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TOURISM ON A SCENIC BYWAY: DESTINATION IMAGE AND ECONOMIC
IMPACTS OF THE BEARTOOTH HIGHWAY

By

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B.S., University of North Dakota, 2010

Thesis

Presented in partial fulfillment of the requirements
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Tourism on a Scenic Byway: Destination Image and Economic Impacts on the Beartooth Highway.

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Many tourism destination managers know who their visitors are and how they are perceived by them. However, when new destinations begin to take shape, understanding these perceptions and meeting the expectations of visitors can be a difficult task. Destination image provides the ability to explore the perceptions of visitors at a tourism place. One such place the Beartooth Highway in south-central Montana and north-central Wyoming is a scenic byway that reaches nearly 11,000 feet in elevation. Previously, little to no research has been conducted regarding travelers that frequent this region.

The purpose of this study was to understand the destination image and economic impacts of nonresident travelers on the Beartooth Highway. Nonresidents were travelers who did not live in the counties of the Beartooth Highway (Park County, MT, Carbon County, MT and Park County, WY). A two-part survey method was implemented. First, an on-site visitor survey was conducted for all travelers along the highway. Second, a mailback survey was given to all nonresidents travelers. The survey included statements about the Beartooth Highway, trip spending categories, motivations for traveling the highway, and activities participated in while visiting. Visitors were intercepted at the three exit points of the Beartooth Highway.

In total, 4,285 nonresident visitors were intercepted along the highway. Of those, 3,251 nonresidents were given mailback surveys. The survey was completed and returned by 1,473 respondents for a response rate of 45 percent. Results from the study show that visitors perceive the Beartooth Highway in positive light. Forty-four percent of respondents stated they were first-time visitors. Moreover, visitors who had a higher degree of loyalty to the destination had significant differences in many of the cognitive and affective image variables. Nonresident spending contributed over \$50 million in economic impacts to the local communities in the four month time period. Because visitors perceive the place as a destination rather than simply a highway, it is recommended that more collaborative management be implemented. The highway should also be marketed and managed with these results in mind to ensure the preservation of the unique characteristics and qualities of the region.

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Table of Contents

CHAPTER I.....	1
INTRODUCTION	1
History.....	4
Purpose.....	7
Research Questions.....	7
Delimitations.....	7
Limitations	8
Assumptions.....	8
Significance of the Study.....	9
Thesis Organization	9
CHAPTER II.....	10
LITERATURE REVIEW	10
Introduction.....	10
Section 1: The Tourism System.....	10
Section 2: Place and Tourism	12
Section 3: Destination Image.....	17
Conceptual Framework.....	20
Factors Affecting Destination Image.....	25
Section 3: Destination Branding.....	27
Destination Loyalty.....	30
Linking Destination Loyalty and Image Perception.....	33
Visitor Motivations.....	34
Section 4: Economic Impacts of Tourism.....	37
Critiques and Concerns.....	42
Application of Economic Impact Studies/Assessments.....	44
Scenic Byway Economic Impacts.....	46
Factors Affecting Visitor Spending	47
Summary.....	50
CHAPTER III.....	52
METHODOLOGY	52
Introduction.....	52
Instrument Development.....	53
Economic Impacts.....	54

Destination Image Attributes	55
Cognitive Image Statements	57
Survey Instrument Scales.....	60
Sampling Frame and Site Selection	61
On-site Survey Procedures.....	63
Mailback Questionnaire Procedure.....	65
Traffic Counts and Nonresident Proportions	66
IMPLAN Model.....	70
Research Analysis.....	71
Summary.....	71
CHAPTER IV	72
RESULTS	72
Section 1a: On-site survey demographics.....	73
Section 1b: Mailback Demographics	75
Section 2a: Nonresident Visitor Spending and Economic Impacts	78
Section 2b: Destination Image: Differences in Attribute Ratings	82
Section 3a: Destination Image: Scaling of the Cognitive and Affective Constructs	85
Section 3b: Independent T-Tests of Cognitive and Affective Constructs	88
Section 4: Factors Affecting Destination Image.....	92
Section 5: Visitor Motivations and Activities.....	96
Visitor Activities.....	101
<i>Road Tourers</i>	105
<i>Active Outdoors</i>	105
<i>Knowledge Seekers</i>	105
<i>Passive Viewers</i>	106
Summary.....	106
CHAPTER V	107
CONCLUSIONS AND IMPLICATIONS.....	107
Research Question One:.....	107
Who are the travelers along the Beartooth Highway?	107
Research Question Two:.....	109
What is the economic impact of nonresidents along the Beartooth Highway?	109
Research Question Three:.....	112
What is the perceived cognitive and affective image of the Beartooth Highway?	112

Research Question 4:	119
To what extent does perceived image differ by destination loyalty?.....	119
Research Question 5:	124
To what extent do weather conditions influence destination image?	124
Research Question 6:	127
Do traveler motivations differ by destination loyalty?	127
Research Question 7:	129
To what extent can visitors be segmented and compared by activity participation? ..	129
Linking Place and Image	133
Stakeholder, Management, and Marketing Implications	135
Contributions to Tourism.....	140
Future Research	141
Concluding Remarks.....	143
REFERENCES	145
APPENDIX A: SURVEY INSTRUMENT	155
On-site Survey	155
Mailback Survey.....	156

List of Tables

Table 1: Visitor residence	74
Table 2: Northeast gate of Yellowstone National Park nonresident proportions	75
Table 3: WY 296 nonresident proportions.....	75
Table 4: Red Lodge/Beartooth Pass nonresident proportions.....	75
Table 5: Nights spent by visitors in Beartooth Region	77
Table 6: Mailback respondent demographics	78
Table 7: Visitor spending by all nonresidents on the Beartooth Highway.	79
Table 8: Total trip expenditures by visitors to the Beartooth Region.....	80
Table 9: Economic impacts for Carbon County, MT (Spending in Red Lodge, MT)	81
Table 10: Economic impacts for Park County, WY (Spending in Cody, WY)	82
Table 11: Economic impacts for Park County, MT (Spending in Cooke City/Silver Gate, MT)	82
Table 12: Destination image cognitive statements by group	83
Table 13: Affective attribute ratings by destination loyalty	84
Table 14: Cognitive image factor matrix	86
Table 15: Affective attributes factor matrix.....	87
Table 16: Independent T-test: Affective attribute pairs by destination loyalty	90
Table 17: Independent T-test: Cognitive image statements by destination loyalty	91
Table 18: Reported weather conditions	92
Table 19: Independent T-test: Travel motivations by destination loyalty	99
Table 20: Independent T-test: Travel motivations by destination loyalty (Cont'd)	100
Table 21: Activity participation by destination loyalty and all travelers.....	102
Table 22: Comparing a priori activity segments.....	104
Table 23: Categorical daily spending by segments.....	104

List of Figures

Figure 1: The Beartooth Highway Region.....	3
Figure 2: Trip expenditure survey.....	54
Figure 3: Beartooth study region and nights spent	56
Figure 4: Survey site	63
Figure 5: Geographic representation of visitors*.....	74
Figure 6: Prior visits to the Beartooth Region by nonresident respondents	77
Figure 7: Multivariate Regression Model: Cognitive image and weather conditions	94
Figure 8: Multivariate Regression Model: Affective image and weather conditions	95
Figure 9: Mean distribution of traveler motivations	98

CHAPTER I

INTRODUCTION

Since the rise of automobiles in the early 1900's, travel has become more efficient and accessible for people throughout the world. The ability to experience and engage in areas foreign to us has tempted some to call tourism "the world's peace industry (D'Amore, 1988)" as it unites cultures and people together. While this label is debated and discussed, it is difficult to ignore the fascination with travel. Due to this rather recent phenomenon, destination stakeholders worldwide are continuously looking for ways to improve the tourism experience. Grasping a piece of this growing industry is important for various reasons. A visitor's perception of a place plays a large role into whether or not they choose to visit and/or revisit. The ability to understand the decision to return is crucial in decision-making processes for a destination. Thus, it is necessary to recognize how to meet and exceed expectations of tourists through their perceived image of the destination.

Numerous groups such as local residents, business owners, and area stakeholders can potentially benefit from discovering how tourists perceive their destination. As Govers, Go, & Kumar (2007) discussed, image formation prior to visiting a destination includes a variety of mediums; tourism promotion being one. Furthermore, various other types of mediums may influence a visitor's image of the destination such as guidebooks or word-of-mouth. Researching the perception of a destination can influence the decision-making process. Moreover, creating a bond between the destination and a tourist through satisfaction is essential in developing loyalty, which may lead to return visits (Blain, Levy, & Ritchie, 2005). Understanding the factors that contribute to this loyalty and how

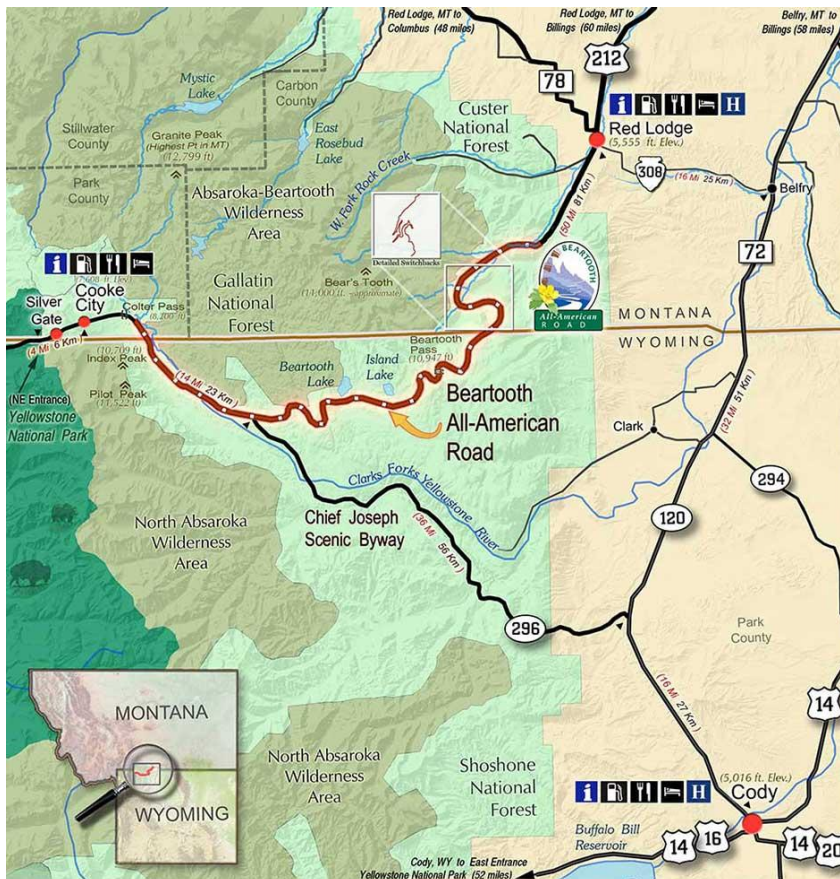
image perception differs once a visitor experiences a destination is an important piece of the overall puzzle. With increased competition in various tourism sectors, destination marketing organizations (DMOs) continue to look for ways to enhance visitor experiences in order to gain an advantage over their competitor and to exceed expectations.

Image studies have been conducted for multiple decades. During this time, the conceptual foundation has progressed. Research on destination image began in the 1970's with Hunt's (1975) seminal study which looked at perceptions of Rocky Mountain States. Prior to his study, perceptions of potential destinations were not researched in tourism. After Hunt's (1975) study, researchers began to conceptualize and formulate how to measure image in tourism research (Baloglu & McCleary, 1999; Echtner & Ritchie, 1993; San Martin & Rodriguez, 2008). As destination image literature continues to progress, factors influencing destination image have become an interest in image research (Beerli & Martin, 2004; San Martin & Rodriguez Bosque, 2008; Wang & Hsu, 2010). The scope of image studies ranges from a macro-scale such as a country, state or city, down to a micro-scale like a specific attraction or resort (Pike, 2002). Projecting a positive image that possibly reaffirms a traveler's likelihood to return may increase the longevity of success at a destination. Research suggests that this is important due to the "lifecycle of a destination." A destination's lifecycle has been studied previously by numerous scholars (Getz, 1992; Martin & Uysal, 1990). In the destination lifecycle model, destinations reach a maturity stage where visitation tends to start decreasing over time. Locations are, in turn, always trying to attract new visitors to the region with branding and marketing campaigns. Thus, exploring alternative areas such as scenic

byways could provide a new location not typically viewed as a destination for visitors to enjoy.

The Beartooth All-American Road is a 68-mile scenic and cultural travel corridor that starts near Red Lodge, MT and finishes at the northeast entrance of Yellowstone National Park (Figure 1). Designated as an “All-American Road,” the Beartooth Highway joins 30 other federal highways with the highest recognition by the Federal Highway Administration. Generally, the main portion of the road opens Memorial Day Weekend (May 25th-30th) and closes mid-October, weather dependent. Opening and closing dates may fluctuate, but stakeholders attempt to use similar dates each season.

Figure 1: The Beartooth Highway Region



*Friends of the Beartooth Wayfinding Map (2010). Prepared by Global Solutions, LLC. Available at www.beartoothhighway.com.

History

Initially built to increase tourism from Red Lodge, MT to Yellowstone National Park, the Beartooth All-American Road or Beartooth Highway (BTH) has now become an attraction for the surrounding communities. Originally, Scott Leavit, a Montana Congressman, proposed a new entrance to Yellowstone through the National (Leavit) Park Approach Act (H.R. 12404). This act made available federal funds to provide tourism benefits in forms of construction and roads that led to national parks. As of today, The Beartooth Highway is the only road addition that was constructed due to the act (Central, 2012).

Initially proposed in 1925, the road officially opened on June 14th, 1936. Since then, it has become an iconic highway that is intersected by the Chief Joseph Scenic Byway from the south to form the northeast gateway to Yellowstone National Park. The highway follows the historic route of Civil War General Phillip Sheridan through the Beartooth Mountains that was used in an inspection of Yellowstone National Park. It has been labeled by CBS travel correspondent Charles Kuralt as “The most beautiful road in America.” (Kulbacki, McCauley & Moler, 2006).

In 2002, the Federal Highway Administration designated the majority of the highway as an “All-American Road” due to the historical, scenic, and cultural significance. With this designation, the Beartooth Highway joined other nationally recognized travel corridors such as the Blue Ridge Parkway, Route 66 and the Pacific Crest Highway to comprise 31 highways with “All-American Road” designation. The road leads through the communities of Cooke City and Silver Gate, MT with designation ending at the town border of Silver Gate and Yellowstone National Park (Kulbacki et al, 2006).

Red Lodge, MT, Cooke City/Silver Gate, MT and Cody, WY comprise the three gateway communities for the Beartooth Highway. Cooke City/Silver Gate and Red Lodge are the only two towns directly situated along the Beartooth Highway. Cody is connected via the Chief Joseph Scenic Byway (WY Hwy 296), but is used by tourists as a location to stay during their travels. Thus, these communities encompass what is referred to in this thesis as the Beartooth Region gateways.

Red Lodge, MT is located in Carbon County with a population of 2,125 (US Census, 2010). Officially established in 1884, Red Lodge was founded as a mining community, much like many small towns in the American West. After the boom and bust of the mining industry in Red Lodge, tourism, recreation and ranching took to the forefront of the town's main sources of income. Today, Red Lodge still thrives from tourism and recreation. Access to the Beartooth Highway from Red Lodge is only possible in the summer and early fall seasons. Thus, year-long impacts from the highway to Red Lodge are limited compared to other gateway communities (Red Lodge Chamber, 2012).

The communities of Cooke City, MT and Silver Gate, MT comprise the second and smallest gateway along the highway. Silver Gate and Cooke City are separated by 3 miles of the Beartooth Highway, but are considered one community for purposes of this study. According to the US Census of 2010, Cooke City, MT has a reported permanent residence of 75 and Silver Gate, MT reports 20 permanent residents (US Census, 2010). However, residency fluctuates seasonally due to second home ownership. Founded in 1882 as a miner's camp, Cooke City was named after Jay Cooke, Jr., son of an investor in the Northern Pacific Railroad. Located only 5 miles from the Yellowstone National

Park's northeast entrance, it serves as a gateway for both Yellowstone visitors and visitors accessing the Beartooth Mountains from the west. During the winter season, Cooke City/Silver Gate is considered a gateway community for the Beartooth Mountains and is host to winter recreationists including snowmobilers, skiers, and wildlife watchers. (Cooke City Chamber, 2012).

The third, and final, gateway community is Cody, Wyoming. While not directly located on the Beartooth All-American Road, Cody is connected via the Chief Joseph Scenic Byway (WY Hwy 296). Founded in 1900 by George T. Beck, the city is named for William "Buffalo Bill" Cody. The US Census of 2010 lists the population at 9,520. Tourism is considered the top industry of the community. The Buffalo Bill Historical Center is one of the main attractions of the city housing many exhibits of historical western culture. Located 52 miles from the east entrance of Yellowstone National Park and roughly 90 miles from the northeast entrance, tourists frequently visit the community to reach the park entrance and to see the many attractions Cody has to offer (City of Cody, 2012).

Prior to this study, little to no information had been gathered about travelers on the Beartooth Highway. Stakeholders in the region were interested in discovering more about the travelers frequenting the region including the economic impacts provided by nonresident spending. Uncovering the expectations, motivations, perceived image and the economic impact provides insight into effectively managing a destination for years to come and how to improve the visitor's experience.

Purpose

The purpose of this study was to assess the economic impacts and destination image of the Beartooth Highway. Understanding differences in image perception, effect of destination loyalty on image, and weather conditions' effect on image perception were assessed. The motivations visitors have for traveling the Beartooth Highway and their activities participated in were assessed to better understand the Beartooth visitor.

Research Questions

This study of travelers in the Beartooth Region addressed the following research questions:

- R1: Who are the travelers visiting the Beartooth Highway?
- R2: What is the economic impact of nonresidents along the Beartooth Highway?
- R3: What is the perceived cognitive and affective image of the Beartooth Highway?
- R4: To what extent does perceived image differ based on destination loyalty?
- R5: To what extent do weather conditions influence destination image?
- R6: Do travel motivations differ by degree of destination loyalty?
- R7: To what extent can visitors be segmented and compared by activity participation?

Delimitations

1. Participants were limited to those who were at least 18 years of age and currently visiting the Beartooth Highway.
2. Travelers were only intercepted in daylight hours in compliance with Montana and Wyoming Departments of Transportation requirements.

3. Respondents were intercepted at the three exit points of the Beartooth Highway. Only visitors directly along the highway were intercepted.
4. Economic impacts are focused on nonresidents who visited the three counties/gateways.

Limitations

1. Respondents answered the mail-back visitor survey based upon their interpretation of the questions.
2. Not all visitors along the highway stopped as participation was voluntary.
3. Not all visitors intercepted were given a questionnaire due to traffic congestion.
4. Not all visitors given a questionnaire completed and returned the questionnaire.
5. The scope of this study includes only the summer season. Winter travel is not included in this study.
6. It is unknown if visitors traveled over more than one highway counter on the same day.

Assumptions

1. All respondents truthfully answered the survey questions.
2. The sample selected for this study was representative of the population of travelers visiting the Beartooth Region during June, July, August, and September of 2012.

Significance of the Study

The significance of the destination image and economic impacts of the Beartooth Highway is important on a local level and at a much broader level. First, a better understanding of the travelers' expectations, image and motivations can provide stakeholders, tourism promoters, local business owners and residents an overall picture of how the visitor perceives the destination. Second, understanding the differences in image perception based on destination loyalty provides insights into marketing strategies to increase re-visitation. Third, researching scenic byways can provide insight for other byway organizations and stakeholders on how to promote use of other scenic byways. Finally, the economic impact of tourism from the Beartooth Highway and surrounding region can be used as a sign of the importance tourism has for the local and regional economies. This study aims to provide an in-depth look at a variety of traveler characteristics, activity types, and demographics to uncover how the Beartooth Region is perceived by the people who choose to visit and how it benefits the local economy.

Thesis Organization

Chapter two comprises the review of pertinent literature on the topic of destination image and economic impacts of tourism. First, the tourism system and sense of place in tourism are discussed. Next, conceptualizations of destination image, branding, and loyalty are presented. Finally analyses of the economic impacts of tourism are discussed. Chapter three outlines the methodology used for this study, including both the on-site and mail-back stage. Chapter four includes the results and statistical analysis of the data. The discussion, conclusions, and implications of the findings are provided in chapter 5.

CHAPTER II LITERATURE REVIEW

Introduction

This review of the literature focuses on the concepts, framework and constructs of destination image and economic impacts. It also provides a look into the tourism system, place, destination branding, destination loyalty, and factors affecting both image and visitor spending. To begin, the tourism system is discussed and presents a basis for a broader context for the ideas of destination image and economic impacts. Included in this discussion are multiple definitions and elements that define tourism as a complex system. Following is a discussion of place in tourism, including place dependence, place identity and attachment. The concept of “sense of place” and its relationship in the perceived image of a destination is analyzed. Next, destination image, the conceptual framework, relevant studies and factors affecting image are thoroughly discussed. A review of destination branding and destination loyalty literature better link the importance of visitor perception for a marketing perspective. Finally, a review of economic impacts of tourism is discussed. A discussion of the concepts, frameworks, and approaches of visitor spending and impacts are presented as well as factors that affect visitor spending.

Section 1: The Tourism System

Conflicting ideas of whether or not tourism is a stand-alone industry have been ongoing for decades. Due to the complex nature of the field’s landscape, it is difficult to use a single definition for tourism. According to Caves (1987, p.6), an industry, in general terms, consists of “sellers of a particular product.” Tourism, essentially, is selling a product to a consumer or in this case a tourist. However, tourism has multiple sellers of

widely varying products, thus making a case for one single industry debatable and contested.

Many definitions of tourism were formulated throughout the 1970's according to numerous scholars and practitioners. One article, Leiper (1979), reviewed various definitions of tourism through three dimensions: (1) economic, (2) technical, and (3) holistic. One economic definition classifies tourism as involving a "wide cross section of component activities including the provision of transportation, accommodation, recreation, food, and related services (Australian, 1975, p.2)." The technical definition defines tourism as "temporary visitors staying at least twenty-four hours in the country visited and the purpose of whose journey can be classified under one of the following headings; (1) leisure or (2) business, family, mission, meeting (p.393)." An excursionist is defined as a temporary visitor who stays less than 24 hours and therefore, not considered a tourist. Finally, the holistic approach has five components: (1) people – in a market area with desire and ability to participate, (2) attractions – offer activities for user participation, (3) services and facilities – for users/support of the activities, (4) transportation – moves people to and from the attraction destinations, and (5) information and direction – assists users in knowing, finding, and enjoying (Gunn, 1988, p.21). Smith (1988, p.180) criticizes Leiper's review of "not emphasizing the fact that 'tourism' has so many definitions because there are so many uses for definitions."

The accepted definition of tourism has been coined by the World Tourism Organization (WTO) as cited by Goeldner & Ritchie (2009):

"Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes."

While this definition may not clarify every aspect of tourism, it can be applied and conceptualized for many uses. This study will use the WTO's accepted definition of tourism.

Tourism inherently requires travel, but not all travel is necessarily tourism. Thus, it is suggested that tourism involves three elements; 1) the origin or tourist generating region, 2) a destination region or 3) host locality, and a transit region or route that connects the host city and place of origin (Leiper, 1979; Mill & Morrison, 2002). Each element involved collaborates to provide a quality experience for the visitor. Not only can the tourist be exposed to new and different cultures, but the local residents may be exposed to experiences and influences that the tourists bring from their home. The destination region provides the tourist a break from their normal routine to be integrated with new and differing ideas. Finally, the transit region can provide experiences that may or may not be expected by the tourist. These elements provide a transaction between the tourist, the places, and local residents (Leiper, 1979).

The following section will focus on the destination of the tourism system. The ideas of "sense of place," place dependence and place identity will be discussed in this section.

Section 2: Place and Tourism

The idea of "place" has become a focus in many areas of tourism literature. "Place" developed in tourism through geography literature in the early 1960's, and today place and tourism have evolved into a specific focus of the literature. Lew's (1999) editorial piece on introducing the quarterly journal *Tourism Geographies* highlights the apparent need for tourism research to focus on the idea of place and tourism interweaving

with one another. The geographical concepts of space and place can be utilized in a tourism framework to help understand meaning given to a destination. Humanistic geographers and scholars have attempted to define what is referred to as “sense of place” (Relph, 1976; Tuan 1974, 1975). Tuan (1974) discussed the study of space, in humanistic terms, as “thus the study of people’s spatial feelings and ideas in the stream of experience (p.388).” Transforming a “space” into a “place” is a concept that humanistic geographers have been discussing for decades. Tuan (1975, p.152) defines place as “a center of meaning constructed by experience.” Thus, it is through human beings and interactions that space is turned into place.

Agnew (1987) described the three fundamental aspects of place as a ‘meaningful location’: (1) location, (2) locale, and (3) sense of place. Cresswell (2004) further discussed the meaning behind Agnew’s fundamental aspects of place through broader terms. First, place, and space, is a fixed location on the Earth’s surface that has objective co-ordinates. Each place has a location that is unique to itself. Second, locale refers to the “material setting for social relations (p.7).” Thus, this refers to the shape of place where people conduct their everyday lives, social exchanges and where events occur. Finally, the ‘sense’ of place is related to the human element of place. Russell and Ward (1982) defined sense of place as “the psychological or perceived unity of the geographical environment (p. 654).” The interactions of locals and tourists can create this sense of place and may lead to place attachment. Places are said to have “spirit or personality, but only human beings can have a sense of place (Tuan, 1975, p.410).” This reaffirms that place is dependent on people.

Tuan (1974, 1996) separates sense, as in sense of place, into two meanings: Visual or aesthetic and a deeper, subconscious feeling of knowing. Visually, places can be pleasing to the eye or vividly depicted in one's imagination. However, feelings and other psychological senses can have meaning to an individual. "Sensing a place" is much different than visually seeing a place. It is through one's experiences in a space that can transform into a place. Hay (1998) discussed the formation of a superficial sense of place among people such as tourists. A high level of residential mobility creates a partial sense of place that is unlike residents who have long-term experience in a place.

Wearing, Stevenson, and Young (2010) discuss the idea of tourism spaces and places in tourism cultures. The tourism spaces of a destination are turned into places by the interactions and transactions between people. Wearing et al's (2010) discussion incorporates how tourism places form and how tourism cultures can vary. The idea they present is how a tourist transforms from a *flaneur* to a *choraster*. A *flaneur* is discussed as being a wanderer or gazer; a tourist not involved in the culture of the place. A *choraster* is described as typically a tourist who engages and fully experiences the place. They state, "The people who give social value to the *chora* are those who 'practise' the place, who use it, experience it and give it meaning. These are local residents and services provided, as well as tourists (p. 11)." It is through these interactions that place is formed. The meaning associated with the place differs for each group. This discussion ties into how tourists may perceive a destination and how the experience can change over time. Taking part in the local culture of a place can give it meaning and the tourist can potentially become a *choraster* who is actively involved in the tourism-place.

In outdoor recreation and tourism, place and sense of place has been conceptualized into multiple dimensions that make up place attachment. One dimension is seen as being *place dependence* (Stokols & Shumaker, 1981; Vaske & Korbin, 2001; Williams & Roggenbuck, 1989). Place dependence can be defined as “when the occupants of a setting perceive that it supports their behavioral goals better than an alternative (Stokols & Shumaker, 1981).” In recreation or tourism, this could be seen as a destination or setting that is best for what the visitor expects. The visitor ultimately feels such a strong attachment to the place that their needs are dependent on the specific setting. Meaning is applied to the place through the dependence of the settings.

Next, *place identity* is seen as the “the importance a person attaches to the place because of what the setting symbolizes or stands for (Williams & Roggenbuck, 1989).” This is seen as more of an emotional or symbolic attachment to a place. It was first defined as a “those dimensions of the self that define the individual’s personal identity in relation to the physical environment (Proshansky, 1978, p. 155).” Proshansky, Fabian & Kaminoff (1983) further define place identity, stating “a cognitive sub-structure of self-identity consists of endless variety of cognitions related to the past, present, and anticipated physical settings that define and circumscribe the day-to-day existence of a person (p. 62).” This may be a memory of a special event at a place or much broader such as a place that symbolizes heritage.

Place attachment is another dimension that is associated with sense of place. While the dimensions of sense of place have similarities, they differ in their conceptualization and their role in place. Place attachment is seen as being “an affective bond or link between people and specific places (Hidalgo & Hernandez, 2001, p. 274).”

Thus, place attachment is the feelings associated with a place or setting that a person may have. Attachment has been studied in detail by tourism and geography scholars as ways to encourage re-visitation or simply to understand the impact a place has on people. As Kaltenborn & Williams (2002) discussed, place attachment can occur for insiders (locals) and outsiders (tourists) in different ways and at diverse levels of attachment. This shows that while place attachment is thought of as an affective bond to a place, that bond can vary between many user groups or types of people and is subjective in nature.

Using place in a tourism context, traveling away from a home place or usual environment can invoke new feelings towards a destination. Place is ultimately a social construction developed by people. Place meaning is developed through prior experiences and through the tourist's place of origin (Young, 1999). Young (1999) breaks the social construction of tourism into two sub-systems: place promotion or production and place consumption. Determining specific places that are promoted and how they are given meaning is part of the promotion of a place. As Tsai (2012, p.139) states, "experiential marketing paradigm gears marketing strategies towards pursuing emotional and psychological bonds." Tourists' construction of meaning is involved in the consumption of place.

Tying the ideas of place consumption and place promotion into the ideas of attachment, it is evident that tourists can have varying degrees of attachment and can apply various meanings to a place. Visitor perceptions of a destination can lead to possible connections being made that have long-lasting effects. Using the ideas of place, it is useful to uncover and help understand why tourists choose specific destinations. Through these beliefs and emotions of a destination, visitors depict an image of what a

destination represents. Destination image is, thus, the feelings and beliefs of a specific place. The following section will discuss how visitors take the ideas of place and create an image of a destination. Visitors develop beliefs and feelings about a destination that may affect the way they connect with a destination or their future travel intentions.

Section 3: Destination Image

Destination image is described as an important aspect of destination marketing (Tasci, Gartner, & Cavusgil, 2007). Image research has been popular in brand marketing prior to tourism and expanded to the industry in the early 1970's. During the 1990's research increased on the image construct and has progressed since then. Destination image has typically been difficult to conceptualize and has been attempted by multiple researchers (Tasci et al, 2007).

Understanding the tourist's perception of a destination is necessary to determine the correct positioning of a tourism place. Hunt's (1975) initial work on image sparked an interest in discovering the role image has in tourism and tourism development. Originally, Hunt's (1975) study focused on four Rocky Mountain states: Colorado, Montana, Utah, and Wyoming. Residents of each state were asked to fill out a questionnaire to determine their perceptions of the other states, excluding their own residence. Results showed that visitors from different regions of the United States often agreed on a state's image. Hunt (1975) states that "groups of nonresidents perceive similar and comparable levels of impressiveness of recreational attractions and activities in a state (p.3)." Using perceptions of multiple nonresident groups, understanding how image correlates with travel behavior is an interest for stakeholders.

Hunt (1975) discussed the idea of image's effect on consumer decisions. Prior to Hunt's work, image research had primarily been focused in retail marketing. Hunt (1975) states that "traditional marketing researchers tell us that customers often buy products and services on the basis of their images as well as their inherent characteristics (p.2)." In a tourism context, the traveler is a consumer who may choose one product or another based on their perceived image of a destination. Thus, destination image research started to build to determine if image could potentially be linked with visitors' travel behavior.

Defining destination image has progressed in many directions for scholars since Hunt's (1975) study. San Martin & Rodriguez del Bosque (2008) gathered a listing of 19 separate definitions of destination image. Two example definitions are; "an expression of knowledge impressions, prejudices, imaginations and emotional thoughts an individual has of a specific place (Lawson & Baud-Bovy, 1977)" and "the subjective interpretation of reality made by the tourist (Binge, Sanchez, & Sanchez, 2001). The two most cited definitions are Lawson & Baud-Bovy's (1977) (above) and Crompton's (1979b) definition which is "the sum of beliefs, ideas, and impressions that a person has of a destination." While definitions have not reached a consensus, the overall conceptualization of image is relatively agreed upon. Ultimately, image research focuses on the visitor's relationship with a tourism destination. As Hunt (1975) discussed, the perceptions held by visitors or potential visitors may have a significant influence on the destination itself in terms of viability and growth.

Tasci et al. (2007) discussed not only the multiple definitions of destination image, but also the multiple other constructs that researchers study that ultimately are similar to destination image. They warn that these differing constructs affirm the

difficulty of formulating a framework for destination image research. Echtner & Ritchie (1991, 1993) discuss the avoidance of a singular definition to destination image citing Pearce's (1988) quote of "image is one of those terms that will not go away... a term with vague and shifting meanings (p.41)." Most definitions shy away from detailing how to specifically define destination image. However, the implementation in tourism research has been evident. Research discusses the importance of destination image and its effect on subjective perception, consequent behavior, and destination choice (Chon, 1990; Echtner & Ritchie, 1991; Gallarza, Saura, & Garcia, 2002).

Pike's (2002) analysis of 142 destination image studies found that the most popular type of destination of interest was countries (56 articles), followed by states (27 articles), cities (26 articles), resort areas (23 articles), and provinces (11 articles). This shows that image studies have had multiple scales of destinations. However, there may be room to include alternative destinations in image research such as scenic byways. Understanding if these alternative attractions can be considered destinations is important for stakeholders in the regions.

Multiple discussions on destination image formation have been presented throughout the decades since Hunt's (1975) seminal study. Gallarza et al., (2002) discussed in-depth the numerous attempts at conceptualizing destination image into a framework. However as described in the following section, multiple frameworks and approaches to destination image have persisted throughout time. While there is no clear consensus on a definition, understanding the differing approaches will lead to a more holistic picture of where image research stands today.

Conceptual Framework

Originally, destination image was mainly focused on attributes of a location such as hotels and activities, or physical characteristics, available at the destination (Echtner & Ritchie, 1991). Not until the early 1990's did a conceptual framework begin to form. Image has been conceptualized as having two constructs: (1) physical/cognitive beliefs of the physical characteristics of a destination and (2) the affective feelings towards a destination (Baloglu & McCleary, 1999; Echtner & Ritchie, 1991, 1993; Lawson & Baud-Bovy, 1977; San Martin & Rodriguez del Bosque, 2008; Wang & Hsu, 2010). Through the decades, methodologies and constructs have developed and changed. Recently, ideas such as cultural values (San Martin & Rodriguez del Bosque, 2008) and performance quality (Baker & Crompton, 2000) have affected the way image is perceived and studied.

Due to the lack of understanding and measurement of image in its early years, Echtner & Ritchie (1991, 1993) developed a framework for the measurement of destination image. To begin, understanding how an image is formed in the mind of a traveler must be uncovered. Reynolds (1965) described the development of a mental construct of image. He stated that the construct is based upon a few impressions chosen from a flood of information. This mental construct drives destination image formation, which is the final step of image formation. According to Echtner & Ritchie (1991, p. 38), this "flood of information has many sources including: promotional literature, the opinion of others, and the general media." Visiting the destination or first-hand experience plays a role in forming the image of a destination. However, that type of image formation occurs

at different stages of the travel experience. Pre-visit image formation is also important in attracting potential visitors, but is sometimes hard to measure (Chon, 1990; Hunt, 1975).

Gunn (1988) takes into consideration the role of information sources in destination image formation through a model of travel experience: He lists seven phases that are relevant to image formation. These seven phases are: (1) accumulation of mental images about vacation experiences, (2) modification of those images by further information, (3) decision to take a vacation trip, (4) travel to the destination, (5) participation at the destination, (6) return home, and (7) modification of images based on the vacation experience. Each phase builds on how the traveler formulates an image of the destination in the multiple phases of the travel experience. Pre-trip image formation begins prior to the visitor searching for information regarding trip specifics (Gunn, 1988). This formation continues through the travel to the destination, into the trip itself, the activities done at the destination and finally during the recollection phase once returned home.

Once image formation as a mental construct was better understood, Echtner & Ritchie (1991, 1993) suggested a framework for measuring destination image that consists of three continuums: (1) attribute-holistic, (2) functionally-psychological, and (3) common-unique. These continuums help drive image studies to this day (San Martin & Rodriguez del Bosque, 2008; Wang & Hsu, 2010). The following will be a discussion of the three continuums.

(1) The attribute-based component has individual functional characteristics (prices) of the destination as well as the psychological characteristics (friendly staff). Attribute characteristics, especially the individual functional characteristics, are seen as

easily measured through visitor surveys. The visitor is able to better estimate these characteristics from their past or most current experiences. The psychological characteristics are measurable, but may have a larger degree of variation and require more subjective interpretation from the researcher (Echtner & Ritchie, 1991, 1993).

(2) Echtner & Ritchie's (1991, 1993) next suggested component is the holistic component of destination image. The holistic component is described as being generally harder to measure as it concerns feelings and "overall impressions of atmosphere (p.41)." Thus, prior research had lacked in capturing the holistic dimension of image. The dimension includes functional characteristics (mental image of physical landscape) and psychological characteristics (visitor's affective perception of a destination). Baloglu & McCleary (1999) expanded further on this notion of holistic or affective component and attempted to incorporate it more in-depth with destination image. It is now believed to be just as important despite its difficult measurement.

(3) A third continuum of destination image was conceptualized as "common-unique," which differentiates characteristics that are common to other destinations and unique characteristics that are only found at that destination. Defining whether a destination has common features or unique features differentiates the place and potentially the perceived image. The unique features of a destination may be what help develop a connection with the visitor and the place. With the combination of these three continuums, a framework to better understand image was formed.

While Echtner & Ritchie's (1991, 1993) influence on the conceptual framework of destination image is still prevalent today, many scholars have expanded these ideas and have looked further into image perception (Baloglu & McCleary, 1999; Baloglu,

2001; Beerli & Martin, 2004; San Martin & Rodriguez del Bosque, 2008). The cognitive (beliefs) dimension of destination image was most commonly measured in image studies (Echtner & Ritchie, 1993; San Martin & Rodriguez del Bosque, 2008), soon after the affective construct picked up interest among scholars (Baloglu & McCleary, 1999; Baloglu, 2001; Beerli & Martin, 2004).

Baloglu & McCleary (1999) expanded Echtner & Ritchie's (1991, 1993) conceptual framework by exploring the affective construct of image. Multiple hypotheses were formulated through their review of the literature: (1) the cognitive component and the affective component, are hypothesized to both significantly influence the overall image of a tourism destination, (2) cognitive evaluations were hypothesized to significantly influence affective evaluations of a tourism destination, (3) the variety and type of information sources significantly influence cognitive evaluations, and (4) tourists' socio-psychological motivations significantly influence their affective evaluations of destinations (p.874-875). Results of the study showed that "the variety of information sources, age, and education influence cognitive evaluations." Socio-psychological tourism motivations influence affective evaluations, but cognitive evaluations on affective perceptions were stronger than those of tourism motivations. Thus, a shift in the way destination image had been conceptualized took place. Destination image was then thought to have multiple factors that affect the perceived image. These factors influenced both the cognitive and affective dimensions (Beerli & Martin, 2004).

San Martin & Rodriguez del Bosque (2008) hypothesized that both the cognitive and affective evaluations of a tourist destination form the destination image. Included

was a second hypothesis that psychological factors (tourist motivations and cultural values) played a role in the formation of destination image. Results were as such:

“Image should be considered a multi-dimensional phenomenon integrated by several cognitive and affective dimensions. In this sense, the mental representation of a tourist destination is formed on the basis of individuals’ beliefs about the place (cognitive image), as well as their feelings toward it (affective image). The cognitive component of destination image is related to the tourist destination’s attributes, which can be functional/tangible... and psychological/abstract. The affective component is related to emotions that a tourist is able to evoke (p.274).”

In regards to tourist motivations and cultural values, San Martin & Rodriguez del Bosque’s (2008) results showed that the perception of a tourist destination is significantly affected by both concepts. However because of limitations in the analysis of cultural values, they propose more research be done on the influence of cultural values on destination image.

A recent study of a Chinese tourism destination (Wang & Hsu, 2010) hypothesized that destination image would have a direct effect on the behavioral intentions of tourists through satisfaction. Results showed that cognitive and affective constructs of image contributed to the overall destination image, thus influencing levels of satisfaction and behavioral intentions. Satisfaction is defined as a tourist’s post-purchase assessment of a destination. Past findings show that destination image is a direct antecedent of satisfaction (Oliver, 1980; Wang & Hsu, 2010). Behavioral intentions are essentially a tourist’s intention to revisit a destination and participate in word-of-mouth communications (Andreassen & Lindestad, 1998). According to Wang & Hsu (2010), behavioral intentions have “become a fundamental strategic metric to evaluate the success of a tourism destination (p.832).” Results of their hypothesis showed the “important impact of destination image on tourist satisfaction and behavioral intentions in

the Chinese context (p.839).” Their findings bring to light the correlation between image and future travel behavior or explained later, destination loyalty. Understanding if image correlates in other destinations with future travel behaviors would allow for stakeholders to correctly market and position their destination to account for this relationship.

The consumer motivation for purchasing goods has been conceptualized through a multistage method that Chon (1991) has described. These stages are: (1) need recognition, (2) information search, (3) evaluation of alternatives, (4) choice of product or service, and (5) post-purchase evaluation. These stages give the ability to understand how people choose to purchase products. Travel can be seen as a product that is sold to consumers. Understanding the perceived image of a destination may influence consumer behaviors, which in this case may influence the travel experience or travel behavior. Chon (1991) attempted to understand the importance of image and consumer motivations in a travel context. Through surveys of American visitors to South Korea in 1985, it was determined that marketers should aim to create a positive image for consumers at the destination choice stage. Secondly, it was determined that the tourist must be provided with a high quality experience in order to meet their needs. Meeting the needs and expectations of the tourist may portray a positive image and influence future travel behavior.

Factors Affecting Destination Image

Chen & Tsai (2007) studied how image and evaluative factors affect intentions. While Binge, Sanchez and Sanchez’s (2001) and Fakeye & Crompton’s (1991) studies both showed that image has an influence on travel behavior, Chen & Tsai (2007) looked at image’s relationship with evaluative factors (trip quality, perceived value, and

satisfaction) and intentions. Results showed that image had the most important effect on behavioral intentions both directly and indirectly. They state that “destination image not only influences the decision-making process, but also conditions after-decision-making behaviors of tourists.” Chon’s (1991) study stated that the destination choice stage was the most important for image perception, but Chen and Tsai’s (2007) research suggests that the post-trip experience is also important in the image formation process.

A study of visitors to the Lower Rio Grande Valley, TX looked at differences in image perception between prospective, first-time, and repeat visitors (Fakeye & Crompton, 1991). Three groups were drawn from to create the sample population: 390 people, who had never been to the Rio Grande Valley for winter vacation, 289 people who visited for the first time in the past year, and 297 visitors who had been coming to the area for two years or more. Data was collected through a mail survey and resulted in 568 usable questionnaires. Results showed that past experience with a destination does indeed influence some change in image. However, the difference between first-time and repeat visitors was not significant, suggesting that image may change after the first visit and may remain static upon repeat visits. Repeat visitors differed significantly from first-time visitors in the image of “social opportunities” and “attractions.” Fakeye & Crompton (1991) suggest a greater awareness and stronger social network from prior visits may influence social opportunities.

Past experience has been looked at in multiple contexts to determine its influence on image and intentions. Past travel experience is shown to be more important than from external sources in a tourism context (Mazursky, 1989; Sonmez & Graefe, 1998). In Mazursky’s (1989) study of tourists visiting a stalactite cave, past experiences were

shown to have an influence on future behavioral intentions. However, multiple factors such as satisfaction, performance, and norms were also prevalent in formulating future intentions. A similar study examined international travelers' trip behavior from past travel experiences and perception of risk and safety (Sonmez & Graefe, 1998). Results showed that previous travel experience and risk perceptions did influence future travel behavior of international tourists. These studies show that past travel experience is an important area to research for understanding image perception. In doing so, destination marketers can attempt to promote their destination to the right markets. Branding initiatives have shown to be popular in consumer market research, but destinations have begun to focus on creating a brand for their destination.

The following section will discuss how tourism promotion and marketing can enhance the destination image through branding. Destination branding can influence the way a tourist builds the image of a potential destination.

Section 3: Destination Branding

Once a destination's image has been assessed, marketers have the ability to target markets and create a brand for their region. The classical definition, and most widely accepted, of branding comes from Aaker's (1991) work. He defines the function of branding as such:

“To identify the goods or services of either one seller or a group of sellers and to differentiate those goods or services from those of competitors (p. 7).”

Branding, much like image, originated from consumer marketing research and has evolved into an aspect of tourism marketing. Pike (2005) discusses that in the 1990's destination branding became popular as designated marketing organizations (DMOs) began to form. Pike (2005) states that the 'place name' of a destination is essentially the

brand of the destination. He also states that one brand positioning theme may not meet all segments of a destination's market. For example, creating a slogan that only includes one aspect of the market may not accurately portray the complexity of the destination.

Aaker & Joachimsthaler (2000) initially developed a theoretical framework for branding that contains four factors: 1) brand awareness, 2) perceived quality of the brand, 3) brand associations, and 4) brand loyalty. Each of these factors is prevalent in tourism destination branding. Brand awareness and quality of the brand relate to image in destination research. Destination loyalty, a tourism concept, was developed from brand loyalty in consumer goods. While most branding studies pertain to products or goods, tourism researchers began exploring the idea of branding a destination (Blain et al, 2005; Morgan, Pritchard, & Piggott, 2003). Ritchie & Ritchie (1998) defined a destination brand as such:

“A name, symbol, logo, word mark or other graphic that both identifies and differentiates the destination; furthermore, it conveys the promise of a memorable travel experience that is uniquely associated with the destination; it also serves to consolidate and reinforce the recollection of pleasurable memories of the destination experience (p.103).”

However, Blain et al. (2005) arrived at a new definition through their analysis of previous destination brand research.

“Destination branding is the set of marketing activities that (1) support the creation of a name, symbol, logo, word mark or other graphic that readily *identifies* and *differentiates* a destination; that (2) consistently convey the *expectation* of a memorable travel *experience* that is uniquely associated with the destination; that (3) serve to consolidate and reinforce the *emotional connection* between the visitor and the destination; and that (4) reduce consumer *search costs* and *perceived risk*. Collectively, these activities serve to create a *destination image* that positively influences consumer *destination choice* (p.337).”

Moreover, Blain et al. (2005) suggest destination branding is shown to be a multi-dimensional concept, much like image. Research indicates that branding enhances

destination image among visitors (Blain et al, 2005). Tourism promotion and marketers have begun to apply brands to a destination in hopes of influencing future travel behavior of tourists. Creation of a destination brand may possibly have positive influence on visitation and revenue (Blain et al, 2005; Morgan et al, 2003).

A case study on New Zealand's branding initiative focused on a web-driven brand around the country's unique natural environment (Morgan et al, 2003). Morgan et al. (2003) discussed important factors that are necessary in creating a brand such as: working with stakeholders, building on the brand's strengths, and enticing the local people to buy into the brand when considering a destination's brand. New Zealand's branding process came about only with the buy-in from stakeholder groups as well as the local population. Morgan et al. (2003) also discussed the need for tourism marketers to explore new mediums and technologies to brand their destinations. A destination's brand and image can be enhanced through pre-trip preparations and opportunities for a destination to engage and connect with visitors even after their return home. They suggest that interactive online media and itinerary planning can increase the opportunity of a traveler having a return visit to a destination.

Qu, Kim & Im, (2011) discussed how the supply-side of tourism operations must do their part in making the connection with the visitor memorable. Destination branding requires participation from many stakeholders in the industry. Not only do the needs, wants, and expectations of the tourist need to be considered, but those of the local residents need to be taken into account as well. Due to a competitive tourism market, destinations must establish a strong and positive brand image. Their model developed destination branding through integration of concepts of destination image and branding.

Cognitive beliefs were shown to have the most influential brand association to form overall image. Due to the statistical significance, unique image is suggested to be further researched to expand knowledge of destination image and destination branding. Overall, results confirmed that the “image of a destination directly influences intentions to revisit and recommend the destination to others (p.473).”

Amid the idea of incorporating destination image in with destination branding, tourism promoters and practitioners hope to create a lasting connection that will encourage the visitor to return to the destination. Destination loyalty is developed during the connection of place between the visitor and the destination through place attachment. Both the image and the branding of a destination have an effect on loyalty of a tourist.

The following section will discuss the idea of destination loyalty. Understanding why tourists are loyal to a destination and choose to revisit can tell stakeholders, marketers, and tourism promoters why image can be important in their overall goals.

Destination Loyalty

For a brand to be successful, future intentions of the consumer, or in this case tourist, are important to measure. This was supported by the strong evidence of image’s influence on future travel behavior in previous studies (Chen & Tsai, 2007; Fakeye & Crompton, 1991; Wang & Hsu, 2010). Creating a bond between the visitor and the destination may encourage future visits. As Opperman (2000) stated, “Research into brand loyalty and/or consumer loyalty dates back well more than 40 years (p. 79).” However, tourism has only adopted the study of loyalty in recent decades. Destination loyalty has been studied in terms of general loyalty to a brand or product. Jacoby & Chestnut (1978) began studying the usage of data in studying brand loyalty with three

approaches; (1) the behavioral approach, (2) the attitudinal approach, and (3) the composite approach.

Opperman (2000) and Yoon & Uysal (2005) discussed these three approaches to measuring loyalty and how tourism loyalty research has progressed through them. The behavioral approach is based on consumers' behavior, often on actual purchasing behavior or, in other cases, on reported purchasing behavior (Opperman, 2000, p. 79).” Jacoby & Chestnut (1978) segmented the behavioral approach into five types which are: 1) brand purchase sequence, 2) brand purchase proportion, 3) brand purchase probability, 4) synthesis measures, and 5) miscellaneous measures. Opperman (2000, p. 79) discussed that the *sequence of purchase* represents how many times in a row the consumer has purchased the brand. *Proportion of purchase* represents the proportion of times a consumer purchases a brand compared to all other products. The *probability of purchase* is based on statistical modeling that can determine the probability of consumers purchasing a certain brand.

In the attitudinal approach, based on consumer brand preferences or intention to buy, “consumer loyalty is an attempt on the part of consumers to go beyond overt behavior and express their loyalty in terms of psychological commitment or statement of preference (Yoon & Uysal, 2005, p.48).” Attitudinal approaches argued that “behavior measures do not distinguish between intentionally loyal and spuriously loyal (Opperman, 2000, p. 79).” Thus, the spuriously loyal may buy a brand because of many practical reasons such as price, lack of information or substitutes and various others.

The composite approach is a combination of the behavioral and attitudinal approaches. It attempts to integrate both approaches into loyalty. Opperman (2000)

discussed that while the composite approach may be the most complete approach, it may not be the most practical. Questionnaires may become too lengthy and attitudes may change over time.

Yoon & Uysal (2005) studied the effect of motivations on destination loyalty. Interestingly, their findings showed that tourists' internal sources of motivation affect their destination loyalty. They suggest that destination managers should focus on the affective dimension to increase destination loyalty. In relating this to destination image, tourism researchers should focus more efforts on combining the cognitive and affective dimensions to expand the knowledge of their effects.

Baker & Crompton (2000) looked at the relationships between performance quality, satisfaction, and behavioral intentions. A behavioral intention is more commonly looked at in terms of loyalty and willingness to pay. Their results showed that performance quality does affect loyalty. Thus, the chance that visitors will return to a destination is dependent on the quality of the destination's performance. As we can tell through examples, studies frame destination loyalty in differing terms such as, behavioral intentions or after-purchase behavior (Baker & Crompton, 2000; Bigne et al., 2001).

Destination loyalty literature is still building. The ability to assess travelers' long-term loyalty to return to a destination is relatively difficult to predict. However as stated in prior sections, past experience is seen as having an influence on future behavior in tourism destination choice (Mazursky, 1989; Opperman, 2000; Sonmez & Graefe, 1998). Data in longitudinal years is seen as lacking still. Considering this, behavioral measure of loyalty by itself is recommended as a reasonable or good predictor of future destination choice.

Linking Destination Loyalty and Image Perception

Linking together the ideas of image, branding, and loyalty is an important goal to strive towards. For managers, promoters, and stakeholders to understand the perceived image of the destination, apply a brand to attract visitors, and build an attachment to enhance loyalty to the destination can be an essential tool for success. Thus, it is a research interest to explore the link between image and loyalty.

Destination image and loyalty are both important to the overall success of a destination. However, satisfaction is the interlinking concept that joins these two ideas together. Chi & Qu (2008) hypothesized a model that links the three concepts together in a linear format: destination image → tourist satisfaction → destination loyalty. Results of their study confirmed the proposed model. A positive destination image leads to a sense of satisfaction which contributes to the degree of loyalty. While this model is interesting, they state that “studies discussing the causal relationships among destination image, tourist satisfaction, and destination loyalty are lacking (p.625).” It is further suggested that “it would be worthwhile for destination managers to make greater investments in their tourism destination resources, in order to continue to enhance the tourists’ experiences (p.633).” With that said, ensuring the visitor has a quality experience is a vital point to focus on for practical purposes.

Hernandez-Lobato, Solis-Radilla, Molinear-Tena & Sanchez-Garcia (2006) also looked at the relationship between image, satisfaction, and loyalty. Their study was of American tourists visiting Ixtapa-Zihuatanejo, Mexico. The aim of the study was to uncover whether image constructs played a role in increasing destination loyalty through satisfaction. Loyalty was divided into two types; attitudinal and behavioral. Results of the

study showed that both cognitive and affective image factors had a positive relationship in both attitudinal and behavioral loyalty of visitors to a destination. In fact, the affective image construct was shown to be the main antecedent in loyalty. Thus, these results strengthen the importance of having a positive image and its effect on revisitation to a destination.

Cai, Wu, & Bai (2003) studied the link between perceived destination image and visitor loyalty of travelers in the United States. Results of their study showed a significant and positive association between the visitors' affective and attitude images and degree of loyalty, which was measured by repeat visitation. Affective and attitude based images tended to be more critical and important than attribute-based images in their study. This coincides with Hernandez-Lobato et al's (2006) conclusion of affective image showing as the main antecedent in loyalty. Thus, it strengthens the case that affective image should be sought out by researchers to be better understood.

Through these linkages, it is apparent that image and loyalty are interconnected. For managers, understanding how visitors perceive the destination and their satisfaction of the experience play a major role in determining the degree of loyalty. The following section will discuss the role of visitor motivations in recreation and tourism research. This review of the literature will provide a basis for understanding socio-psychological factors in visitor choices.

Visitor Motivations

As outlined in previous sections, much of tourism research is borrowed from other fields, including outdoor recreation. Outdoor recreation researchers began studying visitor motivations in the early 1960's. Due to the boom of national parks and outdoor

recreation after World War II, researchers began to look into improving and managing the recreation experience and the areas associated with them (Manning, 2010). Manning (2010) reviews the many aspects of outdoor recreation and visitor management and how it has progressed over time. One area of research that continues to be studied in the recreation field is visitor motivations. Manning (2010) cites interest for research on motivations starting in the early 1960's with Bultena & Taves's (1961) study of Minnesota fishermen. Manning (2010) noted a description of the authors hypothesis of fisherman returning to camp with no fish, but not being unsatisfied in their experience. That sparked the idea that multiple motives may exist in outdoor recreation.

Driver & Tocher (1970), Driver, Brown, Stankey, & Gregoire (1987), and Manfredo, Driver, & Tarrant's (1996) work on motivations developed the Recreation Experience Preference Scale (REP). The REP scale gave researchers a tool to measure visitor/user motivations. This scale has multiple dimensions and attempts to understand the experience as a whole and at a deeper level than other variables such as satisfaction.

Manfredo et al (1996) meta-analysis of recreation experience preference scales indicated that REP scales are a reliable tool for measuring motivations. Thirty-six studies using REP scales were analyzed and compared to determine correlations between scale items. While the scales can change somewhat depending the nature of the study, the general structure of REP scales has been relatively static. It is suggested that future research take into consideration the past use of REP scales.

In the tourism field, motivation research began soon after outdoor recreation motivation research was started (Dann, 1977; Hills, 1965). Exploring motivations can help managers uncover why tourists aim to participate in certain activities or choose

destinations. Understanding motivations became an interest to researchers and managers (Crompton & McKay, 1997; Nicholson & Pearce, 2001) and the relationship of motivations and visitor satisfaction. The need for marketers, researchers, and stakeholders to understand why tourists travel resulted in socio-psychological aspects to be considered. Tourism researchers have approached measuring these relationships in various ways and methodologies (Crompton, 1979b; Devesa, Laguna & Palacios, 2010; Ibrahim & Gill, 2005).

Crompton's (1979b) article of motivations of pleasure vacation outlined the beginnings of how tourism started to take into account motivations. In his article, structured interviews were conducted to attempt to uncover motivations for pleasure vacations. Results showed a series of nine motives that emerged, of which seven were socio-psychological. All respondents stated that the pleasure vacation was 'a break from the routine.' However, other motives such as 'escape from mundane environment', 'exploration of self', and 'relaxation' were evident as well (p. 417). Understanding the breadth of motivations for the multiple user groups at destinations can provide for a better overall experience for visitors.

Devesa et al, (2010) studied visitor motivations specifically in rural tourism. Devesa et al (2010) models their research structure and methodology for analyzing motivations for tourists. The first step is to "identify attributes determining the motivations for visit." Secondly, segmentation of the dimension of motivation can be determined. Next, uncovering the attributes for determining satisfaction should take place. Finally, the relationship between satisfaction and motivations can be linked. Determining the relationship between motivation and satisfaction is a multi-step process

that suggests three statistical approaches; factor analysis, analysis of cluster, and finally significance analysis of mean values. Tourists were segmented into four ‘motivational typologies’ by their stated motivations upon data analysis. These typologies were: 1) visitor looking for tranquility, rest and contact with nature, 2) cultural visitor, 3) proximity, gastronomic and nature visitor, and 4) return tourist. Results of the study showed a correlation between motivations and level of satisfaction. However, ‘general satisfiers’ (aspects like treatment received, food quality, availability of services, and opening hours) as stated can determine overall satisfaction apart from the motivation (p. 551). Managing for the ‘general satisfiers’ can improve the overall satisfaction for visitors no matter their typology.

Tying the perception of these satisfiers with motivations can be done through destination image. Image attribute ratings include many of the aspects listed in Devesa et al’s (2010) research. Exploring the relationship between image and motivations is necessary to understand differences in perceptions.

The following section will shift to the economic impacts of tourism. The concepts tourism economics, models used, and past studies will be presented in this section.

Section 4: Economic Impacts of Tourism

For many industries including tourism, economics is a large part of the decision-making process. From a supply-side view, tourism is defined by Smith (1988, p. 183):

“Tourism is the aggregate of all businesses that directly provide goods or services to facilitate business, pleasure, and leisure activities away from the home environment.”

Smith (1988) later defines a tourism business in two tiers. Tier 1 is a business that would not exist in the absence of travel. Tier 2 represents businesses that would exist with

significantly reduced travel. These businesses form to develop an industry focused on providing for tourists. Thus, the destination must be economically viable by tourist spending to support tier 1 businesses.

Destinations rely on the ability to track spending patterns and impacts that a certain industry has to the local economy. Showing that tourism can be a profitable industry is important for local business owners, residents, and stakeholders (Stynes, 1997). For many destinations, the conglomeration of these sectors plays a pivotal role in the economic structure of the community or region by employing locals and bringing in money to support growth in the communities (Cai, Leung, & Mak, 2006). Economic impact studies provide the ability to determine the overall viability.

An economic impact study/assessment is conducted to determine the monetary benefit that tourism provides the local communities and region from visitor spending (Stynes, 1997). For many regions and economies, tourism has become a leading (if not the primary) industry for local residents. Stakeholders heavily rely on the ability to track the positive and negative economic and non-economic impacts of tourism. An economic impact study also provides the ability to assess the effectiveness of tourism marketing plans, advertising initiatives, and the overall state of tourism in the region. Thus, determining long-term expectations of economic viability is necessary for a gateway community or region to move forward in their efforts to bring visitors to the region (Fletcher, 1989).

Economic impacts are generally thought of in terms of non-local spending in the region. As Dwyer, Forsyth, Madden & Spurr (2000) discussed, economic impacts are seen as 'new money' coming into the region. Segmenting the nonresident spending from

resident spending gives a more accurate estimation of how much outside, or new, money is being brought in to the region from tourism (Wilton & Nickerson, 2006). Whether assessing an annual event (Crompton, Lee, & Shuster, 2001), a national park (Mayer, Muller, Woltering, Arnegger, & Job, 2010), or general tourism to a region or state (Archer & Fletcher, 1996; ITRR, 2012), impacts can be tracked on multiple scales through visitor spending. In most cases, visitor data is collected either on-site through surveying, post-trip through mailback questionnaires, or on-line panels. Visitors are typically asked to record the amount spent in multiple categories which is then input into a model representative of the local regional economy (Stynes, 1997). Expenditure data is input through a type of economic model of the local economy, which then can determine the monetary flows and distribution of spending. This type of analysis is typically referred to as ‘input-output’ analysis (Dwyer et al, 2000; Fletcher, 1999). Since multiple models exist, the researchers must choose which method best fits their purpose. Depending on the model used, an estimation of the economic impacts of tourism can be determined at a particular scale and with variables that are relevant to the study region (Stynes & White, 2006).

Tyrell & Johnston (2001) suggested a framework is needed that can account for the four aspects: (1) the source of the expenditure, (2) the geographic starting point of the expenditure, (3) the destination or end point of the expenditure, and (4) the reason for the expenditure. Determining the source of the expenditure is important in accounting for the spread of “new money.” A geographic starting point can track the flow of money across an economic landscape, from the origin to the end destination. The end point or destination of an expenditure can be classified as where the money is being spent by the

nonresident. Finally, the reason for the expenditure is classified as the categorical industry sector that can be attributed to the nonresident spending. With this framework, an appropriate model can be developed to assess impacts in the regional economy (Tyrell and Johnston, 2001).

Economic impacts are measured by three different types of effects as described by Stynes (1997) and Dwyer et al (2000); *direct*, *indirect*, and *induced*. *Direct effects* are associated with the immediate spending of tourists in the destination (typically thought of as the revenue from visitor spending). *Indirect effects* are measured as the production changes by suppliers of tourism related goods and services and re-spending of direct effects. Suppliers must make decisions on whether they increase supply and how they spend the revenue from tourism. *Induced effects* are wages paid to tourism employees that are later redistributed by spending in the local economy. When tourism industry employees are paid, their wages are redistributed back into businesses and services in the community by local spending (Stynes, 1997). Understanding how each of these types of economic impacts relates to the economy is essential to the analysis of the overall effect that expenditure changes can have on the economy.

There are various methods and models used for assessing the economic impacts from tourism. Stynes (1997) lists three examples of models that are commonly used in economic impact studies. The National Park Service's "Money Generation Model (MGM)", The Bureau of Economic Analysis's (BEA) RIMS II model, and the MIG-IMPLAN input-output model are examples of separate models that have been used to assess the impacts through different sectors of the economy. Stynes's revised version of the MGM, the MGM2, has been most often used in recent years for the National Park

Service. The MIG-IMPLAN model will be discussed more in-depth as it is the most appropriate model for this study (Stynes, Propst, Chang, & Sun, 2000).

IMPLAN (IMpact analysis for PLANning), developed by the Minnesota IMPLAN Group (Minnesota, 2011), is a computer-based, input-output modeling system. IMPLAN creates a representative model of the regional economy ranging from the national level down to the ZIP code level. IMPLAN creates a data file representing the local economy which is used to analyze impacts that include: direct, indirect and induced impacts and employment causation. Expenditure data is distributed into 528 sectors of the economy that use local purchasing coefficients to analyze the impact of a purchase on the local economy. Since sectors may differ from county-to-county, IMPLAN's data files take into account the sectors present in the regional economy that is chosen. Not only are the direct impacts of spending assessed, but also changes in the supply chain are taken into account (Minnesota, 2011).

IMPLAN uses Social Accounting Matrices (SAMs) to “capture the actual dollar amounts of all business transactions taking place in a regional economy as reported each year by businesses and governmental agencies. SAM accounts are a better measure of economic flow than traditional input-output accounts because they include “non-market” transactions. Examples of these transactions would be taxes and unemployment benefits. Implan also takes into account trade flows of commodities between industries within a region. In the latest edition of IMPLANv3, multi-regional analysis is now possible for estimation of affect on surrounding regions (Minnesota, 2011).

The model used is dependent on the researcher and the regional economy. However, misinterpretation of data can occur if impacts are reported haphazardly. The

following subsection will discuss the critiques and concerns that arise with economic impact studies.

Critiques and Concerns

To validate the outputs that are formulated, the ability to critique a study is important for researchers, as well as operators and managers, to make decisions on how to interpret the results. Due to a variety of methods and models used in studies, economic impact assessments can be difficult to critique. Fretchling (1994) lists five criteria that should be used in order to assess the reliability of a study: 1) relevance of data, 2) coverage of spending region, 3) efficiency of data collection, 4) accuracy of data collection and analysis, 5) transferability of results. Using these critiques, researchers can effectively interpret economic impact studies. While some information may not be accessible, assumptions must be made as to the reporting of impact numbers.

Crompton (2006) argues that economic impact studies can be misused for personal or political interests. Ethical reporting of impact numbers is of the utmost importance for researchers. It is ultimately the researcher's responsibility to accurately and ethically report economic impact numbers to the general public. Crompton states that it is important to "point out their potential substantial adverse implications on public policy decisions (p.81)." Ethical work is a personal responsibility and does not fall on the institution, but on the researcher. Fretchling (1994, p. 2) also stated that insufficiently reported or collected expenditure data can be "misleading in evaluating the economic benefits or the economic costs of travel and tourism in an area." To alleviate the concerns of economic impact studies being used in a misleading way, the methodologies

and purpose of the study need to be clearly defined prior to data collection (Crompton, 2006).

Furthermore, Crompton (2006, p. 73) details many mistakes made in procedures that can change how an economic impact study is evaluated. Some of these include: including local residents, inappropriate aggregation, inclusion of “time-switchers” and “casuals,” abuse of multipliers, ignoring costs borne by the local community, ignoring opportunity costs, ignoring displacement costs, expanding the project scope, exaggerating visitation numbers, and inclusion of consumer surplus. “Time-switchers” are defined as tourists that change previous travel plans in accordance to an event or activity that they decide to attend at the tourism destination. “Casuals” are defined as visitors who were already in the community and made the decision to attend a particular tourism attraction instead of participating in another activity. The design of the study should take into account these common and avoidable mistakes.

Finally, Dwyer et al (2000) critique the ‘input-output’ methodology for analysis. They state there are a number of assumptions with input-output analysis. However, “the most serious limitation in the use of input-output analysis relates to the fact that the linear and additive input-output relationships ignore interactive effects between economic sectors (p. 327).” For example, most models do not take into account county-to-county interaction between sectors of the tourism industry. They state, also that the assumption of “no constraints limiting the capacity of industry to expand production to meet the additional needs of the tourists (p. 326)” is a main problem with input-output analysis. Thus, if the industry proceeds to grow, limiting constraints may be present but not specifically mentioned from the output of the model.

The following section will discuss economic impact studies conducted on multiple scales. These studies give an idea of how economic impact studies can be conducted and at which scales previous research has been done.

Application of Economic Impact Studies/Assessments

As discussed previously, economic impact studies are conducted at multiple scales of the economy. Depending on the goal of the research, research areas can be designated and impacts can be assessed for that region. For this section, examples of scales in economic impacts of tourism will be presented.

An economic impact study was conducted by Archer & Fletcher (1996) of tourism in the Republic of Seychelles. The Republic of Seychelles, a small grouping of islands in the Indian Ocean, is a popular destination for beach and holiday vacationers, especially European visitors. Not only does it possess year-round sunshine, but also mountain environments that are easily accessible. Results through visitor surveys at the location found that tourists annually spent \$99 million US dollars in 1991.

Accommodation was found to have accounted for the highest amount of visitor spending, followed by transportation, restaurants and handicrafts. Visitor spending was shown to contribute to roughly 3,772 jobs. This shows that for a country with 86,000 residents, 4.3 percent of all jobs are supported by visitor expenditures. Knowing this information is important to the success of tourism in the Republic. If rapid change is seen from year-to-year, underlying issues may need to be further explored to fully understand the current situation (Archer & Fletcher, 1996).

Focusing in from a nation-wide scale, individual states have a vested interest in quantifying the impacts of statewide tourism. Vermont Department of Tourism and

Marketing had an interest in how much tourism played a role in their economy (Wood & Liang, 2001). Surveys were conducted through a national household survey via postal questionnaires. Results from the economic impact study found that domestic US visitors spent \$2.58 billion in expenditures between 1999-2000. Furthermore, 75,200 jobs were directly attributed to tourism expenditures. International tourists were not recorded for this particular study, but were estimated as being a 13 percent share of the distribution of visitors in Vermont. In addition, surveys were also conducted with tourism-related businesses rather than visitors to determine revenue and cost structure of travel related businesses in Vermont (Wood & Liang, 2001). Thus, this shows the dynamic nature that is inherent in economic impact studies. Methodologies can vary greatly between studies.

Decreasing the scope further, Crompton, Lee, & Shuster (2001) provide a case study of an economic impact assessment of tourism in an event setting. The goal of the study was to estimate the impact that summer events have on the community of Ocean City, Maryland. Event studies are conducted to find out the monetary return to the local community for one single event. Event-goers were intercepted at the gates of the event and asked to fill out a questionnaire about their personal spending. Results of this study show that the event contributes \$1.23 million in personal incomes to residents of Ocean City. Crompton et al., (2001, p. 79) point out that “the return that residents receive is what is important, not merely the proportion of the total return that filters back to the council.” Further discussed is the fact that impact studies “should be regarded as a “best guess” rather than being inviolably accurate (p.79).” Making assumptions based on visitor spending should not be taken as the only truth. Measuring economic impact of a single event proves to be difficult for multiple reasons. Intercepting attendees to gauge

spending patterns and an accurate proportion count of overall tourists are issues that are complicated in any setting, much less an event (Crompton et al, 2001).

The following section provides a look into economic impact studies that have previously been conducted on scenic byways. While the list is short, it indicates attempts to try to quantify the monetary contributions that scenic byways can provide for surrounding communities.

Scenic Byway Economic Impacts

Prior to their disbandment in 2012, The National Scenic Byway Program introduced a tool for measuring economic impacts of byway designation. Using this tool, five case studies on scenic byways were conducted to determine the economic impacts. The case studies measured these byways: Blue Ridge Parkway (Blue, 2012), Cherokee Hills National Scenic Byway (Cherokee, 2012), Journey Through Hallowed Ground (Journey, 2012), Volcanic Legacy Scenic Byway (Volcanic, 2012), and Woodward Avenue All-American Road (Woodward, 2012). Each study was conducted using the same methodology and reported uniformly.

As an example, the case study for the Blue Ridge Parkway is discussed. The Blue Ridge Parkway Case Study (Blue, 2012) indicated \$1.5 billion in total business sales, 9,300 jobs and an increase of \$251.7 million in earnings due to byway designation. The tool's main purpose is described as "to assist byway organizations in showing the positive effect of scenic byways on the economy to elected officials, business leaders and the community at large (p.4)." Thus, economic impact studies can benefit those associated with scenic byways as well as other destinations.

Visitor spending was not collected in these studies due to difficulty in data collection. Thus, secondary data was primarily used and input into the model. RIMS II multipliers used previously by Stynes, (1997) were purchased for the analysis. While this method of analysis is useful, it may not represent the most current traveler spending along the byway. Thus, primary data collection of travelers on scenic byways should be considered when possible.

Despite the lack of primary data collection, it is important to note that other economic impact studies have been conducted on other scenic byways. Economic impact studies on scenic byways are difficult to assess and researchers are still developing the most cost efficient and reliable methodologies. Exploring whether other scenic byways receive similar or different impacts and the comparability between models is important to consider for future research.

The following section will look at how visitor spending patterns may change or differ by visitor characteristics and/or activity type. Understanding the influences on visitor spending provides a better understanding of how to estimate impacts at different types of destinations.

Factors Affecting Visitor Spending

Collecting visitors' spending is the most common way of determining economic impacts (Stynes, 1999). Analyzing visitor spending data can be done in various ways to assess what factors affect spending patterns. Typically, one characteristic that has been observed to have a positive effect on personal visitor expenditures is length of stay (Downward & Lumsdon, 2000, 2004; Thrane & Farstad, 2011). Generally, a longer length of stay is seen to have a linear relationship with personal expenditures. Thus, this

suggests that attempting to lengthen a trip for visitors is beneficial in increasing visitor spending in a destination.

However, Leones, Colby & Crandall (1998) studied nature visitors to two natural sites in southeastern Arizona and observed trip expenditures compared to an average Arizona visitor. Results of this study showed that nature visitors spent as much (\$177 per party per trip) or more than the average visitor (\$111 per party per trip) despite taking overall shorter trips (1.8 nights to 3.2 nights respectively). This contradicts the idea presented above of a positive relationship between length of stay and personal expenditures. Results from studies such as Leones et al (1998) and, later, Mehmetoglu (2007) discusses that the activities participated in are just as important to visitor spending as length of stay appears to be.

Focusing onto another characteristic, visitors have been segmented into whether they used a personal vehicle or a public transit system on their trip. A study conducted in North York Moors National Park, England compared the amount of visitor spending from car-borne tourists to public transport-based tourists (buses) (Downward & Lumsdon, 2004). Results of this study showed that car-borne tourists are likely to spend more per group in the national park than public transit visitors. Car-borne tourists were also found to have longer duration of stay (5.4 hours) than public transport-based tourists (4.5 hours). While this type of park is somewhat different than the United States' system, it should be noted that those who chose the public transit system did have a difference in expenditures than those who were primarily using their own personal vehicle.

Segmenting visitors into user groups can be telling for determining trip spending and spending patterns. A study of visitor characteristics and trip expenditures examined

the type of activities nature-based tourists were participating in and their spending patterns from two nature-based attractions in Norway (Mehmetoglu, 2007). One site was a wilderness center that offered winter and summer activities. The second site was situated further north and offered similar activities, but with some variability. Mehmetoglu (2007) segmented visitors into a category of “light spenders” to “heavy spenders.” Four activity clusters of travelers emerged and were classified based on their spending. Results showed that individuals who considered visiting historic/cultural sites as an important activity were more likely to be classified as “light spenders.” Those who consider challenging nature-based activities as important were more likely to be classified as “heavy spenders.” Results of this study suggest that there may be differences in the spending patterns depending on the characteristics of the visitor.

A similar study conducted in a Swedish mountain destination compared visitor spending across recreation groups and demographics (Fredman, 2008). The study used mail back questionnaires to survey downhill skiers, backpackers, snowmobilers and “general” visitors (visitors not strictly participating in these activities). Respondents were asked to list expenditures both at and outside the mountain region. Results showed that downhill skiers spend more (2,991 SEK) than any other visitor group and backpackers spend the least (969 SEK). However, “general” visitors were seen to have much larger expenditures (1,904 SEK) than backpackers and relatively close to the same expenditures as snowmobilers (2,045 SEK). Much of general visitors’ expenditures were in the accommodation sector at the destination (822 SEK) and the transport and accommodation to/from the destination (1,010 SEK). These results reaffirm the idea that recreational

groups can have very different and important spending patterns when considering the type of impacts that are associated with each group.

As the literature shows, visitor characteristics, trip characteristics, and activity type can affect visitor spending patterns in various ways. Putting this into context, the type of visitor a destination draws may affect the local or regional economy. Branding a destination for a certain type based on the perceived image may positively or negatively affect tourism economies.

Summary

Through this review of the literature, many aspects of tourism and visitor experiences were presented through the scholars' progression of the field. Understanding how place and sense of place connect a visitor with a setting is important in making decisions about destinations. The conceptualization of destination image and its dimensions provides a background for developing a study for understanding visitors' perception of destinations. Linking destination loyalty and future behavioral intentions with image is an important segment for the marketing perspective of tourism.

Motivations and the REP scale developed in the 1970's by researchers such as Driver & Tocher's (1970) and Driver, Brown, Stankey, & Gregoire, (1987) research give insight into why recreationists and travelers decide to choose their activities. Further use of the REP scales on unique destinations can strengthen the already large body of research on motivations in recreation and tourism. Finally, a review of the economic impacts of tourism presented a view of the business side of tourism and how economics can influence decision making. Linking the economic viability of tourism and the social

importance/connection of the settings are vital in not only growing tourism, but protecting those aspects important to the users.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this study was to determine the perceived image of the Beartooth Region and the economic impact of nonresident tourism. The Beartooth Highway winds through the Beartooth Mountains in south-central Montana and north-central Wyoming. The 68-mile highway gains thousands of feet in elevation to reach nearly 11,000 feet at its highest point. Due to the nature of the highway, the road has many switchbacks and is protected by guardrails on some cliff sides. As the highway climbs in elevation, it reaches the Beartooth Plateau and flattens for a number of miles. The road is surrounded on each side by a sub-alpine ecosystem managed by the USFS. Multiple pullouts exist along the vast stretch of the highway including some amenities such as campsites, rest areas, a tourist shop, and guest ranches. The road has only three exit points; each end of the Beartooth Highway and the Chief Joseph Scenic Byway.

Methods used in this study include an on-site survey and a modified Dillman (2007) mailback questionnaire. Dillman (2007) suggests that measuring satisfaction through mail is more appropriate than telephone due to some visitors feeling that calling is intrusive. Furthermore, Dillman (2007) suggests handing the visitor an envelope with postage to entice a higher response rate. Due to the large area of the Beartooth Region, questions about each gateway community were asked separately from each other in order to avoid overarching comments about a particular town. Echtner and Ritchie's (1991, 1993) studies of destination image frameworks were reviewed to form the cognitive dimension section of the questionnaire. Baloglu & McCleary's (1999) and other prior

literature on affective image were reviewed to formulate the affective section of the questionnaire. Economic impacts were determined through the mailback questionnaire by asking the respondent to state the amount of money spent and the sector in which it was spent and inputting the data into IMPLAN economic analysis software. The spending categories of the survey instrument were designed by modifying the Institute for Tourism and Recreation Research's prior surveys on nonresident expenditures (2012). This chapter will discuss the formulation of the questionnaire, procedures for conducting the on-site and mailback survey, and the analysis process of the data. Methods of the data collection process will be discussed in-depth in this chapter.

Instrument Development

Prior to data collection, the survey design was performed in multiple steps. The first step was to review methods for collecting economic spending data using ITRR data (2012) and Stynes (1997, 1999). Next, destination image literature was reviewed to better understand the development of cognitive construct-based questions and affective construct-based questions for the survey questionnaire (Baloglu & McCleary, 1999; Echtner & Ritchie, 1991). Visitor motivations statements were adapted from the Recreation Experience Preference scale (Driver & Tocher, 1970; Driver et al, 1987; Manfredo et al, 1996). Finally, visitor demographics were added in the last section of the survey instrument. In the following section, the design processes of the survey instrument are discussed.

Economic Impacts

Using the Stynes’s (1997, 1999) guides to economic impact studies, visitor spending was determined to be collected via the mail-back questionnaire. Thus, spending data reflected the complete trip of the visitor. Some assumptions of this method of data collection include recall bias, but due to convenience and time allotted for surveying nonresidents, this method was the most feasible. Referring to ITRR’s (2012) Montana Nonresident Visitor Study, Stynes (1999) and Dwyer et al (2000), visitor spending was separated into various categories best representing the areas of possible spending. The Beartooth Region was separated into four spending locations: Cooke City, MT, Red Lodge, MT, Cody, WY and along the highway. This was done to estimate impacts on the county level; Park County MT, Park County, WY, and Carbon County, MT. Upon completion of the study, spending allocated in the “along the highway category” was divided equally and distributed to each local county. Spending was also segmented by industry sectors. Fifteen spending categories were selected to be used for this study. Any expenditure not fitting in a category was asked to be placed in “other” and described further by the respondent (Figure 2).

Figure 2: Trip expenditure survey

	Along the highway	Red Lodge, MT	Cody, WY	Cooke City/Silver Gate
Camping	\$	\$	\$	\$
Hotel/motel	\$	\$	\$	\$
Ranch/B&B/rental cabin	\$	\$	\$	\$
Gasoline/oil	\$	\$	\$	\$
Restaurant/bar	\$	\$	\$	\$
Groceries/snacks	\$	\$	\$	\$
Retail/souvenirs	\$	\$	\$	\$
Outfitters/guides	\$	\$	\$	\$
Auto/RV repair	\$	\$	\$	\$
Auto/RV rental	\$	\$	\$	\$
Transportation fares	\$	\$	\$	\$
Entrance fees, admissions, Licenses	\$	\$	\$	\$
Services (i.e. medical, hair cut, massage)	\$	\$	\$	\$
Other (<i>describe below</i>)	\$	\$	\$	\$
Description of other expenses:				

As shown in Figure 2, spending categories were based on IMPLAN's (Minnesota, 2011) recommendations for industry sectors. Segmentation by this format made for a better estimate of economic impacts for the local economy. "Other" expenditures that could be reallocated to an appropriate category were done so during data cleaning.

Expenditures were entered into SPSS after all surveys had returned. It was assumed that respondents who did not enter any information into the expenditure categories did not spend money in those specific categories. Thus, zero spending was entered for every missing case for analysis purposes. Upon completion of data entry, expenditures were delimited to account for outliers and overestimates of spending which are discussed later in this chapter.

Destination Image Attributes

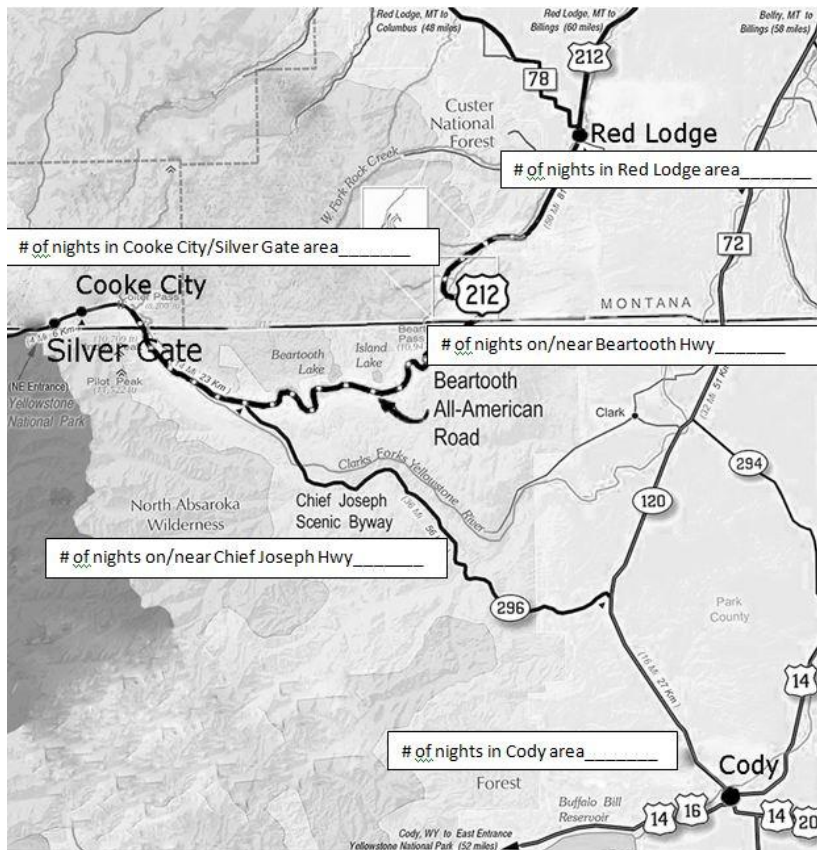
While a large portion of destination image research focuses on a country, state, city, event or resort (Pike, 2002), the Beartooth Highway was seen as an alternative type of location that was not assumed to be a destination prior to research. Questionnaire design was focused on not only understanding perceived image of the Beartooth Highway and the travel experience, but also the surrounding gateway communities of Red Lodge, Cooke City, and Cody.

First, Echtner & Ritchie's (1991, 1993) discussions of measuring destination image was consulted to develop the groundwork for the survey instrument. Using Baloglu & McCleary's (1999) work in conjunction with Echtner & Ritchie's (1991, 1993), the survey instrument was designed to measure the cognitive and affective components of destination image. San Martin & Rodriguez del Bosque's (2008) study of

destination image was reviewed in an attempt to tie the cognitive and affective components together.

A clear definition of the study area and regional map (Figure 3) was provided to the visitor to ensure correct interpretation of the region. Also, locations for respondents to state the amount of nights spent in each region was included in the map. Due to the close proximity to Yellowstone National Park, differentiating the regions was an important detail to consider. With the regional map, the respondent was asked to state their mode of travel on the highway as well as how often they were the primary driver of their mode of travel. The respondent was also instructed to state the number of nights they stayed in each gateway community and along the Beartooth Highway/Chief Joseph Highway.

Figure 3: Beartooth study region and nights spent



*Friends of the Beartooth Wayfinding Map (2010). Prepared by Global Positions, LLC. Accessed at www.beartoothhighway.com.

Cognitive Image Statements

Following the work of Echtner & Ritchie (1991, 1993) and San Martin & Rodriguez del Bosque (2008), the cognitive image attributes focused first on the Beartooth Highway itself. Due to the study site being quite different from most destination image studies, the survey questionnaire was modified to best fit a highway destination. Questions were designed as a series of statements measured by an agreement scale used to rate their level of agreement on each statement. The statements asked the respondent about their perception of the Beartooth Highway as a main destination, about scenic byways in general, and their willingness to return to the Beartooth Highway and the gateway communities. The one example statement asked was “The Beartooth Highway is free of debris and litter.”

The physical attributes asked about the highway included: physical driving quality, safety and security of traveling on the highway, ease of navigation, amount of debris and litter, perceived crowding, number of pullouts, interpretive signs, and variety of outdoor recreational activities (Liechty, Schneider, & Tuck, 2010). Physical attributes were asked in statement form with levels of agreement on a 4-point Likert scale similar to pre-trip planning and willingness to return statements.

Other characteristics asked in the survey pertained to the pre-trip planning and willingness to revisit/recommend. Statements were framed in the same format as physical attributes (4-point scale). While these statements pertain somewhat to image perception, these statements were excluded in building of the cognitive construct of image. Cognitive image attributes were not provided with a “not applicable” response option.

Affective Image Attributes

Affective attributes, or feelings about the destination, are difficult to determine through visitor surveys. In-depth interviews are generally preferred to capture the full scope of feelings, but due to limitations, such as length of time to talk with visitor due to highway regulations, this was not feasible. However, using Baloglu & McCleary's (1999) work on affective destination image, twelve pairs of affective emotions were developed in an attempt to best measure a variety of feelings associated with the Beartooth Region.

The twelve questions were put on a sliding scale with a feeling on one side with its antonym on the other. The question asked the respondent to "Please describe the variation of your thoughts and feelings while traveling the Beartooth Highway on this trip." The combinations of emotions/feelings are as follows: relaxed/stressed, bored/excited, calm/nervous, sad/happy, disappointed/awestruck, uncrowded/crowded, comfortable/afraid, reserved/adventurous, visually bored/visually stimulated, quiet/noisy, smelled fresh air/did not notice the fresh air, connected to nature/disconnected from nature. Using recommendations from prior research and the unique characteristics of the Beartooth Highway, it was determined that these pairs of feelings were most appropriate for the study region and visitor experience. However, it was not assumed that the pairs were inherently negative or positive feelings. It was felt that they best represented antonyms of each other, but may not be mutually exclusive to being a "good" or "bad" feeling. Also to be noted, these feelings were not directed towards any one community, but at the traveling experience as a whole. The gateway communities were assigned three affective statements for travelers to rank agreeability with if they visited the destination.

Gateway Community Image Attributes

To effectively evaluate the image of the entire Beartooth Region, the survey instrument had three sections pertaining to the image of the gateway communities of Red Lodge, MT, Cooke City, MT, and Cody, WY. Ten attribute statements, seven cognitive and three affective, were assigned to each gateway community to assess the level of agreement of the respondent. These attributes were developed following, again, the research of multiple scholars (Baloglu & McCleary, 1999; Echtner & Ritchie, 1991, 1993; Wang & Hsu, 2010). Each gateway community was assigned the same attribute statements for comparison. While each community differs slightly in variety of services, it was determined that the list provided was appropriate to assign to all gateway communities. Prior to the respondent ranking their level of agreeability with the gateway community statements, the respondent was asked if they visited the community for at least one hour or longer. If the respondent stated that they had not visited for one hour or longer, the survey instrument instructed the respondent to skip the attribute questions associated with that particular community. Respondents who checked “no” and still answered the questions regarding the gateway community were not recorded and listed as missing data. This was done in order to ensure that the visitor was able to accurately rate their perception of the town on their most current trip.

However, gateway community attribute ratings were not analyzed for purposes of this study. While it was important to understand the overall number of visitors staying in each community, the community attributes were not included in formation of image. The purpose of the study was to assess the image of the Beartooth Highway and not each community specifically.

Survey Instrument Scales

A series of Likert scales were used for most sections of the survey questionnaire. Using Echtner & Ritchie's (1991, 1993) study about measuring destination image was reviewed to determine particular scales to use, but was modified to fit the needs of the study. After reviewing the prior literature, no clear consensus has been formed as to the range of a Likert scale to use. Due to this, a 4-point Likert scale was used for image variables to ensure that visitors would share a positive or negative opinion on the variable. Open-ended questions were used for expenditure data, prior trips, and additional comments.

The cognitive construct of the destination image sections used a 4-point Likert scale to determine agreeability of statements. Respondents were presented with a statement and asked to reply with a 1 for "strongly disagree" to 4 for "strongly agree." A 4-point scale was used in order to persuade the visitor to choose whether or not they agreed with the statement. This was implemented due to the nature of the study and experience. It was determined that all visitors should have an opinion of the statements if they were traveling on the highway. Due to the location of intercepts and the survey being a mailback questionnaire, each respondent had ample time to assess their experience in the Beartooth Region. Missing data was interpreted as not applicable, but a "not applicable" option was not provided.

The affective attributes used a 4-point sliding scale that placed two affective attributes on each side. On the left side of the scale was an affective attribute and on the right was its antonym. Respondents were asked to state how strongly they felt towards each attribute pair by placing a "1" if they felt strongest towards the leftmost feeling to a

“4” if they felt more strongly towards the rightmost feeling. It was determined that to accurately gauge the feelings of the Beartooth Highway experience respondents would be asked these questions on a sliding scale. Open-ended questions did not fit for the purpose of this study and left too much room for subjective interpretation regarding the experience.

Motivations were measured using a 5-point Likert scale from Driver & Tocher (1970), Driver et al (1987), and Manfreda et al’s (1996) work on the Recreation Experience Preference Scale in outdoor recreation and leisure. The scale was an importance scale that respondents ranked each motivation using a 1 for “not at all important” to 5 for “extremely important.” This represented the only 5-point Likert scale used in this study. Motivation attributes were modified to fit the nature of the study site.

Sampling Frame and Site Selection

Beginning on May 31st, 2012, data collection began for the summer season of the Beartooth Highway. Sampling was scheduled to begin at an earlier date, but was postponed due to adverse weather conditions and road closures. Sampling days were 4 consecutive days every two weeks through the end of September for a total of 35 sample days. During each sample period, survey sites were used at least once with one location having two survey days per four day period. Locations rotated having two days per sample to distribute sampling days evenly. One sampling period was limited to only three days due to road closures from forest fires.

Prior to the start of data collection, permits and certifications were required to conduct the study. Encroachment permits and Special Use permits were required by the Montana (MTDOT) and Wyoming Departments of Transportation (WYDOT) in order to

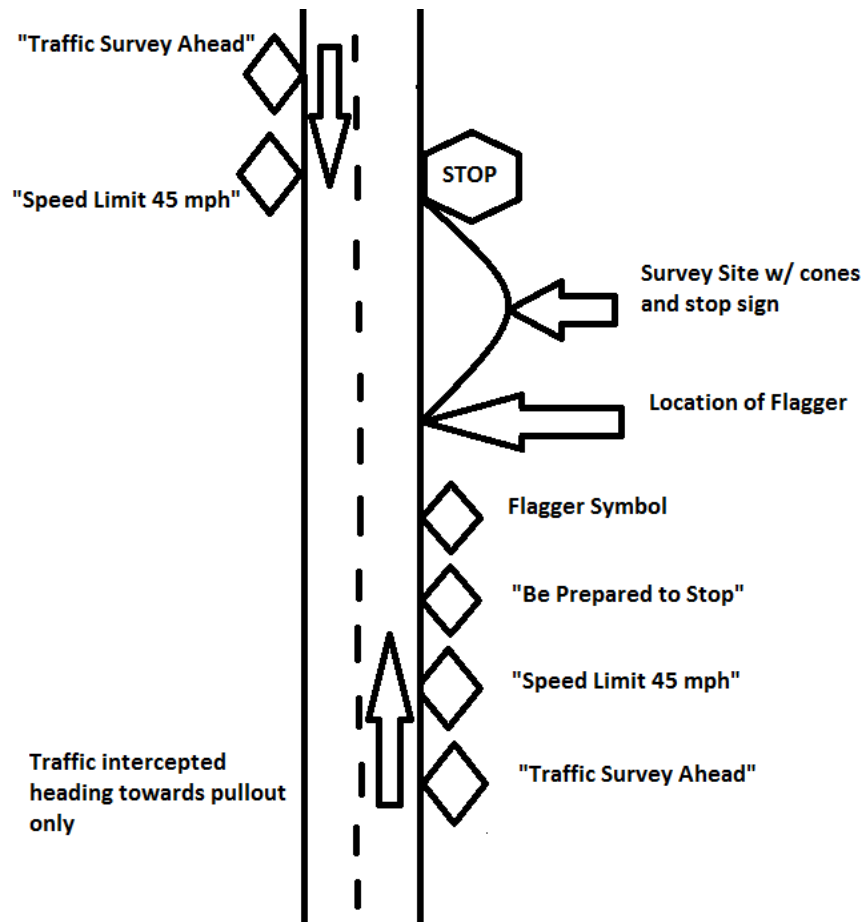
be along the highway and interrupting traffic flow. Yellowstone National Park required a research permit in order to be inside the park gates for surveying visitors of the Beartooth Region. Each flagger (2 in total) was required to complete both Montana and Wyoming flagging certification classes. Montana flagging courses are available through the Montana State University Extension Office. State of Wyoming flagging courses are available through the ATSSA online flagging certification process. Class III vests and work zone safety equipment were required at each location for surveying. Sample periods occurred only during daylight hours due to safety concerns.

The locations of the data collection sites were the three exits of the Beartooth All-American Road. These locations consisted of: the northeast entrance of Yellowstone National Park, Rock Creek Vista Points (20 miles south of Red Lodge, MT), and the junction of WY 296 and MT 212. Locations were picked due to the highest probability of intercepting every traveler that was using the highway. These locations also represented the only exit routes on the Beartooth Highway.

Visitors were intercepted by flagging vehicles into pullouts off the road by a certified flagger. Once off the main highway, visitors were directed into a survey staging area where they were asked a brief set of on-site questions. If the visitor fit the criteria for a mail-back questionnaire (nonresident of the area), a survey was given to them for completion at a later time. Set-up for each location varied and was determined by compliance with MTDOT and WYDOT guidelines.

Figure 4 represents a map of an example set-up of a survey site. An example of set-up of the survey location differed marginally between each location.

Figure 4: Survey site



On-site Survey Procedures

When visitors were intercepted at the three intercept sites, a short set of on-site questions were asked of all travelers. A total of 4,772 intercepts were made throughout the sample period. 485 visitors were residents and 4,287 nonresidents. Response rate was not determined as it was not feasible due to amount of traffic on the road. However, it was a rare occurrence that vehicles would not or did not participate in the study. Questions were input through an Apple iPad using the iForm application. The data was stored directly on the iPad and uploaded through wireless internet via the iForm application. Data was then stored on the iForm website and downloaded remotely

through a desktop computer. The data is available in multiple formats, but for this study data was exported in Microsoft Excel format, and then imported into SPSS for analysis.

The first question asked was about the traveler's permanent residency. If the traveler stated they were from Montana or Wyoming, they were then asked if they resided in Park County, MT, Park County, WY or Carbon County, MT. If they responded affirmatively, the traveler was then considered a local traveler. Travelers living outside of the three-county region were considered nonresidents for purposes of this study. Depending if the traveler was a local or nonresident, a specific set of questions was asked.

If the intercept was a "local resident," questions asked were: (1) "How many times in a year do you travel the Beartooth Highway?" (2) "Where did you enter the Beartooth Highway at today?" (3) "Are you exiting the Beartooth Highway at any other point today?" (4) "How many travelers are in the vehicle?" Travelers were then sent on their way after these four questions.

If the intercept was a nonresident, questions asked were: (1) "What state/province/country is your permanent residence?" (2) "What is your permanent zip/postal code?" (3) "How many nights are you spending on this trip in the Beartooth Region (Excluding Yellowstone National Park)?" (4) "How many travelers are in your vehicle?" (5) "Where did you enter the Beartooth Highway?" (5) "Are you exiting the Beartooth Highway at any other point today (NE entrance of YNP, Red Lodge, or Chief Joseph Highway)?"

Once all questions were asked of the traveler, they were thanked and nonresidents were given a follow-up survey discussed below. Once the vehicle left, the researcher

entered three categorical responses. These responses included: vehicle type (car/truck, car truck w/trailer, RV, motorcycle, bicycle, and bus was marked down if pass through), survey site location, and date of survey. Vehicle type was determined by observation.

After each sampling period, on-site data was uploaded upon return to the ITRR office. Data was downloaded from the iForm application bi-weekly and input into Microsoft Excel spreadsheets categorized by sample period. Data was then entered into the Statistical Package for the Social Sciences (SPSS) for data analysis. On-site data was categorized further into multiple segments. Thus, results can be sorted by months, residency, site location, vehicle type and other categories.

Mailback Questionnaire Procedure

A second component of the study was done via mailback questionnaire. A modified Dillman approach to mail-back surveys (2007) was designed in order to capture a larger and more complete picture of travelers' behavior in the Beartooth Region. Only travelers who were nonresidents were given a mail-back questionnaire.

Surveys were given to 3,251 travelers over 35 sampling days for a 92 survey per day average. Mail-back questionnaires were placed inside pre-paid USPS envelopes included with an introductory letter and insert explaining that the project was a part of a student thesis. Mailback surveys were completed and returned by 1,473 visitors for a 45 percent response rate. Due to bad weather days, constraints, and some refusals, all nonresidents were not given a mailback survey. However, this was a rare occurrence and is not believed to effect the representation of travelers on the highway.

Upon return, mailback questionnaires were input through SNAP 10 Professional survey design program. A web survey was created identical to the mailback questionnaire

and data were entered through the online site. Once all data were entered through the web survey, the information was input into SPSS for data analysis.

Traffic Counts and Nonresident Proportions

For this study, data was collected by a variety of methods to achieve a population number for analysis. The methods and analysis are described below.

First, each exit or traffic intercept point needed a traffic count of all vehicles. Traffic counts using Montana and Wyoming Department of Transportation highway counters provided two of the three site counters. One permanent and one temporary counter were used for this study. Average daily traffic (ADT) along the highway and the total number of vehicles per month were collected for analysis purposes. Since the study included only one day in May (31st), May data was put into June for analysis purposes. July, August, and September were the other months collected for this study. This represented the entire season the Beartooth Highway was open for full access during the 2012 summer season.

At the northeast entrance of Yellowstone National Park, the YNP traffic counter located at the gate as vehicles pass through the gates was used. Each vehicle was recorded as one count. Traffic data was accessed online via the National Park Service's Public Use Statistics data (NPS Statistics, 2012) and was accessed at the end of the study to acquire data for relevant months. It could not be determined if visitors passed over multiple counters in a trip and hence was a noted limitation. Since the data was only recorded monthly, total number of vehicles was divided by the number of days in the relevant month to acquire the average daily traffic. This assumes that each day would receive the same amount of traffic each day, which is unlikely.

For the traffic count along the Chief Joseph Highway, Wyoming Department of Transportation placed a temporary traffic counter at the survey location site for the summer season. For each day that was sampled, the traffic counter recorded data. At the end of the season, total amount of traffic and ADT were recorded. The ADT was multiplied by the number of days in a month for the monthly traffic count.

The last site for traffic data collection was at the state border of Montana and Wyoming on the east side of the Beartooth Pass. While this location and the survey intercept site were not directly aligned, it was the most feasible location for traffic counts for vehicles traveling eastward. Montana Department of Transportation's permanent traffic counter data was used for this location. Traffic information was accessed via the MTDOT website (Montana, 2012). ADT and the total monthly traffic were recorded.

For resident and nonresident proportions, the on-site survey data was analyzed to determine the proportion of resident intercepts to nonresident intercepts for each survey location and the corresponding month. This was done to assess the number of total traffic each month that can be attributed to nonresident travel. Each monthly traffic count was multiplied by the percentage of nonresidents intercepted out of the total amount of intercepts. For example, the monthly count for the northeast entrance of YNP for June was 16,003 vehicles. The proportion of nonresidents intercepted during June was 93.10%. Thus, the number of nonresidents traveling that month was 14,899 vehicles (16,003 travelers X .931). This formula was used at each location to arrive at a total number of nonresidents traveling the Beartooth Highway in a given summer season. However, it was difficult to estimate whether visitors traveling along the highway crossed over traffic counters more than once in a trip. During the on-site survey, visitors were

asked if they would be exiting the highway at any of the locations more than once that day. In total, only 51 visitors intercepted stated that they would be crossing the traffic counters more than once in a day. Thus, the results indicated that this was not an issue in calculating the number of visitors along the highway.

Finally, total monthly vehicle counts at the collection locations were added to determine a total number of travelers in the four month sample period, an overall average daily traffic count, a total number of nonresident travelers, and an overall average proportion percentage of nonresidents intercepted. Each location was then combined to reach a total number of vehicles, a total number of nonresident travelers and a final percentage of nonresidents to residents intercepted.

This population count data became the number by which spending data could be extrapolated for nonresident travelers in the Beartooth Region.

Delimiting Expenditures

Expenditures were delimited to account for outliers which could have artificially inflated the mean spending by visitors. It was assumed that visitors were correctly stating the amount spent and where those dollars were spent. When reporting spending, however, some visitors may overstate the amount spent, or recall those amounts incorrectly. Also, in several cases it was observed that excessively high expenditures were reported. To account for these situations, expenditure data was delimited to more accurately represent the average amount spent by visitors to the Beartooth Region. The delimiting process is a bit subjective to the researcher, but it is methodical and conducted uniformly across the data.

As a first step in the delimiting process, each expenditure category was sorted from highest dollar amount to lowest to allow the researcher to easily identify any reported expenditures which seemed to be excessively high. Each location (Red Lodge, Cooke City, Cody, and along BTH) was analyzed separately, because different amenities are available in each region, resulting in different possible expenditure patterns. Likewise, each category was considered separately, as differing expenditure amounts could clearly be reasonable for one category, but not another. The researcher was able to use judgment, based on experience gained from spending a significant amount of time in the Beartooth Region, to determine if a reported dollar amount seemed too high and warranted further consideration before being included in further calculations. Because respondents reported expenditures for their full trip, the length of a respondent's trip was considered in making the determination as to whether or not to include a high expenditure in the next step in the delimiting process. If an expenditure seemed to be unusually high for the length of stay, or represented an unusual large purchase (vehicles, houses, etc.) it was considered an outlier and was removed, to be replaced later in the process.

Once excessively high amounts were removed from each expenditure category, SPSS was used to calculate the mean and standard deviation within each category for each of the four locations. A cutoff level was set for each category at the value of three standard deviations plus the mean, a level intended to best represent 99 percent of the data and eliminate the inflating influence of any overly high reported expenditures.

After the cutoff level was determined, the final step in the delimiting process involved replacing any of the outlier data that had been removed in the first step with the cutoff amount. Additionally, SPSS was used to recode the data so that any amounts

within each category above that category's cutoff amount were replaced with the cutoff amount. These delimited expenditure categories were used to calculate the mean trip spending for each category within each of the four locations in the Beartooth Region.

IMPLAN Model

A model for each study county was developed, once spending means per category were assessed. Using IMPLAN's (Minnesota, 2011) county data for Park County, MT, Carbon County, MT and Park County, WY, three separate models were created. The spending category of "Along the highway" was equally divided and placed into the total spending for each county. IMPLAN uses industry sectors to model a local county's economy. These sectors are unique for each county and best represent the type of industry that exists in the county. Out of the 528 sectors in the IMPLAN system, the sectors present in each study county were applied to each spending category. Cooke City, MT had fewer sectors than Red Lodge, MT and Cody, WY due to lack of many amenities such as hospitals and offices.

Spending totals, which were derived through analysis by multiplying the delimited means by the total number of nonresident travel groups (162,265), for each category were input into the IMPLAN model to their relevant sectors. Campgrounds were split evenly to account for the federal public campground fees, which are leakages in the economy. Also, upon data analysis of the "licenses, fees and admissions" categories, responses were analyzed by amount spent. If the respondent spent \$25 in Cooke City, MT or along the highway, it was assumed that the fee was a Yellowstone National Park fee and was not included in the overall spending. However, those cases that stated they

participated in fishing and spent \$25 were left into the model due to licenses being purchased at the destination.

Research Analysis

A series of statistical analyses were conducted to answer these questions. First, descriptive statistics described visitors to the Beartooth Highway and was used to assess the preliminary image statements. Visitors were classified as “loyal” visitors if they had previously visited the Beartooth Highway. Because of the difficulty of accessing the area and the nature of the trip, one previous trip was the definition of a loyal traveler. Next, factor analysis was conducted on both cognitive and affective image. Image constructs were analyzed for statistical differences between groups through independent t-tests. Multivariate regression analysis was used to determine if independent variables of weather could be used to predict image constructs. Finally, a priori segmentation was used to group visitors by activities then difference testing was conducted.

Summary

Chapter three focused on presenting the foundation behind the on-site and mailback survey of visitors on the Beartooth Highway. The chapter began by discussing the development of the survey instrument. This included: destination image attributes, nonresident expenditures, and trip characteristics. Selection of survey site locations and setup, selection of on-site questions, traffic counts, and data collection procedures were discussed in this section. Chapter four will present the results from data analysis and provide insight into the research questions hypothesized.

CHAPTER IV

RESULTS

The intention of this study was to answer six research questions:

- R1: Who are the travelers visiting the Beartooth Highway?
- R2: What is the economic impact of nonresidents along the Beartooth Highway?
- R3: What is the perceived cognitive and affective image of the Beartooth Highway?
- R4: To what extent does perceived images differ based on destination loyalty?
- R5: To what extent do weather conditions affect destination image?
- R6: Do travel motivations differ by degree of destination loyalty?
- R7: To what extent can visitors be segmented and compared by activity participation?

Results from data collection are presented in five sections. In the first section, demographics of the on-site and mailback surveys are presented to understand travelers of the Beartooth Highway. Second, visitor spending, cognitive image statements, and affective image attributes are assessed and segmented by destination loyalty. In section three, the cognitive and affective image constructs are assessed through factor analysis. The fourth section provides results and comparisons of image by differing variables such as: destination loyalty and weather conditions. The fifth section presents results about visitor motivations and activity segmentation. A priori segmentation is used to assess differing group types of motivations and activities on the Beartooth Highway.

Section 1a: On-site survey demographics

The first research question asked, “Who are the travelers visiting the Beartooth Highway?”

To address this question, descriptive statistics were conducted on the multiple demographic variables from both the on-site survey and the mailback questionnaire. This section represents the demographics from on-site visitor surveys. In total, the on-site survey statistics represent 4,772 total intercepts along the highway.

Visitor residence was asked of all travelers who were intercepted on the Beartooth Highway. Table 1 displays the distribution of tourists’ residency. All 50 states were represented in this study. U.S. residents represented 81 percent of all travelers, along with 7 Canadian provinces (3%), and 30 foreign countries (5%). Local residents represented 10 percent of all intercepts along the highway. Montana residents (living outside of Carbon and Park County) represented the largest percentage of states represented on the highway (15%), followed by Minnesota (5%), California (4%), and Washington (4%). For foreign countries, England (1%), Germany (1%), and the Netherlands (1%) represent the highest frequency of travelers. Figure 5 displays the distribution of United States nonresidents by state and breakdown of foreign countries.

Tables 2, 3, and 4 display the total traffic, average daily traffic, and nonresident proportion of traffic for each exit point of the Beartooth Highway. Data was collected by MTDOT, WYDOT and Yellowstone National Park by highway traffic counters.

Nonresident proportion was assessed through descriptive statistics of the distribution of resident to nonresidents intercepted during each month of the sample period. A total of 162,265 nonresident vehicles were estimated for the 2012 summer season. By location, the northeast gate of Yellowstone National Park represents the most nonresident traffic

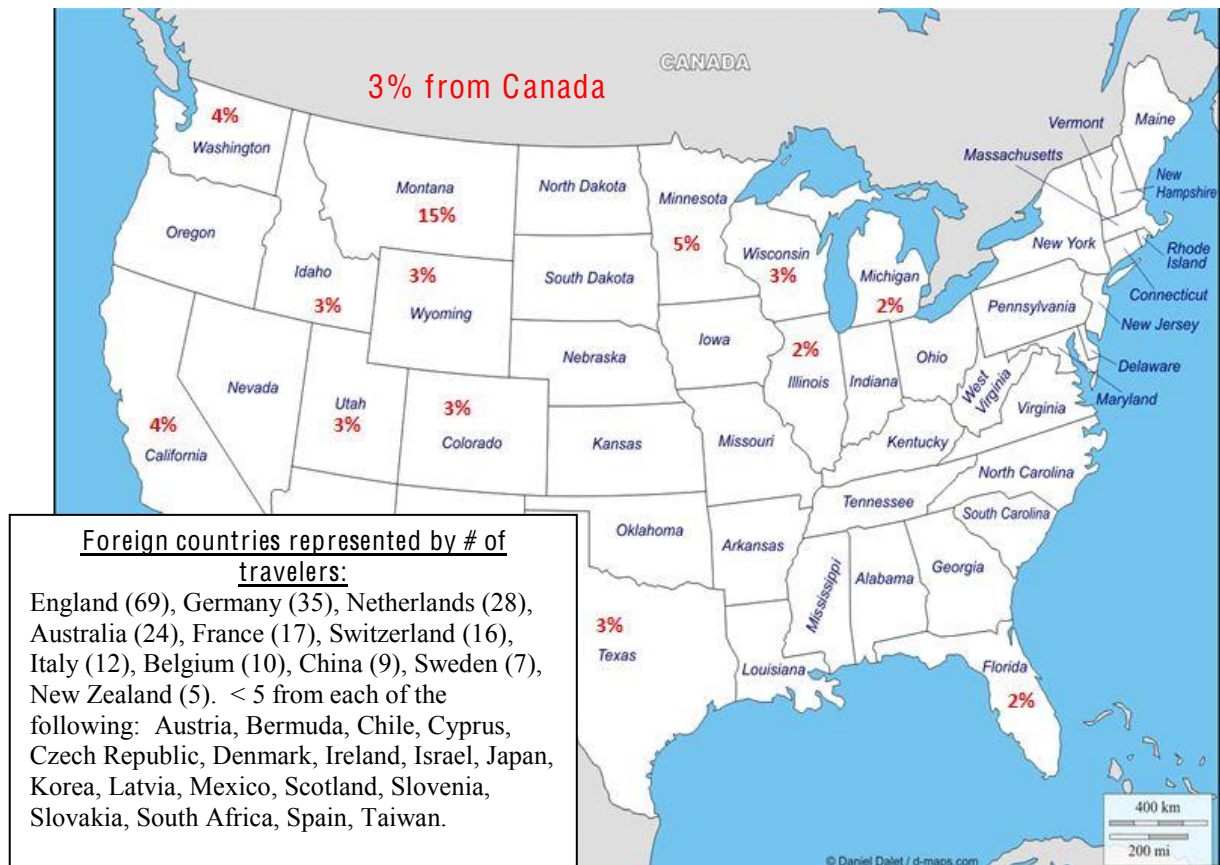
for all months (76,147 nonresidents), followed by Red Lodge (55,727 nonresident vehicles) and WY 296 (28,391 nonresident vehicles).

Table 1: Visitor residence

Visitor Residence – All Intercepted Traffic	Frequency*	Percent
Locals (Park County, WY; Park County or Carbon County, MT)	485	10%
United States	3,869	81%
Foreign (other than Canada)	258	5%
Canada	156	3%

*N = 4,772 total intercepts. 4 respondents did not state residence.

Figure 5: Geographic representation of visitors*



Map used from Microsoft PowerPoint Clip Art.

*N = 4,722 intercepted travelers along the Beartooth Highway. Only states with representation above or equal to 2% displayed.

Table 2: Northeast gate of Yellowstone National Park nonresident proportions

	June	July	August	September	All Months
Total monthly traffic*	16,003	23,504	22,598	17,719	79,824
Average daily traffic*	533	758	729	591	653
Northeast gate nonresident total	14,899	22,658	21,739	16,851	76,147
% Northeast gate nonresident	93%	96%	96%	95%	95%

*Total Monthly Traffic collected by Yellowstone National Park. Average Daily Traffic calculated by dividing monthly by number of days in each month.

Table 3: WY 296 nonresident proportions

	June	July	August	September	All Months
Total monthly traffic*	7,650	10,835	10,370	6,300	35,154
Average daily traffic*	255	350	335	210	287
WY 296 nonresident total	6,189	8,288	8,389	5,525	28,391
% WY 296 nonresident	80%	77%	81%	88%	82%

*Total Monthly Traffic and Average Daily Traffic collected by Wyoming Department of Transportation.

Table 4: Red Lodge/Beartooth Pass nonresident proportions

	June	July	August	September	All Months
Total monthly traffic*	12,915	21,359	18,492	11,160	63,926
Average daily traffic*	431	689	597	372	522
Red Lodge nonresident total	10,849	19,010	17,345	10,524	57,727
% Red Lodge nonresident	84%	89%	94%	94%	90%

*Total Monthly Traffic and Average Daily Traffic collected by Montana Department of Transportation.

Section 1b: Mailback Demographics

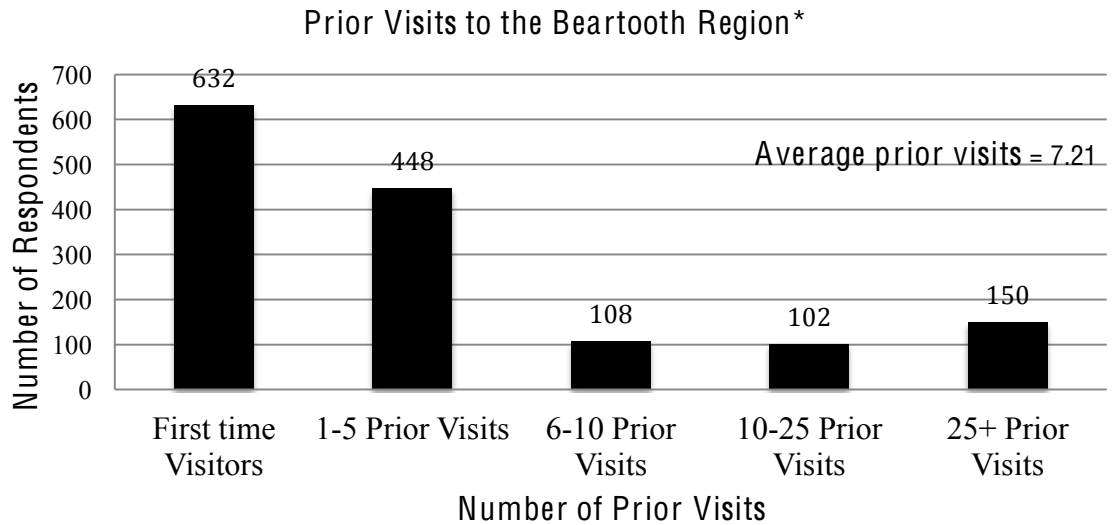
Demographics are assessed through descriptive statistics of the 1,472 nonresidents who completed and returned the questionnaire. To begin, Figure 6 displays the distribution of respondents who have been to the Beartooth Region prior to their current trip. Forty-four percent of respondents stated it was their first visit to the Beartooth

Region. Of the remaining 56 percent of return visitors, 31 percent visited 1-5 previous times, 8 percent 6-10 times, 7 percent 10-25 times and 10 percent 25 or more times. To further understand the linkage between past travel experience or destination loyalty and image (Chi & Qu, 2008; Mazursky, 1989; Sonmez & Graefe, 1998), travel groups are compared by first-time and repeat visitors. For the purpose of this study, repeat visitors are treated as destination loyal travelers. It was thought that visitors who had made the decision to visit the Beartooth more than once were considered loyal visitors. Due to the difficulty of accessing the region, considering repeat visitors as loyal visitors appeared to be appropriate.

On average, visitors spent 2.34 nights per trip in the Beartooth Region (Table 5). Repeat visitors (2.83 nights) spent 1.1 more nights than first-time visitors (1.73 nights). Repeat visitors were more likely to spend time in Cooke City and Red Lodge while first-time visitors spent more time in Cody.

The highest level of completed education is a bachelor's degree (33%), followed by a master's degree (19%) and some college education (17%) (Table 6). Average household income shows nearly 60 percent of respondents report an annual household income between \$50k to \$150k with 27 percent earning \$50k to \$74,999. Males represented 54 percent of respondents and females 44 percent. Finally, the average age of all travelers on the Beartooth Highway was 56 years old.

Figure 6: Prior visits to the Beartooth Region by nonresident respondents



*Nights were delimited to 30 total nights spent to reduce the affect of outliers. 1.3 percent of all visitors spent more than 30 nights.

Table 5: Nights spent by visitors in Beartooth Region

Location of Nights Spent	First-Time Visitors*	Repeat Visitors*	All Visitors*
Cooke City, MT	.34 Nights	.92 Nights	.66 Nights
Red Lodge, MT	.36 Nights	.67 Nights	.53 Nights
Cody, WY	.75 Nights	.50 Nights	.62 Nights
Along the BTH	.19 Nights	.40 Nights	.31 Nights
Chief Joseph Hwy	.09 Nights	.34 Nights	.22 Nights
Total	1.73 Nights	2.83 Nights	2.34 Nights

*Missing data was input as a “0” in the nights spent categories.

Table 6: Mailback respondent demographics

Variables	First-Time Visitors*		Repeat Visitors*		All Visitors*	
	N	%	N	%	N**	%
<u>Highest Level of Education</u>						
Some High School	4	<1%	6	<1%	10	<1%
High School or GED	71	11%	89	11%	160	11%
Associates Degree	53	8%	54	7%	107	7%
Some College	118	18%	127	16%	245	17%
Bachelor's Degree	196	30%	285	35%	481	33%
Master's Degree	145	22%	138	17%	283	19%
Doctorate or Professional Degree	64	10%	91	11%	155	11%
<u>Average Household Income</u>						
Less than \$25K	22	3%	29	4%	51	4%
\$25K to less than \$50K	62	9%	121	16%	183	12%
\$50K to less than \$75K	141	21%	181	22%	322	22%
\$75K to less than \$100K	129	19%	154	19%	283	19%
\$100K to less than \$150K	137	21%	135	18%	272	19%
\$150K to less than \$200K	64	10%	63	8%	127	9%
\$200K or greater.	60	9%	62	8%	122	8%
<u>Gender</u>						
Male	330	51%	459	57%	789	54%
Female	316	49%	327	41%	643	44%
<u>Age of travelers</u>						
	54 years		57 years		56 years	

*Numbers have been rounded and may not add to 100%.

**Due to missing responses, the total number of responses for each question may not add up to 1,473.

Section 2a: Nonresident Visitor Spending and Economic Impacts

Research question 2 asked, “What is the economic impact of nonresidents along the Beartooth Highway?” Research question 3 asked “What is the perceived cognitive and affective image of the Beartooth Highway?” Both research questions are addressed in section 2.

Section 2a and 2b represent the visitor spending totals and economic impacts of nonresident spending as well as the cognitive and affective results of the image portion of

the survey. Section 2a represents differences in spending by nonresidents along the Beartooth Highway and economic impacts of visitor spending in the three local counties. Spending data is generalized to the 162,265 nonresidents estimated to have visited the Beartooth Region in the summer season of 2012.

Hotels and Motels are the highest spending category with nearly \$13 million spent by nonresidents (Table 7). These categorical totals equate to almost \$45 million in gross visitor spending in the Beartooth Region. Furthermore, the average trip amount spent by visitors is \$277.07 dollars per party or \$118.51 per day.

Table 7: Visitor spending by all nonresidents on the Beartooth Highway.

Visitor Spending of all visitors*	
	<u>All Visitors</u>
Hotels and Motels	\$ 12,844,897
Restaurants/Bars	\$ 9,414,615
Gas and Oil	\$ 7,944,494
Rental Cabin/B&B	\$ 4,009,568
Retail Goods	\$ 4,001,455
Groceries/Snacks	\$ 3,443,263
License, fee, admiss.	\$ 1,199,625
Campgrounds	\$ 965,477
Guides/Outfitters	\$ 374,832
Auto Rental	\$ 305,058
Auto Repair	\$ 279,096
Services	\$ 149,284
Transportation Fare	\$ 27,585
Overall Spending	\$ 44,959,250
Average Trip Spending	\$ 277.07
Average Daily Spending	\$ 118.41

* Nonresident visitors are represented by 162,265 total travelers.

Table 8 displays visitor spending of nonresidents in the Beartooth Region segmented by trip characteristics; first-time visitors, repeat visitors, day-trippers, and overnight visitors. First-time visitors spent substantially more dollars per day (\$156.75)

than repeat visitors (\$98.83). However, since repeat visitors represent a higher percent of the travel volume and stay longer than first-time visitors, their overall spending totals have a larger economic contribution to the region. This is due in part to the number of nights spent by repeat visitors compared to first-time visitors. Thus, loyal travelers are larger in number and tend to spend less money per day, but stay an average of more nights in the region. Day-trippers spent much less (\$4.38 million) than overnight visitors (\$39.42 million) in total.

Table 8: Total trip expenditures by visitors to the Beartooth Region

Visitor Spending by Groups*				
	<u>First-time</u>	<u>Repeat</u>	<u>Day-trippers</u>	<u>Overnight</u>
	<u>(44%)</u>	<u>(56%)</u>	<u>(37%)</u>	<u>(63%)</u>
Campgrounds	\$ 454,799	\$ 500,664	-	\$ 906,753
Hotels and Motels	6,188,692	6,513,100	-	11,907,401
Rental Cabin/B&B	1,549,315	2,426,572	-	5,920,988
Gas and Oil	3,384,932	4,484,561	\$ 1,532,170	4,336,469
Restaurants/Bars	3,985,381	5,340,421	1,389,880	8,031,975
Groceries/Snacks	1,255,873	2,159,729	462,893	2,980,939
Retail Goods	1,654,268	2,307,876	685,034	3,317,266
Guides/Outfitters	135,654	237,392	21,614	353,705
Auto Rental	164,213	138,330	16,811	289,302
Auto Repair	119,947	154,394	52,233	224,899
Transportation Fare	11,424	16,064	6,004	21,468
License, fee, admis.	536,191	651,489	204,129	995,691
Services	32,129	117,803	13,809	134,940
Total Spending	\$ 19,472,818	\$ 25,048,394	\$ 4,384,575	\$ 39,421,798
Length of Stay	1.75 nights	2.83 nights	N/A	3.72 nights
Avg. Daily Expend.	\$ 156.75	\$ 98.83	\$ 73.03	\$ 103.13

*Due to rounding, numbers may vary slightly.

Economic impacts are presented in three segments: Carbon County, MT, Park County, MT and Park County, WY. Tables 9-11 represent these impacts through a variety of impact figures described by the IMPLAN user's guide (Minnesota, 2011).

Employment is the total number of jobs supported by nonresident visitor spending in the

county. Industry output represents the value of an industry’s total production. Employee compensation represents the total payroll costs of each industry. Proprietary income is payments received by self-employed individuals as income. Other property type income consists of payments for rents, royalties and dividends. Finally, state and local taxes are the combined amount of tax dividends received by the state and local governments.

As shown in Tables 9-11, Park County, WY received the highest amount of economic impact from nonresident visitor spending (\$23.05 million) compared to the other two counties. Carbon County received \$13.66 million total impact followed by Park County, MT with a \$13.53 million impact. It should be noted that Cody, WY has a substantially larger population than Red Lodge, MT and Cooke City/Silver Gate, MT and hence more visitor services are available in Cody. The total combined impact of the Beartooth Highway is \$50.24 million.

Table 9: Economic impacts for Carbon County, MT (Spending in Red Lodge, MT)

<u>Impact Type*</u>	<u>Direct Effect</u>	<u>Indirect Effect</u>	<u>Induced Effect</u>	<u>Total Effect</u>
Employment	134	28	14	176
Industry Output	\$9,687,000	\$2,506,000	\$1,470,000	\$13,663,000
Employee Compensation	\$2,418,000	\$455,000	\$247,000	\$3,120,000
Proprietor Income	\$465,000	\$191,000	\$88,000	\$745,000
Other Property Type Income	\$1,152,000	\$488,000	\$393,000	\$2,033,000
State & Local Taxes	-	-	-	\$1,051,000

* IMPLAN software used for analysis

Table 10: Economic impacts for Park County, WY (Spending in Cody, WY)

<u>Impact Type*</u>	<u>Direct Effect</u>	<u>Indirect Effect</u>	<u>Induced Effect</u>	<u>Total Effect</u>
Employment	192	44	27	263
Industry Output	\$15,389,000	\$4,737,000	\$2,922,000	\$23,049,000
Employee Compensation	\$4,184,000	\$970,000	\$663,000	\$5,817,000
Proprietor Income	\$797,000	\$511,000	\$212,000	\$1,520,000
Other Property Type Income	\$1,965,000	\$877,000	\$692,000	\$3,533,000
State & Local Taxes	-	-	-	\$1,661,000

*IMPLAN software used for analysis.

Table 11: Economic impacts for Park County, MT (Spending in Cooke City/Silver Gate, MT)

<u>Impact Type*</u>	<u>Direct Effect</u>	<u>Indirect Effect</u>	<u>Induced Effect</u>	<u>Total Effect</u>
Employment	134	26	18	177
Industry Output	\$9,537,000	\$2,215,000	\$1,777,000	\$13,529,000
Employee Compensation	\$2,740,000	\$476,000	\$383,000	\$3,599,000
Proprietor Income	\$291,000	\$173,000	\$86,000	\$550,000
Other Property Type Income	\$1,144,000	\$375,000	\$415,000	\$1,934,000
State & Local Taxes	-	-	-	\$955,000

*IMPLAN software used for analysis.

Section 2b: Destination Image: Differences in Attribute Ratings

Section 2b displays results of destination image cognitive statement ratings and affective image attribute pairs of the Beartooth Highway by nonresident visitors. To attempt to further link loyalty and image, visitors were divided into first-time and repeat visitors. This provided the opportunity to explore the possibility of a correlation between destination loyalty and image. First, the cognitive image statement ratings are presented followed by the affective image attributes.

In general, all cognitive image attribute statements scored positively (Table 12). In fact, all statements except for interpretive signage scored above a 3.0 on a 4 point-scale for a mean with 3 representing “agree” on the scale. Crowdedness was scaled opposite of other statements, but can be considered positive in its ranking. The statement “The Beartooth Highway is free of debris and litter” scored highest by all three visitor groups on a 1-4 scale; first-time (3.49), repeat (3.43) and all (3.45). The lowest scoring image statement pertained to the quality of interpretive signage along the highway (2.96), even though it still scored in the “agreeable” level on the scale. Both first-time visitors (3.00) and repeat visitors (2.93) rated the interpretive signage statement the lowest. Differences in means are analyzed further in section 3 through independent t-tests.

Table 12: Destination image cognitive statements by group

	First-time Visitors	Repeat Visitors	All Visitors
<u>The Beartooth Highway is/has... *</u>	<u>Mean</u>	<u>Mean</u>	<u>Mean</u>
...free of debris and litter.	3.49	3.43	3.45
...of good physical quality.	3.35	3.38	3.37
...easy to navigate.	3.22	3.29	3.26
...safe and secure to drive on.	3.19	3.26	3.23
...not too crowded.**	3.17	3.04	3.10
...a variety of outdoor recreation opportunities.	3.03	3.14	3.09
...ample number of pullouts.	3.06	3.03	3.04
...good interpretive signs.	3.00	2.93	2.96

*Scale: 1 = “strongly disagree” to 4 = “strongly agree”

**Variable was recoded to scale positively with other statements.

Affective image is assessed through analyzing the mean ratings of each image pair. As stated in chapter 3, affective attribute pairs were placed on a sliding scale with ‘1’ representing a stronger feeling towards the emotion on the leftmost side and ‘4’ representing a stronger feeling towards the image on the rightmost side. In Table 13, results show that while the majority of travelers had stronger feelings toward the right side of the scale about their travels on the Beartooth Highway, first-time visitors

generally had less strong feelings towards emotions scaled on the right. All visitors rated “visually stimulated” (3.84) to be the highest ranking emotion, followed by “happy” (3.75), “awestruck” (3.65) and “connected to nature” (3.63). Section 3 tests if the ratings of first-time visitors are significantly different than repeat visitors. It is to be noted however that it is not assumed that because visitors rated certain attributes higher or lower that it was a lesser quality experience. Due to many factors of the region such as the nature of the highway, differences may be observed between groups on affective image attributes. In the following section, factor analysis and independent t-tests were used to assess difference in these constructs.

Table 13: Affective attribute ratings by destination loyalty

Left Attribute = 1*	First-time Visitors	Repeat Visitors	All Visitors	Right Attribute = 4*
Visually bored	3.84	3.85	3.84	Visually stimulated
Sad	3.73	3.76	3.75	Happy
Disappointed	3.68	3.63	3.65	Awestruck
Disconnected to nature	3.59	3.66	3.63	Connected to nature
Did not notice fresh air	3.47	3.60	3.54	Noticed the fresh air
Noisy	3.54	3.46	3.50	Quiet
Bored	3.44	3.44	3.44	Excited
Afraid	3.34	3.52	3.44	Comfortable
Stressed	3.27	3.47	3.38	Relaxed
Crowded	3.33	3.24	3.28	Uncrowded
Nervous	3.16	3.37	3.28	Calm
Reserved	3.08	3.24	3.17	Adventurous

*Scale: 1 = strongest feeling towards leftmost emotion to 4 = strongest feeling to rightmost attribute.

Section 3a: Destination Image: Scaling of the Cognitive and Affective Constructs

Section 3a and 3b display results for factor analysis of the cognitive and affective image constructs and independent t-tests of the constructs of first-time and repeat visitors. Research question 2 asked “What is the perceived cognitive and affective image of the Beartooth Highway?” To further answer this question, factor analysis was conducted on image statements to determine if image is a multi-dimensional construct on the Beartooth Highway.

Cognitive attributes are analyzed by exploratory factor analysis for scale development of the construct. Similarly, affective image attributes are analyzed by exploratory factor analysis to test for scaling purposes as well. Through factor analysis, it was possible to uncover whether the image variables that were used could be used to construct components of image.

First, results of the exploratory factor analysis on cognitive image are presented (Table 14). Results of the factor analysis show three clear factors; driving factor, recreation factor, and crowding factor. The driving factor consisted of four attribute statements regarding the Beartooth Highway including: “The Beartooth Highway is/has...” 1) of good physical quality, 2) safe and secure to drive on, 3) easy to navigate, and 4) free of debris and litter. The recreation factor included: “the Beartooth Highway is/has...” 1) an ample number of pullouts, 2) good interpretive signs, and 3) a variety of outdoor recreational activities. Finally, the third factor included only one attribute statement: ‘the Beartooth Highway is too crowded’. This attribute was left to be its own factor. Prior literature suggests that crowding as a standalone variable is acceptable due to

the complexity of the concept and varying meanings to different people (Vaske & Shelby, 2008).

A Varimax rotated factor matrix shows the factor loading scores for each variable. A reliability test was conducted to assess the Cronbach's Alpha score for the two factors that emerged (Table 14). The driving factor displays a relatively high Cronbach's Alpha of .861, which suggests it as a viable component to include. The recreation factor showed a lower Cronbach's Alpha of .636, but is still considered acceptable for this study. Hair, Anderson, Tatham, & Black (1998) state that for exploratory factor analysis a Cronbach's Alpha of .6 or higher is acceptable.

Table 14: Cognitive image factor matrix

Cognitive Statements	Factors		
	<u>Driving</u> ($\alpha = .861$)	<u>Recreation</u> ($\alpha = .636$)	<u>Crowding</u>
...of good physical quality.	.823	-	-
...safe and secure to drive on.	.843	-	-
...easy to navigate.	.854	-	-
...free of debris and litter.	.759	-	-
...ample number of pullouts.	-	.785	-
...good interpretive signs.	-	.817	-
...a variety of outdoor rec. opportunities.	-	.591	-
...too crowded.	-	-	.937

Affective attribute statements were analyzed through factor analysis to determine the number of factors present in the data. Analysis showed three factors (Table 15): emotional, naturalness, and comfort. Upon reliability testing, two attribute pairs were not included in two of the factors; crowded/uncrowded and reserved/adventurous. Thus, three factors with a total of ten attribute pairs were used. Table 15 also displays the reliability tests of the affective factors that were constructed. The “comfort level” factor saw the highest reliability with a Cronbach's Alpha of .845, followed by “emotional (.72)” and “naturalness (.603).” While all attributes are feelings or emotions, the categorization of

these pairs was done based on what they potentially reflect to the visitor. The term “naturalness” for the third factor was named as such because “quiet,” “fresh air,” and “connected to nature” pertained to individual feelings about the “natural” settings of the place. These three factors comprise the affective construct of image. Again, the naturalness factor’s reliability score tested lower than both other factors (Table 15). However as stated earlier for exploratory purposes, a Cronbach’s Alpha of .6 or higher is acceptable (Hair et al, 1998).

Table 15: Affective attributes factor matrix

Affective Attributes	Emotional ($\alpha = .72$)	Comfort ($\alpha = .845$)	Naturalness ($\alpha = .603$)
Bored/Excited	.717	-	-
Sad/Happy	.689	-	-
Disappointed/Awestruck	.748	-	-
Visually bored/Visually stimulated	.690	-	-
Afraid/Comfortable	-	.789	-
Nervous/Calm	-	.879	-
Stressed/Relaxed	-	.881	-
Noisy/Quiet	-	-	.731
Didn't notice fresh air/Noticed fresh air	-	-	.584
Disconnected from nature/Connected to nature	-	-	.619

As shown through this section, the cognitive and affective constructs of image are rather complex and multi-dimensional. To further explore these constructs, factors were analyzed by the degree of loyalty that visitors stated. The degree of loyalty was defined by whether the visitor was a repeat or first-time visitor. In the following section, the analysis of these possible differences is presented.

Section 3b: Independent T-Tests of Cognitive and Affective Constructs

Research question 4: “To what extent does perceived image differ by destination loyalty?” Image differences between loyalty groups are assessed by independent t-tests of mean image construct scores. Section 3b addresses this question by testing difference in image based on prior visits. Research has stated that past travel experience and destination loyalty may be interconnected with image perception (Hernandez-Lobato et al, 2006; Mazursky, 1989; Sonmez & Graefe, 1998). Again, the idea of loyalty and its effect on image construction was thought to have an influence.

Independent t-tests are used to test for significant differences between means of variables. Affective image variables were tested first followed by cognitive image statements. Of the affective attributes (Table 16), seven affective attribute pairs were significantly different while using destination loyalty as a segment. The significant differences between first-time and repeat visitors were: reserved/adventurous ($t = -4.166$, $p < .05$), disappointed/awestruck ($t = 1.622$, $p < .05$), stressed/relaxed ($t = -5.009$, $p < = .01$), noisy/quiet ($t = 2.057$, $p < .05$), didn’t notice fresh air/noticed fresh air ($t = -3.040$, $p < .01$), disconnected from nature/connected to nature ($t = -2.128$, $p < = .01$), and afraid/comfortable ($t = -4.365$, $p < .01$). These results show that destination loyalty may have a correlation with image construction. First-time visitors appear to experience affective emotions along the highway in a different manner than visitors with a sense of loyalty. The significance of these differences will be discussed in chapter 5.

For the cognitive image construct (Table 17), four image statements were significantly different when compared with destination loyalty. These statements are: “of good physical quality ($t = -.866$, $p < .05$),” “safe and secure to drive on ($t = -2.183$,

p<.01),” “good interpretive signs (t = 2.031, p<.01),” and “a wide variety of outdoor recreational activities (t = -3.652, p<.01).” These results indicate that destination loyalty may also have an effect on both cognitive and affective image. Results from the affective and cognitive have similar characteristics of significant differences. For example, first-time visitors tend to be more afraid, stressed and see the highway as not in as good physical quality and safe or secure with less quality signage than loyal visitors. Visitors who are loyal to the region tend to perceive the natural and recreational aspects of the highway in a more positive light than first-time visitors.

Table 16: Independent T-test: Affective attribute pairs by destination loyalty

Attributes	First-time mean	Repeat mean	t
Bored/Excited	3.44.	3.44	.018
Sad/Happy	3.73	3.76	-1.268
Reserved/Adventurous	3.08	3.24	-4.166*
Visually bored/Visually stimulated	3.84	3.85	-.593
Disappointed/Awestruck	3.68	3.63	1.622*
Stressed/Relaxed	3.28	3.47	-5.009**
Crowded/Uncrowded	3.33	3.24	2.222
Noisy/Quiet	3.54	3.46	2.057*
Didn't notice fresh air/Noticed fresh air	3.47	3.60	-3.040**
Disconnected from nature/Connected to nature	3.59	3.66	-2.128*
Afraid/Comfortable	3.35	3.52	-4.365**
Nervous/Calm	3.16	3.37	-4.794

Scale = '1' = strongest feeling is to the left attribute to '4' = strongest feeling is to the right attribute.

*p = .05. **p = .005

Table 17: Independent T-test: Cognitive image statements by destination loyalty

'The Beartooth Highway is/has...'	First-time mean	Repeat mean	t
...of good physical quality.	3.35	3.38	-.886*
...safe and secure to drive on.	3.19	3.26	-2.183**
...easy to navigate.	3.22	3.19	-.2.297
...free of debris and litter	3.49	3.43	1.955
...too crowded.	1.83	1.96	-3.525
...an ample number of pullouts	3.06	3.03	.734
...good interpretive signs.	3.00	2.93	2.031**
...a variety of outdoor recreational opportunities.	3.03	3.14	-3.652**

Scale: 1 = 'strongly disagree' to 4 = 'strongly agree.'

*p = .05 **p = .005

Section 4: Factors Affecting Destination Image

Research question 5: “To what extent do weather conditions influence perceived image?” To explore this question, multivariate regression analysis was conducted to determine the percent of variation in scores of weather conditions that can predict the variation of scores of image perception. As prior research suggested, various factors may influence image perception (Beerli & Martin, 2004). Beerli & Martin (2004 indicate that weather is an aspect of the image of a destination. In other image studies, statements pertaining to weather conditions of a place have been assessed (Chi & Qu, 2008). As Gomez Martin (2005) states, “The elements of climate are the components that define it and they are, at the same time, the variables which it influences the other elements of the natural and human environments (p.572).” Weather variables included; amount of precipitation, outdoor temperature, amount of wind, and degree of visibility. Table 18 displays the distribution of weather conditions travelers experienced while along the highway.

Table 18: Reported weather conditions

Condition	Measurement				
	<u>None</u>	<u>Little</u>	<u>Some</u>	<u>Frequent</u>	<u>Heavy</u>
Amount of Precipitation	107 (73%)	182 (12.4%)	141 (9.6%)	24 (1.6%)	15 (1%)
	<u>Cold</u>	<u>Cool</u>	<u>Moderate</u>	<u>Warm</u>	<u>Hot</u>
Outdoor Temperature	64 (4.3%)	456 (31%)	517 (35.1%)	335 (22.7%)	65 (4.4%)
	<u>None</u>	<u>Slight Breeze</u>	<u>Some Wind</u>	<u>Windy</u>	<u>Very Windy</u>
Amount of Wind	108 (7.3%)	526 (35.7%)	509 (34.6%)	233 (15.8%)	64 (4.3%)
	<u>Could not see anything</u>	<u>Low Visibility</u>	<u>Moderate Visibility</u>	<u>Good Visibility</u>	<u>Crystal Clear</u>
Degree of Visibility	1 (<1%)	62 (4.3%)	234 (15.9%)	597 (40.5%)	538 (37.6%)

Figure 7 displays results of the multivariate regression analysis of weather conditions on the cognitive construct. All four weather variables were used to determine the degree to which variation in weather conditions can predict or estimate degree of variation in image perception. The regression analysis used the six factors, three cognitive and three affective shown in the factor analysis in section 3a. R^2 scores were .011 for driving component, .004 for the recreation component, and .02 for the crowding component. Adjusted R^2 scores were even lower with .008, .001, .017 respectively. While these results were not expected, it sheds light on an interesting conclusion of the lack of relationship between image perception and weather conditions. Furthermore, it can be said that weather conditions had little to no effect on predicting or estimating perceived image of the cognitive construct.

Presented in the following pages are visual models of the regression tests used for analysis. All three cognitive image factors are displayed with the effect of each weather condition including beta weights. Affective image is displayed in the same manner following cognitive factors.

Figure 7: Multivariate Regression Model: Cognitive image and weather conditions

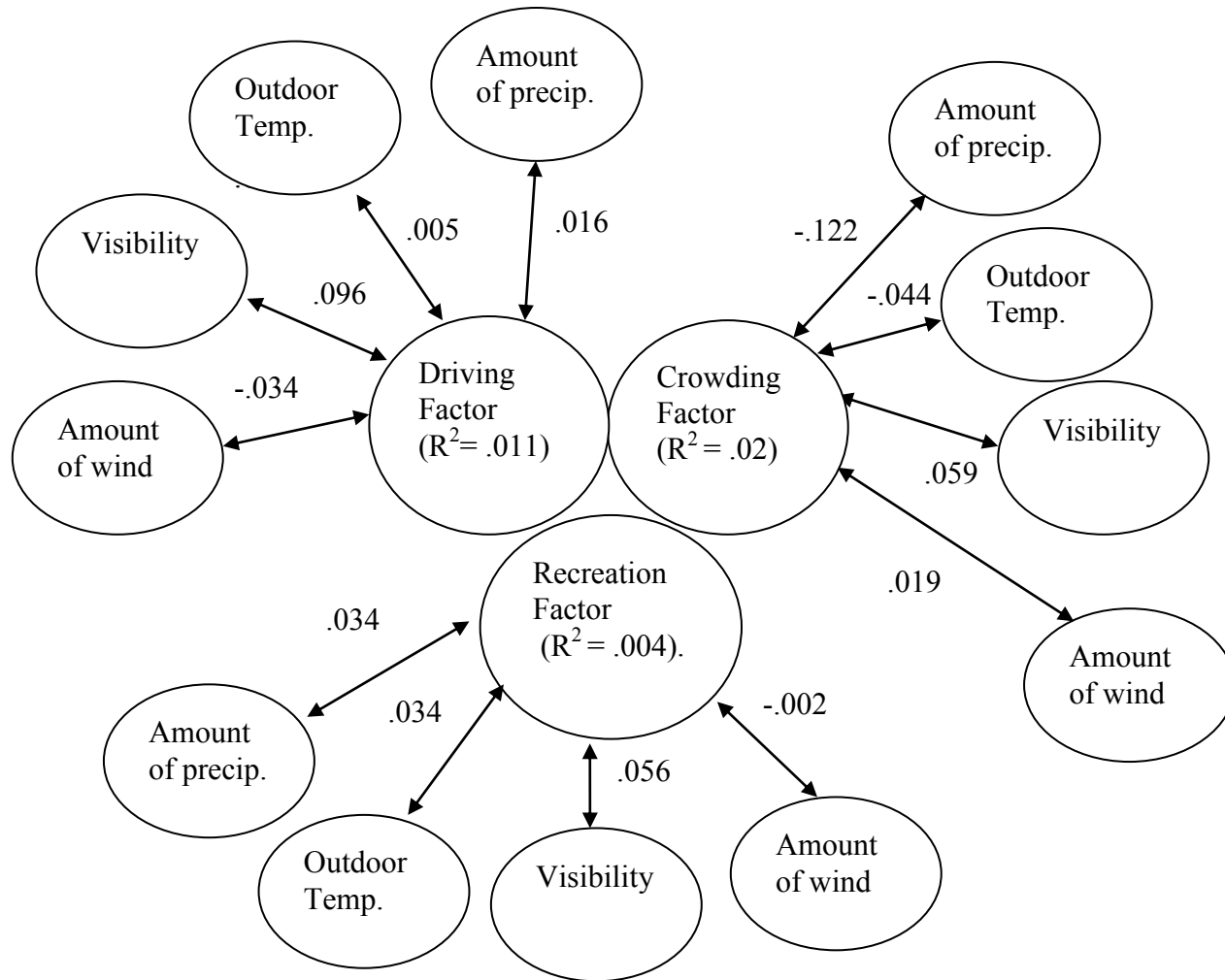
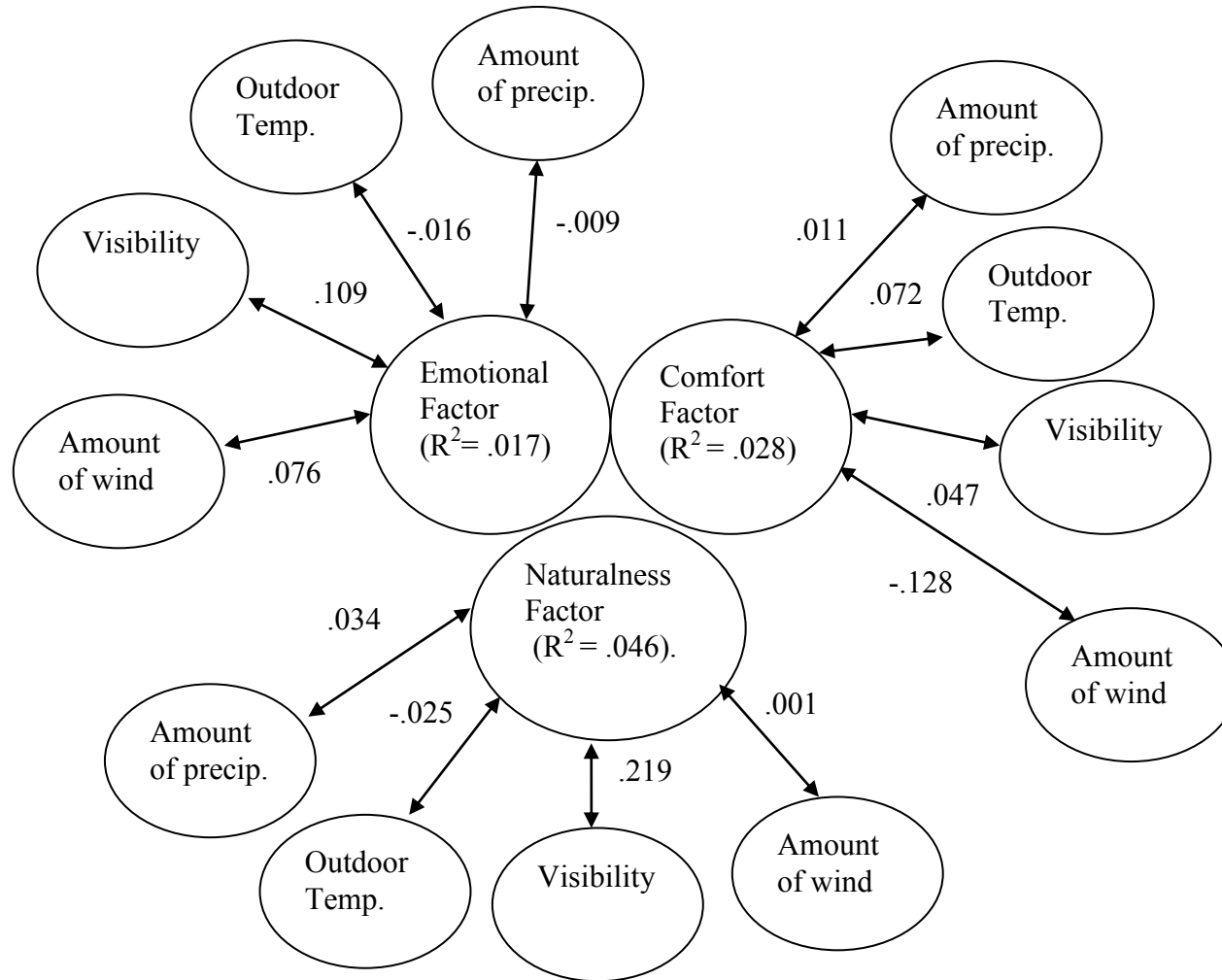


Figure 8: Multivariate Regression Model: Affective image and weather conditions



The effect of weather conditions on affective image components was assessed through regression analysis (Figure 8). Again, results show that very little to no variation in the scores of weather can explain or predict the variation in scores of affective image. While somewhat higher than the cognitive components, the affective components had an R^2 of .017 (emotional), .028 (comfort level), and .046 (naturalness). Adjusted R^2 scores were .014, .025 and .043 respectively. Thus, results of the regression analysis of weather conditions and affective image have little to no relationship or ability to predict image perception.

In summary, results indicate that weather is not a strong predictor of image perception. Image may be a much more complex idea than previously thought. Weather conditions may affect the visitor experience in various ways, but their image remains unchanged. The following section discusses the results from visitor motivations and activity segmentation.

Section 5: Visitor Motivations and Activities

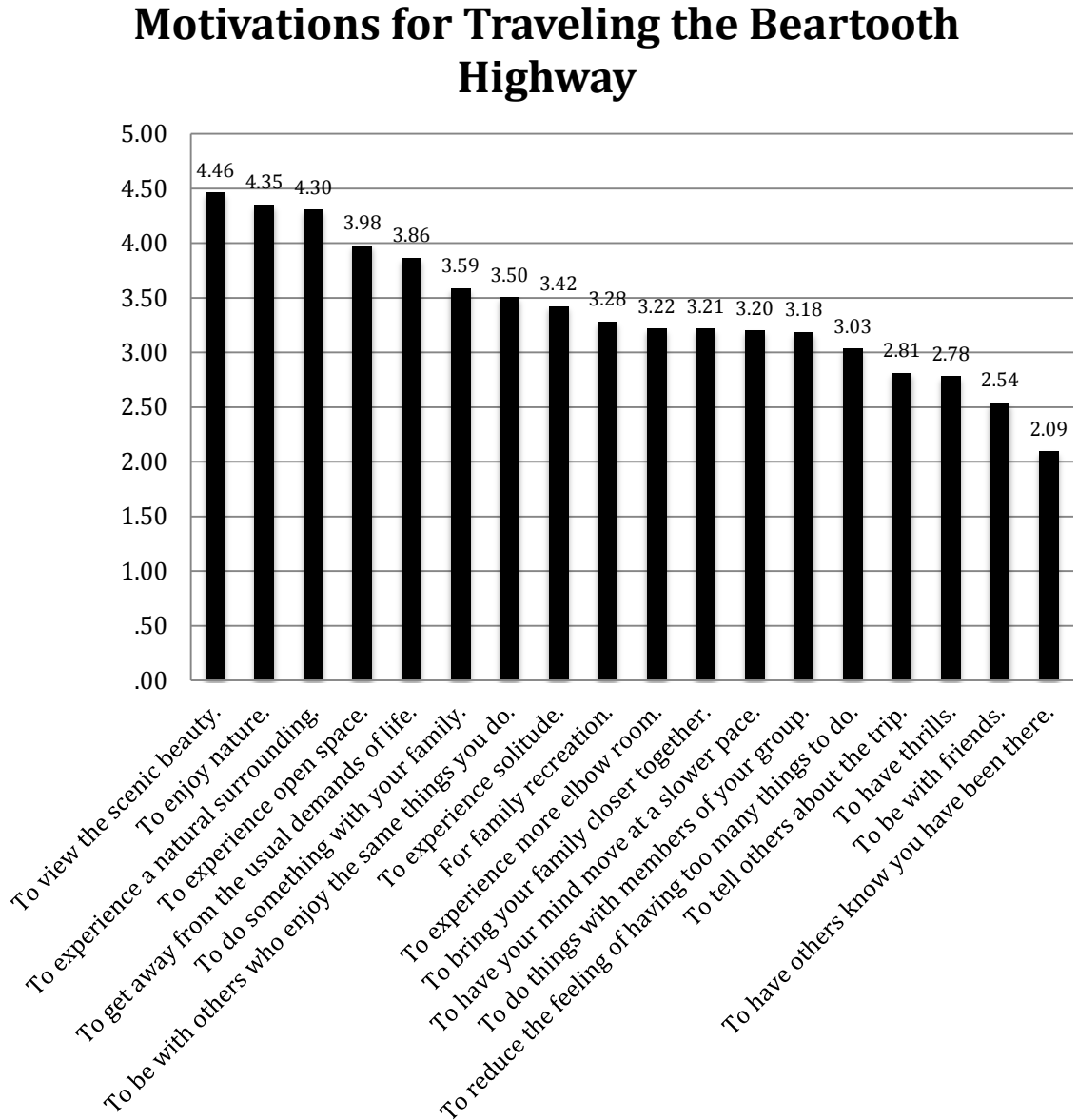
Research question 6: “Do travel motivations differ by degree of loyalty?” In section 5, traveler motivations for driving the highway are assessed through analyzing distribution of means and independent t-tests. First-time and repeat visitors were used as the grouping variable, similar to previous sections. To understand if there were significant differences in motivations between first-time and repeat visitors, independent t-tests were conducted on all 18 motivation variables. First, visitor motivation means are presented and discussed for all travelers. It was important to understand the full picture of why travelers are driving the Beartooth Highway before analyzing group differences.

Visitor motivations were developed through review of previous research in outdoor recreation literature, but modified to meet the needs of this study (Driver & Tocher, 1970; Driver et al, 1987; Manfreda et al, 1996). Visitors were asked to rate eighteen visitor motivation statements on an importance scale. Figure 9 displays the mean distribution for visitor motivations. The highest importance for travelers on the Beartooth Highway was “to view the scenic beauty (m = 4.46)” followed by “to enjoy nature (m = 4.35),” and “to experience a natural surrounding (m = 4.30).” These results indicate that the top visitor motivations all include an aspect of the naturalness of the area. However not all motivations scored as high; “to have others know you have been there (m = 2.09)” and “to be with friends (m = 2.54)” were much lower. Mean scores fluctuated from 4.46 to 2.09, a difference of 2.37 in importance.

Independent t-tests were conducted on all 18 travel motivations to answer research question six. Again to explore this question, visitors were segmented by first-time and repeat visits to the Beartooth Region (Tables 19 and 20). Five of the eighteen travel motivations were significantly different between the first-time and repeat visitors. These five include: to view the scenic beauty ($t = -3.369$, $p < .01$), to be with friends ($t = -6.995$, $p < .01$), to get away from the usual demands of life ($t = -4.771$, $p < .01$), to experience open space ($t = -3.420$, $p < .05$), and to be with others who enjoy the same things you do ($t = -3.754$, $p < .01$). While loyalty may affect some traveler motivations, the majority of motivations were relatively similar. However the five that were significantly different tended to be more about social bonding and the natural qualities of the area. Again, these results somewhat mimic the results of loyalty and image. It can be said,

however, that visitors tend to have similar motivations for traveling the Beartooth Highway despite the number of previous visits to the region.

Figure 9: Mean distribution of traveler motivations



Scale: 1 = 'not at all important' to 5 = "extremely important."

Table 19: Independent T-test: Travel motivations by destination loyalty

Motivations	First-time mean	Repeat mean	t
To view the scenic beauty.	4.39	4.52	-3.369**
For family recreation.	2.99	3.51	-6.413
To be with friends.	2.21	2.81	-6.995**
To tell others about the trip.	2.83	2.79	.537
To get away from the usual demands of life.	3.70	4.00	-4.771**
To experience solitude.	3.14	3.65	-7.135
To enjoy nature.	4.28	4.41	-2.972
To bring your family closer together.	3.09	3.31	-2.638
To do things with members of your group.	3.09	3.26	-2.130

Scale: 1 = “not at all important” to 5 = “extremely important”

*p=.05 **p=.005

Table 20: Independent T-test: Travel motivations by destination loyalty (Cont'd)

Motivations	First-time mean	Repeat Mean	t
To have others know you have been there.	2.16	2.04	1.663
To have your mind move at a slower pace.	3.02	3.35	-4.396
To experience open space.	3.87	4.07	-3.420*
To experience a natural surrounding.	4.23	4.36	-2.805
To do something with your family.	3.49	3.66	-2.235
To be with others who enjoy the same things you do.	3.34	3.63	-3.754**
To have thrills.	2.77	2.79	-.279
To reduce the feeling of having too many things to do.	2.90	3.14	-3.011
To experience more elbow room.	3.03	3.36	-4.462

Scale: 1 = “not at all important” to 5 = “extremely important.”

*p=.05 **p=.005

Visitor Activities

Research question 7: “To what extent can visitors be segmented and compared by activity participation?”

One section on the mailback questionnaire asked visitors to state the activities, if any, they participated in during their trip to the Beartooth Region. Respondents could select all the activities they participated in from a list of 25. Respondents were reminded that these activities were only applicable to their current travels to the Beartooth Region and excluded surrounding regions such as Yellowstone National Park. As Table 21 shows, the top three activities visitors participated in were scenic driving (84.2%), nature photography (61.3%), and wildlife watching (57.9%). Other high participation activities included visiting historical sites (22%) and visiting interpretive sites (21.4%).

While the highest ranking activities tended to be passive in nature, day hiking (21.2%), camping (11.7%), fly fishing (7.6%), and backpacking (3.1%) represent more active activities participated in by visitors in the Beartooth Region. Many winter activities were included in the list due to snow typically being present during the early summer season of the Beartooth Highway. In fact, 27 visitors stated they participated in some sort of winter-based or snow dependent activity while on their trip to the Beartooth Region. However, this is only a small number of respondents who stated they participated in winter-related activities.

Looking at visitors’ activities by destination loyalty provided some interesting insights. Repeat visitors tended to participate more frequently in active activities than first-time visitors. For example, 24 percent of repeat visitors day hiked while only 14 percent of first-time visitors hiked. In fact, in nearly every active activity, visitors who

had previously been to the area had a higher participation rate in the sample (excluding XC skiing). Thus, an interesting discovery between active activity participation and destination loyalty may be drawn.

Table 21: Activity participation by destination loyalty and all travelers

Activities*	First-time		Repeat		All Visitors	
	#	%	#	%	#	%
Scenic Driving	533	80%	621	77%	1154	84.2
Nature Photography	390	59%	451	56%	841	61.3
Wildlife Watching	326	49%	468	58%	794	57.9
Historical Site	137	21%	165	20%	302	22
Interpretive Site	132	20%	162	20%	294	21.4
Day Hiking	93	14%	197	24%	290	21.2
Camping	58	9%	103	13%	161	11.7
Birding	41	6%	93	12%	134	9.8
Fishing/Fly Fishing	22	3%	82	10%	104	7.6
Motorcycle Riding	34	5%	40	5%	74	5.4
Backpacking	10	2%	32	4%	42	3.1
Road/Tour Biking	13	2%	23	3%	36	2.6
Horseback Riding	6	1%	18	2%	24	1.8
Festivals/Events	6	1%	16	2%	22	1.6
Ski/Snowboard	6	1%	16	2%	22	1.6
Canoeing/Kayaking	6	1%	14	2%	20	1.5
Mountain Biking	6	1%	13	2%	19	1.4
ATV/OHV	2	<1%	15	2%	17	1.2
Sporting Event	1	<1%	6	<1%	7	0.5
Motor boating	0	0	3	<1%	3	0.2
Hunting	0	0	2	<1%	2	0.1
Snowshoeing	0	0	2	<1%	2	0.1
Snowmobiling	0	0	1	<1%	1	0.1
XC Skiing	1	<1%	0	0	1	0.1
Sledding	0	0	1	<1%	1	0.1

*Sample population varied by activities listed.

To compare visitors by activity type, a priori segmentation was conducted on the activities by type. A priori segmentation is a process that selects certain segments based on specific and similar qualities. This type of analysis rose out of market segmentation

used in past decades (Boley & Nickerson, 2012). In tourism, market segmentation is an accepted form of analysis for separating respondents out by group (Dolnicar, 2004). For this study, a priori segmentation was conducted by classifying visitors by their activities. Due to the large number of activities selected by each respondent, a priori segmentation was the most feasible way to assess visitors by activity type. Through this process, four activity segments were identified based on the similarities of activity type.

“Road Tourers” (segment 1), “active outdoors” (segment 2), “knowledge seekers” (segment 3), and “passive viewers” (segment 4) became the four a priori segments. “Road tourers” include those who indicated they participated in motorcycle riding or road biking. These are visitors on 2-wheels experiencing a high elevation, mountain road while exposed to outdoor conditions. “Active outdoors” include those who participated in day hiking, camping, backpacking, fishing, mountain biking, birding, or horseback riding. “Knowledge seekers” are those who visited a historical site or visited an interpretive site. Finally, “passive viewers” are those who only participated in scenic driving, wildlife watching, or nature photography. Generally, these activities are easily engaged inside a vehicle or near the vehicle. They are fairly passive activities and therefore differentiated easily from the other segments.

Table 22 displays the average daily spending amount for each category by activity segment. The “knowledge seekers” segment has higher expenditures in most spending categories than the other activity groups including: hotel/motel, restaurant/bars, retail, and licenses and fees. Interestingly, “road tourers” spend more, on average, for hotels and motels, but spend less daily than “knowledge seekers” or “passive viewers.” “Active outdoors” spend the least per day, which coincides with Fredman’s (2008) results on

backpackers' expenditures. Table 23 displays the results of the categorical spending by activity segment. Spending categories change quite drastically between each activity segment. For example, "active outdoors" activity segment spent more on campgrounds and rental cabins than any other segment. "Knowledge seekers" tend to spend more on hotels/motels (\$113.31) and retail purchases (\$30.76) than other segments.

Table 22: Comparing a priori activity segments

Segments	Avg. nights spent	Total trip spend.	Avg. daily spend.	Segment pop.*	Segment total spending**
Road Tourers (8%)	3.03	\$306.54	\$101.17	12,819	\$3,929,516
Active Outdoors (32%)	3.75	\$311.01	\$82.94	52,574	\$16,350,996
Knowledge Seekers (19%)	2.12	\$331.51	\$156.37	30,181	\$10,005,399
Passive Viewers (41%)	1.35	\$240.82	\$178.39	66,853	\$16,099,582

*Segment population = total nonresident travelers X % of population.

**Total spending by segment = segment population X total trip spending.

Table 23: Categorical daily spending by segments

Categories	Road Tourers	Active Outdoors	Knowledge Seekers	Passive Viewers
Campgrounds	\$7.57	\$10.40	\$3.07	\$4.05
Hotels and Motels	\$97.68	\$61.39	\$113.31	\$79.36
Rental Cabins/B&B	\$20.39	\$37.04	\$23.64	\$19.45
Gasoline and Oil	\$48.35	\$59.40	\$58.49	\$40.88
Restaurants and Bars	\$66.25	\$64.18	\$66.72	\$50.68
Groceries and Snacks	\$21.23	\$33.40	\$18.62	\$14.16
Retail Purchases	\$28.43	\$25.35	\$30.76	\$22.71
Guides/Outfitters	\$3.78	\$4.30	\$1.58	\$0.93
Auto Rental	\$0.38	\$3.17	\$2.08	\$1.38
Auto Repair	\$4.19	\$1.82	\$2.66	\$0.78
Transportation Fares	\$0.00	\$0.24	\$0.25	\$0.13
License, fees	\$7.20	\$8.29	\$9.70	\$6.10
Services	\$1.09	\$2.04	\$0.62	\$0.21

Road Tourers

“Road tourers” spent roughly three nights per trip, which is the second highest length of stay among the four segments. Road Tourers total trip spending was third out of the four segments at \$306.54 per party per trip. In total spending, \$3.93 million can be attributed to “road tourers” in the Beartooth Region during the summer season. These results show there is a noticeable contribution by “road tourers” even though they represent the smallest segment of activity groups.

Active Outdoors

The “active outdoor” segment averaged the most nights spent in the Beartooth Region with 3.75 nights. Their total spending averaged around \$311 per party per trip. However, “active outdoors” visitors spend much less daily than the other activity segments (\$82.94). “Active outdoors” accounts for \$16.35 million in total visitor spending in the Beartooth Region during the summer season. Thus, it can be said that although “active outdoors” visitors tend to spend more nights, their daily spending rate is not as high as other visitors. However because of the sheer volume of active visitors, a large part of visitor spending comes from “active outdoors” visitors.

Knowledge Seekers

The “knowledge seekers” segment spent the most per trip in the Beartooth Region with \$331.51. Average nights spent for “knowledge seekers” was 2.12 nights, third largest of the four segments. For average daily spending, this segment spends the second largest at \$156.37 per party per day. “Knowledge seekers” accounted for \$10.01 million in nonresident spending in the Beartooth Region. This activity segment tends to be heavy spenders on a daily basis. Considering the percentage of nonresident visitors (19%) of

this segment, “knowledge seekers” tend to have a rather large impact on the local community. Further consideration of this activity is noted in chapter 5.

Passive Viewers

“Passive viewers” spent the least (\$240.82) in total trip spending than any other activity segment. However, “passive viewers” also spent the least number of nights (1.35 nights), resulting in the highest average daily spending with \$178.39 per day. In total spending, “passive viewers” account for \$16.10 million in spending in the Beartooth Region. This activity segment makes up the largest percentage of all visitors in the Beartooth Region (41%). While the total trip spending is low, the amount spent per day is much higher than other segments. Promoters, managers, and stakeholders should note this high average daily spending when thinking about bringing in new money to the Beartooth Region.

Summary

In summary, the Beartooth Highway is a diverse and economically viable tourist destination. Visitors rated image statements very positively and are generally satisfied with their trip. Loyal travelers view both cognitive and affective image differently than first-time visitors. Over \$50 million in economic impacts can be attributed to nonresident visitor spending in the Beartooth Region. In the following chapter, in-depth conclusions and discussions are presented on the results. Implications for stakeholders and marketers as well as future research opportunities are provided to conclude the chapter.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

Chapter five provides in-depth discussion on the results from the previous chapter. Conclusions of the research questions and implications for stakeholders and marketers are discussed. Finally, suggestions for future research are presented at the end of the chapter.

Research Question One:

Who are the travelers along the Beartooth Highway?

Research question one was a primary goal for the project. As stated previously, little to no research had been conducted in the region and capturing a picture of the people visiting the Beartooth Region was a key need. To do so, it was important to utilize both the on-site survey and mailback survey to fully uncover research question one. As results display, travelers along the Beartooth Highway are diverse. Eighty-five percent of all travelers were from the United States. This 85 percent includes visitors from all 50 states. However, seven Canadian provinces and 30 foreign countries were represented as well. Although the ratio of foreign travelers to domestic travelers is low, it should be noted that there is a presence of foreign travelers to the Beartooth Region. Decision-making processes should take these figures into account when looking at the overall picture of visitors to the region. Travelers may have differing expectations and also a varied perception of image.

One-third of Beartooth Highway visitors had a college degree with another 30 percent having a master's or doctorate degree. The average household income included

nearly sixty percent of visitors with earnings between \$50K and \$150K. This shows that visitors are typically well-educated and have an average to above average household income. The split between male and female was 54 percent male and 44 percent female with 2 percent of respondents not indicating gender. Finally, first-time visitors tended to be 54 years of age and repeat visitors were 57 years of age, which is not a large difference. Demographically, there were no surprises in the results, but the information is necessary in understanding the travelers' profile.

Close to half (44%) of the travelers along the Beartooth Highway region are first-time visitors (Figure 6). This result indicates a mix of the degree of loyalty present in visitors to the region. Even though many visitors are in the region for their first time, the majority are repeat visitors and 10 percent can be considered extremely loyal with 25 or more prior visits to the region. With such a close distribution of both first-time and repeat visitors, it can be said that there is a draw that is not only bringing new visitors to the region, but also aspects that keep visitors interested for future visits. Maintaining a balance between preserving what repeat visitors enjoy and bringing in new visitors to the region is a critical piece for stakeholders and marketers to consider.

A further look at the travelers (Table 5) shows visitors are spending an average of over two nights in the Beartooth Region. Repeat visitors tend to spend over one night more than first-time visitors, which is interesting from a marketing perspective. The connection between destination loyalty and length of stay may be something that should be further considered for future studies. If once visitors travel to the region their stay is lengthened on future visits, the challenge will be to encourage more nights spent by the first-time visit. Understanding how to keep first-time visitors in the region for a

lengthened stay is an area of interest for tourism marketers, local business owners, and researchers. A shorter length of stay for first-time visitors may be due to the proximity of popular surrounding areas such as Yellowstone National Park. For instance, visitors who have never been to the region before may be on a different type (e.g. national park visit, drive through to another destination) of vacation than those who are loyal to the region.

The nonresident proportion along the highway provides a larger picture of the total population of travelers using the Beartooth Highway. In total, 162,265 nonresident travel groups used the Beartooth Highway during the summer. This nonresident proportion of nearly 91 percent across all three intercept sites shows that this highway is primarily used by nonresident travelers. While a number of residents use the highway, they are heavily outweighed by non-local traffic. This result strengthens the case that the Beartooth Highway is one destination for nonresidents.

Research Question Two:

What is the economic impact of nonresidents along the Beartooth Highway?

Visitors' total trip spending was analyzed by all visitors and by groups (Tables 7 & 8). Nonresident visitors spent an average of \$118.41 per party per day while in the Beartooth Region. Although, first-time visitors (\$156.75) spend nearly \$60.00 per day more than repeat visitors (\$98.83), which is an interesting inquiry into the idea that loyal visitors tend to spend less per day than first-time visitors. With all visitors' spending totaling \$44.96 million, it is apparent that tourism is a major player in the economic sustainability of the region. These total trip spending numbers are important for assessing how expenditures spread throughout the economy. It provides a look into an aspect of tourism that is important for practical purposes; "the bottom line."

Economic impact and employment numbers (Tables 9-11) were assessed and analyzed by county and combined. The Beartooth Region receives a total of over \$50 million in economic contribution from nonresident travelers. For the local communities, this provides a substantial amount of financial gain. Park County, WY receives the largest amount of economic contribution by nonresident travelers (\$23.05 million). Park County, MT and Carbon County, MT receive similar economic contributions to each other with over \$13 million apiece. Economic impact numbers are useful to show how each of the gateway communities benefit from tourism (Stynes, 1997). Furthermore, economic figures are used for political purposes and strengthening a destination's positioning for funding. Because of the distribution of contributions, each beneficiary's input is important to the overall success of the destination.

Currently, the Beartooth Highway's corridor management plan is held by Friends of the Beartooth, a 501c3 non-profit organization. However, the lands surrounding the highway are managed by a variety of entities such as US Forest Service (Gallatin, Shoshone, Custer districts) and National Park Service. Interagency management has not been as efficient as hoped in the past. Due to the Leavitt Park Approach Act, Yellowstone National Park continues to maintain and take care of the majority of the highway. While this management plan has worked up to this point, stakeholders need to reconsider this for the future. As results showed, all surrounding communities benefit economically from the Beartooth Highway. Implementation of a collaborative process that includes all stakeholders should be considered. With shrinking federal budgets, the highway has begun to feel the effects already. During 2013, Yellowstone National Park's budget was reduced due to federal sequestration. Because of this, Yellowstone National Park

managers said they would push the Beartooth Highway opening back three weeks. It is apparent that the economic contribution of summer 2013 would decrease if the road does not open by the last weekend in May. Economic impact numbers allow a monetary value to be used as part of the discussion concerning road closure and opening dates for future decision-making.

The Beartooth Highway's nonresident expenditures also contribute to over 600 total jobs in the region. Park County, WY receives the most total jobs with 263. Park County, MT and Carbon County, MT receive equal amount of job support with over 170 total jobs each due to nonresident spending. Again, this is a significant figure for the local communities when considering their populations. For tourism in general, the economic sustainability and contribution to the communities is a crucial element to their viability. Thus, improving the visitor experience may increase the economic success of the highway by bringing more travelers, or travelers who spend more while visiting.

Comparing these numbers with the prior scenic byway impact studies (Blue, 2012; Cherokee, 2012), The Beartooth Highway receives much less of an impact than major byways such as the Blue Ridge Parkway (Blue, 2012), but a significant amount more than those such as the Woodward Avenue All-American Road (Woodward, 2012). This is important to consider that all byway regions can receive different impacts depending on the distribution of economies and visitor spending.

In summary, nonresident travelers spend a significant amount of money in the Beartooth Region with first-time visitors spending, on average, more than repeat visitors. In total, the Beartooth Highway contributes over \$50 million in combined economic impacts to the local communities, which contributes over 600 total jobs in the region.

Research Question Three:

What is the perceived cognitive and affective image of the Beartooth Highway?

Understanding the perception of destination image was one of the primary foci of this thesis. Using recommendations from prior literature (Baloglu & McCleary, 1999; Echtner & Ritchie, 1991, 1993; San Martin & Rodriguez del Bosque, 2008), it was possible to form an image of the destination during the visitors' experiences. Image results provide an idea of how the destination is perceived by those who have decided to visit.

Using Echtner & Ritchie's (1991, 1993) studies on measuring the cognitive construct of image, results showed that visitors rated highly the physical and psychological aspects of the image of the Beartooth Highway. While all attribute statements ranked high in general, there is room for praise and improvements (Table 12). Visitors tend to perceive the Beartooth Highway as clean (3.45), in good physical quality (3.37), easy to navigate (3.26), and safe and secure (3.23). The lowest ranking statement that was observed pertained to interpretive signage. However with a 2.96 rating, it cannot be said that the interpretive signage is poor; it is just not as good as other physical attributes. Improvements could be made to this aspect of the highway, which may improve the visitor experience.

Another interpretation idea, in addition to signage, would be to develop a mobile application that narrates the highway experience. This would allow all users who own a supported mobile device to have their own tour of the highway and learn about the history or local knowledge about the region. While this is not technically "interpretive signage," it may provide a better experience for the users looking for more information

about the region. However because of the lack of cell signal along the highway, the application would have to be downloaded prior to driving the road.

Cognitive image shows that visitors perceive the Beartooth Highway in a positive light. As Fakeye & Crompton (1991) discussed, image of visitors has been shown to change after one visit, but not after repeated visits. This makes it even more important to ensure that first-time visitors, who make up a large percentage of the population, leave the Beartooth Region feeling satisfied. Meeting the expectations of tourists is an important factor towards influencing future travel behavior. Stakeholders should focus on attempting to continue to improve the experience of traveling the highway. Strengthening the link between destination image, satisfaction, and destination loyalty can be done through minor improvements to a few aspects of the highway (Chi & Qu, 2008). Interpretive and recreational signage should be improved to inform the visitor of unique characteristics and opportunities in the region. Enticing the visitor to participate in some of these activities can strengthen the loyalty of the visitor. Continued access to information prior to trip departure through brochures and websites would allow visitors to plan their activities further in advance. Websites such as the Friends of the Beartooth official site are a useful starting point for travelers wishing to know more prior to travel.

Taking the lead from more current image research (San Martin del Bosque, 2008; Wang and Hsu, 2010), affective image attributes were analyzed to capture the holistic picture of destination image (Table 13). Capturing emotional responses through survey research can prove to be difficult. However, there are interesting results of the affective attributes from the mailback questionnaire. Surprisingly, all affective image attributes scored above a 3.0 on the sliding scale. Attribute pairs were designed to have what most

would consider a more “positive” emotion as a 4 and a “negative” emotion as a 1. Thus, it can be said that affective image was shown to be very positive. These results pose well for increasing destination loyalty. As loyalty and image studies uncovered, affective attributes seem to be of high importance in building a bond and creating loyalty (Cai et al, 2003; Hernandez-Lobato et al 2006). However, it cannot be said that affective image had a direct correlation with loyalty because first-time visitors had many positive feelings as well.

Many of the highest ranking attributes were focused on the visual and natural settings of the highway. Feelings and emotions such as “visually stimulated (3.84),” “awestruck (3.65),” and “connected to nature (3.63)” were the highest rated. One may not consider driving in a vehicle and experiencing a feeling of being connected to nature as possible, however, it appears as though many interpret the experience of traveling the Beartooth Highway as more than just driving a road. Driving a scenic byway may be a different type of travel experience in itself. In fact, the scenic byway program expects byways to be a driving narrative or a moving interpretation of the place. Incorporating this narrative into the driving experience may contribute to a more engaging feeling of traveling the highway as an activity and dissimilar to driving other highways.

The factor analysis showed there were three distinct factors present in the cognitive construct of image; driving factor, recreation factor, and crowding factor. These results give insight into how the image of a highway is constructed. Furthermore, results indicate that the image of the Beartooth Highway has three cognitive factors that should be considered (Table 14). The driving factor relates to what the majority of the population of travelers participates in; scenic driving and passive activities. Reliability

testing of the driving component of the cognitive construct showed a fairly reliable .861 Cronbach's Alpha. For scaling purposes, it can be said that the driving factor of the cognitive construct is reliable and appropriate for scaling purposes.

While the recreation factor deals directly with activities outside of the vehicle, visitors who are participating in recreation still typically use the highway for access. The recreation factor includes three statements; "...an ample number of pullouts," "...good interpretive signs," and "...a variety of outdoor recreational opportunities." At first, these image statements do not appear to be directly related, but a closer look reveals that the statements are somewhat interdependent. An ample number of pullouts with relevant and adequate interpretive signs are imperative to contribute to the wide variety of outdoor recreational opportunities. As these results have shown, the cognitive image of the Beartooth Highway is a multi-dimensional concept.

Finally, the crowding component of the cognitive construct is presented last. Typically, a factor has more than one variable. However as Vaske & Shelby, (2008) argue, crowding as a standalone variable can be used as a separate component with a variety of possible aspects. Looking at the factor matrix, it is obvious that crowding does not fit in either the recreation or the driving category. With a factor loading score of .937 in factor three, results confirm that crowding must be left separate from others. Thus, crowding was used as a factor and standalone variable to complete the cognitive construct. Crowding is a difficult variable to interpret and generalize to a larger population, because the perception of crowding can vary greatly between visitors and can be hard to predict. For stakeholders, making decisions based on crowding levels can be a difficult task. However, it should be noted and discussed as an aspect of the experience.

Factor analysis for the affective construct unveiled three factors as well (Table 15); emotional, comfort, and naturalness. While factor loading scores showed likeness to factors, two attribute pairs, “crowded/uncrowded” and “reserved/adventurous” were not included in the three factors identified through factor analysis. Reliability testing with these two attribute pairs included produced a much lower Cronbach’s Alpha if left in the factor. Thus, the decision was made to exclude these attribute pairs.

The first affective factor shown through factor analysis pertained to the visual or general happiness felt by the visitor. Factor loading scores indicated that “bored/excited,” “sad/happy,” “disappointed/awestruck,” and “visually bored/visually stimulated” were all part of this factor. A reliability test produced a Cronbach’s Alpha of .72, which is above the threshold needed for inclusion. This factor combines the general happiness image statements with visually appealing image attributes. Prior to reliability testing, “reserved/adventurous” attribute pair had scaled in factor one, but the item was deleted as reliability testing proved it was not a strong fit. Interpreting these results shows that there is a grouping of emotions that pertain to the general and visual experience of the visitor. The experience of driving the highway ties the visual aesthetics and general emotions together.

Comfort level was shown to be a second factor of the affective construct of image on the highway. Factor loading scores of three attribute pairs (“stressed/relaxed,” “afraid/comfortable,” and “nervous/calm”) showed a high similarity. Furthermore, reliability testing of these three variables provided a .845 Cronbach’s Alpha, highest of all affective factors. This factor joined three variables directly related to the degree of comfort travelers had while on the Beartooth Highway. As previously described, the

Beartooth Highway is an intimidating highway for many users. Winding through the Beartooth Mountains at nearly 11,000 feet, visitors may feel a sense of danger while driving the road. Combining three variables related to this perception of the highway provides a look at how the emotions are felt by visitors during the driving experience.

The third factor was “naturalness.” This factor was comprised of attribute pairs that were directly related to the natural settings of the region. Included was: “Noisy/quiet,” “didn’t notice fresh air/noticed fresh air,” and “disconnected from nature/connected to nature.” Originally, “crowded/uncrowded” was loaded onto this component, but post-reliability testing revealed a more reliable factor with the exclusion of the crowding attribute pair. However, “crowded/uncrowded” as a variable was still assessed in later testing, separate of any factor. A Cronbach’s Alpha reliability of .603 was assessed through testing. Again, this Cronbach’s Alpha reliability score is rather low, but above the .6 threshold for exploratory factor analysis (Hair et al, 1998).

While some may say it is difficult to experience negative emotions of driving a scenic byway, the nature of the Beartooth Highway could be seen as a frightening experience to many. In fact, many visitor comments provided on the survey referenced this issue. Furthermore, the results to be discussed further in the chapter stress this issue. Interestingly, results from a variety of affective attributes significantly differed by degree of loyalty, which prompted a further look through significance testing.

Combining both the cognitive and affective image constructs together, it is apparent that the experiences visitors have while on the Beartooth Highway are overall positive, among both first-time and repeat visitors. While there is room to improve, stakeholders are doing a fairly good job at providing a positive and enjoyable visitor

experience. The natural areas of the Beartooth are well-kept, clean, and provide a generally safe driving experience for the visitor.

Prior literature suggests that destination image is a multi-dimensional concept (Gallarza et al 2002; San Martin & Rodriguez del Bosque, 2008). As these factor analysis results have shown, the image of the Beartooth Highway is a multi-dimensional construct as well. Within the cognitive and affective image constructs, three dimensions are present. The purpose of the factor analysis was to uncover if image of a highway was more complex than previously thought. These results help to provide an answer and confirm that image is still complex on a travel corridor. Using these results to formulate a destination image for a highway has proven to be possible. The destination image of the Beartooth Highway has both cognitive and affective constructs present. Cognitive image contained three dimensions; driving, recreation, and crowding. Affective image contained three dimensions; naturalness, comfort level, and emotional. The highway is a travel corridor that provides opportunities for both active and passive activities and invokes a positive feeling for most travelers. It has great natural and scenic qualities that provide a unique experience for the visitor.

Land managers and promoters can use these image constructs to better understand the overall experience of traveling the Beartooth Highway. As results show, there are multiple image dimensions of the Beartooth Highway indicating that the experience is more complex than simply driving a highway. Cognitively, recreation, driving, and crowding are three areas that should be understood in developing an image for the highway. Affectively, the factors of emotional, comfort, and naturalness are all part of the experience. Taking these into consideration when making decisions about marketing

promotions as well as land management decisions could provide a better overall experience to visitors.

In summary, the cognitive and affective attribute statements and pairs can be looked at as a way to understand the visitor experience in a more holistic manner. Understanding how visitors conceptualize image and how to interpret the constructs is critical for stakeholders to decipher how to project an image for their destination. Six total factors, in two constructs, were present in the testing of all image components; three cognitive and three affective. Using these factors it was possible to form the full construct of cognitive and affective image. The results of the independent t-tests are discussed in the following section.

Research Question 4:

To what extent does perceived image differ by destination loyalty?

Once image construction was explored through factor analysis, the research investigated any significant differences based on the degree of destination loyalty. To do so, groups were separated by first-time and repeat visitors.

The results of the independent t-tests of the affective statements are rather interesting. Destination loyalty seems to be a factor in the extent that visitor's affective feelings differ (Table 16). Affectively, repeat visitors felt more adventurous, notice the fresh air more, and were more connected to nature than first-time visitors. Cognitively, they were less afraid, less nervous, less stressed, and less awestruck than first-time visitors to the Beartooth Highway. Thus, results show that first-time visitors' comfort level tends to be significantly lower than repeat visitors along with some of their feelings of naturalness.

The differences focused on two main factor variables of the construct; comfort level and naturalness. Loyalty does not seem to affect image perception of the general emotional construct variables of image. However, the degree of loyalty may contribute to the perception of naturalness and comfort level of visitors. For stakeholders, the implications of these findings could suggest that visitors who are on their first trip would benefit from further support to feel more comfortable along the highway. Improved signage along the highway and detailed descriptions included in brochures and websites that discuss the nature of the highway would allow first-time visitors to better gauge whether the road is suitable for them. Providing a look at the highway prior to the trip would formulate expectations of the highway rather than forcing the visitor to find out when they arrive. With that said, the message needs to be carefully constructed as to not discourage visitors from coming.

Although the highway is steep and winding, many visitors who have not experienced that type of road may enjoy it. Without the previous experience of driving the Beartooth Highway, first-time visitors may feel a sense of uneasiness, but still come away with a feeling of satisfaction. Repeat visitors have had the experience of driving the highway previously and form expectations for future visits. This strengthens prior research on past travel experience and its importance in visitor perceptions (Mazursky, 1989; Sonmez & Graefe, 1998). Past travel experience, in this study, does indeed play a role in image construction.

Another concern for the comfort level of first-time visitors is that many of the maps used do not display the Beartooth Highway accurately. As McMaster & Sheppard discuss (2004) this could be a cartographic generalization that is done in lieu of scale.

The highway can appear to be a direct, straight road that would not intimidate those who are afraid of heights or mountain driving. Visitors quickly find out that the road is not portrayed correctly on their map and may feel uncomfortable due to this realization. The experience of driving on mountain roads with large drop-offs or multiple switchbacks could produce a very nervous and uncomfortable feeling for many visitors. Balancing a correct representation on a map and making it fit for publication is a difficult process. It should be made obvious that the highway may gain elevation, but there are scenic and cultural qualities about the road that make it inviting to drive. Perhaps, a map scaled more accurately to the nature of the highway could be provided around local businesses and tourist areas.

Next, cognitive image statements were assessed through independent t-testing (Table 17). Four of the eight image statements differed by whether or not the visitor had a degree of loyalty to the destination. These four were; “of good physical quality,” “safe and secure to drive on,” “good interpretive signs,” and “a variety of outdoor recreational opportunities.” The significant differences fall into two of the cognitive factors; driving and recreation. Repeat visitors tended to feel that the highway was of better physical quality, safe and secure to drive on, and had more outdoor recreational opportunities than first-time visitors. First-time visitors perceived that interpretive signage was of better quality than repeat visitors. Crowding was not seen as significantly different between first-time and repeat visitors.

Interpreting these results poses more questions about loyalty’s link with image. First-time visitors perceive a lower presence of quality and safety while driving the highway, which could correlate with their affective feelings of being more nervous,

stressed, and afraid. This resembles Beerli & Martin's (2004) results that showed first-time visitors affective feelings are related to "relaxing" motivations. First-time visitors may be more sensitive to experiences that are not considered "relaxing."

This is an interesting insight for stakeholders of the highway. Making first-time visitors feel more comfortable may have to do with signage, physical quality of the road, or perception of safety on the road. Beerli & Martin (2004) also cite that primary sources (information formed by personal experience) influence the perceived image of a destination. This is confirmed through the results of this study. It also says that affective and cognitive image constructs are inherently linked to each other. As Beerli & Martin (2004) hypothesized, the perception of cognitive attributes may be formed prior to affective feelings. For loyalty, ensuring that first-time visitors are comfortable may play a large role in whether they return for future visits.

Implications of these differences should be recognized and considered by stakeholders of the region. First-time visitors perceive a better quality of interpretive signage than repeat visitors. Repeat visitors may be attempting to discover even more about the region or attempting to find relevant signage for outdoor recreation. Visitors who are driving the highway only for scenic driving may not be seeking out a more involved and active experience. As results show, repeat visitors participated in more active activities. This suggests that improved signage for these opportunities may provide encouragement for first-time visitors by indicating what activities one can participate in along the highway. Signs that show trail heads, explain recreation in the region, and highlight the unique sights to see should be provided for the benefit of all users. It would not be only first-time or only repeat visitors who benefit from this increased signage. All

visitors would have a heightened “sense of place” and perhaps feel more at ease being provided with additional information to connect them to the destination.

Improved signage for recreation, ecological and natural history should be acted upon. The Beartooth Highway currently has a number of interpretive signs along the road. As the Beartooth All-American Road Corridor Management Plan (Beartooth, 2002) stresses, the aim of interpretive signage objectives is to “stimulate the awareness of humankind’s placement in the natural scene by supplying the facts, information, and interpretation necessary to enhance visitor knowledge, understanding, and respect for the historic and natural resources (p.32).” While the signage was not rated extremely low by visitors, results do show that visitors perceive interpretive signage as lacking compared to other aspects of the highway. If a scenic byway is supposed to be a “driving narrative,” it is necessary to inform the user of this narrative they are expecting. The history in the Beartooth Region is rich and complex. Signs regarding native land uses, tribes, founding of the local communities, wildlife, and geological history would provide a background for visitors to better relate to the region. From each end (Red Lodge & Yellowstone), signage should be relevant to the location of the user. Increasing signage to provide at least one sign per pullout or unique location would benefit the overall experience of the visitor.

Improvement of interpretive signage may increase the perception of the variety of outdoor recreational opportunities. As a primary source of information, research has shown that image is heavily influenced by primary sources (Beerli & Martin, 2004). With increased signage for trailheads or activities, more first-time visitors may have the chance to participate in the activities associated with the Beartooth Highway. Repeat visitors

may have already had a chance to learn about possible recreational opportunities while on previous trips or heard about them once they had left the region. However for visitors who are on a “once-in-a-lifetime” trip, it may be beneficial to the experience to increase awareness of these opportunities at the time of their current trip or prior to visiting.

For research, this connection between perception of safety and affective feelings is a telling issue for tourism. New and different experiences may take the visitor out of their “comfort zone.” Making the visitor feel safe can play a role into whether or not the visitor has a satisfactory experience. While the situation and settings are much different on a scenic byway, these findings could possibly be applied in other contexts. Improving the cognitive or physical attributes of a destination can lead to positive affective feelings, which potentially influence destination loyalty.

Research Question 5:

To what extent do weather conditions influence destination image?

Once destination image of the Beartooth highway was fully understood through visitor loyalty and across both constructs, factors that may or may not influence destination image were assessed. Weather was a component used to assess whether image was affected by external conditions. While some aspects of image are driven by the aesthetic or visual experiences, many scenic byways are driven by their natural settings, especially the Beartooth Highway. As Table 18 indicated, weather was not extremely variable, but some dispersion of weather conditions did exist. If visitors were unable to fully experience the byway, was their image of the destination affected? To explore this question, a multivariate regression model was used. While variables such as weather cannot be controlled, it is important to understand if image is affected by weather. For

example, if weather conditions do effect how visitors perceive a destination, these differences in image can be controlled for in further analysis. Prior literature has not focused directly on weather conditions' ability to predict image, but has looked at other factors such as demographics and cultural history (Beerli & Martin, 2004; San Martin & Rodriguez del Bosque, 2008).

Weather conditions can be extremely variable in the Beartooth Region. Conditions may change unexpectedly and a variety of differing weather patterns may be experienced in a single trip. It was due to this variation of conditions that it was thought weather may be a contributing factor to the perception of image. In order to assess this potential relationship, four conditions of weather were asked of the visitor and compared against image ratings (Figures 7-8).

The four weather conditions measured were: outdoor temperature, amount of precipitation, amount of wind, and degree of visibility. Due to a warm, dry summer in the Western US, wildfires were prevalent across the region in the later summer of 2012. Smoky conditions were observed throughout the later portion of the data collection period by the researcher. Thus, degree of visibility was a key condition that was thought to affect image perception by visitors. As visitors' perception shows, the Beartooth Highway is a natural and scenic location, but when vistas are obstructed, a chance of a lessened visitor experience and image was thought to possibly exist.

However, multivariate regression tests show the exact opposite effect of weather conditions and image. Weather conditions did not affect image perception by more than a few percent of variation in the image scores. The take away from these results is that

variable weather conditions do not seem to affect the perceived image of visitors. While it may affect the visitor experience, their image remains unchanged.

Exploring this component of image provides an interesting realization of image perception due to the naturalness and scenic qualities of the Beartooth Region. Visitors are generally participating in passive viewing activities or active outdoor activities, all of which are typically more desirable with ideal weather conditions. Being able to state that weather was not influential in image perception can give insight into how image is constructed by visitors. Visitors appear to realize that uncontrollable weather conditions of the destination should not dampen their overall image. This is encouraging since promotional photos generally show blue skies and clear air.

In summary, the variations in weather conditions were found to not have a strong relationship with image perception along the Beartooth Highway. Image may be more than the current experiences that are formed while at the destination. While weather has been indicated as a characteristic of image (Beerli & Martin, 2008; Wang & Hsu, 2010), the mental construction of image may not be directly tied to the present conditions of the environment. If the scenic qualities of a byway cannot be viewed, it may not affect the way the visitor perceives the area. For image research, this strengthens the prior research on factors that influence image. For stakeholders, enhancing the visitor experience is not dependent on the weather conditions and if the weather is less than preferred, a positive experience can still be provided. It appears image is more than a visual or conditional conceptualization. Constructing image appears to revolve around more complex qualities of the area, not conditions of the current visit. Thus, non-desirable image perception cannot be attributed to weather conditions of the visit.

Research Question 6:

Do traveler motivations differ by destination loyalty?

Visitors were asked to state their motivations for traveling the Beartooth Highway. Of 18 visitor motivations provided, visitors were asked to rate each response by level of importance to their trip. The scale ranged from being 1 = “not at all important” to 5 = “extremely important.” Similar to previous sections, destination loyalty was used as the grouping variable to determine if motivations differed between visitors who had previously been to the Beartooth Highway.

All visitor motivations were rated above a 2.0 rating (Figure 9). The top three rankings of visitor motivations were “to view the scenic beauty (4.46),” “to enjoy nature (4.35),” and “to experience a natural surrounding (4.30).” As the distribution shows, visitors were motivated to travel because of the naturalness and scenic qualities of the Beartooth Region. This is not surprising due to the Beartooth Region’s unique surroundings and wild places.

However, the social bonding motivations of “to do something with your family (3.59),” and “for family recreation (3.28)” were ranked lower than scenic and natural qualities of the highway. It seems that while these motivations were of some importance to visitors, the majority of visitors stated that the natural qualities of the Beartooth were what motivated them to travel to the region. Thus, preserving these natural qualities is of utmost importance to visitors and should not be overlooked by stakeholders.

In order to keep up the expected natural qualities of the highway, increased monitoring should be implemented to the highway. This should not be the responsibility of one agency or stakeholder, but should be a cooperative effort by all actors. As

Manning (2010) suggests, a combination of direct and indirect actions should be implemented in order to achieve this goal. For example, increasing awareness of degradation due to unintended trail uses, signage stating the importance of the natural qualities to the region, and direct regulations (fines, agency intervention) for noncompliance could be ways to preserve the landscape. Both Wyoming and Montana must take responsibility for this region and manage it as a destination. According to the economic impact results, both states have a large stake in this region and need to work together to maintain it.

Following the mean distribution of motivations by all visitors, independent t-tests were conducted to assess if significant differences were present if the visitor had previously been to the Beartooth Region. Tables 19 and 20 displayed the 18 independent t-tests that were conducted on motivations. Surprisingly, only 5 of the 18 motivations were significantly different when compared to loyalty. Those five were: “to view the scenic beauty,” “to be with friends,” “to get away from the usual demands of life,” “to experience open space,” and “to be with others who enjoy the same things you do.” These results pose interesting questions on destination loyalty’s influence on motivations. Of those motivations that differed, they were focused on escaping the congested, everyday life and being with friends or likeminded others. Visitors who are on repeat trips to the Beartooth Region may be looking for more of an escape to a natural area than first-time visitors. This poses interesting results when compared with Beerli and Martin’s (2004) study. Beerli & Martin (2004) found that first-time visitors’ affective image was related to “relaxing” motivations. This study’s results show that repeat visitors are more concerned about getting to a natural place than first-time visitors. They also may be more

interested in traveling with friends or with people who enjoy the type of activities that they enjoy. A first trip to the region may have been for a reason besides enjoying time with friends in a natural area and the repeat visit may be to have a different experience.

However, first-time visitors tend to have the same motivations for traveling the Beartooth Highway, in general, as repeat visitors. These results provide insight into what visitors are looking for on their travels to the Beartooth Highway. Visitors tend to look for natural surroundings, open space, and an experience that allows them to escape their everyday lives.

For stakeholders, understanding these motivations for visitors who are traveling to their region can enhance the overall experience. Providing opportunities for visitors to fulfill these motivations can provide a positive experience and possibly influence future behavioral intentions. As Chi & Qu's (2008) study found, the link between tourist satisfaction and loyalty is shown as a linear, positive relationship. Thus if the visitor is satisfied, the chances for their returning to the destination are significantly higher. If these motivations cannot be fulfilled, the satisfaction of the visitor may be lower than what it could have possibly been.

Research Question 7:

To what extent can visitors be segmented and compared by activity participation?

Research question 6 pertained to the activities nonresident visitors participated in while along the Beartooth Highway. While visitors may have participated in certain activities outside of the study region (Yellowstone NP, Grand Teton NP, etc.) the Beartooth Highway provides a number of unique recreational opportunities apart from the neighboring areas. Because of prior literature on activity/ visitor segments, these

activities were thought to possibly be a factor in the trip characteristics of the visitor (Leones et al, 1998; Mehmetoglu, 2007).

Table 21 displayed the activity participation by first-time, repeat, and all visitors. As results showed, the majority of all visitors participated in generally passive activities such as scenic driving (84.2%), nature photography (61.3%), and wildlife watching (57.9%). This was relatively consistent among first-time and repeat visitors. However, there were a number of visitors who participated in more active activities such as day hiking (21.2%), camping (11.7%), and birding (9.8%). First-time visitors had a lower percentage of participation in active activities than repeat visitors in almost every category. While first-time visitors did participate in some active activities, it seems as though familiarity with the region accounted for more participation in activities outside of the driving experience. With the results of the independent t-tests on cognitive image differing in four of eight statements, there may be a link between cognitive image perception and activity participation. As stated earlier, first-time visitors significantly differed in their perception of the variety of outdoor recreational opportunities. Repeat visitors tended to perceive the Beartooth Highway as having more opportunities. This may be a contributing factor in the participation in active activities.

Once participation was assessed, visitors were divided by activities through a priori segmentation. Through this segmentation four activity types were identified: “road tourers,” “active outdoors,” “knowledge seekers,” and “passive viewers.” These activity groups were selected due to their similar characteristics.

The “passive viewers” segment was the largest of all activity types (41%). This is not surprising as the activities included in this segment were ranked as the top three in

participation (scenic driving, nature photography, and wildlife watching). These visitors spent the least number of nights in the Beartooth Region (1.35), but had the highest average daily spending (\$178.39) (Table 22). For marketers and promoters, enticing these types of visitors to stay longer in the region could mean increased economic impacts. Providing increased awareness to the recreational opportunities or activities inside of the gateway communities may lengthen the stay of this segment of visitors. While prior studies (Leones et al, 1998) have shown that activity type may be more important than nights spent in economic terms, encouraging the activity type with the highest average daily spending to stay longer in the region may be beneficial to the economic contribution.

The “active outdoors” activity segment was the highest in nights spent in the Beartooth Region with an average of 3.75 nights per trip. Also, their total spending in the Beartooth Region was the most with \$16.35 million in total visitor spending. However, average daily spending (\$82.94) was the lowest of all activity segments. While this activity segment does spend less per day, they have a significant economic contribution to the Beartooth Region due to length of stay and volume of active visitors. Enticing these visitors to visit more establishments and use more services may encourage more daily spending for this segment. However a number of the activities associated with the “active outdoors” segment (camping, backpacking, etc) keep visitors away from the towns. It may be difficult to encourage them to spend more money when they do not visit the towns very long because they stay along the road or in the backcountry. Visitors who are coming to the region for outdoor activities probably plan them well in advance. On websites, guidebooks, and brochures promoting the local communities unique

characteristics, such as Cody's Wild West Heritage and Buffalo Bill Museum, may entice the "active" visitors to go into town and perhaps even stay longer increasing the expenditures in the local communities.

"Knowledge seekers" and "road tourers" were situated between the "active outdoors" and "passive viewers" in terms of segment size. However, "knowledge seekers" had the highest total trip spending (\$331.51) compared to any other segment. These results appear to be different than Mehmetoglu's (2007) study. In that study, individuals visiting "historic/cultural sites" were considered 'light spenders.' As results indicate, that is not the case for this study. Also while their economic contribution was less than "passive viewers" and "active outdoors," their total percentage of the population was only 19 percent. Thus, their economic contribution may rise if more of these visitors were targeted in marketing campaigns. One way to possibly increase the visitation of this segment would be to improve interpretive signage. As shown in Table 12, interpretive signage was the lowest ranking cognitive image statement. If the scenic byway is converted into more of a "driving narrative," it may encourage more "knowledge seekers" to visit the region.

Finally, "road tourers" tended to be a limited, but still present, percentage of the population. While representing only eight percent of all visitors, "road tourers" spend a considerable amount of money per trip (\$306.54). These results are promising and show that if more alternative road users are drawn, their economic contribution to the region may be more prevalent. It should not be thought of as encouraging more spending, but simply as increasing visitation by these users. Lengthening the duration of the trip seems to be difficult among this group. Most of these types of visitors will travel the Beartooth

Drawing potential visitors from this segment could be the way to target more of this segment. Promoting in bicycling and motorcycle magazines may reach a market that is interested in this type of trip, but unaware of the possibilities along the highway.

Linking Place and Image

Presented in chapter two, place and image were two of the main concepts of understanding the visitors' connection and perception to a destination. While the concepts of destination image and place come from differing fields, marketing and geography, understanding the connection between how visitors conceptualize a place and their perception is important. As the results indicated, repeat visitors made up over half of the visitors in the Beartooth Region showing that visitors do appear to have some sort of connection with the area. In fact, over 10 percent of visitors have been to the area more than 25 times.

Tuan (1974, 1975) points out that place and "sense of place" are very subjective and difficult concepts to measure. However based on the data, it appears as though Beartooth Highway visitors generally do have some degree of place attachment or "sense of place." While it may be hard to quantify sense of place, trends and indications of a sense of place can be drawn through the sheer number of travelers who keep returning to the region. Place attachment as defined by Hidalgo & Hernandez (2001) relates to the "affective bond or link" to places. If affective image results are compared with this definition of "place attachment (Hidalgo & Hernandez, 2001), the affective feelings experienced along the Beartooth Highway are positive and rather strong. This may imply that there is some type of attachment by some visitors to the Beartooth Highway and surrounding region, however, the degree and nature of the attachment is unknown.

Results indicate that the Beartooth Highway appears to be a viable and somewhat still developing “tourism place (Wearing et al, 2010).” As noted earlier, the conception of a tourism place requires the interactions of local people and nonresidents (Wearing et al, 2010). The Beartooth Highway and gateway communities certainly provide a “place” for tourists to spend time, share memories, and have meaningful experiences. However, a number of visitors appear to not be taking advantage of, or perceive it as a place for them to visit. While a large number of the visitors to the Beartooth Region appear to be *choraster's*, not all visitors are actively engaged. The activity segments of “active outdoors,” “knowledge seekers,” and “road tourers” appear to be more actively involved than “passive viewers.” “Passive viewers” spent less time and only participated in activities that appear to not be as involved. Thus, “passive viewers” may be more of a *flanuer*, or those who “gaze.” Once the “passive viewer” becomes more involved with the place, they can then become an active player in the tourism place and become a *choraster*, or one who is actively engaged.

In summary, repeat visitors are more actively involved in the place compared to first time visitors and many appear to have a deep connection with the Beartooth Region. It is unknown to what extent or what type of connection they have with the place, but their image is higher in certain aspects once they have visited the region. Using Hidalgo & Hernandez’s (2001) definition of place attachment and comparing it with affective image, it appears as though visitors have strong positive feelings about their experiences. Once first-time visitors become “attached” to the place, results indicate that they become more involved in the place and are more likely to participate in activities in which first-time visitors generally did not participate. Thus, it can be said that the Beartooth

Highway and surrounding gateway communities is a place of importance and most certainly a “tourism place.”

Stakeholder, Management, and Marketing Implications

This study provided a view into the diversity of visitors on the Beartooth Highway. Results show that management and marketing of the travel corridor should reflect this diversity. Prior to this research, little to no information was known about the travelers who frequent the Beartooth Highway. For stakeholders and marketers, this baseline of what can be expected of the visitors and how to manage the land for their diverse uses has been a significant contribution. These stakeholders include: US Forest Service, National Park Service, State of Wyoming and Montana, local counties (Park County, MT, Park County, WY, and Carbon County, MT), the local cities of Red Lodge, Cooke City, and Cody, and the Friends of the Beartooth organization. Stakeholder implications are discussed, followed by marketing implications.

Due to the diversity of stakeholders, managing the highway can prove to be difficult. Each entity has a separate goal and mission, which is influential in decision-making. As of now, Friends of the Beartooth currently holds the corridor management plan for the highway. However, the responsibility of managing this plan does not fall solely on them. It is suggested that a more collaborative management plan be implemented.

At times management of the highway appears to be fragmented. The participation of stakeholders at all scales (state-wide, city-wide, and agency-wide) in the management of this region needs to be reconsidered. This study revealed the economic benefits of the highway on the gateway communities. Maybe it is time that Yellowstone National Park’s

role in the Beartooth Highway be discussed. While it is in their best interest to stay a part of the management and decision-making of the highway, the responsibility of plowing the highway should be re-evaluated. For years, opening the road has been a cooperative effort between Yellowstone NP and Montana Department of Transportation. Transferring the responsibilities such as plowing and opening of the road to the states is an action that may provide more efficient management of the highway. With a dwindling federal budget, Yellowstone may not be able to contribute as much time and money into plowing the road.

Furthermore, the role of the local Forest Service districts could be enhanced through collaborative management. The highway should holistically, not in parts. Therefore working together on signage, websites & maintenance requirements will provide a more seamless experience for the visitor. Additionally, campgrounds opening/closing times should be discussed and clearly posted for visitors on all possible websites. Visitors commented on the unexpectedness of closings and openings of facilities. Increased communication and planning of these openings and closings needs to be implemented.

However as the results of the image study show, visitors are generally having positive experiences while in the region. The stakeholders of the area have provided a unique experience and most visitors are grateful and satisfied. It is to be noted that the stakeholders are doing a rather good job managing their respected areas, but the management could be more interconnected. The implementation of a collaborative management framework would possibly improve these experiences.

Reconceptualization of the highway may help in future management. Results indicate that the highway is more than just a road connecting point A and point B. The highway is much more than that to the users. For local residents and business owners, the highway can have a variety of meanings including economic dependence. Due to the seasonality of the area and of tourism in general, the highway's opening is thought of as the start of their summer tourism season and the beginning of their busiest season. Local residents rely on the highway for their quality of life. Nonresidents see it as a destination that provides exceptional scenic and natural experiences. Comments by local people during meetings made it obvious that the Beartooth Highway was much more than just a highway. It is seen as more than even a "scenic" byway to the local residents. The Beartooth Highway directly provides their economic livelihood. Without this highway, these towns would not be functioning as they do currently.

For marketing purposes, Beartooth visitors tend to be motivated by the natural settings and ability to escape their everyday life. Understanding these motivations and expectations can lead to a targeting of what the Beartooth Highway can provide for the visitor. Promoting the area's scenic qualities, natural areas, and open space may be a strategy to encourage visitation.

Marketers and promoters could look at the positive responses that visitors had about the region. Generally, visitors are enjoying their experiences while along the Highway. Preserving these places and promoting the positives (cleanliness, natural & scenic qualities) will continue to ensure that visitors are leaving satisfied with their experiences. Building onto the research from Cai et al (2003), Hernandez-Lobato et al (2006), and Chi & Qu (2008), continuing to provide ways for visitors to have positive

affective feelings about the region can lead to a higher degree of loyalty. Maintaining the high degree of affective feelings that visitors currently have and improving the comfort level of first-time visitors through signage and increased awareness can potentially lead to revisitation and more economic contribution.

Marketers are now able to look at the activity segments of the Beartooth Highway and target specific markets accordingly. The four segments allow for a further look into the activities of the Beartooth visitors. Promoting the highway as a destination suited for all people can also be done. Visitors participate in a wide array of activities and there is something to do for everyone. Encouraging the use of the highway from outside of the vehicle can allow for visitors to experience the region in a way that they may not have thought about.

Bicyclists and motorcyclists were identified as the segment called “road tourers.” The “road tourer” segment was the smallest represented. Marketers should look towards discovering where these users find their information for trip planning in order to target this segment. Promoting in the road biking and motorcycling magazines as well as biking/motorcycling websites would increase awareness of the Beartooth highway as a fun road destination with exciting towns on either end to relax in after the ride. Economically, this would contribute more revenue as “road tourers” spent an average of \$306.54 per trip in the area.

Targeting the “knowledge seekers” segment requires more work than the others. The “knowledge seekers” segment was the third highest. However, this segment spends the most per trip (\$331.51). Economically, it would be best for marketers to try and promote the area towards more “knowledge seekers.” The first step would be to increase

interpretive signage. “Knowledge seekers” specifically visit interpretive and historical sites. Making signs more obvious and improving the frequency of signs or a mobile web app would benefit users of this segment.

Next, the “active outdoors” segment contained a high volume of visitors. This segment spends many nights (3.75) in the region, but does not have a high daily trip spending amount (\$82.94). Marketers should aim to promote activities inside the communities for when these users are not participating in outdoor activities in order to increase expenditures. While some of this type of marketing is already done, continuing to market specific places in town, for example, for fly fishermen or hikers to eat may entice these visitors to spend more money in the local communities. Furthermore, promoting the unique places in the towns (Buffalo Bill Museum in Cody for example) may increase the length of stay or alter trip characteristics of this visitor segment.

“Passive viewers” have a high average daily spending amount (\$178.39), but the shortest length of stay (1.35). Marketers should focus on attempting to lengthen the stay of this activity segment and uncover why these visitors aren’t staying in the region for a longer length of time. For instance, these users participated in more passive activities such as nature photography and scenic driving. Targeting this group to do more outdoor activities may lead to a longer stay. For example, if a visitor is going to only drive the highway as a day-trip, but then discovers hiking trails or fishing locations, they may decide to stay an extra night in the region. This would increase the overall spending of the segment and, ultimately, increase economic contribution. A more strategic advertising campaign that highlights the outdoor activities along the highway would lead to a greater awareness to first-time visitors.

Finally, stakeholders and marketers can now use the economic impact data for stating their case for future improvements. As the data shows, local communities benefit greatly from the highway and rely heavily on the travelers using it. In light of limited budgets, ensuring the future upkeep of the Beartooth Highway can be supported with this data. It can essentially be argued that local communities are very dependent economically on the Beartooth Highway. The absence of visitors traveling the highway would have a detrimental effect on the quality of life of local residents.

In summary, stakeholders and marketers now have a better understanding of the visitors who frequent the region. Through visitor motivations, image/image differences, and activity segments, more collaborative management and targeted marketing could occur. Decision-making along the corridor should take into consideration these results and better implement techniques and strategies to provide a quality experience for the benefit of the visitor and the gateway communities.

Contributions to Tourism

This study contributes to a wide range of tourism research by further exploring the perception of destinations by visitors, economic impacts of tourism, and the factors that affect them. Exploring how an alternative destination, such as a highway, is perceived by visitors gives insight into what stakeholders and managers of these regions should focus on in the future. As Pike (2002) stated, the majority of image studies had previously focused on countries, states, cities, or resorts. This study adds to the already large body of image research and shows that image goes beyond the typical areas of a nation, state, city, or park.

The economic impact generated by travelers on the Beartooth Highway further strengthens the case for tourism's role in local economies. Nonresident visitor expenditures can support local gateway communities greatly. Using this study as another example of tourism's importance, potential and existing destinations can be further assessed to explore their impacts on the local communities that neighbor the destination. Moreover, it shows that a scenic byway can be an economically viable tourism place.

Finally, understanding the differences of image perception by degree of loyalty gives a better understanding of how first-time and repeat visitors conceptualize destinations and their expectations. Supporting the link between loyalty and image can further improve the visitor experience and provide a meaningful and memorable destination for years to come. The results from this study can be drawn to other destinations to explore whether destination loyalty and image are inherently linked.

Future Research

While this study answered a wide variety of questions surrounding visitors traveling to the Beartooth Region, future research on this region or similar regions can give an even more complete picture of a highway destination. Understanding how visitors chose to visit the region prior to visiting and what sources used to make their travel decisions would be beneficial to marketers, stakeholders, and other researchers. Through this study, it is possible to better understand image perception of destinations and differences in repeat or first-time visitors, but we do not know why they chose this area in the first place.

From an analysis point of view, it is recommended that the image scales are larger than a 4-point scale so as to allow for more dispersion among respondents. Statistical

analysis could be conducted more in-depth with an increased scale. Furthermore, the significant differences or similarities may change with an expanded scale.

To strengthen the case for a highway destination, other similar scenic byways could be assessed to determine if visitors perceive them in a comparable manner. Visitors perceived that the Beartooth Highway was more than a highway; it was a destination not just a travel route. It is difficult to generalize the results of this study to other “All-American Roads” or scenic byways. Other scenic byways may simply be a “pretty drive” or a road from point A to B. Thus, a comparable study on other scenic highways would be beneficial to the field.

While image and loyalty should be looked at further on other scenic byways, results of the economic impact portion provide evidence of the contributions from nonresidents traveling scenic byways. These results signify the importance of byway designations for local gateway communities. Further looking into the economic impacts of other gateway communities on byways will strengthen the case that nonresident travel on scenic byways is or is not critical to their viability. Building the link between image, satisfaction, and loyalty gives stakeholders more information into how to improve economic contributions from visitors.

To complete the picture of tourism on the Beartooth Highway, the winter tourism season should be included. The winter portion of the Beartooth Highway is ongoing, but was not included in this thesis. In order to fully understand how visitors perceive the Beartooth Highway, it would be appropriate to ask similar questions of those visitors who are participating in winter recreational activities.

Concluding Remarks

The goal of this research was to understand multiple characteristics of visitors along the Beartooth Highway. Due to the lack of research on tourism in the region, accurate and reliable data was not available prior to this study. The perceived image of nonresident travelers along the Beartooth Highway was unknown before this study. In general, visitors tended to perceive the Beartooth Region in an overall positive light. Their motivations for traveling the highway focused on the natural and scenic qualities of the highway. Moreover, the economic impacts of these travelers are quite large and extremely important to the local communities. Without the high number of nonresident travelers, many of these communities would not be what they are today. This study presents and forms discrete segments of the population based on activity type. These four activity types, “road tourers,” “active outdoors,” “knowledge seekers,” and “passive viewers,” provide a marketing opportunity for the local communities

The diversity of residence of these visitors is surprising. Nonresident travelers come from around the world to experience what the Beartooth Highway, Montana, and Wyoming have to offer. Fortunately, stakeholders are providing a high quality experience that entices visitors to return. Nearly half of the visitors to the region were repeat visitors. More importantly there is a draw that is enticing new visitors to travel the Beartooth Highway. Those visitors, in turn, will become the loyal travelers.

Hopefully, other scenic byways and non-typical destinations use this research as an example towards better understanding their visitors and their destination. Providing visitors from around the world a place to share and experience new and different cultures

can be a very positive, rewarding experience. Research can also bring to light the important role that tourism plays in a variety of local resident's quality of life.

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APPENDIX A: SURVEY INSTRUMENT

On-site Survey

Site ID _____ Date _____

Residents of the Beartooth Hwy

1. Are you a resident of any of these counties: Carbon county, MT; Park county, MT; or Park county, WY?
___ Yes ___ No (Continue with #1A below)
a. If yes, which one? ___ Carbon, MT ___ Park, MT ___ Park, WY
2. Approximately how many times in a year do you travel on any segment of Hwy 212 between Red Lodge and the northeast entrance of YNP? _____
3. How many people are in this vehicle? _____
4. Where did you enter the Beartooth Highway? ___ Silver Gate ___ Chief Joseph ___ Red Lodge
5. Today while driving on the Beartooth Hwy, how many times will you have left highway at any of these three spots?



Exited towards YNP _____ Exited towards Red Lodge _____



Nonresidents of the Beartooth Hwy

- 1A. If not, (from those three counties) what is your State/Province/Country of residence? _____
2. What is your zip/postal code? _____
3. How many people are in this vehicle? _____
4. On this trip, are you spending any nights in the Beartooth Hwy Region? ___ Yes ___ No
5. Where did you enter the Beartooth Highway? ___ Silver Gate ___ Chief Joseph ___ Red Lodge
6. While driving on the Beartooth Hwy today, how many times will you have left highway at any of these three spots?



Exited towards YNP _____ Exited towards Red Lodge _____



Mailback Survey

Beartooth Highway Visitor Survey

The Beartooth Highway (Hwy 212) runs between Red Lodge, MT and Silver Gate, MT.

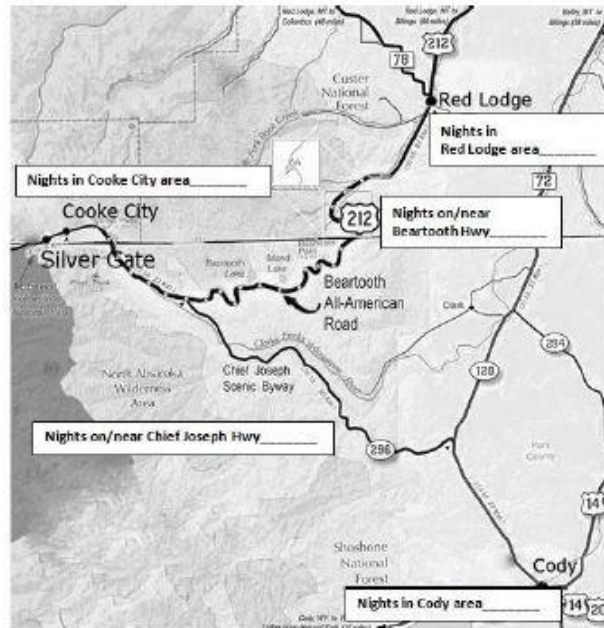
On this trip, what was your mode of travel along the Beartooth Highway?

- Car/Truck RV Motorcycle
 Car/Truck w/ trailer Bus Bicycle

During your travels along the Beartooth Highway, how often were you the driver of your mode of travel? (Please 'X' the box that best represents your answer)

- Not at all Infrequently About half Often All the time

Please indicate on the map the number of nights you spent in/near any of the three gateway communities as well as on/near the Beartooth Highway. Write in "0" if you did not spend a night in any of these five areas.



For this trip to the Beartooth area, please indicate the amount spent and where you spent those dollars.

	Along the highway	Red Lodge, MT	Cody, WY	Cooke City/Silver Gate
Camping	\$	\$	\$	\$
Hotel/motel	\$	\$	\$	\$
Ranch/B&B/rental cabin	\$	\$	\$	\$
Gasoline/oil	\$	\$	\$	\$
Restaurant/bar	\$	\$	\$	\$
Groceries/snacks	\$	\$	\$	\$
Retail/souvenirs	\$	\$	\$	\$
Outfitters/guides	\$	\$	\$	\$
Auto/RV repair	\$	\$	\$	\$
Auto/RV rental	\$	\$	\$	\$
Transportation fares	\$	\$	\$	\$
Entrance fees, admissions, Licenses	\$	\$	\$	\$
Services (i.e. medical, hair cut, massage)	\$	\$	\$	\$
Other (describe below)	\$	\$	\$	\$
Description of other expenses:				

In which of the following locations did you spend at least one night away from home on this trip? (Please check all that apply)

- Yellowstone Nat'l Park
 In or near Jackson, WY
 In or near Bozeman, MT
 In or near Gardiner, MT
 Grand Teton Nat'l Park
 In or near West Yellowstone, MT
 In or near Livingston, MT
 In or near Billings, MT

I used the northeast entrance of Yellowstone National Park to/from the following communities... (Please "X" in the box if you daytripped from any of these cities)

- Cody, WY
 Red Lodge, MT
 Cooke City, MT
 N/A

I drove the Beartooth Highway because... (check all that apply)

1. It is a designated scenic road
 5. I heard it was a pretty drive
 2. It was the shortest route to my destination
 6. It was recommended to me
 3. It was my access to recreation along the road
 7. An electronic map suggested the route (e.g. GPS, Google maps, Garmin, etc.)
 4. It is the road to Yellowstone National Park

Of the reasons you checked above, which one was the PRIMARY reason? (Check only one box)

- 1 2 3 4 5 6 7

Prior to this trip, approximately how many times have you visited the Beartooth Highway Region including the gateway communities?

On this trip, did you travel over the Beartooth Pass?

- Yes No

While driving the Beartooth Highway on this trip, please describe the weather you experienced. (Please "X" the box that best represents your answer)

	None	Little	Some	Frequent	Heavy
Amount of precipitation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Cold	Cool	Moderate	Warm	Hot
Outdoor Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Slight Breeze	Some Wind	Windy	Very Windy
Amount of Wind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Could Not See Anything	Low Visibility	Moderate Visibility	Good Visibility	Crystal Clear
Degree of Visibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How much time were you out of your vehicle or off your bike along the Beartooth Highway? (Please "X" the box that best represents your answer)

- Never
 Less Than 1 Hour
 1 - 2 Hours
 1/2 Day
 Full Day
 More than 1 Day

Indicate your agreement level on the following questions or statements. (Please "X" the box that best represents your answer)

	Strongly Disagree	Disagree	Agree	Strongly Agree
In planning this trip, the Beartooth Highway was a main destination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I plan my travel routes to include scenic byways, like the Beartooth Highway.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would travel the Beartooth Highway again in the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would like to visit Red Lodge, MT in the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would like to visit Cooke City, MT in the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would like to visit Cody, WY in the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would recommend others to travel the Beartooth Highway.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Beartooth Highway is/has... (Please "X" the box that best represents your answer)

	Strongly Disagree	Disagree	Agree	Strongly Agree
...of good physical quality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...safe and secure to drive on.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...easy to navigate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...free of debris and litter.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...too crowded.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...ample number of pullouts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...good interpretive signs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a variety of outdoor recreational opportunities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please describe the variation of your thoughts and feelings while traveling the Beartooth Highway on this trip.
(For each pair of descriptive words below, please "X" one box per line that best represents your answer)

Q1.	Relaxed	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Stressed
Q2.	Bored	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Excited
Q3.	Calm	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Nervous
Q4.	Sad	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Happy
Q5.	Disappointed	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Awestruck
Q6.	Uncrowded	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Crowded
Q7.	Comfortable	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Afraid
Q8.	Reserved	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Adventurous
Q9.	Visually Bored	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Visually stimulated
Q10.	Quiet	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Noisy
Q11.	Smelled the fresh air	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Did not notice the fresh air
Q12.	Connected to nature	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	Disconnected from nature

Please indicate activities in which any member of your travel group participated while along the Beartooth Highway. ("X" all that apply)

<input type="checkbox"/> Camping	<input type="checkbox"/> Wildlife Watching	<input type="checkbox"/> Canoeing/kayaking	<input type="checkbox"/> Skiing/snowboarding
<input type="checkbox"/> Backpacking	<input type="checkbox"/> Mountain biking	<input type="checkbox"/> Fishing/ty fishing	<input type="checkbox"/> Cross Country skiing
<input type="checkbox"/> Day hiking	<input type="checkbox"/> Motorcycle riding	<input type="checkbox"/> Sporting event	<input type="checkbox"/> Snowshoeing
<input type="checkbox"/> Horseback riding	<input type="checkbox"/> Road/tour biking	<input type="checkbox"/> Historical site	<input type="checkbox"/> Sledding
<input type="checkbox"/> Nature photography	<input type="checkbox"/> Scenic driving	<input type="checkbox"/> Interpretive site	
<input type="checkbox"/> Hunting	<input type="checkbox"/> ATV/OHV	<input type="checkbox"/> Festivals/events	
<input type="checkbox"/> Birding	<input type="checkbox"/> Motorboating	<input type="checkbox"/> Snowmobiling	

On this trip, did you visit Red Lodge, MT for one hour or longer? Yes No (Skip questions about Red Lodge, MT)

Red Lodge, MT provides... (Please "X" one box per line)

	Strongly Disagree	Disagree	Agree	Strongly Agree
...authentic shopping opportunities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...unique and rich heritage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...exciting nightlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...opportunities to experience local cuisine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...opportunities to engage in local culture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...places to purchase local arts/crafts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...new and different activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a welcoming experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a relaxing feeling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a crowded feeling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

On this trip, did you visit Cooke City, MT for one hour or longer? Yes No (Skip questions about Cooke City, MT)

Cooke City, MT provides... (Please "X" one box per line)

	Strongly Disagree	Disagree	Agree	Strongly Agree
...authentic shopping opportunities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...unique and rich heritage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...opportunities to experience local cuisine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...exciting nightlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...opportunities to engage in local culture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...places to purchase local arts/crafts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...new and different activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a welcoming experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a relaxing feeling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a crowded feeling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

On this trip, did you visit Cody, WY for one hour or longer? Yes No (Skip questions about Cody, WY).

Cody, WY provides... (Please "X" one box per line)

	Strongly Disagree	Disagree	Agree	Strongly Agree
...authentic shopping opportunities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...unique and rich heritage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...opportunities to experience local cuisine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...exciting nightlife.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...opportunities to engage in local culture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...places to purchase local arts/crafts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...new and different activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a welcoming experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a relaxing feeling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...a crowded feeling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What are your reasons for visiting and traveling the Beartooth Highway? (Please "X" one box per line)

	Not at all Important	Somewhat Important	Moderately Important	Very important	Extremely important
To view the scenic beauty.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For family recreation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To be with friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To tell others about the trip.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To get away from the usual demands of life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To experience solitude.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To enjoy nature.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To bring your family closer together.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To do things with members of your group.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To have others know you have been there.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To have your mind move at a slower pace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To experience open space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To experience a natural surrounding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To do something with your family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To be with others who enjoy the same things you do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To have thrills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To reduce the feeling of having too many things to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To experience more elbow room.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What is your age?

What is your gender? Male Female

Are you a domestic or international traveler? Domestic International

What is your highest completed level of education? (Please "X" only one box)

<input type="checkbox"/> Some High School	<input type="checkbox"/> Some College	<input type="checkbox"/> Masters Degree
<input type="checkbox"/> High School Diploma or the equivalent (GED)	<input type="checkbox"/> Associates Degree	<input type="checkbox"/> Doctorate or Professional Degree
	<input type="checkbox"/> Bachelors Degree	

What best describes your household annual income in US dollars? (Please "X" only one box)

<input type="checkbox"/> Less than \$25K	<input type="checkbox"/> \$50K to less than \$75K	<input type="checkbox"/> \$100K to less than \$150K	<input type="checkbox"/> \$200K or greater.
<input type="checkbox"/> \$25K to less than \$50K	<input type="checkbox"/> \$75K to less than \$100K	<input type="checkbox"/> \$150K to less than \$200K	

Please provide any additional comments:

Thank you!

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