Tourism in Wyoming: A Study of Information Sources and Traveler Satisfaction

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Disclaimer

EXECUTIVE SUMMARY

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Tourism is a very important industry to Wyoming. Understanding the trends of this industry helps the state provide tourists with an enjoyable, informative, and memorable experience. This study was designed to obtain information from Wyoming tourists to determine the main reasons for visiting, tourist information sources used, Wyoming attractions perceived as most desirable to visit, and information about the condition of the Wyoming highway system and its relation to traveler satisfaction.

The primary reasons for traveling to Wyoming indicated by respondents were to visit 'the national parks, monuments, and forests' and 'family or friends.' Information about the state was obtained mostly from 'family and friends' or 'Wyoming information and visitor centers.' The most popular Wyoming attraction indicated was 'Yellowstone National Park.' Respondents felt that, in general, the Wyoming highway system was in adequate condition and only a few people were negatively influenced by their driving experience.

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CHAPTER 1

INTRODUCTION

The tourism industry employed 29,000 Wyoming workers in 1989, more than any other industry in the state (8)[1]. More than five million tourists spent over 350 million dollars while visiting Wyoming in 1989, making tourism the state's second greatest economic industry. There has been a steady 5 percent increase per year in the number of tourists visiting Wyoming for the last 15 to 20 years (23). These facts suggest the importance of tourism to the state and why it should be studied further. Understanding what first influenced people to visit particular destinations and where they first encountered this information provides the clues that are vital to continuing tourism growth.

Tourism can be defined in very specific or very general terms. Researchers tend to define tourism in a way that suits their current project demands. In 1986, McIntosh and Goeldner defined tourism as "the entire world industry of travel, hotels, transportation, and all other components, including promotion, which serves the needs and wants of travelers (18)." In 1982, Mathieson and Wall defined tourism as "the temporary movement of people to destinations outside their normal places of work and residence, the activities undertaken during their stay in those destinations, and the facilities created to cater to their needs (17)." These two definitions are similar in meaning, but it is easy to see how the definition of tourism can be quite broad or very specific based on research goals. For example, in 1991, the United Nations' definition simply stated that "a tourist is a visitor crossing national borders. People who move within the national borders . . . are referred to as domestic tourists (33)."

From the facts presented in the opening paragraph, it is apparent that tourism is a very important industry to Wyoming. Consequently, this project explored three important aspects of the tourism industry: information sources, tourist attractions, and traveler satisfaction as related to the travel experience. The most important research question was 'what made tourists first decide to travel to Wyoming.' To answer this question, the project concentrated on the main reasons tourists traveled to

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[1]Number in parenthesis refers to selected reference list which begins on page 47.

Wyoming and the main tourist information sources. What attracted tourists to Wyoming and how the highway system affected traveler satisfaction were also investigated. "A quality system of highways is essential to a growing tourism and recreation industry (38)."

The three main project goals were to determine:

1) the source of information that motivated people to visit Wyoming for tourism purposes,
2) how that information was obtained and what Wyoming attractions people are visiting, and
3) the effects of the perceived quality of the Wyoming highway system and its relationship to the satisfaction with tourism services in Wyoming.

Next, in Chapter 2, a summary of the background information relating to similar tourism studies is provided. This includes a literature review and discussion of tourism studies conducted in surrounding states. Also included in this chapter is a look at what specific cities in Wyoming have been doing to measure or analyze the tourism in their areas. The procedures and methodology followed during this study are included in Chapter 3. The information provided in Chapter 3 forms the basis for the recommendations and conclusions determined from the project results.

Presented in Chapter 4 are the data analyses conducted to satisfy the project goals. This includes tables that contain the pertinent findings. Contained in Chapter 5 are the summary, conclusions, and recommendations based on the completed data analysis.

CHAPTER 2

LITERATURE REVIEW

The pertinent background information is summarized in this chapter. Included are discussions of tourism studies conducted by surrounding states and studies conducted by several Wyoming cities. This information gives insight into the importance of the tourism industry and the methods employed to study it.

Models Relating to Tourism and Measuring Traveler Satisfaction

Tourism provides certain economic benefits, such as jobs for people living near tourist attractions. These benefits result from tourist dollars spent on lodging, souvenirs, transportation, food, etc. In addition to economic benefits, tourism sometimes provides non-economic effects to the host community, state, or country. Tourism preserves the local culture, encourages the preservation of natural areas, enhances cross-cultural understanding, and encourages community pride and togetherness (29). Recreation facilities, shopping, and other support businesses are more abundantly available to local residents. Also, more funding is usually available for the upkeep of museums and historic buildings (29). Proper preservation of the natural and cultural assets will ensure that travel to these areas continues. As visitation demand increases, preservation of the tourism destinations becomes a major priority for the community, state, and federal government (37).

The economic and non-economic benefits are modeled within the two tourism system components: supply and demand, as seen in Figure 2.1 (5). Supply represents what an attraction offers tourists whereas demand represents the items tourists view as attractive. As the supply at a destination increases, the destination becomes more attractive, resulting in increased demand. Supply includes not only the attraction itself, but the transportation system, guest services, and promotional information that enhance the attraction. Vacation areas need to provide the services and facilities travelers demand to be competitive

with other destinations. Tourists choose a destination based on what they demand, thus controlling what attractions, accommodations, services and transportation facilities are present (5).

Another tourism model divides tourist attractions into primary, secondary, and additional elements (Figure 2.2) (12). Primary elements attract tourists to an area. Examples include museums, art galleries, concert halls, spectator-sports facilities, etc. Secondary elements normally enhance the primary attractions, but some tourists consider them primary elements (12). Examples include shopping, catering, accommodation, and transportation facilities. Additional elements provide access or relay information about attractions, such as accessibility and parking facilities, information offices, and maps (12).

Secondary elements, such as catering services, need to be located near attractions (primary elements) but not close enough to diminish their appeal. Attraction modeling uses concentric rings to map the arrangement of the necessary elements for a successful tourist attraction (Figure 2.3). The nucleus contains the primary attraction surrounded by two concentric rings. The first ring adjacent to the nucleus is an area where tourists enjoy the attraction without being bothered by secondary elements. This zone has been referred to as the "inviolate belt." The outer ring, called the "zone of closure," contains the tourist services. Included in the "zone of closure" are the transportation facilities, rest rooms, and souvenir shops (27). The concentric ring arrangement applied in attraction modeling is used to determine the full potential of an attraction.

Wyoming provides many popular tourist attractions including all types of outdoor recreation. Outdoor recreation could consist of traveling through Yellowstone National Park sightseeing or backpacking alone in the wilderness. These types of outdoor recreation are analyzed using the Recreation Opportunity Spectrum (ROS) recreation planning and management system. Recreation planning and management are conducted to provide satisfying recreation opportunities. An experience opportunity is defined as "the opportunity to realize that combination of desired physiological and psychological outcomes that result from engaging in a specific recreation activity within a specific environmental

Figure 2.1 A Model of the Tourism System (5)

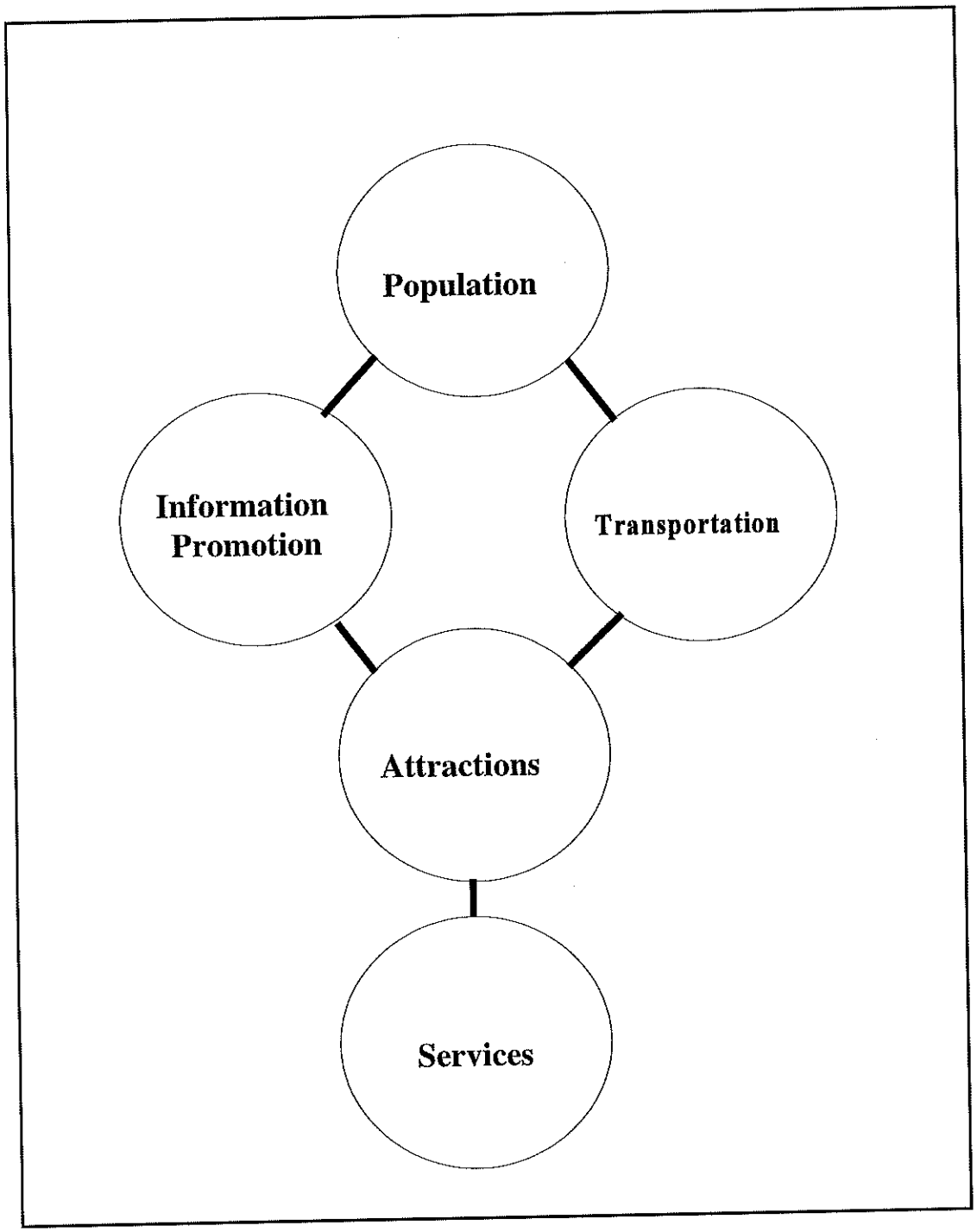


Figure 2.2 Elements of Tourist Attractions (12)

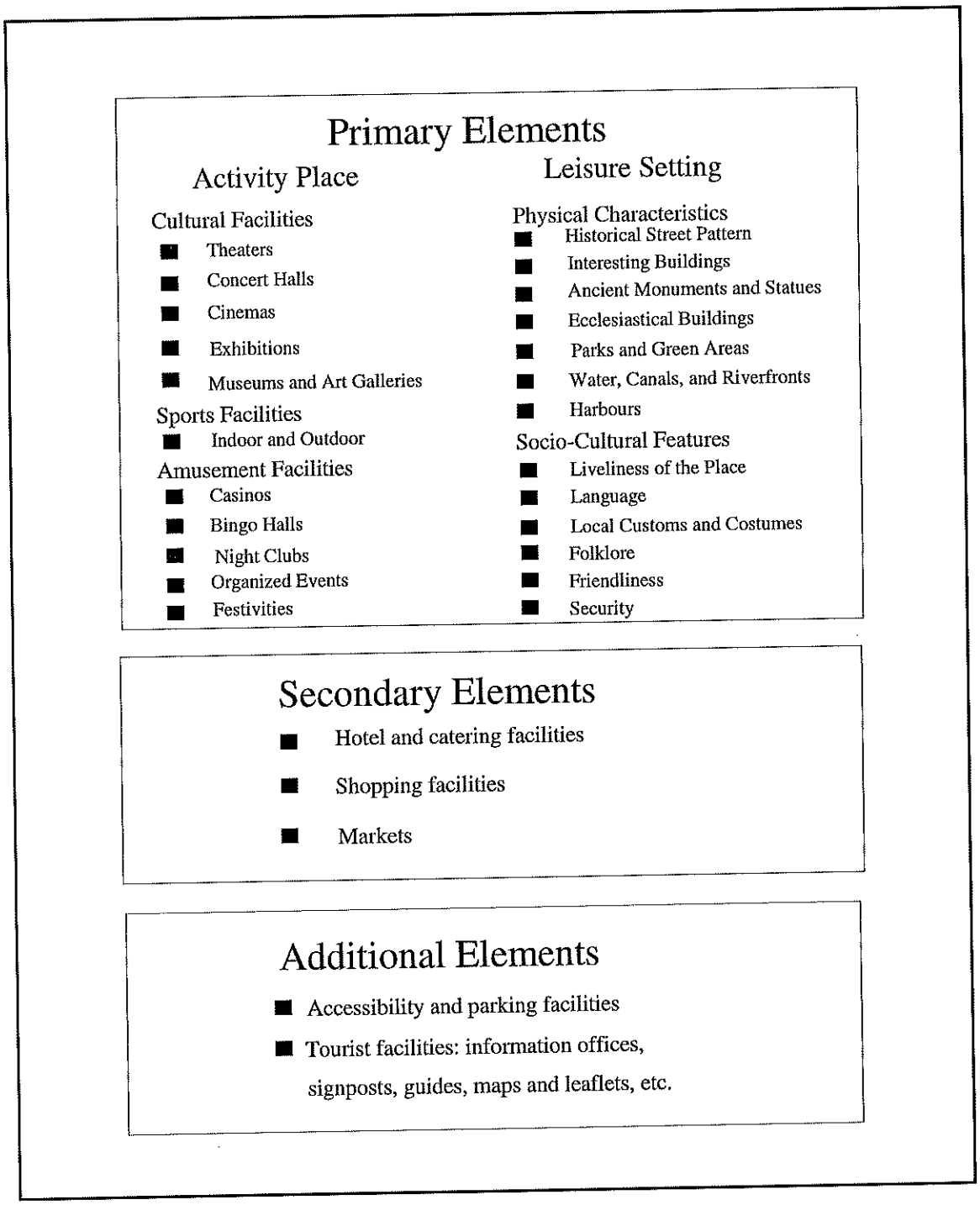
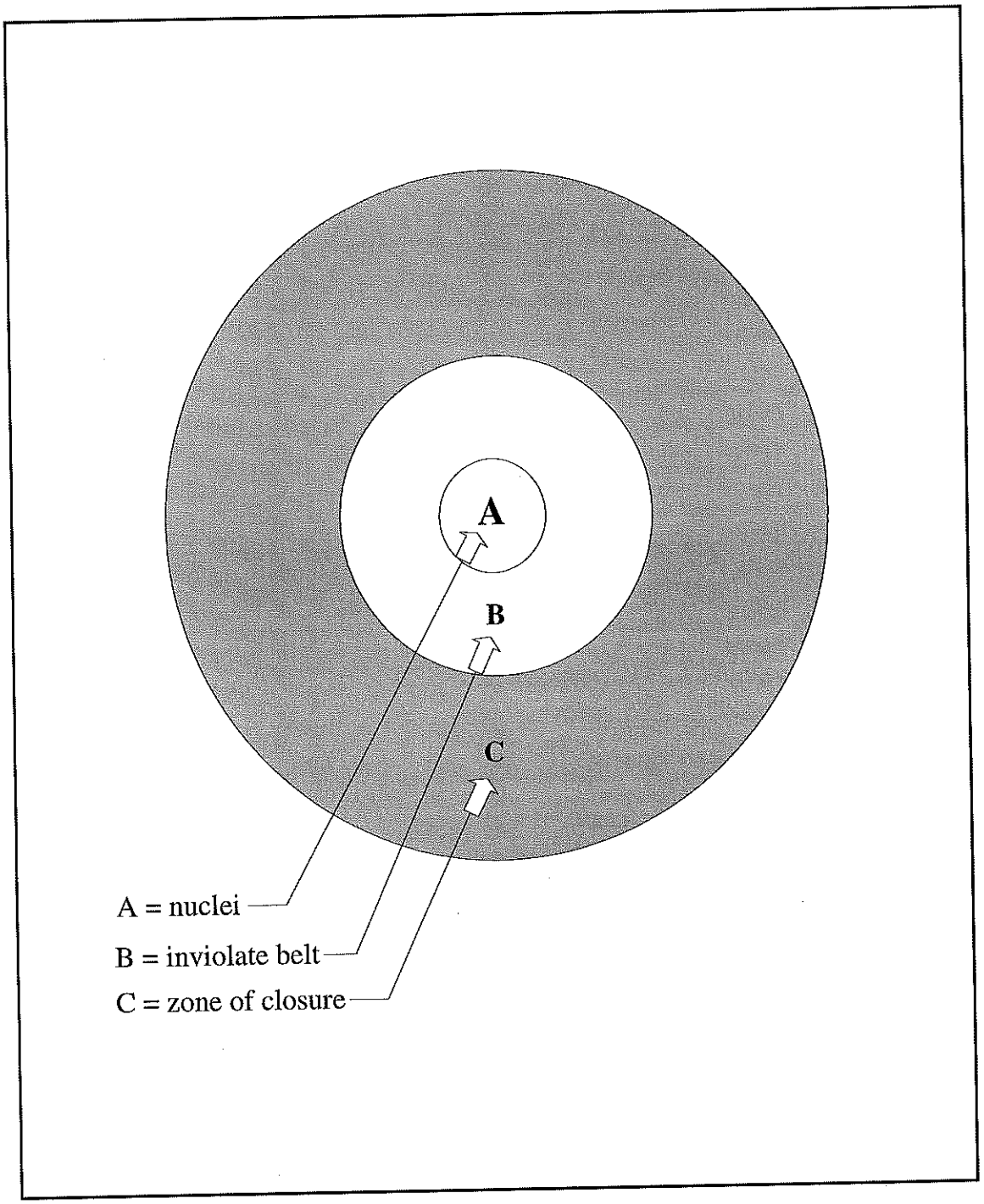


Figure 2.3 The Concentric Ring Model of Tourist Attractions (27)



setting (34)." Recreation is defined in terms of experience opportunities within the ROS planning and management system (34). The main focus of the ROS system is to provide travelers with alternative settings from which they derive a variety of experiences. "Quality recreational experiences are best assured by providing a diverse set of recreation opportunities (2)."

Six recreation opportunity classes are identified by the ROS system: 'Modern-Urban,' 'Rural,' 'Roaded-Rural,' 'Semi-Primitive Motorized,' 'Semi-Primitive Non-Motorized,' and 'Primitive.' The system classes incorporate activity opportunities, environmental settings, and experience opportunities. The probable psychological outcomes of the environmental settings and the recreational activities describe the recreation opportunities along the spectrum (34). Each of the opportunity classes will bring satisfaction to a certain group of people, those who are looking for the specific recreational opportunity provided. For this reason, an area that provides a diverse set of opportunity classes will be attractive to a diverse set of recreational users.

Previous discussions have centered on tourism from the state's or attraction's point of view. From a tourist's perspective, many factors also influence the visitation at recreation areas. Some examples of these factors are: number of users in the area, average income, climatic and weather conditions, and socioeconomic factors, such as, age, sex and occupation. The extent to which demand has been stimulated by advertising and travel comfort or discomfort is also an important factor that influences visitation. Recreation use drops for areas requiring distance travel if the travel route is unattractive or if the mode of transportation is uncomfortable (3).

The number of people attracted to a recreation area is also related to population center proximity and to user cost. When visitor use fees increase, fewer people will travel to the area. The number of people traveling longer distances will reduce more quickly than those traveling shorter distances as fees increase. People are willing to pay more money to use an area when they live in close proximity (3).

The main reasons people visit areas, the information they use, and what attracts them to an area are easily measured and understood. Whether travelers are satisfied with their experience on the other hand, is a very complicated subject. Satisfaction is the result of the correlation between a tourist's experience at the destination and his or her expectations.

Tourist satisfaction consists of several components or dimensions. These include cost, quality of facilities, extent of commercialization, naturalness, social relationships, relaxation, and customer service (9). Travel experiences generally involve several independent components, such as actual travel, site visits, and refreshment stops. Therefore, recent studies suggest that satisfaction be measured using a segmented approach, studying each component of the travel experience separately. With this approach, the specific aspects of the trip that are responsible for the travel satisfaction or dissatisfaction are determined (9).

Many of these trip components and experiences influence tourists' trip enjoyment. Examples include the people with whom they interact, the sites they visit, the mode of transportation they choose, and even the transportation system itself. Satisfaction is achieved when expectations are fulfilled (9). "The U.S. travel and tourism work force must continue to find creative ways to meet customer needs and provide higher levels of quality service so that the United States can maintain and grow its share of the international travel market (37)." Tourists who are dissatisfied with their experience could persuade potential future tourists to vacation elsewhere. This negative advertising results in loss of tourist dollars (35).

A study was conducted in Knoxville, Tennessee, in 1984 that concluded that individualized satisfactions predominantly determined vacation satisfaction. The three main categories of individualized satisfactions were 'relaxation and leisure,' 'escape alone or spending time with family,' and 'satisfaction with natural environment.' 'Relaxation and leisure' satisfaction consisted of "1) the way one's plans worked out, 2) the way a person felt emotionally, 3) the way a person felt physically while on vacation, 4) the 'pace-of-

life' experienced, 5) the vacationer's opportunities for engaging in his or her favorite leisure activities, 6) the amount of fun a person had, 7) the amount of relaxation a person had, and 8) one's opportunities for engaging in new leisure activities (15)."

A study conducted in Cape Cod, Massachusetts, in 1978, investigated the relationship between satisfaction and factors that were external to the destination. The factors that were external to the primary destination were found to not play an important role in satisfaction with the destination. These external factors were ease of access, traffic conditions, directional signs, and information (28).

Traveler satisfaction is also directly tied to the concept of perception. Perception is defined as "formation of a new belief having strength and valence characteristics (31)." The degree of perceptual agreement, the strength of perception and belief components involved, and the centrality or importance of the evoked attribute dimension determine the strength of the newly formed belief. The proportional average of the perceptual and evoked values involved in the perceptual correspondence, the perception and belief component strength involved, and the centrality or importance of the evoked attribute dimension determine the valence of the newly formed belief (31). "Centrality refers to the degree of interrelatedness of the evoked beliefs with other beliefs stored in the memory structures (30)." Individual motivation and emotion are based upon the congruity or incongruity resulting from a comparison of a perceived situation and an evoked conceptual relation (30). When a "good fit" is obtained between the perceived situation and the evoked conceptual relation, satisfaction with the situation is achieved.

Understanding the tourism system and attraction modeling provides insight upon which to build a profitable tourism industry. Studying the current practices and research used by successful tourist areas also provides information concerning current tourist trends. Understanding these trends helps a state, community, or country provide a more accommodating tourism industry in the future. The following section furnishes a review of tourist studies conducted to pinpoint the current tourist trends in Wyoming.

Previous Wyoming Studies

An early 1973 study was conducted in Yellowstone National Park. Survey data were collected from people who had camped at least one night at any of these locations. It was found that overall individual satisfaction depended mostly on that person's perception of the conditions deemed valuable. The second satisfaction influence was determined to be the difference between what he/she perceived and what was preferred. The factor having the least influence on satisfaction was the difference between what was perceived and what was expected at the destination (4).

The University of Idaho conducted a survey of visitors to Yellowstone National Park in July 1989. The data for this study were collected by distributing surveys to travelers who completed the survey during or after their trip and returned it by mail. A sample size of 856 surveys was collected (80% return rate). Most of the tourists surveyed were traveling with family (78%) and most were on their first trip to Yellowstone National Park (49%). The largest proportion of the surveyed visitors were from California (11%) followed by Wyoming (7%) and the states located near the park: Utah (6%), Idaho (6%), Montana (6%), Colorado (5%), and Washington (4%). While visiting the park, tourists indicated that the most used information sources were 'the park folder/map (92%),' 'the park newspaper (68%),' and 'visitor center exhibits (60%) (14).' Tourists were allowed to indicate all information sources used. Information sources used before entering the park were not solicited by this study.

A study of visitors to Grand Teton National Park was conducted by the University of Idaho in July 1987. Fifteen hundred questionnaires were distributed to visitors of which 499 were returned by mail (33% return rate). Wyoming and the surrounding states — North and South Dakota, Nebraska, Colorado, Utah, Montana, and Idaho — accounted for 26% of the U.S. visitors. The specific percentages of visitors from each state were not provided. The most used information sources were 'the park map and brochure (78%),' 'park direction signs (71%),' 'visitor centers (63%),' and 'the park newspaper (61%) (16).' Tourists

were allowed to indicate all information sources used. Information sources used before entering the park were not solicited by this study.

The Wyoming State Parks and Historic Sites Division conducted a visitor study in 1993. The sample size was 4,154 surveys completed at seventeen state parks and historic sites. This study concluded that most Wyoming travelers used 'previous knowledge,' 'the state highway map,' or 'information from family or friends' to plan their vacations. This survey also determined that most people enjoyed 'relaxing,' 'sightseeing,' or 'visiting a museum' during their stay in Wyoming (39).

The Wyoming Division of Tourism conducted a visitor survey in 1991. The largest percentage of tourists indicated that their main visitation reason (44%) and motivation (28%) for traveling to Wyoming were 'to visit Yellowstone and Grand Teton National Parks.' Other top reasons for visiting were 'repeat visitation (14%),' 'visiting family or friends (14%),' or 'passing through (13%)' (21). Other visitation motivations indicated were 'scenery/beauty (20%),' 'wide-open spaces (11%),' and 'mountains (8%).' The data were collected by conducting interviews with people who requested tourist information in 1992. These people were categorized into three groups based on the method by which they requested information. One hundred people from each group were interviewed by telephone. The three request formats were telephone, mail, and reader service card (21).

In April 1986, a tourism market analysis was published for Laramie County, Wyoming (6). This study contained an extensive examination of the tourism industry in and around Cheyenne, Wyoming. The study determined that tourists 'passing through' the county created the largest portion of visitors. 'Cheyenne Frontier Days' and 'the State Capitol' were the county's most popular attractions. The research listed home states for the 58,748 tourists who signed a volunteer registration book at the Wyoming Visitor Center on Interstate 25 south of Cheyenne (6). The number signing the book from each state was divided by the respective state's population and then converted to a percentage of the total visitors.

The numbers presented in Table 2.1 indicate that most people signing the registration book at the Wyoming Visitor Center near Cheyenne were from Wyoming (22.7%). Combining these tourists with the percentages traveling from the seven adjacent states shows that 59.3% of these tourists lived in Wyoming or neighboring states. The remaining forty-two states and all foreign countries accounted for only 40.7% of the tourists signing the registration book at the Wyoming Visitor Center near Cheyenne in 1985 (6). These numbers indicate that neighboring states have the largest influence on the state's tourism industry. For this reason, it is important to understand the tourism trends in states adjacent to Wyoming.

The Chambers of Commerce in Wyoming cities larger than 10,000 population were contacted to determine what tourism studies have been conducted locally. Some offices conduct their own tourist surveys while others rely on information from the State Tourism Division. In Laramie, the Albany County Tourism Board conducts yearly tourism impact studies. In 1993, the top traveler information sources indicated were 'the Laramie Chamber of Commerce,' 'the American Automobile Association,' and 'positive comments from previous visitors (1).' The data were collected by interviewing the people who called the Laramie Chamber of Commerce to obtain tourist information. Inquires to the Laramie Chamber of Commerce for information were received mainly from Colorado (26%), California (7%), and Wyoming (6%).

Table 2.1 Residency of Tourists Signing the Cheyenne Visitor Center Registration (6)

Wyoming	22.7%
Colorado	9.7%
South Dakota	6.1%
Nebraska	6.1%
Montana	5.7%
North Dakota	4.8%
Idaho	2.6%
Utah	1.6%
Total	59.3%
Other States and Foreign	40.7%
Total	100%

The Rock Springs Chamber of Commerce conducts a yearly tourist survey as well. This survey was included in a brochure promoting Sweetwater County and was also mailed to those who inquired about visiting. The total number of surveys distributed is unknown. Respondents returned the surveys to the Chamber of Commerce in person or through the mail, resulting in a sample size of 74. The survey asked questions regarding information sources, trip purposes, and tourist attractions being visited. The largest Wyoming primary destination was 'Yellowstone National Park' with other attractions being 'scenery,' 'historical and cultural sites,' and 'photography opportunities.' Respondents indicated that the largest attraction within Sweetwater County was 'Flaming Gorge National Recreation Area (32).' The highest percentage of respondents participating in the Sweetwater County survey indicated 'brochures and billboards' as the top information sources and the largest sample was from California. Specific percentages for the above responses were not provided. All other cities contacted either rely on the Division of Tourism for information or have not conducted recent surveys. The next section will provide a discussion of the results of studies that have been conducted in surrounding states.

Other Regional Studies

The Tourism Divisions of the seven states surrounding Wyoming were contacted to obtain information concerning the current tourist trends. The states contacted were Nebraska, North Dakota, Montana, Idaho, Utah, South Dakota, and Colorado. No information was obtained from Colorado concerning state tourism studies because the Colorado State Division of Tourism is no longer in operation.

A survey of nonresident summer visitors was conducted in Nebraska in 1989. 'Visiting family or friends (52.7%)' and 'sightseeing (14.1%)' were indicated as the two most prevalent trip purposes to Nebraska. The largest percentage of tourists were traveling from Colorado (16.4%), Iowa (12.9%), Illinois (9.4%), and California (9.0%). The most used information sources cited were 'recommendations from friends and relatives (23.7%),' 'knowledge from a previous visit (11.6%),' and 'road signs (9.3%) (11).'

North Dakota conducted a visitor profile in 1990. This study concluded that the most popular state attractions were 'the Theodore Roosevelt National Park,' 'the International Peace Garden,' and 'the North Dakota Heritage Center.' Most tourists acquired information from 'personal knowledge,' 'friends or relatives,' or 'the state tourism office.' The percentages for the specific responses were not provided. Data were collected by mailing a survey to five thousand previous visitors. The return rate was 32% (24).

In 1993, Montana collected data pertaining to primary visitation and Montana's most popular tourist attractions. 'Vacations (32%)' were the primary reason for traveling in Montana by highway, followed by 'passing through (30%)' and 'visiting family or friends (14%).' Air travelers indicated 'visiting family or friends (51%),' 'conducting business (16%),' and 'vacation (13%)' as their main travel reasons. The main attractions indicated by highway travelers were 'scenery (60%),' 'special events (12%),' and 'history (9%).' Air travelers indicated 'scenery (50%),' 'special events (21%),' and 'fishing (17%)' as their primary attractions. Most tourists traveled to Montana by highway from Washington (12%), Idaho (11%), Alberta, Canada (8%), and Wyoming (7%). The largest percentage of respondents entering the state by air

travel was from California (20%). Data were collected using a diary questionnaire which was completed by visitors during their trip. The respondents returned the questionnaire upon leaving the state (20).

The Idaho Department of Resource, Recreation, and Tourism provided information from a study completed in 1993. Their study determined the main reasons for visiting and the information sources used. The main reason given for traveling in Idaho was 'passing through (45%),' followed by 'visiting family and friends (20%),' and 'conducting business (17%).' The largest percentage of respondents used 'previous tourists personal recommendations (51%),' 'repeat visitation (48%),' 'maps and atlases (16%),' and 'the Idaho Department of Transportation (10%)' as information sources. Travelers were allowed to indicate all information sources used. Data were collected by stopping nonresident vehicles at twenty major highway entry points. These travel parties were briefly interviewed and given a questionnaire/trip diary to be completed during their stay. Six thousand five-hundred nonresident travel parties were interviewed and given trip diaries. One thousand six-hundred sixty-seven trip diaries were returned by mail. These trip diaries showed that the six states adjacent to Idaho represented 65.1% of the state's total tourism industry (10).

Utah conducted a survey of travelers in 1993. Respondents indicated 'National Parks and Monuments (66%),' 'scenic drives (53%),' 'Utah brochures and materials (38%),' and 'historic or prehistoric sites (34%)' as very influential on their decision to travel to Utah. The highest percentage of respondents traveled from California (35%). Surveys were mailed to a random sample of 1,500 individuals from the Utah Travel Council's mailing list of people who had requested information. Forty percent of these surveys were returned (35).

A tourism study was conducted in 1993 in South Dakota. This study determined that 'Mount Rushmore (23%)' was the state's most popular attraction. Other popular attractions were 'the Black Hills (21%),' 'the Badlands (14%),' and 'other national parks (7%).' This study concluded that most respondents obtained information from 'television (39%),' 'newspapers (26%),' or 'magazines (23).' The data were

collected by telephone interview. Tourists were randomly chosen from the South Dakota tourism database and calls were conducted until six hundred calls were completed (13).

The tourism studies conducted in adjacent states indicated that the common reasons for traveling in a state were 'passing through,' 'visiting family or friends,' and 'conducting business.' 'National Parks and monuments' were the most popular tourist attractions. The most used information sources were 'previous knowledge' and 'recommendations from previous tourists.' The relationship between the condition of the highway system and traveler satisfaction was not explored by any of the states contacted. This relationship has not been investigated in the literature, either.

Summary

Tourism studies conducted within Wyoming indicated that Wyoming's 'national parks and monuments' were the most popular primary elements. People also travel to 'relax' and 'sightsee' while passing through the state. These Wyoming tourism studies indicated that travelers are mostly Wyoming residents or live in surrounding states.

Most Wyoming cities rely on information from the Wyoming Division of Tourism. Laramie and Rock Springs, however, regularly survey travelers. Laramie and Rock Springs found 'tourist brochures' to be the most used information source (additional element).

Regional tourism studies indicated that the most common reasons for traveling in a state were: 'passing through,' 'visiting family or friends,' and 'conducting business.' The most popular primary destinations were 'national parks and monuments,' 'historic sites,' and 'scenery.' The most used additional elements were 'previous knowledge,' 'recommendations from previous tourists,' and 'the media.' Presented in Chapter 3 is the methodology that was followed during this study.

CHAPTER 3

METHODOLOGY

The methodology designed for this study was to explicitly answer the three goals stated in Chapter 1. After evaluating several alternative techniques, the study was designed to use personal interviews and mail-back questionnaires. The questionnaire was pretested and refined. The same questions were asked in the personal interviews in order to reduce potential bias (35). The questionnaire is contained in Appendix 1.

The questionnaire first asked a number of demographic questions to ascertain travelers' permanent residence location, group size, and social composition. The next set of questions determined the main reason respondents traveled to Wyoming, the most used travel information sources, where respondents visited, and what motivated their destination decision.

The last section of the questionnaire determined the effects of the perceived Wyoming highway system condition on traveler satisfaction. This section required answers relating to highway adequacy, road construction, traffic congestion, and driving enjoyment. Space was also provided for respondents to write additional comments about their visit to Wyoming.

Sampling Procedures

Interviews were conducted in various locations throughout Wyoming. Wyoming was divided into northern, central, and southern regions with roughly the same geographical area. The divisions were performed to break the state into interview zones, each with a number of popular tourist attractions (see Figure 3.1). Interviews were conducted in each zone to ensure that all areas of the state were represented. Sixty-four interviews were conducted in the northern region, twenty-three in the central, and twenty-three in the southern region (see Table 3.1). The high profile attractions located in the northern region,

Yellowstone and Grand Teton National Parks and Devil's Tower National Monument, were the reason a larger number of interviews were conducted in that geographical area.

The on-site interviews were conducted on three trips during August and September 1993. At least four hours were spent at each interview site. All out-of-state travelers were approached for interviews at the less frequented attractions. Within the more popular destinations, every tenth out-of-state traveler was approached.

Data were also obtained using a mail-back survey procedure. Two methods were used. The first method consisted of sending a total of sixty surveys with stamped return envelopes to five state tourist establishments to be distributed to patrons. These tourist establishments provided representation from locations where interviews were lacking or not conducted. The five tourist establishments that participated were the Wyoming State Museum and the Frontier Days Museum in Cheyenne, Fort Phil Kearny State Historic Site in Story, Hot Springs County Museum and Cultural Center in Thermopolis, and Fossil Country Frontier Museum in Kemmerer (see Figure 3.1).

The second collection method was to mail surveys directly to the permanent residence of travelers who visited Wyoming during 1993. A list of tourist establishment addresses was provided by the Wyoming Division of Tourism. Examples of tourism establishments on this list are museums, hotels, motels, and restaurants. Every twentieth tourist establishment on this list was chosen. A letter was mailed to each of these 54 locations requesting the names and addresses of travelers who patronized the tourist establishment on specific days in 1993. Starting on January 2, 1993, the names and addresses of all travelers who visited the tourist establishments during every eighth day were requested. This resulted in roughly four requested days during each month. Three of the 54 tourist establishments contacted agreed to participate in this study and supplied 435 visitor names.

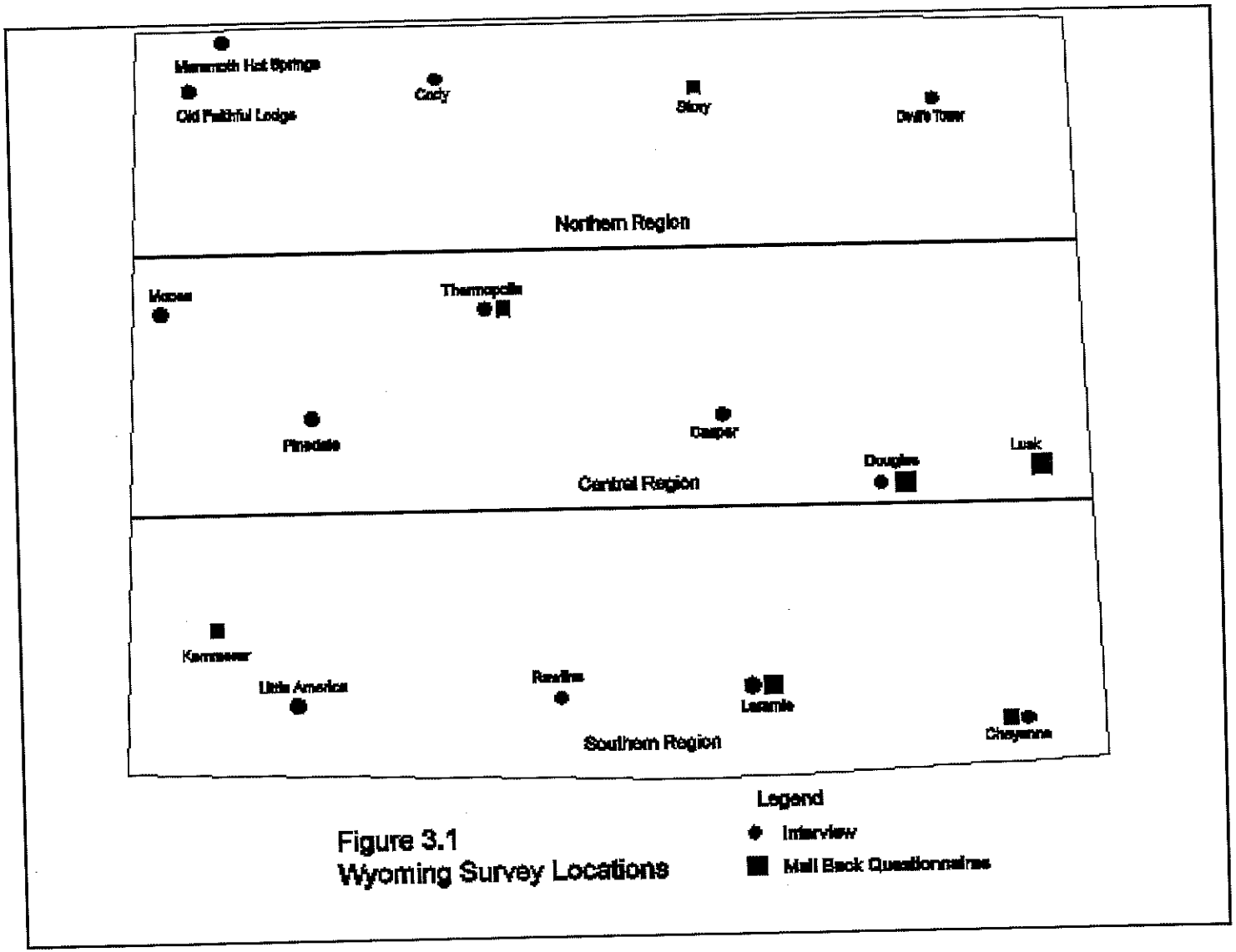


Figure 3.1
Wyoming Survey Locations

Table 3.1 Interview Locations

Northern Region	Number Interviewed
Moose Visitor Center, Moose	16
Mammoth Hot Springs	6
Old Faithful Lodge	11
Hot Springs Water Park, Thermopolis	7
Buffalo Bill Cody Museum, Cody	10
Devil's Tower National Monument	14
Total	64
Central Region	
Fort Fetterman, Douglas	3
Phillips 66, Pinedale	10
Fort Casper, Casper	5
Flying J Travel Plaza, Casper	5
Total	23
Southern Region	
Wyoming Frontier Prison, Rawlins	10
Little America Travel Center, Little America	10
Outrider Travel Center, Laramie	1
Wyoming State Museum, Cheyenne	2
Total	23
Grand Total	110

The locations agreeing to participate were the Wyoming/Colorado Railroad in Laramie, the Blue Sky Inn in Lusk, and Akers Ranch Bed and Breakfast in Douglas. Most other locations cited possible legal liability as the reason for not participating.

Analysis Methodology

All questionnaire responses were computerized and checked for collection bias. Bias is defined as "a systematic error in the measurement process (26)." This occurs when the collection process is not completely random and a group of responses are obtained from people who had the same experiences.

One possible source of collection bias was an over-representation of respondents traveling to visit the Wyoming/Colorado Railroad in Laramie, Wyoming. Another possible source of collection bias was the use of two different collection methods, personal interviews and mailed surveys. The results required testing to determine whether the two samples could be combined for the analyses.

Both possible bias sources were tested using the Statistics Package for Social Sciences(SPSS), a statistical computer package. Crosstab analyses were conducted between the main reasons for visiting, the information sources, the attractions, and the roadway system questions to determine if the results were statistically similar. These analyses are presented in detail in the next chapter.

Statistical Analysis

A statistical analysis was conducted to determine if relationships existed between the survey responses. SPSS was used for this analysis on all questions that could be statistically combined. The items correlated were information sources used after entering Wyoming, roads in adequate condition, road construction a major problem, traffic congestion a major problem, and enjoyment of driving experience.

The statistical correlation was conducted by performing a crosstab analysis between each of the variables. The SPSS crosstab analysis conducted the Pearson chi-square test for significance between the variables. The null hypothesis used for the comparisons stated that the two variables were significantly related. The alternate hypothesis stated that the variables were not significantly related. A five percent significance level was used to reject or accept the null hypothesis to keep the possibility of making a Type I error low. A Type I error occurs if the null hypothesis is rejected when it is true (22). Therefore, there is a five percent chance that the two comparison variables will be found dependent when they are actually

independent. In this study, the variables would be concluded to have a significant relationship to each other when actually they were not related.

When the calculated chi-square is greater than the five percent significance level, the null hypothesis is accepted and the variables are said to be significantly related. If the calculated chi-square is less than the five percent significance level, the null hypothesis is rejected and the variables are said to be not significantly related (25). Thus, in this paper, a relationship exists between two variables when the calculated chi-square value is greater than .05 and no relationship exists between the two variables when it is less than .05.

SPSS also calculates three chi-square-based measures to determine the strength of the association between the two variables. These three measures are the phi coefficient, Cramer's V, and the contingency coefficient (25). For a 2X2 table, the phi statistic measures the strength of the relationship. A phi value of 0 indicates no relation and a value of +1, a perfect relationship. Cramer's V is a modified version of phi for larger tables where the number of rows and columns do not have to be equal. V also ranges from 0 to +1 where a high degree of association is related to a larger value of V. The maximum value for the contingency coefficient is 0.707 for a 2X2 table. The contingency coefficient is used to compare tables larger than 2X2 having the same dimensions. Therefore, if the chi-square value indicates two variables are related, then the strength of the relationship can be determined by using the appropriate statistic. The results of the statistical analyses are presented in the next chapter.

CHAPTER 4

ANALYSES AND RESULTS

The results of the analysis of the questionnaires and surveys are described in seven sections. The first section addresses the issue of potential collection bias. The second section focuses on tourists' traveler characteristics. Main travel motivations are the topic of the next section, followed by information sources, main attractions and the impact of the roadway system on traveler satisfaction. This chapter concludes with a discussion of the statistical analysis conducted. The survey data analyzed is summarized in Table 4.1.

Table 4.1 Source of Data Responses

	Number Distributed	Number Returned
Personal Interviews	110	110
Site Distributed Mail-Back Questionnaires	60	11
Total Resident Address Mail-Back Questionnaires	435	198
Total Study	605	319

Potential Collection Bias

Data collection was conducted in a random manner. However, there were still two possible sources of collection bias within the sample set. One source would be an over representation of respondents indicating a primary destination other than Yellowstone National Park. As indicated in Figure 4.1, over 5 million people visited Yellowstone and Grand Teton National Parks in 1993. Clearly, these two parks are the primary destinations in the state. The second possible source was the use of two data collection methods, on-site interviews and mailed surveys.

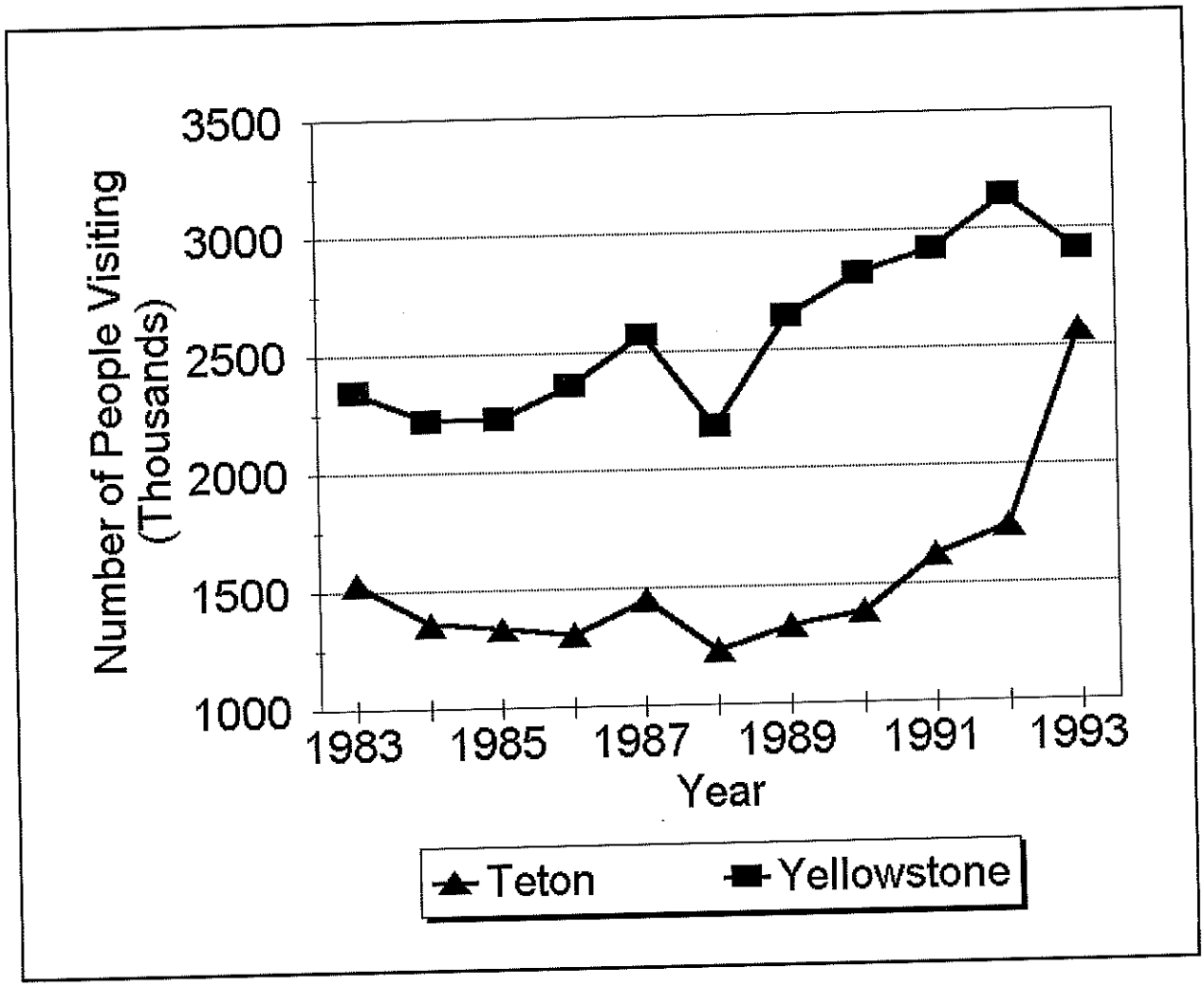
Since three sites provided mail-back responses, the Wyoming/Colorado Railroad data provided a potential bias concern. The reason for this concern was that the data indicated more respondents choosing the 'Laramie station of the Wyoming/Colorado Railroad (25.7%)' than any other Wyoming primary destination including 'Yellowstone National Park (10.0%).' Based on an SPSS comparison of primary destination (p=.000), it was obvious that the over-representation of the Wyoming/Colorado Railroad data introduced bias.

The second possible source of collection bias was the result of using two collection methods, on-site interviews and mailed surveys. SPSS was again used to conduct a chi-square comparison between the two data sets. The null hypothesis (H_o) again stated that the two data sets produced similar results for the comparison variable and the alternative hypothesis stated that the two data sets produced different results for the comparison variable. All analyses were conducted at the .05 significance level. The null hypothesis was rejected for five of the ten variables tested (see Appendix 2). Only questions associated with roadway adequacy, road construction, traffic congestion, and driving experience resulted in responses which could be statistically combined. The survey method did not affect these responses.

The survey responses were also checked to see if combining the results for states adjacent to Wyoming and all other states was possible. This produced results similar to those above; only four of the questions could be statistically combined.

The next grouping evaluated was using the primary destinations of 'national parks,' 'other state destinations,' and 'destinations outside of Wyoming.' These results are discussed in the following sections for questions where statistical combination was appropriate. Other trends are indicated but the magnitude of the Wyoming/Colorado Railroad mail-back sample size resulted in response groups which could not be statistically combined.

Figure 4.1 Yearly Visitation to Yellowstone and Grand Teton National Parks(40)



Primary Destination - Wyoming State Sites

The sample size for this category was 183 respondents including 21 personal interviews. All questions were not answered by the entire group of 183. No persons interviewed indicated the Wyoming visitor centers as a primary information source before visiting the state. Seventeen percent of respondents indicated that they did not obtain information before entering the state and 26% indicated using the visitor

centers for information either through the mail or as they entered the state. Chamber of commerce sources were indicated by 12% of the respondents. These latter two sources indicate pre-trip planning but these combined trends are not statistically valid.

The samples were statistically combined for information sources used after entering the state (X^2=4.7; DF=4; and significance=.31). Trends were similar to information before entering the state. Thirty-five percent indicated 'no response' for specific information, 33% 'Wyoming visitor centers,' 5% 'local Chambers of Commerce,' and 7% indicated 'hotels/motels.' Twenty percent of the 175 responses indicated 'recommendations from family and friends.'

Statistically combining the mail-back questionnaires and personal interviews was not possible for the number one attraction or attractions also chosen. Although not statistically correlated (no personal interviews were conducted at the Wyoming/Colorado Railroad site), these trends are briefly discussed. Twenty-nine percent indicated 'national parks,' 35% 'the Wyoming/Colorado Railroad,' 10% 'state historical sites,' and 14% indicated 'visiting family and friends' as primary attractions. Of the 156 aggregated responses, 124 secondary attraction responses were indicated. 'National parks' were 57% of this total. This secondary result was statistically the same regardless of the survey method (X^2=11.7; DF=4; significance=.02).

Primary Destination - National Parks

The sample from both mail-back and personal interviews indicating the national attractions as the primary destination was 56. Results were similar to Wyoming state attractions. Combining the information sources used before entering Wyoming was not statistically possible. The two data sources produced different results. Ninety-two percent of the personnel interview respondents indicated receiving information from sources other than Wyoming information and visitor centers before entering the state. The other sources indicated were 'no prior information (21%),' 'contacting the state for information (26%),'

and 'the American Automobile Association (16%).' Mail-back surveys indicated 53% receiving primary information from 'the Wyoming information and visitor centers.'

Again, the information sources used after entering Wyoming were statistically correlated for the two samples (X^2=1.4; DF=2; significance=.50). The 'Wyoming information and visitor centers' were indicated as the primary source by almost 60% of the respondents. Although not significantly similar between the two data sets, secondary attractions were only indicated by one-third of the respondents.

Primary Destination - Outside Wyoming

Responses were obtained from 30 mail-back questionnaires and 50 personal interviews indicating a primary destination outside of Wyoming. Results similar to the two previous groups were obtained. The two data sets for information sources used before entering the state could not be statistically combined, but the trends were as follows. Forty-five percent indicated 'no source,' 9% 'Wyoming information and visitor centers,' and 46% 'other sources.' Some other top primary tourist information sources were 'the American Automobile Association (9%)' and 'family or friends (8%).' The two data sets for information used after entering the state could be statistically combined (X^2=4.4; DF=2; significance=.11). Forty-one percent indicated that after entering the state, 'no specific information was sought.' Twenty-nine percent received information from 'Wyoming visitor centers' and 'chambers of commerce.' 'Hotels and motels' were indicated by 14% of the respondents as the primary source. 'National parks' were the primary reason for stopping in Wyoming. This was indicated by over 50% of the respondents. The tables resulting from the crosstab analyses of the three groups versus information obtained after entering Wyoming are presented in Appendix 4.

Traveler Characteristics

The data contained information from a diverse group of respondents. Included in the data set were survey responses representing travelers from 37 states, Canada, and two European Countries. Illustrated in Figure 4.2 are the home states for the respondents living within the United States.

Respondents were asked to identify the locations where they stopped for the day or night along their route in Wyoming. From the results, the number of primary and secondary stops could be counted. This could only be counted for the mailed surveys because those interviewed had not completed their trips. Shown in Table 4.2 are the number of stops each mailed survey visitor or group made during their stay. The majority of respondents traveling to state attractions (48.1%) or to attractions outside of Wyoming (33.3%) made only one stop within the state. Those respondents traveling to Wyoming's national parks, however, tended to stop at three or more destinations.

Table 4.2 Number of Primary and Secondary Destination Stops

	State	National	Non-Wyoming
One Stop	78	1	10
Two Stops	42	0	6
Three Stops	11	6	5
Four Stops	11	4	4
Five Stops	9	5	2
Six Stops	0	1	1
No Answer	11	0	2
Total Sample	162	17	30

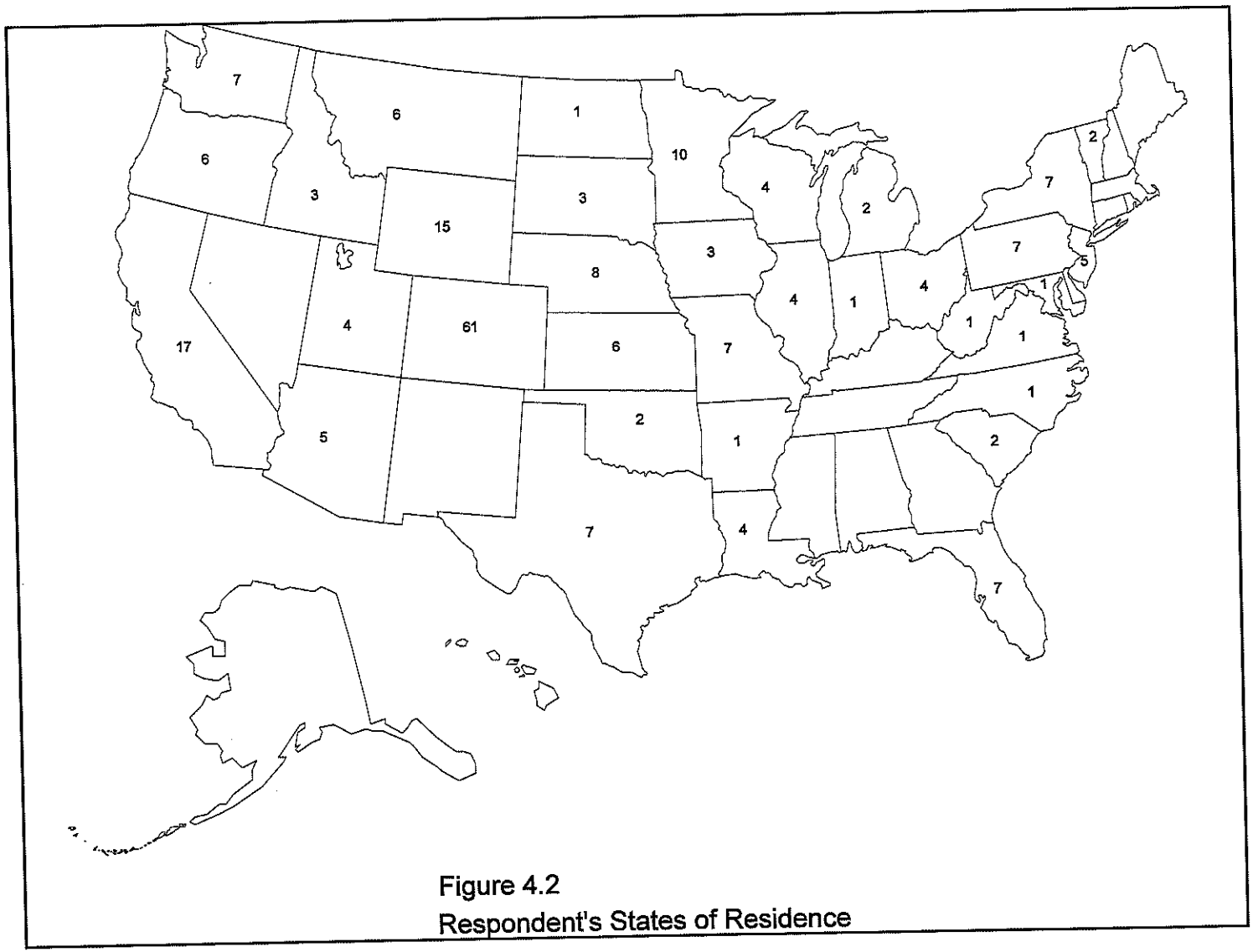


Figure 4.2
Respondent's States of Residence

Main Travel Motivation

The first goal of this project was to determine the source of information that motivated people to travel to Wyoming for tourism purposes. The main motivations for deciding to travel to Wyoming showed significant differences between the collection methods for all three study groups. The trends indicated by respondents within these three groups are tabulated in Table 4.3. For respondents visiting attractions within the state, the majority indicated 'the Wyoming/Colorado Railroad (34.4%),' 'returning because of a previous visit (18.6%),' or 'visiting family or friends (8.7%)' as their main travel motivations. Those going to national parks indicated 'Yellowstone (30.4%)' as their main reason for visiting. The largest percentage of respondents visiting destinations outside Wyoming indicated 'passing through (31.2%)' as their main travel motivation.

Table 4.3 Main Motivations for Visiting Wyoming

	State	National	Non-Wyoming
WY/CO Railroad	63	0	2
Been Here Before	34	6	10
Passing Through	0	0	25
Yellowstone	0	17	10
Visit Family	16	4	0
Recreation	11	2	3
No Answer	17	0	2
Scenery	8	5	5
Close to Home	9	1	2
Devil's Tower	0	2	3
Tetons	0	4	1
Other	25	15	17
Total Sample	183	56	80

Information Sources

The first portion of goal number two was to determine how travelers obtained information about the state. This was accomplished by asking where respondents obtained information before and after they entered the state. These questions determined what forms of information influence travel decisions. The

results of these two questions are shown in Tables 4.4 and 4.5. The respondents were allowed to choose all answers that applied.

The two collection methods could not be statistically combined for information obtained before entering Wyoming. The data could be combined for information obtained after entering Wyoming. Respondent trends are presented for both questions. Before respondents entered Wyoming, the largest percentage of respondents going to state attractions used 'Wyoming information and visitor centers (23.0%)' for obtaining information. Those going to the national parks obtained information by 'contacting the Wyoming Division of Tourism (17.8%)' or by using the 'American Automobile Association (17.8%).' Respondents who were primarily going to destinations outside of Wyoming most frequently reported that they 'didn't get any advance information (45.0%)'. The responses that are underlined in Tables 4.4 and 4.5 were provided on the questionnaire.

The responses received for the information sources used after entering Wyoming could be statistically combined for all three destination groups. Therefore, the major findings are as follows. The state attraction respondents most frequently indicated that they 'didn't obtain any information (33.9%)'. When they did obtain information, the most used source was from the 'Wyoming Information and Visitor Centers (31.7%)' Respondents visiting the national parks obtained information during their trip mostly from the 'Wyoming information and visitor centers (58.9%).' Finally, those going to destinations outside of Wyoming 'didn't obtain information (41.2%)' or received it most frequently from the 'Wyoming information and visitor centers (26.2%)'.

Table 4.4 Information Sources Used Before Entering Wyoming

	State	National	Non-Wyoming
Didn't Obtain Information	31	9	36
Recommend from Family/Friends	36	4	8
Wyoming Info/Visitor Centers	42	9	7
Chamber of Commerce	21	2	1
Newspapers	16	0	1
Contacted State for Info	0	10	3
Previously Visited	5	2	4
Hotels/Motels	4	1	2
AAA	6	10	8
Other	20	9	10
No Answer	2	0	0
Totals	183	56	80

Table 4.5 Information Sources Used After Entering Wyoming

	State	National	Non-Wyoming
Wyoming Info/Visitor Centers	58	33	21
Didn't Obtain Information	62	10	33
Hotels/Motels	20	8	11
Recommend from Family/Friends	12	0	3
Chamber of Commerce	8	2	3
Other	15	3	9
No Answer	8	0	0
Totals	183	56	80

Main Attractions

The second portion of goal number two of this study was to determine what Wyoming attractions people were visiting. The respondents were asked to indicate the most influential attraction and then to check all other attractions that influenced their decisions (Tables 4.6 and 4.7). The respondents had a choice of five specified attractions and space to enter other state attractions. The five choices represent some of the more popular tourist attractions offered by Wyoming. The data in Table 4.6 indicates the

respondent's first choice attraction and the data in Table 4.7 lists all other attractions chosen. The choices which are underlined in the tables indicate the five provided answers.

Neither the number one attraction or attractions also chosen could be statistically combined for the state attraction group. The national park group, however, could be combined for both the number one attraction and attractions also chosen. The non-Wyoming group could be combined for attractions also chosen, but not for the number one attraction. Overwhelmingly, 'the Wyoming/Colorado Railroad (29.5%)' was chosen as the number one attraction for those going to state attractions. Attractions also chosen by this group were 'national parks, monuments, and forests (21.8%)' and 'the natural beauty of the state (16.4%).' Those going to the national parks chose 'national parks, monuments, and forests (80.4%)' as their number one attraction and 'no answer (48.2%)' with the most frequency for other attractions. Finally, respondents traveling through the state to destinations outside Wyoming indicated 'national parks, monuments, and forests (31.2%)' as their number one attraction to Wyoming and then 'no answer (53.8%)' for attractions also chosen.

Table 4.6 First Choice Attractions

	State	National	Non-Wyoming
National Parks, Monuments, and Forests	18	45	25
The Natural Beauty and Wide Open Spaces	27	3	7
Visiting Family/Friends	21	1	2
Historical Sites	16	0	6
A Specific Recreational Activity	12	0	3
WY/CO Railroad	54	0	5
Passing Through	0	1	15
Other	9	3	7
No Answer	26	3	10
Total Sample	183	56	80

Table 4.7 Attractions Also Selected

	State	National	Non-Wyoming
National Parks, Monuments, and Forests	40	7	17
The Natural Beauty and Wide Open Spaces	30	9	3
Visiting Family/Friends	10	1	1
Historical Sites	21	10	7
A Specific Recreational Activity	6	2	3
WY/CO Railroad	7	0	1
Other	10	0	5
No Answer	59	27	43
Total Sample	183	56	80

Roadway System

The third goal of this project was to determine the effect of the perceived roadway system quality and its relationship to the satisfaction with tourism services in Wyoming. The data used to complete this goal were collected through five questions regarding the roadway system and the respondent's driving experience enjoyment. This data did not fluctuate between the two collection methods, so the results presented contain all survey sets. In general, respondents perceived the Wyoming highway system to be adequate. Of the 319 travelers surveyed, 308 indicated that they enjoyed traveling in Wyoming (96.5%), five did not enjoy traveling in Wyoming, and six did not answer the question.

Illustrated in Table 4.8 are the results of the roadway system questions. The data indicated that 95.3% of respondents felt the roads were adequate, 94.8% didn't consider road construction a major problem, and 95.3% felt that traffic congestion was not a major problem during their trip. Only 11.0% of respondents indicated that a specific roadway was inadequate. Finally, and most importantly, 96.5% enjoyed their driving experience in Wyoming.

Thirty-five respondents felt that a specific roadway in Wyoming was inadequate. Three respondents did not indicate the specific inadequate road, but the road was named by the other thirty-two. Three people indicated Interstate 80, two indicated US 287, and two indicated US 85 as inadequate. Fourteen respondents indicated the roads in Yellowstone National Park as inadequate and one noted "terrible" road construction outside Pinedale, Wyoming, on US 191. US 191 north of Rock Springs was also indicated inadequate by one respondent and US 34 was indicated by two respondents as inadequate. Wyoming 390 between Moose and Wilson was indicated inadequate by two respondents and one respondent indicated the Chief Joseph Scenic Highway. The last four respondents who felt a specific road was inadequate indicated the road from Yellowstone National Park to Cody, Wyoming(US 14, 16, and 20).

Table 4.8 Roadway System Questions

	Yes	No	No Answer	Total
Adequate Highways	304 95.3%	12 3.8%	3 0.9%	319 100%
Construction	20 6.3%	296 92.8%	3 0.9%	319 100%
Congestion	12 3.8%	304 95.3%	3 0.9%	319 100%
Inadequate Road	35 11.0%	267 83.7%	17 5.3%	319 100%
Enjoy Drive	308 96.5%	5 1.6%	6 1.9%	319 100%

Statistical Analysis

Statistical analyses were conducted to determine if relationships existed between the survey questions. These analyses were conducted with the use of the statistical computer program SPSS.

Permanent residence region, primary destination, group composition, main reasons for visiting, information sources, attractions, and the roadway system questions were analyzed. This was conducted using all survey responses even though some of the questions could not be combined statistically.

A crosstab analysis was conducted between each pair of variables. The null hypothesis (H_o) in each case stated that the two variables were related. The alternative hypothesis stated that the variables were not related. A significance level of .05 was used to reduce the probability of a Type I error occurring. The H_o was accepted when the calculated p-value was greater than the .05 significance level. When H_o is accepted, a relationship is said to exist between the variables. The strength of the relationship was measured using phi, Cramer's V, and the contingency coefficient. Each of these coefficients have values between zero and one. The strength of the relationship increases as the values get closer to one (25). These analyses are presented in Appendix 3.

Summary

This chapter has presented the primary data analysis associated with this project. The data analysis process began by checking the data set for two possible types of collection bias. Bias was introduced due to the large number of mailed surveys that were returned from people who had patronized the Wyoming/Colorado Railroad in Laramie.

A second analysis was conducted to determine if the two survey collection methods could be combined to conduct data analyses. This also indicated survey differences. As a result of these checks, data were first grouped by residence location. Respondents from Wyoming and the adjacent states versus all other states were evaluated with respect to combining the results of the two sampling methods. This also proved unsuccessful.

Finally, combining the survey methods based on primary destination was evaluated. Destinations within Wyoming were grouped in accordance to national or state level. Primary destinations outside Wyoming was the last group. This grouping provided the ability to statistically combine the surveys for

each group for where information was obtained after entering the state of Wyoming. Due to this ability to combine survey methods, this format was used to provide major results. Contained in Chapter 5 are the conclusions resulting from these analyses.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Tourism generated over 350 million dollars for the state in 1989(23). Previous tourism studies have concluded that 'national parks and monuments' were the primary reason for visiting Wyoming. Also high on the list were 'relaxing' and 'sightseeing.' The literature indicated that most visitors live in the states surrounding the primary destination. In this study, over half of the respondents were either Wyoming residents or traveled from Colorado, Montana, or Idaho. All Wyoming respondents were excluded from the data analysis due to the fact that no personal interviews were obtained from Wyoming residents.

Studies conducted in surrounding states have shown that 'visiting family or friends' and 'conducting business' were the top reasons for traveling. The 'national parks and monuments' were the most popular primary destinations, and 'previous knowledge' and 'recommendations from past tourists' were the most used tourist information sources. In this study, 'visiting family or friends' was the second most chosen reason for visiting. 'Conducting business' was not a primary response. This response was also not written on the questionnaire as a check-off box. 'National parks, monuments, and forests' were the most popular primary destinations. 'Recommendations from family and friends' was a popular method of obtaining tourist information, but 'previous knowledge' wasn't chosen as frequently as it was in the surrounding states' studies.

Most respondents were traveling in groups with their families, and made one or two primary and secondary stops during their trip. The top Wyoming primary travel purposes were 'visiting Yellowstone National Park' and 'visiting family or friends.' Before respondents entered the state, they either 'did not obtain any tourist information' or received it from 'family or friends' more frequently than any other option. After entering the state, visitors most frequently used 'Wyoming information and visitor centers' as a tourist information source. The number one attraction to Wyoming was the 'national parks, monuments, and

forests,' with 'historical sites' being second. Respondents indicated that the Wyoming roadway system was in good condition with a few exceptions and that, in general, traffic congestion and road construction were not major problems.

Throughout the data collection process during this project, many tourist sites within the state were visited. Most of the sites contained the essential components of successful tourist destinations. The supply of information, transportation facilities, and services (primary, secondary, and additional elements) was adequate. These facilities also appeared to be arranged according to the concentric ring model of a tourist attraction. The attractions were located in a central area with sufficient surrounding open space between the attraction and the tourism services. Devil's Tower is a good example of a tourist site having this layout. The site location is a few miles from the main entrance where shops and restaurants are located. The site possessed adequate parking and information about the location at the base of the tower.

Another point to consider when evaluating the potential of tourist areas is the diversity of recreation types offered. This is considered when conducting Recreational Opportunity Spectrum (ROS) planning and management. The ROS ranges from modern-urban areas to primitive areas. Cheyenne, Casper, and Laramie are examples of modern-urban areas and the back country in Yellowstone National Park is an example of a primitive area. Wyoming offers areas that cover the entire spectrum and is a great destination for people seeking many diverse types of recreational activities.

One drawback to the tourism industry in Wyoming is the great distances between areas. The literature stated that when visitor use fees increase, people are less willing to travel great distances to visit (3).

Five major tourism studies were conducted in Wyoming between 1986 and 1993. These studies concluded that Wyoming's 'national parks and monuments' were the main reasons respondents traveled to the state. Respondents also enjoyed 'relaxing' and 'sightseeing' during their visit. Another very important discovery from these studies was that most visitors were traveling from within Wyoming or the

surrounding states. These results were also found in the current study. The main attractions and main reasons for visiting Wyoming were the 'national parks, monuments, and forests' as in the previous studies.

To further understand the regional travel trends, tourism studies conducted by surrounding states were analyzed. The states that supplied information about recent tourism studies were Nebraska, North Dakota, Montana, Idaho, Utah, and South Dakota. Again, the 'national parks and monuments' were the most popular primary destinations. 'Passing through' and 'visiting family or friends' were indicated to be the main reasons for traveling. Finally, the most used information sources were 'previous knowledge of the area,' 'recommendations from previous tourists,' and 'the media.' The current study found that the main reasons for traveling were 'passing through,' 'Yellowstone National Park,' and 'family or friends.' 'Wyoming information and visitor centers,' 'family or friends,' and 'didn't obtain any information' were the most popular answers indicated by respondents when asked where they obtained tourist information.

Regionally, it was found that people visit areas for the same basic purposes — mainly, stopping while 'passing through' the area to a destination outside the state or to see 'family or friends.' This shows that the trends found in Wyoming match those found throughout the Rocky Mountain region. People visiting Wyoming seemed to obtain information from the state's visitor centers more than other states reported. However, the other two top information sources were regionally reported as well. These were 'family or friends' and 'didn't need any information because of previous knowledge of the area.'

The roadway system questions showed significant relationships for the combined samples. It is very important to point out that 'enjoying the driving experience' was significantly related to road construction, traffic congestion, and whether there was a specific inadequate road. Individuals indicating dissatisfaction with the Wyoming driving experience were generally also dissatisfied with the roadway system from the standpoint of road construction, traffic congestion, and/or roadway adequacy. Ninety-eight percent of respondents indicated that they enjoyed their driving experience.

Conclusions

The majority of people visiting Wyoming state attractions were traveling from adjacent states (72.1%). The largest percentage of these people traveled to the Wyoming/Colorado Railroad from Colorado (75.8%). This fact combined with the number of stops indicated by the state attraction travelers leads to the conclusion that most of these people were traveling into the state for the day.

Over half (62.5%) of the people traveling to Wyoming national parks traveled from the states that are not adjacent to Wyoming. These people tended to stay in Wyoming longer than the other groups. Most of the people traveling to the national parks made three or more stops along their journey.

Most of the respondents believed that the Wyoming roadway system was adequate. A few respondents, however, were negatively influenced by the condition of the Wyoming highway system. These people indicated that areas of bad road construction or inadequate roadway surfaces caused them to not enjoy their overall driving experience. The authors believe that the condition of the roadway may influence traveler satisfaction, but the data collected in this study does not support this conclusion. The statistical analyses, however, do show a statistical correlation between 'enjoy driving experience' versus 'road construction being a problem (p=.21069),' 'traffic congestion being a problem (p=.05163),' and 'a specific roadway being inadequate (p=.36268).' The three p-values indicate the acceptance of the null hypothesis. This indicates that a relationship exists between the variables. It was also noted in one reference that the "comfort or discomfort of the travel experience" influences visitation at tourist destinations (3).

The statistical correlations do not prove that traveler satisfaction is influenced by the perceived condition of the roadway system, but they do show that it is a possibility. This leads the authors to believe that if a large enough sample was taken, these correlations might prove that the roadway system does influence traveler satisfaction.

Recommendations

It is important to know that many of the respondents were already familiar with Wyoming. A large number of people indicated that they were 'passing though the state.' For this reason, it is important to keep Wyoming information available in hotels, motels, chambers of commerce, and visitor centers. It is also important for Wyoming to provide tourists with an enjoyable and memorable experience so that they will want to return in the future. The positive satisfaction of these visitors will also influence their friends or family to visit Wyoming.

The State Division of Tourism needs to continue to monitor where travelers are obtaining their tourism information. With this knowledge, the state will be better able to promote itself to a wider market of potential tourists. It was found in this study that most respondents received their information through the 'Wyoming information and visitor centers,' 'tourist businesses,' and 'from the state tourism office through the mail.'

The best form of promotion for Wyoming is 'positive comments by previous tourists.' If the Wyoming tourism industry continues to promote the high standard of excellence in its employees and provide attractive tourist destinations, tourists will continue to positively promote Wyoming.

The 'national parks' and the state's 'natural beauty' are popular tourist attractions within Wyoming. Travelers often visit Wyoming for the outdoor recreation and sightseeing opportunities. The health of these attractions and visitor satisfaction may be damaged by large numbers of visitors and result in the loss of future tourists.

The response sets collected in this study indicated that the condition of the roadway system did not affect traveler satisfaction. Most respondents indicated that the roads were adequate and that road construction and traffic congestion were not a problem. Road construction projects that cause long delays for travelers or inadequate roadways generally influence overall traveler satisfaction. A study interviewing

travelers before a major construction site and comparing the results to interviews conducted after travelers passed through the construction site would better determine the relationship to traveler satisfaction.

This study, overall, has supported previous tourist studies conducted in Wyoming and surrounding states. The main reasons for visiting, the main state attractions, and the most used information sources corresponded to what had been found in most previous studies.

Tourism is a very important industry to Wyoming. With improved understanding, the state may better provide for tourists and keep the industry growing steadily for the future.

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APPENDIX 1

EXAMPLE QUESTIONNAIRE

You recently visited Wyoming. We want to thank you for coming, and we hope you will come again soon. We want to better serve those who visit our state and in order to better understand those visiting, we are asking you to participate in a study to better determine certain aspects of your visit.

1. What is the zip code at your permanent residence? ☐☐☐☐☐

2. What was the primary destination of your trip? _____
   _____

3. Please list the places you visited while in Wyoming.
   a. _____ For how many days _____ nights _____
   b. _____ For how many days _____ nights _____
   c. _____ For how many days _____ nights _____
   d. _____ For how many days _____ nights _____
   e. _____ For how many days _____ nights _____

4. How would you describe the group with whom you were traveling?
   ☐ Traveling Alone
   ☐ With family - How many 18 years or older? _____
   How many 17 or younger? _____
   ☐ With friends - How many 18 years or older? _____
   How many 17 or younger? _____
   ☐ Other (please describe) _____

5. What made you first decide to come to Wyoming?
   _____
   _____

6. Once you had decided to visit Wyoming, where did you obtain information before you entered the state?
   ☐ Didn't get any information in advance
   ☐ Wyoming Information/Visitor Centers
   ☐ Chamber of Commerce
   ☐ Hotels/Motels
   ☐ Recommendations from family/friends
   ☐ Other (please describe) _____
   _____

7. Where did you obtain tourist Information <u>after</u> you entered the state?
   ☐ Didn't get any information in Wyoming while traveling
   ☐ Wyoming Information/Visitor Centers
   ☐ Chamber of Commerce Offices, locally
   ☐ Hotels/Motels
   ☐ Recommendations from family/friends
   ☐ Other (please describe) _____
   _____

8. What was it about the state that attracted you to visit? (Please put a #1 next to the main attraction and then check all others that apply).

- ☐ _____ National Parks, Monuments and Forests
- ☐ _____ Historical sites
- ☐ _____ Visiting family and/or friends
- ☐ _____ The natural beauty and wide open spaces in the state in general
- ☐ _____ A specific recreational activity (specify)
- ☐ _____ Other (please describe)

9. Were the highways you have traveled in adequate shape?
   ☐ Yes ☐ No
10. Was road construction a major problem during your trip in Wyoming?
   ☐ Yes ☐ No
11. Was traffic congestion a major problem during your trip in Wyoming?
   ☐ Yes ☐ No
12. Was any specific roadway inadequate in Wyoming? (Please indicate the road)
   ☐ Yes ☐ No Highway: _____
13. Did you enjoy your driving experience on Wyoming's highways?
   ☐ Yes ☐ No

Thank you for your assistance and input. Your responses will help us serve people like you better in the future. If there is anything you would like to add, please feel free to do so. (You may use the back page as well if you like).

_____

_____

APPENDIX 2

ANALYSIS OF SAMPLE BIAS

Wyoming/Colorado Railroad Collection Bias

To determine whether the Wyoming/Colorado Railroad data caused bias in the sample, a statistical comparison was performed. SPSS was used to perform a chi-square crosstab analyses for the questions. The null hypothesis (H_o) stated that the two data sets produced different results for the comparison variable and the alternative hypothesis stated that the two data sets produced similar results. All analyses were conducted at the .05 significance level.

The calculated chi-square or p-value for the 'main reason for visiting' was .000, so the null hypothesis was not rejected. For the 'information obtained before entering Wyoming,' the p-value was .205, so the H_o was rejected. The p-value was .039 for 'information sources obtained after entering Wyoming,' therefore the H_o was not rejected. The p-value was .000 for 'the number one attraction' and .001 for 'other attractions chosen' resulting in the H_o for both comparisons not being rejected. 'Highways being in adequate condition' calculated a p-value of .939, so the H_o was rejected. The H_o was not rejected for 'road construction being a problem' with a p-value of .039. The last three comparisons resulted in the H_o being rejected with p-values of .718 for 'traffic congestion being a problem,' .616 for 'specific inadequate roads,' and .364 for 'driving experience enjoyment.' These results are summarized in Table A2.1. The analyses showed that half the questions contained significantly different responses and half contained statistically similar results. The conclusion was that the Wyoming/Colorado Railroad data did introduce bias to the sample set since there weren't a majority of questions with similar responses.

To determine with more confidence that the Wyoming/Colorado Railroad data introduced bias to the data set, three other statistics were interpreted. The three statistics were lambda, tau, and the uncertainty coefficient. These statistics determine the strength of the relationship between the two variables on a scale from zero to one. The relationship between the variables grows stronger as the values approach one. The 'main reasons for visiting' were found to be significantly different between

Table A2.1 Wyoming/Colorado Collection Bias Statistics

Variables	Chi-Square	DOF	p-value	Reject Ho
Main Reason	100.293	5	.000	No
Info Before	5.917	4	.205	Yes
Info After	10.066	4	.039	No
Attraction 1	76.111	4	.000	No
Attraction 2	19.600	4	.001	No
Good Road	0.006	1	.939	Yes
Construction	4.262	1	.039	No
Congestion	0.130	1	.718	Yes
Inadequate Road	0.251	1	.616	Yes
Enjoy Drive	0.824	1	.364	Yes

the two data sets (p=.000). The strength of this conclusion is high, based on the three strength measures, .272, .153, and .206.

Statistically similar results were found for 'information obtained before entering the state (p=.205),' but the strength of the relationships wasn't very high — .000, .006, and .012, respectively. Out of the ten tested questions, eight either produced significantly different results with high strength or similar results with low strength. 'Attractions also chosen' and 'road construction being a problem' were the only two variables that had significantly different results with low strength. The complete results are presented in Table A2.2. These results strengthen the conclusion that the Wyoming/Colorado Railroad data introduced bias into the data set.

Table A2.2 Strength Test for Wyoming/Colorado Railroad Comparison

Variable	p-value	phi	Cramer's V
Main Reason	.000	---	.711
Info Before	.205	---	.172
Info After	.039	---	.225
Attraction 1	.000	---	.620
Attraction 2	.001	---	.315
Adequate Highway	.939	.005	---
Construction	.039	.147	---
Congestion	.718	.026	---
Inadequate Road	.616	.037	---
Enjoy Drive	.364	065	---

APPENDIX 3

CROSSTAB STATISTICAL ANALYSES

Permanent Residence Region

The SPSS crosstab analyses began with 'permanent residence region.' The United States was broken into four regions, Northeast with twelve states, Southeast with twelve states and the District of Columbia, Central with thirteen states, and West with thirteen states. The states located in each region are provided in Appendix 5.

'Permanent residence region' was significantly related to all but two of the other variables. These two variables were 'main reasons for visiting (p=.010)' and 'information obtained after entering Wyoming (p=.017).' Since the p-values are lower than the .05 significance level, H_o is rejected and the variables are not related to one another. The strength of relationships between 'permanent residence region' and the other variables wasn't very great (see Table A3.1).

Table A3.1 Permanent Residence Location

Variable	p-value	Cramer's V	Contingency
Primary Destination	.480	.112	.190
Main Reason	.010	.177	.294
Info Before	.734	.094	.161
Info After	.017	.184	---
Attraction 1	.286	.126	.213
Attraction 2	.072	.159	---

Primary Destination

The 'primary destination' for each respondent was compared to the rest of the variables. There was a significant relationship between the 'primary destination' versus the 'permanent residence region (p=.480)' and versus all of the roadway system variables. The rest of the variables showed no significant relationship to the 'primary destination' (see Table A3.2).

Table A3.2 Primary Destination

Variable	p-value	Cramer's V	Contingency
Permanent Resid.	.480	.112	.190
Group Composition	.090	.153	---
Main Reason	.000	.366	.535
Info Before	.002	.190	.312
Info After	.014	.184	---
Attraction 1	.000	.224	.362
Attraction 2	.015	.182	.250
Adequate Highway	.531	.097	---
Construction	.337	.120	---
Congestion	.406	.111	---
Inadequate Road	.999	.010	---
Enjoy Drive	.409	.111	---

Group Composition

The next variable compared using the crosstab analysis was the 'group composition.' Respondents were asked to specify whether they were traveling alone, with friends, or with family. 'Information obtained before entering Wyoming' and 'number one attraction' were the only two variables that did not have significant relationships with 'group composition.' The p-values were .034 and .002, respectively. The rest of the variables were significantly related to 'group composition' (see Table A3.3).

Table A3.3 Group Composition

Variable	p-value	Cramer's V	Contingency
Primary Destination	.090	.153	---
Main Reason	.690	.091	---
Info Before	.034	.170	---
Info After	.078	.134	.186
Attraction 1	.002	.211	---
Attraction 2	.098	.129	.180

Main Reasons for Visiting

The 'main reasons for visiting' was the next variable used in the analysis. Crosstabs were conducted between this variable and all other variables. The H_o was rejected for the 'main reasons for visiting' versus 'information obtained before entering Wyoming (p=.016).' Therefore, the variables were not related to one another.

A relationship does exist between the 'main reasons for visiting' and 'information obtained after entering Wyoming (p=.088).' 'Main reason for visiting' versus 'number one attraction (p=.000)' and 'also chosen attractions (p=.000)' do not have significant relationships. Table A3.4 contains a summary of the crosstab analysis conducted with the 'main reasons for visiting.'

The most significant relationships with 'main reasons for visiting' existed with 'traffic congestion being a problem (p=.802).' and 'driving experience enjoyment (p=.611).' 'Information obtained after entering Wyoming (p=.088)', 'highways being in adequate condition (p=.10431),' and 'road construction being a problem (p=.057)' also had significant relationships with 'main reasons for visiting.' 'A specific inadequate roadway (p=.031)' was the only roadway system question to not be significantly related to 'main reasons for visiting (see Table A3.4).'

Table A3.4 Main Reasons for Visiting

Variable	p-value	Cramer's V	Contingency
Permanent Resid.	.010	.177	.294
Primary Destination	.000	.366	.535
Group Composition	.690	.091	---
Info Before	.016	.169	.281
Info After	.088	.146	.245
Attraction 1	.000	.310	.473
Attraction 2	.000	.235	---
Adequate Highway	.104	.162	---
Construction	.057	.179	---
Congestion	.802	.065	---
Inadequate Road	.031	.200	---
Enjoy Drive	.611	.088	---

Information Obtained Before Entering Wyoming

Significant relationships existed between 'information obtained before entering Wyoming' and all other variables, except 'main reasons for visiting (p=.016),' 'information obtained after entering Wyoming (p=.000),' and 'attractions also chosen (p=.000) (see Table A3.5).'

Table A3.5 Information Obtained Before Entering Wyoming

Variable	p-value	Cramer's V	Contingency
Permanent Residence	.733	.094	.161
Primary Destination	.002	.190	.313
Group Composition	.034	.171	---
Main Reason	.016	.169	.281
Info After	.000	.260	.411
Attraction 1	.183	.133	.224
Attraction 2	.000	.253	---

Information Obtained After Entering Wyoming

'Information obtained before entering Wyoming (p=.000),' 'number one attraction (p=.008),' and 'attractions also chosen (p=.000)' were not significantly related to 'information obtained after entering Wyoming.' 'Group composition (p=.078)' and 'main reasons for visiting (p=.088)' were significantly related to 'information obtained after entering Wyoming (see Table A3.6).'

Table A3.6 Information Obtained After Entering Wyoming

Variable	p-value	Cramer's V	Contingency
Permanent Residence	.017	.184	---
Primary Destination	.014	.184	---
Group Composition	.078	.134	.186
Main Reason	.088	.146	.245
Info Before	.000	.260	.411
Attraction 1	.008	.178	.294
Attraction 2	.000	.228	---

Number One Attraction to Wyoming

'Information obtained before entering Wyoming (p=.183)' and the roadway system questions were significantly related to 'number one attraction.' The roadway system questions had strong relationships with the variable. 'Main reasons for visiting (p=.000),' 'information obtained after entering Wyoming (p=.008),' and 'attractions also chosen (p=.000)' were not statistically related to 'number one attraction (see Table A3.7).'

Table A3.7 Number One Wyoming Attraction

Variable	p-value	Cramer's V	Contingency
Permanent Residence	.286	.126	.213
Primary Destination	.000	.224	.362
Group Composition	.002	.211	---
Main Reason	.000	.310	.473
Info Before	.183	.133	.224
Info After	.008	.178	.294
Attraction 2	.000	.302	---

Attractions Also Chosen

'Attractions also chosen' have been shown in previous tables to be related to 'permanent residence location (p=.072)' and 'group composition (p=.098).'

Roadway System Questions

The roadway system questions have shown high significance levels for all distinct groups. Analyses of how these questions relate to each other was also conducted. Only four sets of questions were determined to be significantly related. The first significant pair was 'road construction being a problem' versus 'enjoy driving experience (p=.211). The next significant pair was 'traffic congestion being a problem' versus 'a specific roadway being inadequate (p=.110).' 'Traffic congestion being a problem' versus 'enjoy driving experience (p=.052)' was the third significant pair. Finally, 'a specific roadway being

inadequate' versus 'enjoy driving experience (p=.363)' was the last significant pair. All other pairs were determined to not be significantly related. (see Table A3.8).

Table A3.8 Roadway System Questions

Highways in Adequate Condition

Variable	p-value	phi
Road Construct	.012	.163
Congest Prob	.030	.142
Inadequate Road	.000	.371
Enjoy Drive	.000	.282

Road Construction Being a Problem

Variable	p-value	phi
Adequate High	.013	.163
Congest Prob	.017	.156
Inadequate Road	.000	.247
Enjoy Drive	.211	.082

Traffic Congestion Being a Problem

Variable	p-value	phi
Adequate High	.030	.142
Road Construct	.017	.156
Inadequate Road	.110	.107
Enjoy Drive	.052	.127

Specific Roadway Being Inadequate

Variable	p-value	phi
Adequate High	.000	.371
Road Construct	.000	.247
Congest Prob	.110	.107
Enjoy Drive	.363	.061

Table A3.9 Crosstab Analyses Significance Summary

	Significantly Related
Permanent Residence vs. Primary Destination	Yes
Permanent Residence vs. Group Composition	Yes
Permanent Residence vs. Main Reason	No
Permanent Residence vs. Info Before	Yes
Permanent Residence vs. Info After	No
Permanent Residence vs. Attract 1	Yes
Permanent Residence vs. Attract 2	Yes
Permanent Residence vs. Adequate Highway	Yes
Permanent Residence vs. Construction Prob.	Yes
Permanent Residence vs. Congestion Prob.	Yes
Permanent Residence vs. Inadequate Road	Yes
Permanent Residence vs. Enjoy Drive	Yes
Primary Destination vs. Group Composition	Yes
Primary Destination vs. Main Reason	No
Primary Destination vs. Info Before	No
Primary Destination vs. Info After	No
Primary Destination vs. Attract 1	No
Primary Destination vs. Attract 2	No
Primary Destination vs. Adequate Highway	Yes
Primary Destination vs. Construction Prob.	Yes
Primary Destination vs. Congestion Prob.	Yes
Primary Destination vs. Inadequate Road	Yes
Primary Destination vs. Enjoy Drive	Yes
Group Composition vs. Main Reason	Yes
Group Composition vs. Info Before	No
Group Composition vs. Info After	Yes
Group Composition vs. Attract 1	No
Group Composition vs. Attract 2	Yes
Group Composition vs. Adequate Highway	Yes
Group Composition vs. Construction Prob.	Yes
Group Composition vs. Congestion Prob.	Yes
Group Composition vs. Inadequate Road	Yes
Group Composition vs. Enjoy Drive	Yes
Main Reason vs. Info Before	No
Main Reason vs. Info After	Yes
Main Reason vs. Attract 1	No
Main Reason vs. Attract 2	No
Main Reason vs. Adequate Highway	Yes
Main Reason vs. Construction Prob.	Yes

Table A3.9 (cont.)

Main Reason vs. Congestion Prob.	Yes
Main Reason vs. Inadequate Road	No
Main Reason vs. Enjoy Drive	Yes
Info Before vs. Info After	No
Info Before vs. Attract 1	Yes
Info Before vs. Attract 2	No
Info Before vs. Adequate Highway	Yes
Info Before vs. Construction Prob.	Yes
Info Before vs. Congestion Prob.	Yes
Info Before vs. Inadequate Road	Yes
Info Before vs. Enjoy Drive	Yes
Info After vs. Attract 1	No
Info After vs. Attract 2	No
Info After vs. Adequate Highway	Yes
Info After vs. Construction Prob.	Yes
Info After vs. Congestion Prob.	Yes
Info After vs. Inadequate Road	Yes
Info After vs. Enjoy Drive	Yes
Attract 1 vs. Attract 2	No
Attract 1 vs. Adequate Highway	Yes
Attract 1 vs. Construction Prob.	Yes
Attract 1 vs. Congestion Prob.	Yes
Attract 1 vs. Inadequate Road	Yes
Attract 1 vs. Enjoy Drive	Yes
Attract 2 vs. Adequate Highway	Yes
Attract 2 vs. Construction Prob.	Yes
Attract 2 vs. Congestion Prob.	Yes
Attract 2 vs. Inadequate Road	No
Attract 2 vs. Enjoy Drive	Yes
Adequate High vs. Construction	No
Adequate High vs. Congestion Prob.	No
Adequate High vs. Inadequate Road	No
Adequate High vs. Enjoy Drive	No
Construction vs. Congestion Prob.	No
Construction vs. Inadequate Road	No
Construction vs. Enjoy Drive	Yes
Congestion Prob. vs. Inadequate Rd	Yes
Congestion Prob. vs. Enjoy Drive	Yes
Inadequate Rd vs. Enjoy Drive	Yes

APPENDIX 4

SIGNIFICANCE OF INFORMATION OBTAINED AFTER ENTERING WYOMING

The following three tables, A4.1, A4.2, and A4.3, present the number of people stating each answer for the interviews and mailed surveys. The three tables represent the division into the three analysis groups — people visiting state attractions, people visiting Wyoming national parks, and people visiting places outside of Wyoming. Also included in each table is the chi-square value, degrees of freedom, and the significance level showing that the data sets could be combined.

Table A4.1 State Attractions

	Interview	Mailed
Didn't Obtain Info	10	52
WY Visitor Centers	4	54
Chambers of Commerce	1	7
Family or Friends	3	9
Other Sources	3	32

X^2=4.7 DF=4 Significance=.315

Table A4.2 National Parks within Wyoming

	Interview	Mailed
Didn't Obtain Info	8	2
WY Visitor Centers	21	12
Other Sources	10	3

X^2=1.4 DF=2 Significance=.497

Table A4.3 Destinations Outside of Wyoming

	Interview	Mailed
Didn't Obtain Info	25	8
WY Visitor Centers	13	10
Other Sources	12	12

X^2=4.4 DF=2 Significance=.109

An analysis was also conducted to determine if the three primary destination groups were significantly related for information obtained after entering Wyoming. The results showed that the three groups were not related for this variable (X^2=16.2, DF=4, significance=.003).

APPENDIX 5

DEMOGRAPHIC REGIONS

Demographic regions and the states contained in each for the crosstab analysis of permanent residence region.

Northeast Region
- Maine
- New Hampshire
- Vermont
- Massachusetts
- Rhode Island
- Connecticut
- Pennsylvania
- Ohio
- Michigan
- Indiana
- New York

Southeast Region
- Virginia
- West Virginia
- Kentucky
- North Carolina
- Tennessee
- South Carolina
- Georgia
- Florida
- Alabama
- Mississippi
- Maryland
- Delaware
- Washington D.C.

West Region
- Montana
- Wyoming
- Colorado
- New Mexico
- Arizona
- Utah
- Idaho
- Washington
- Oregon
- Nevada
- California
- Alaska
- Hawaii

Central Region
- Illinois
- Louisiana
- Arkansas
- Missouri
- Iowa
- Wisconsin
- Minnesota
- Texas
- Oklahoma
- Kansas
- Nebraska
- North Dakota
- South Dakota