.8
	35000 - 49999	25	10.4	11.4	29.2
	50000 - 74999	49	20.3	22.4	51.6
	75000 - 99999	46	19.1	21.0	72.6
	100000+	60	24.9	27.4	100.0
	Total	219	90.9	100.0	
Missing	System	22	9.1		
Total		241	100.0		