# *Determining Economic Effects of Wyoming's Loop Tours*

by

Donald S. Warder
The Graduate School
University of Wyoming

Khaled Ksaibati and Eugene M. Wilson
Department of Civil and Architectural Engineering
University of Wyoming

Gene Bryan
Division of Tourism
Wyoming Department of Commerce

March 1994

**Disclaimer**

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein. This document is disseminated under the sponsorship of the Department of Transportation, University Transportation Centers Program, in the interest of information exchange. The U.S. Government assumes no liability for the contents or use thereof.

## TABLE OF CONTENTS



## LIST OF TABLES

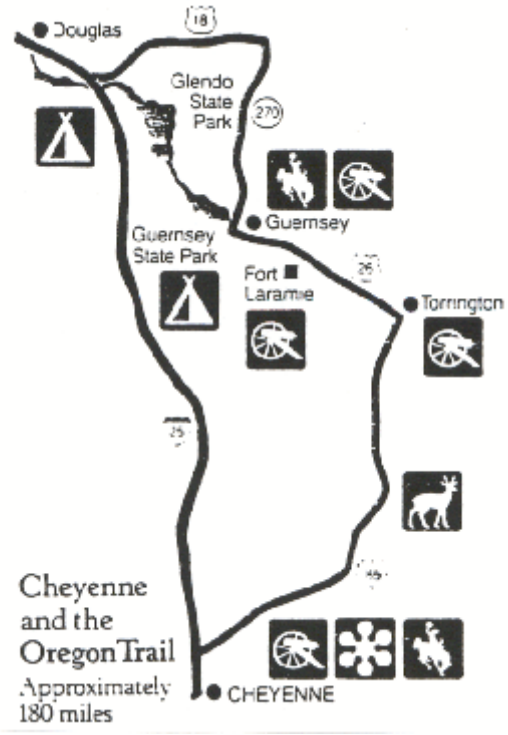


## LIST OF FIGURES

## INTRODUCTION

The Wyoming loop tour program, as evaluated in this study, involved two components. One component dealt with the location criteria and an evaluation of the existing loop tours which is contained in a companion MPC report (MPC 94-29). Included herein is a discussion of models used in determining economic benefit and the results of an evaluation of the economic effects associated with two scenic loop tours, the Cheyenne and Oregon Loop Tour and the Bighorn Basin Loop Tour.

**Figure 1. CHEYENNE AND OREGON TRAIL**




This loop tour originates from the state capital, Cheyenne, and passes through Douglas, Glendo State Park, Guernsey, Guernsey State Park, Fort Laramie and Torrington. Much of the exciting period in the old west lives on at several museums in Cheyenne. These museums give glimpses of historical objects, Indian artifacts, gems, and other materials of interest which help in understanding the lives of the

people of the past. Wildlife is also an attractive feature of this loop tour. In addition, this tour follows the historic Oregon Trail as it makes its way along the North Platte River. Register Cliff is located south of Guernsey where pioneers inscribed their names, places of origin, intended destination and the dates. The total length of this loop tour is approximately 180 miles (15).

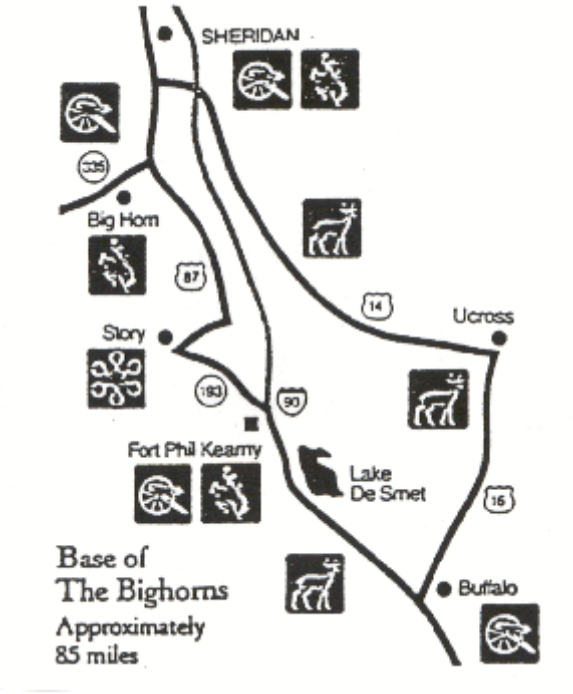



**Figure 2. BASE OF THE BIG HORNS**

This loop tour is located in the northern part of Wyoming. As shown, the major attractions in this loop tour are Sheridan, Ucross, Buffalo, Lake De Smet, Fort Phil Kearny, Story and Big Horn. The visitor center and museum at Fort Phil Kearny provide an overall view of what has been termed by historians as the scene of some of the most dramatic incidents in the history of the Indian Wars in the west. The presence of the majestic Big Horn Mountains provide tourists with spectacular mountain scenery and a variety of wildlife. Many songbirds like Western Meadowlarks, Common Flickers, Lark

Bunting, Mountain Bluebirds and several species of Warblers can be found. The total length of this loop tour is approximately 89 miles (15).

The genesis for determining the economic effects of Wyoming's Loop Tours is based on experience gained over the years where a plethora of studies have evidenced the potential for and/or actual positive impact of tourism on the economic health of communities or a geographical area. Since Outdoor Recreation for America: The Report of the Outdoor Recreation Resources Review Commission to the President and to the Congress (9) was submitted, virtually every economist has supported the concept that tourism and recreation could mean the difference between the economic success or failure of a geographical area. The states in the mountain-plains consortium (MPC) area are no different from any other geographical area in this country. All states are largely interested in and enjoy the benefits from an expanding tourism industry. For example, most communities in Wyoming are affected by tourism. Some communities such as Cody and Jackson have developed an economy around tourism activities and the associated needs of the traveling public. Others, such as Laramie and Riverton have the potential of developing an expanded tourism industry. Some individuals in each community are already profiting from tourists through selling gasoline, food, lodging, and souvenirs, to name but a few items.

Within the MPC region, effort is extensive at most local and certainly at the state level, to expand the economic benefits from tourism. Defining a tourist is sometimes the first and most difficult step in discovering the economic benefits associated with attracting them. A tourist may better be defined through the activity of "tourism." Tourism, in the context of this study, is possibly best represented by understanding that someone uses a public or private transportation system to come to an area or community from some other location, not planning to stay permanently. A tourist, then, is someone:

- on vacation
- on a business trip
- visiting local attractions
- visiting friends or relatives
- attending a convention
- attending a special event such as a rodeo, musical event, etc.
- sight-seeing
- participating in a sport such as skiing, boating, etc.
- passing through enroute to another location, or numerous other reasons

Regardless of the motivation, tourists spend money; usually lots of money. In 1989, the United States Travel Data Center calculated that U.S. travelers spent $316 billion within the United States on trips involving an overnight stay away from home and day trips to locations of 100 miles or more. This activity, in turn, generated $73.5 billion in wage and salary income and an additional $42.9 billion in federal, state and local tax revenues. This same study also revealed that forty-two states received more than $1 billion from travelers in 1989 while sixteen states received more than $3.8 billion in travel spending (13).

Although direct economic benefit is often the factor motivating communities' involvement in tourism, other related but indirect factors contribute to communities' well-being:

- employment benefits
- increased income
- diversification of the economic base
- tax revenues
- visibility
- cultural diversification, etc.

Many rural communities have turned to tourism development in times of economic hardship to diversify their economic base. A reliable tourism development plan requires significant public and private investment to provide all necessary facilities and to advertise new destinations. Hence, the question arises whether spending money for tourism development is a wise choice and if the returns from tourism can generate enough revenue to significantly increase local income. Studying the economic impacts of tourism has been given increasing attention through the years. Some projects have yielded valuable estimates of what local communities can gain from tourism activities.

Two basic components need to be quantified to estimate the economic impact of tourism: 1) the number of visitors , and 2) the average expenditures per visitor. Then, these direct expenditures can be entered in an input/output model to derive indirect and induced effects on the local economy.

## ESTIMATING VISITOR USE

In a study of this type, it is possible to estimate the number of people visiting specific areas for tourism purposes by interviewing lodging providers (public and private campgrounds, motels and hotels) in order to determine occupancy rates and types of visitors, i.e., business, tourism, etc. When this method is

used, it is necessary to distinguish between tourists and commercial travelers (4). Visitors who do not use commercial lodging, staying with friends or relatives, would not likely be included in such a data base. However, the overall user data are best obtained by combing on-site visitor survey information with the estimated number of visitors using commercial lodging. It is worth noting that Taylor, Fletcher, and Clabaugh checked the accuracy of their survey results and implications with secondary data from sales tax collection and the U.S. censuses of retail trade and services (12).

## ESTIMATING VISITOR EXPENDITURES

When we consider the economic impacts of tourism, the first task is to evaluate visitor expenditures. All the economic benefits a community derives from tourism flow from the dollars visitors spend during their measurable experience.

Because the tourism industry is not individually identified in the Standard Industrial Classification adopted by the U.S. Bureau of the Census, it is not possible to use secondary data from Federal agencies for tourism expenditures. Moreover, no economic sector relies exclusively on tourism for its activity (7). As a consequence, primary data need to be collected.

Several alternatives exist to measure visitor expenditures. It is important to keep in mind that an economic impact study of tourism will be as good as the visitor expenditure data it is built upon. Directly estimating tourism expenditures through observation of identified tourists is not a realistic approach (2). Typically, an indirect method is preferred, through surveying a sample of visitors who have completed their trips (household survey) or during their trip (location or en-route survey). The latter method yields more accurate data because people still remember the amount and distribution of their expenditures, whereas the recall factor becomes a problem with the former survey method (1; 5). Taylor, Fletcher, and Clabaugh (12) quantified visitor expenditures through visitor surveys conducted at sites where tourists are likely to stop (visitor centers, campgrounds, historical sites, motels). These face-to-face surveys have the highest response rates (4). Some researchers investigated the method of having a sample of visitors record their expenses in a diary as expenditures occur (8). This supposes that a large enough proportion of people would complete the diary while on vacation. The study showed that mail questionnaires sent to visitors after returning home underestimates expenditures compared to the diary method. The 1983

Nebraska Visitor Survey used the diary questionnaire methodology to achieve a 62 percent response rate at a reasonable cost (10); visitor parties were contacted by field representatives during their stop at sampled gasoline stations. Another possibility would be to survey businesses' owners and operators whose activity is, at least in part, due to tourism (7). It is difficult to distinguish business receipts from those of tourists after the fact (1).

The alternative exists between mail and telephone questionnaires. It seems that the telephone method is faster, even if slightly more expensive, and also more accurate than a mail survey due in part to a lower non-response rate (4; 6).

Some studies have combined evaluation of the effectiveness of advertising programs (conversion studies) with estimates of average visitor expenditures. Methodological concerns have been raised about the quality and accuracy of this type of method which have too often returned invalid conclusions about the related economic impact of tourism marketing campaigns. It is not surprising that people who visit a destination are more likely to respond to a survey focused on that destination than those who did not visit it (4). This overestimates actual visitation rates and derived economic impacts. Evaluating a conversion rate (the percentage of persons who respond to destination advertising by requesting specific information and who eventually visit the destination) is not our purpose; however, it is important in determining how to measure economic benefits. We intended to evaluate the economic effects of tourists following two of Wyoming's Loop Tours.

## LOCAL ECONOMIC IMPACTS

The Wyoming Division of Tourism, in cooperation with the Wyoming Department of Transportation, established the Wyoming Loop Tours Program in the late 1980s. Several segments of existing state highway systems were identified as facilitating the access to specific historic and recreational areas already available for public use. Through additional recognition of these sites, it was envisioned that the visiting public would utilize sites more, thus spending more time in the area with the result of adding to the local economies and positively impacting the overall economy through increased tourism.

**Table 1. Travel Time and Length for the Cheyenne and Oregon Trail Loop Tour**

| Route | Travel Time (Minutes) | Distance (Miles) |
|---|---|---|
| Cheyenne to Torrington (US 85) | 84 | 77 |
| Torrington to Ft. Laramie (US 26) | 22 | 20 |
| Ft. Laramie to Guernsey (US 26) | 15 | 13 |
| Guernsey to Orin Jct. (Wyo 270/US 18) | 78 | 71 |
| Orin Jct. to Wheatland (I 25) | 47 | 51 |
| Wheatland to Cheyenne (I 25) | 55 | 50 |
| Total | 301 | 282 |

**Table 2. Travel Time and Length for the Base of the Big Horn Loop Tour**

| Route | Travel Time (Minutes) | Distance (Miles) |
|---|---|---|
| Buffalo to Ucross | 20 | 18 |
| Ucross to Sheridan | 29 | 32 |
| Sheridan to Big Horn | 4 | 5 |
| Big Horn to Story | 13 | 14 |
| Story to Ft. Phil Kearny | 6 | 7 |
| Ft. Phil Kearny to Buffalo | 12 | 13 |
| Total | 84 | 89 |

Tables 1 and 2 indicate the travel time between locations on each of the two studied loop tours. Travel time may have a relationship to the desire of travelers to stop for services, etc. It was also envisioned by the Wyoming Division of Tourism that visitation to sites included in the Wyoming Loop Tours Program would be enhanced as a result of a four-color publication and highway signing designed to draw attention to the designated recreational highway route. Loop tour brochures were divided geographically between southern and northern loop tours (15). This study included both a northern and southern loop tour. These were the Cheyenne & Oregon Trail Loop Tour and the Big Horn Basin Loop Tour as discussed earlier.

Tourist expenditures are only one of the causes of local economic benefits, if economic benefits are defined as gross increases in local income and wealth due to tourism activity (5). Economic impacts are usually classified as follows:

- direct positive impacts occur as a direct consequence of tourism activity.
- indirect positive impacts occur when the recipients of these direct impacts spend part of their revenue to purchase goods and services necessary for them to supply their activity (travel businesses purchases).
- induced positive impacts represent the consumption expenditures of people receiving income from employment in one of the local tourism industries, i.e., employees spending (3; 4; 5).

Evaluating direct effects of visitor expenditures is rather straightforward when visitor expenditure data and visitor counts have been collected. Applying appropriate tax rates to the tourists' expenditures gives tax revenues attributable to tourism. With regard to jobs supported directly, one easy method is to calculate each sector's payroll as a percentage of sales (this information can be obtained in the County Business Patterns for every county) and to derive the number of jobs in each type of business (3).

The importance of the secondary effects of spending, both indirect and induced effects, should not be overlooked. Some economic activities realize a greater return to the community per dollar spent than others, i.e., the longer the money remains in the local economy, the better. It is particularly relevant to try to identify how a dollar spent by tourists on different items or activities circulates through the local economy (2). What is pertinent is to trace the effects of tourists' spending through the local economy because many of the goods and services purchased by tourists might have a local impact beyond the specific location where the actual spending took place, i.e., "import content." (2).

The input/output technique is only one of the modeling methods available for the practitioner. Other approaches include shift-and-share analyses and location quotients. Rose (11) uses a different approach to measure economic impacts of tourism. Information can be combined from a variety of data sources, federal and state publications, local information, interviews and questionnaires. From this, one follows a process of assumptions and imputations to estimate tourist revenue dollars, tourist income dollars, tourism employment, and tourism tax impact. The superiority of the input/output technique lies in

its ability to show the linkages within the economic region (4). The technique also translates the tourism activity in terms of personal income, local jobs, and sales tax collected. Taylor, Fletcher, and Clabaugh (12) developed their input/output model to estimate the total economic impact of tourism - the sum of direct, indirect, and induced impacts in the North Central Wyoming. Four county area data were collected from the Service sector and secondary data. Johnson, Bermiller, and Radtke (7) combined businesses survey data with the U.S. Forest Service's IMPLAN system. This has the disadvantage of being constructed on national assumptions which are often erroneous at the local level.

The U.S. Travel Data Center has developed a Travel Economic Impact Model which provides annual estimates of the impact of the travel industry at the county level for fifteen travel expenditure categories and thirteen types of travel related businesses in terms of business receipts, employment, personal income, and tax collection (14). This, however, does not appear to be usable for Wyoming because this study could not isolate tourism activity specifically resulting from use of the Wyoming Loop Tours.

Since this study involves the use of Wyoming's Loop Tours, it is important to establish an understanding of the planning philosophy behind such a system. In 1990, the Federal Highway Administration included in its publication, "Safety Impacts, Design Standards and Classification Systems for Scenic Byways" a description which appears to fit the philosophy providing guidance to Wyoming's effort in its loop tours program. Essentially, loop tours, like federal scenic byways, are corridors with high natural beauty incorporating cultural and/or historic values. Users of the loop tours are treated to glimpses of Wyoming's unique nature, history, geology, landscape and cultural activities. In addition, public services are necessary to encourage use and enjoyment. Obviously, some "services" are necessary to allow visitors to the loop tour to exchange money for services and goods, thus enhancing the local economies.

Scenic road programs have been in existence for some time. A number of states, such as Utah, Colorado, Maryland, North Carolina and Wyoming have a scenic highway programs under one name or another. As part of this study, all 50 states were surveyed to determine which have programs identified in the same terms as does Wyoming, specifically a "loop" tour embodying the components of a scenic tour route developed to encourage economic development in a specific region. Table 3 identifies those states responding affirmatives and indicates the number of loops.

Most states responded that the loop tour programs are administered in a similar manner to that in Wyoming; cooperation between the Division of Tourism and the Department of Transportation. Of interest, until the formation of this study for the state of Wyoming, only Texas had previously evaluated the effectiveness of its loop tour programs.

**Table 3. States Having Loop Tour Programs**

| State | Number of Loop Tours |
|---|---|
| Connecticut | 7 |
| Hawaii | Not provided |
| Oregon | 20 plus |
| Pennsylvania | 4 |
| South Dakota | 12 |
| Maryland | Not provided |
| Michigan | 4 |
| Minnesota | 2 |
| Texas | 10 |
| Wisconsin | 2 |
| Wyoming | 6 |

## COSTS AND LIABILITIES OF TOURISM

Jobs, taxes, etc., that tourism brings to a community, or in a larger sense, to Wyoming, are not without costs such as: 1) added demands on public facilities and services, and 2) operational costs of the tourism industry. The demands of a visiting public are real. There will be an impact on local roads and parking, as one example. There will be a greater need for signs, sewage and trash disposal; additional rest rooms, and for more available water. Public safety, health and welfare become critical to establishing and maintaining a viable "service" atmosphere for visitors. However, these costs and liabilities are not without benefit to local residents as well and should never be underestimated.

For example, tourist attractions historically have become significant only when they became accessible. Today, most centers of tourist travel depend on visitors arriving by private automobile or mass transportation systems. That is the case for the Wyoming Loop Tours. Accommodation for the use of private vehicles is essential; adequate access roads become essential. Disney World was designed with an internal network of transportation services in mind; however, without a major investment by the state of Florida for access highways, the project would have failed. In most situations, however, access exists before the development. In Wyoming, the existing transportation system was utilized to enhance tourism opportunities.

## THE METHODOLOGY OF EVALUATING WYOMING LOOP TOURS

A random schedule of site visitation was established. Personal contact was made with each site manager, during which their specific participation was detailed. On the basis of the schedule, site managers or the designated contact person were to interview each visitor upon arrival to the site. As a result of this brief interview, if the visitor was aware of being on the loop tour, or at least was aware the site was on a loop tour, they were asked if they would participate in the study by completing and returning a survey form. The site manager then requested the name and address of the person agreeing to participate. Those names and addresses were collected centrally and once a month questionnaires were mailed to visitors having agreed to participate in the study by responding to the mailed survey (see Appendix). Participants were sought and surveys were collected beginning in July of 1991 through October 1, 1992.

## RESULTS

The response analysis has been provided in the aggregate. The results from this Wyoming Loop Tour study were compared to the results of the Big Horn Mountains Coalition study which is similar in demographic characteristics. The Big Horn study involved developing profiles of the visitors to the study area, estimating the economic impact of tourism, as in this study of the economic effects of the Wyoming Loop Tours. The Big Horn Mountains Coalition study, much like the Loop Tour study, involved collecting surveys through two consecutive summers and one winter visitation season. Almost 3,000 visitors to the state were interviewed, representing 791 parties in the Big Horn Mountains Coalition study. Overall, the Wyoming Loop Tour survey revealed expenditures of $43 per person, per day, based on an average involvement one and three-quarters days on the tours. The Big Horn study reflected average spending at approximately $47 per person, per day. In the Big Horn study, only respondents having spent at least one night in the state were included, while any participant on a Wyoming Loop Tour, regardless of length of stay, was included. Those not necessarily spending the night in hotels or motels spent a kindred amount for other supplies and souvenirs.

A side issue addressed in the Big Horn study was to compare characteristics and economic benefits of visitors to historical sites with other recreational visitors. This is worth mentioning because of the importance and predominance of historical sites on the Wyoming Loop Tours. That study showed tourists stopping at historical sites use some specific types of travel information sources more frequently; for example, maps, highway signs, visitor centers, pamphlets, and brochures. All of these are important components of the Wyoming Loop Tour program. In addition, these visitors tended to spend more money locally, and are older than visitors predominantly visiting other types of tourist attractions.

Both the Wyoming Loop Tour study and the Big Horn study found, at the 10 percent level of confidence, that out-of-state and resident (weekend and day trips) expenditures were not statistically different. The primary difference to consider between out-of-state visitors to the state and residents is the "import" effect of the money expended. When non-resident visitors travel into a region, the region essentially "exports" visitor services. These exports bring outside dollars into the region, stimulating regional economies. Money expended in the state by residents, is money that may or may not have

remained. As might be assumed, there was a significant difference (at the 10 percent level of confidence) between residents and nonresidents in:

- the primary destination,
- nights away from home,
- participation in area recreational activities,
- sources of travel information,
- expenditures in the area,
- importance factors in trip selection,
- and age.

## SUMMARY

### Access, Destination, Egress

This study revealed that users entered the Loop Tours from a variety of sites and that more than 90 percent of the users exited from the same location. Since it was determined that most frequently, access and egress on the Loop Tour occurs in the same community, it suggests a potential for double expenditures within that community since the users are there twice. Even those traveling from out-of-state to other destinations also out-of-state who utilized the loop tour indicated they entered and left the tour in the same community. Thus, the potential for the greatest economic benefit from the establishment of a loop tour is in the community from which the visitor enters the loop tour and from which, once completing the "loop" tour, the visitor(s) visit again before continuing their travels to their original destination. The state as a whole enjoys a secondary benefit. In the case of resident users of the loop tours, money spent on the tourist activity may not otherwise have been expended in the home community on tourist oriented activities (i.e., dining out, motels, etc.).

### Group Composition

Approximately two-thirds of the travel groups were made up of two individuals. Half of those groups of two were a family unit. The remaining third traveled alone. It was not determined if these individuals were traveling on business or for other reasons. The essential point is that all groups were identified as following the Loop Tour and had extended their travel plans for more than one day as a result. It is interesting to note that the publication advertising the Loop Tours was largely unavailable for

public consumption during the study period, more than 60 percent of the users were aware of the tours, however. This was evidenced by every respondent's acknowledgment of having followed the existing highway signs while only half the respondents indicated having used the brochure. Of those using the brochure, all indicated that it was quite helpful. Greater availability of the brochure would likely result in greater use of the tours.

Half of those following the Loop Tours indicated their use involved a recreational vehicle, while the other half simply identified use of a private vehicle. The type of vehicle used has implications for additional gasoline sales. None of the respondents indicated the use of public transportation for the Loop Tour portion of their trip which could suggest the possibility for special marketing opportunities with existing or future public transportation companies.

### Signing

Characterizations of the available signing were pursued to provide information on that portion of the project. There was some indication (approximately 16 percent) that both the number and the size of the signs were less than satisfactory while more than 30 percent suggested the size of the lettering was too small to be seen adequately at a reasonable distance even though all those surveyed indicated they were able to follow the signs. All respondents felt the color of the signs was acceptable.

### Visitation Sites

Historic sites were most often suggested as the most enjoyable sites. It is important to note that tourists indicated they also wanted to experience forest areas, mountain ranges, special geological features, wildlife, rivers and waterfalls as well along the Loop Tours. Unanimously, all travelers were aware when these visual resources were <u>not</u> available along tour routes.

### Tour Services

Satisfaction with available services along the Loop Tour must also be considered if visitors are going to be enticed to spend time and money in a region. Slightly more than half of those surveyed felt the highway "pullouts" and lodging facilities along the route were excellent. A third of those surveyed

responded these facilities were poor. More than 60 percent rated camping areas and restaurants available on the Loop Tours as poor.

One-hundred percent of respondents felt the service stations available along the Loop Tour were adequate. Other services such as information centers, rest stops, and picnic areas were, for the most part considered adequate to excellent.

### Expenditures

Results suggest the average expenditure is approximately $43 per person, per day. The Loop Tour usually involved one full day, while it did account for additional days spent in Wyoming. More money was spent on gifts and souvenirs than any other single expenditure with gasoline (including repairs and maintenance work) second and lodging, eating and drinking sharing almost an equal expenditure level.

## CONCLUSION AND RECOMMENDATIONS

The Loop Tour Program appears to have a positive economic benefit to local areas. Properly advertised and marketed there appears to be an even greater economic growth potential. Historic sites are the most popular stopping points and therefore, can be used as anchor sites along a tour; however, planning for loop tours must include the great value visitors place on visually experiencing specific natural resources while traveling. The value of these natural resources to the overall experience has been supported in many other studies since the early 1960s, where "driving for pleasure" has been the single most participated in recreational activity.

With what we have learned about the positive attributes of Wyoming Loop Tours, some precautions are also suggested:

- Very few people are actually aware that loop tours exist. This conclusion may not be supported today, because it likely was the result of limited and late distribution of Loop Tour brochures during the period of the study.
- The economic benefits of the program appear to exist. However, on the basis of measured levels of use, the benefit to regions must be measured in comparison to the costs of establishing and maintaining the program by the Division of Tourism and the Wyoming Department of Transportation.

- The satisfaction of users is generally high. If the program is to continue, it has the potential to be quite successful if participation can be significantly increased. The state must recognize its need to market effectively and efficiently.
- The results of this study parallel results from other states' programs and other expenditure studies related to recreational use and spending patterns. The implications for a positive economic impact are clear.

Wyoming Loop Tours present an interesting aspect in attracting visiting parties, both resident and nonresident, as an attractive market segment for further development in the state's recreation/tourism industry. First, the fact that participants indicated an average one and a half day increased length of stay in Wyoming as a result of following the loop tour on the way to another destination suggests loop tours are effective.

Second, the greater use of travel information sources, the decreased emphasis on remaining close to home and decreased need for familiarity with the area in trip selection, may suggest that there is a greater opportunity to market loop tours relative to other tourism and recreation resources. Today's visitors are not necessarily looking for only the familiar.

Finally, the greater economic benefit to communities of loop tour users is appealing, it enhances the economic base of the local region without the need for significant services required by residents. Overriding qualifiers, however, are that loop tour sites are but a part of the overall attraction of the entire loop tour. Each loop tour's natural attractions, scenic beauty, and wildlife are important components. For example, in the Big Horn study, it was found that while visiting historical attractions was important to generating the tourist activity, those visitations rated fourth behind natural attractions, opportunities to enjoy scenery, and opportunities to view wildlife. The logic of this knowledge is that the loop tour will tend to detain tourists longer, thus spending more money, once they are on the loop. The other factors help more in attracting tourists.

It is recommended that the Wyoming Division of Tourism develop expanded and alternative methods of advertising the program. One example would include information on the tours being provided in much greater depth on the Wyoming Highway Map. It also would seem appropriate to generate news articles about each of the tours, highlighting both the scenic and historical values included in the tour; to be

placed in both Wyoming and surrounding states' newspapers. and in publications such as Old West Magazine, etc.

Both components of this study, that portion dealing with location, criteria, and an evaluation of the loops as well as this portion dealing with an evaluation of the economic effects, serve to identify the need for additional information regarding Wyoming's Loop Tours and the state's economic growth. Tourism is one of the largest industries in the state, and much of our economic "health" in the future will be directly related to attracting people to the state for tourism purposes. Because the state legislature elects not to bring the tourism advertising budget into the top 10 percent in the nation, it is increasingly important that we seek responses to two questions:

1. From what principle source and when do people identify the desire to visit Wyoming for tourism purposes; and,
2. How can the involved parties (state government, MPC, tourism site, etc., representatives) come together to share information and increase our abilities to further develop the economics of the region through greater attention to and delivery of tourism services.

Those two questions provide guidance for additional research efforts dealing with tourism in Wyoming.

## REFERENCES


1. Chadwick, Robin A. "Concepts, Definitions, and Measures Used in Travel and Tourism Research." In Travel, Tourism, and Hospitality Research: A Handbook For Managers And Researchers. J.R. Brent Ritchie and Charles R. Goeldner, eds., Wiley, New York, 1987.

2. Conder, W.D. The economic Impact of Tourism, Recreation, and Travel Traffic on Income, Retail and Service Facilities in the Mid-Columbia Economic Development District. WICHE, Boulder, CO., 1971.

3. Federal Highway Administration. A Case Study of the Economic Impact of the Blue Ridge Parkway. U.S. Department of Transportation, Federal Highway Administration, Washington, D.C., 1990.

4. Fleming, William R., and Lorin Toepper. "Economic Impact Studies: Relating the Positive and Negative Impacts to Tourism Development." Journal of Travel Research 29, no. 1 (Summer, 1990): 35-42.

5. Frechtling, Douglas C. "Assessing the Impacts of Travel and Tourism-Introduction to Travel Impact Estimation." In Travel, Tourism, and Hospitality Research: a Handbook for Managers and Researchers. J.R. Brent Ritchie and Charles R. Goeldner, eds., Wiley, New York, 1987.

6. Hunt, John D., and Michael J. Dalton. "Comparing Mail and Telephone for Conducting Coupon Conversion Studies." Journal of Travel Research (Winter, 1983): 16-18.

7. Johnson, Rebecca L, Fred Obermiller, and Hand Radtke. "The Economic Impact of Tourism Sales." Journal of Leisure Research 21, no. 2 (1989): 140-154.

8. Mak, James, James Moncur, and David Yonamine. "How or How Not to Measure Visitor Expenditures." Journal of Travel Research 16, no. 3 (1977): 1-4.

9. Outdoor Recreation for America: The Report of the Outdoor Recreation Resources Review Commission to the President and to the Congress. U.S. Government Printing Office, Washington, D.C., 1962.

10. Perdue, Richard R. "The 1983 Nebraska Visitor Survey: Achieving a High Response Rate With a Diary Questionnaire." Journal of Travel Research (Fall, 1985): 23-26.

11. Rose, Warren. "The Measurement and Economic Impact of Tourism on Galveston, Texas: a Case Study." Journal of Travel Research 19, (Spring, 1981): 3-11.

12. Taylor, David T., Robert Fletcher, and Trish Clabaugh. Tourism in the Big Horns: A Profile of Visitors, Attractions, and Economic Impact. Big Horn Mountains Coalition, 1990.

13. U.S. Travel Data Center. Travel Data. U.S. Government Printing Office, Washington, D.C., 1993.

14. U.S. Travel Data Center. Travel Economic Impact Model. U.S. Travel Data Center, Washington, D.C., 1975.

15. Wyoming Division of Tourism. G. Bryan, Director. Wyoming Loop Tours. State of Wyoming, 1993.

## APPENDIX

**Survey Instruments for:**

**Cheyenne and Oregon Trail Loop Tour**

**Base of the Big Horn Loop Tour**

**CHEYENNE AND OREGON TRAIL LOOP TOUR**

1) When you left home, what was your primary destination on this trip?

2) How many people, including yourself, were traveling in this vehicle?

3) What was the type of group with whom you were traveling? (circle only one)

a. Traveling alone
b. Family
c. Friends
d. Friend/relative
e. Organization
f. Other

4) Did you knowingly take the Cheyenne and Oregon Trail Loop Tour?
a. Yes b. No

5) If you answered yes to question 4, how did you find out about the Loop Tour?

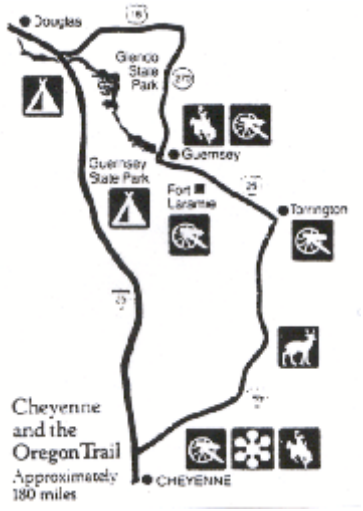
(Circle only one)
a. Brochure in hotel/motel
b. Brochure in visitor center
c. Brochure in other
d. From a friend or relative
e. Noticed Loop Tour sign(s)
f. Other

6) Did you have a Loop Tour Brochure?
a. Yes b. No

7) If you had a brochure, did you find it helpful?
a. Yes b. No

Comments/Suggestions

8) On the map, write the work "entered" at the point you began the Cheyenne and Oregon Trail Loop tour and the work "exited" at the point you left the Tour. Draw an arrow between the two points showing your direction of travel.




9) In what kind of vehicle were you traveling?

a. Car
b. Recreational Vehicle
c. Bus
d. Truck
e. Tractor-trailer
f. Other

10) Were you able to follow the Tour using existing signs?

a. Yes b. No

11-14) How would you characterize the following attributes of the Loop Tour signs along the highway in regard to being able to see them from your vehicle? (Please circle only one for each question).

Number of Signs?

a. Too few b. Too many c. Adequate d. Did not notice

Size of signs?

a. Too few b. Too many c. Adequate d. Did not notice

Size of lettering on signs?

a. Too few b. Too many c. Adequate d. Did not notice

Color of signs?

a. Too few b. Too many c. Adequate d. Did not notice

15) At which of the following sites did you stop on the Loop Tour?

a. Wyoming State Capitol
b. Wyoming State Museum and Art Gallery
c. National First Day Cover Museum
d. Cheyenne Frontier Days Old West Museum
e. F.E. Warren Air Force Base
f. Wildlife Visitor Center (Cheyenne)
g. Torrington Depot
h. Fort Laramie Nat'l Hist. Site
i. Register Cliff
j. Oregon Trail Ruts
k. Guernsey State Park
l. Glendo State Park
m. Other
n. Did not stop at any site along the Loop Tour

16) Which site did you enjoy the most?

17-23) Please mark the appropriate box relating to the following resource features of the Cheyenne and Oregon Trail Loop Tour:

| FEATURES | WERE PRESENT ON THIS LOOP TOUR | WOULD ENJOY SEEING ON OTHER LOOP TOURS |
|---|---|---|
| Forest Areas | a. Yes b. No | a. Yesb. No |
| Mountain Ranges | a. Yes b. No | a. Yesb. No |
| Geological Features | a. Yes b. No | a. Yesb. No |
| Wildlife | a. Yes b. No | a. Yesb. No |
| Rivers/Waterfalls | a. Yes b. No | a. Yesb. No |
| Historical Sites | a. Yes b. No | a. Yesb. No |
| Other | a. Yes b. No | a. Yesb. No |

24) Were you satisfied with both the sites and the resource features you experienced on this trip?
a. Yes b. No

25) If you answered "no" to question 24, why not?

26-33) How would you rate the following services along the Cheyenne and Oregon Trail Loop Tour?

| SERVICES | EXCELLENT | ADEQUATE | POOR |
|---|---|---|---|
| Information Centers | a | b | c |
| Rest Stops | a | b | c |
| Pullouts | a | b | c |
| Camping Areas | a | b | c |
| Picnic Areas | a | b | c |
| Lodging | a | b | c |
| Restaurants | a | b | c |
| Service Stations | a | b | c |

34) Are there other services you would recommend?

35-44) One reason for this survey is to understand the contributions our visitors make to the economy of Wyoming. Please estimate your group's total expenditures for each category on this Loop Tour trip. (Do not include other expenditures incurred in Wyoming, only those for the time spent on the Loop Tour). If possible, please list where these expenditures were made? (See map on the previous page). If you did not stop at any point along the Loop Tour, please list any expenses associated with following the Loop Tour.

| EXPENDITURE | AMOUNT | LOCATION |
|---|---|---|
| Lodging (hotel, campground fee, etc.) | $ | |
| Eating/Drinking Establishments | $ | |
| Licenses/ Permits | $ | |
| Recreation Services (tours/pack trips) | $ | |
| Groceries/ Liquor | $ | |
| Equipment (camping/fishing, etc.) | $ | |
| Clothing/Other Retail Purchases | $ | |
| Gifts/ Souvenirs | $ | |
| All Other Purchases | $ | |

45) Number of persons covered by these expenditures

46) Number of days covered by these expenditures

47) How many days did you spend on the Loop Tour? Days

48) If less than one day, how many hours did you spend on the Loop Tour?

Hours

49) Did you spend any additional days in Wyoming as a consequence of taking the Loop Tour?
a. Yes. How many Days
b. No, was planning to spend extra days anyway (or didn't spend extra days)

50) During the trip in which you traveled the Loop Tour, how many total days did you spend in Wyoming?
Days

51) How old are you? Years

Ages of people traveling with you?
Years Years

Years Years

52) What is the highest year of formal school you have completed?

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

Elementary High School College Graduate/Professional

53) What was your approximate household income last year before taxes?

a. Under $10,000
b. $10,000 - $19,000
c. $20,000 - $29,000
d. $30,000 - #39,000
e. $40,000 - $49,000
f. $50,000 - $59,000
g. $60,000 - $69,000
h. $70,000 and above

**If you have any questions regarding this survey please contact Dr. Donald Warder at 307 766-2287.**

**THANK YOU FOR YOUR PARTICIPATION**

**BASE OF THE BIG HORNS LOOP TOUR**

1) When you left home, what was your primary destination on this trip?

2) How many people, including yourself, were traveling in this vehicle?

3) What was the type of group with whom you were traveling? (circle only one)

a. Traveling alone
b. Family
c. Friends
d. Friend/relative
e. Organization
f. Other

4) Did you knowingly take the Base of the Big Horns Loop Tour?
a. Yes b. No

5) If you answered yes to question 4, how did you find out about the Loop Tour?

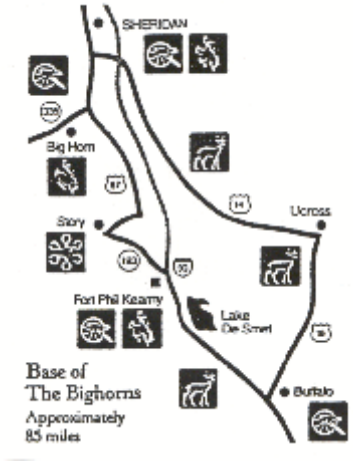
(Circle only one)
a. Brochure in hotel/motel
b. Brochure in visitor center
c. Brochure in other
d. From a friend or relative
e. Noticed Loop Tour sign(s)
f. Other

6) Did you have a Loop Tour Brochure?
a. Yes b. No

7) If you had a brochure, did you find it helpful?
a. Yes b. No

Comments/Suggestions

8) On the map, write the work "entered" at the point you began the Base of the Big Horn Loop tour and the work "exited" at the point you left the Tour. Draw an arrow between the two points showing your direction of travel.




9) In what kind of vehicle were you traveling?

a. Car
b. Recreational Vehicle
c. Bus
d. Truck
e. Tractor-trailer
f. Other

10) Were you able to follow the Tour using existing signs?

a. Yes b. No

11-14) How would you characterize the following attributes of the Loop Tour signs along the highway in regard to being able to see them from your vehicle? (Please circle only one for each question).

Number of Signs?

a. Too few b. Too many c. Adequate d. Did not notice

Size of signs?

a. Too few b. Too many c. Adequate d. Did not notice

Size of lettering on signs?

a. Too few b. Too many c. Adequate d. Did not notice

Color of signs?

a. Too few b. Too many c. Adequate d. Did not notice

15) At which of the following sites did you stop on the Loop Tour?

a. Jim Gatchel Museum (Buffalo)
b. Ucross (or vicinity)
c. Trail End Historic Centerh. Lake DeSmet (Sheridan)
d. Bradford Brinton Memorial Ranch (Big Horn)
f. Story Fish Hatchery
g. Fort Phil Kearny
i. Other

16) Which site did you enjoy the most?

17-23) Please mark the appropriate box relating to the following resource features of the Base of the Big Horns Loop Tour:

| FEATURES | WERE PRESENT ON THIS LOOP TOUR | | WOULD ENJOY SEEING ON OTHER LOOP TOURS | |
|---|---|---|---|---|
| Forest Areas | a. Yes | b. No | a. Yes | b. No |
| Mountain Ranges | a. Yes | b. No | a. Yes | b. No |
| Geological Features | a. Yes | b. No | a. Yes | b. No |
| Wildlife | a. Yes | b. No | a. Yes | b. No |
| Rivers/Waterfalls | a. Yes | b. No | a. Yes | b. No |
| Historical Sites | a. Yes | b. No | a. Yes | b. No |
| Other | a. Yes | b. No | a. Yes | b. No |

24) Were you satisfied with both the sites and the resource features you experienced on this trip?
a. Yes b. No

25) If you answered "no" to question 24, why not?

26-33) How would you rate the following services along the Base of the Big Horn Trail Loop Tour?

| SERVICES | EXCELLENT | ADEQUATE | POOR |
|---|---|---|---|
| Information Centers | a | b | c |
| Rest Stops | a | b | c |
| Pullouts | a | b | c |
| Camping Areas | a | b | c |
| Picnic Areas | a | b | c |
| Lodging | a | b | c |
| Restaurants | a | b | c |
| Service Stations | a | b | c |

34) Are there other services you would recommend?

35-44) One reason for this survey is to understand the contributions our visitors make to the economy of Wyoming. Please estimate your group's total expenditures for each category on this Loop Tour trip. (Do not include other expenditures incurred in Wyoming, only those for the time spent on the Loop Tour). If possible, please list where these expenditures were made? (See map on the previous page). If you did not stop at any point along the Loop Tour, please list any expenses associated with following the Loop Tour.

| EXPENDITURE | AMOUNT | LOCATION |
|---|---|---|
| Lodging (hotel, campground fee, etc.) | $ | |
| Eating/Drinking Establishments | $ | |
| Licenses/ Permits | $ | |
| Recreation Services (tours/pack trips) | $ | |
| Groceries/ Liquor | $ | |
| Equipment (camping/fishing, etc.) | $ | |
| Clothing/Other Retail Purchases | $ | |
| Gifts/ Souvenirs | $ | |
| All Other Purchases | $ | |

45) Number of persons covered by these expenditures

46) Number of days covered by these expenditures

47) How many days did you spend on the Loop Tour? Days

48) If less than one day, how many hours did you spend on the Loop Tour?

Hours

49) Did you spend any additional days in Wyoming as a consequence of taking the Loop Tour?
a. Yes. How many Days
b. No, was planning to spend extra days anyway (or didn't spend extra days)

50) During the trip in which you traveled the Loop Tour, how many total days did you spend in Wyoming?
Days

51) How old are you? Years

Ages of people traveling with you?
Years Years
Years Years

52) What is the highest year of formal school you have completed?

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

Elementary High School College Graduate/Professional

53) What was your approximate household income last year before taxes?

a. Under $10,000
b. $10,000 - $19,000
c. $20,000 - $29,000
d. $30,000 - #39,000
e. $40,000 - $49,000
f. $50,000 - $59,000
g. $60,000 - $69,000
h. $70,000 and above

**If you have any questions regarding this survey please contact Dr. Donald Warder at 307 766-2287.**
**THANK YOU FOR YOUR PARTICIPATION**